

**School of Built and Environment  
Department of Urban and Regional Planning**

**Affordable Housing Provision Projects in Bali, Indonesia:  
Improving Quality and Cultural Acceptability**

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**This thesis is presented for the Degree of  
Doctor of Philosophy  
of  
Curtin University**

**September 2014**

## DECLARATION

To the best of my knowledge and belief this thesis contains no material previously published by any other person except due acknowledgement has been made.

This thesis contains no material which has been accepted for the award of any degree or diploma in any university.

Signature:



Date: September 2014

## ABSTRACT

Governments in developing countries are often preoccupied with looking for ways to house the urban poor, whether by themselves, or in collaboration with the private sector. The strong focus on lowering costs to ensure affordability often means that quality concerns for the product are compromised. To an extent the relaxation of building standards and flexibility of operations has been a welcome move and has allowed governments and the industry to better tackle the housing crisis. However, the connection between affordability and appropriateness remains crucial. Housing has many meanings and performs many functions in society. It is a cultural product and needs to be seen and understood in its cultural context before effective policies for housing provision can be established. Balinese culture has strong architectural traditions that have been extensively studied and recorded. Faced with the issue of housing its urban poor, the government promotes various schemes to ensure the provision of a sufficient supply of housing units. The housing produced, however, may not be culturally appropriate or acceptable, so there is a danger of stifling this expression of Balinese culture.

An increase in affordable housing provision for the urban poor in Bali, Indonesia, has not assured the delivery of a better quality housing supply, nor culturally acceptable dwellings for people. Most housing projects focus on the physical value of housing as a comfortable shelter, but overlook the need for socio cultural appropriateness. Hence, low-quality affordable housing provision is often unsuitable for dwellers because of developer constraints, the lack of power of dwellers to direct or participate in the inception or delivery of the projects, and the consequent neglect of cultural values.

This research investigates three significant factors related to affordable housing provision projects in Bali: (1) demand side - the quality and cultural appropriateness of affordable housing provision; (2) supply side - the critical constraints faced by developers in providing culturally appropriate housing; (3) end user involvement - the perception and involvement of dwellers in the process, and adaptation measures undertaken to increase the socio-cultural adequacy of the end product. To study these factors, various types of affordable housing projects in Sarbagita Metropolitan Bali have been examined, including formal and informal housing provision projects. Primary data was collected through visual observation of 20 project sites – e.g. Bukit Sanggulan, Dalung Permai, Monang-maning, etc, survey questionnaires covering 166 households, interviews, and focus group discussions with 25 representative's developers and 4 representatives local government. Secondary data was gathered from published and official data, archives, statistics, laws and regulations and other reports or documentation from representative agencies. Data collected was then analyzed quantitatively and qualitatively as the basis for findings, discussion and conclusions.

The Balinese create their indigenous houses according to a centuries-old tradition generated by their idea of cosmic harmony, drawing on rich myths and symbols. Since the Balinese are now becoming more socially integrated with the outside world, Balinese cultural housing has been slowly changing due to globalization. However, the symbolic is still a strong presence in their housing. Some parts or elements of Balinese culture have been eroded, but this is still less than for other cultures within Indonesia. Balinese culture remains rich in religious beliefs, in symbolism as social capital, and in terms of the development potential of tourism and the economy in Indonesia.

This research shows that, when dwellers move into their houses, they feel that the affordable housing projects are not culturally acceptable, particularly in respect to zoning, building materials, ornamentation, orientation, building structure, room position, boundary walls, and building façade. Consequently, dwellers often destroy their houses in order to make them more culturally acceptable by changing internal walls, installing gates, and changing the boundary walls. It is costly, in time and money, to resolve the problems and also to get from friends or neighbors for such home improvements. The impulse for Balinese dwellers to transform or improve the houses is not just based on changes to family size, socio-economic factors or simply a function of the housing market, but is also related to the meaning of the house and expression of the culture and lifestyle.

In terms of the dwellers' involvement in their housing, for the most part, their participation in the various stages of the projects has been low, in particular at the planning and the construction stage. They do, however, have more power to participate in home improvement and maintenance tasks. This research finds that dwellers are willing and have time to participate and contribute meaningfully in affordable housing projects mostly by providing advice, labour and material supplies.

In addition, this study shows that the most critical constraints faced by developers in providing better quality and culturally-appropriate housing are the high costs of building materials, labor and infrastructure. Developers are more interested in western or modern style design products and do not have the resources to provide training skills in Balinese culture for their staff. As a result, their staff lack familiarity with and understanding of Balinese house design.

To resolve such barriers in order to improve the quality and cultural appropriateness of affordable housing provision, this study proposes a preferred model to delivering more applicable and acceptable housing for dwellers. This model will accommodate both the preferences and involvement of end users. Dwellers will be able to choose their preferences from various types of houses and still contribute their labor through the concept of 'sweat equity'. This model may be relevant to lowering housing costs and enable more to be spent on creating housing that is culturally appropriate. This model is completed by the policy agreement of dweller involvement and processes related to quality control and project schedules.

Based on the findings of this research, recommendations have been formulated for institutional framework development to monitor and evaluate projects, for strong enforcement of Balinese culture standards and regulations, and to support developer and dweller involvement. In addition, the recommendations show that affordable housing provision is not noticed simply as a product treating housing as a manifestation of culture, but as a broad development, treating housing as a verb - a process and an activity in housing development. Further space is required for collaboration by involving and engaging the community in housing development. There is a place for the community to express their cultural values in shaping their housing. Effective collaborative planning by exploring the possibilities of the involvement of the broader community in the development process, relying on community engagement and community buy-in is a great efficiency in improving quality and cultural appropriateness of affordable housing provision in Bali, Indonesia.

**Keywords:** *affordable housing provision, traditional Balinese housing, developer constraints, quality of projects and cultural acceptability*

## DEDICATION

This thesis is dedicated to:  
my beloved father, *Dewa Ngakan Gede Keramas*,  
my beloved mother, *Desak Made Arnawi*,  
my lovely sisters and twin brother, *Mbok Raka, Mbok Rai, Anom, Acwin Sadhaka*,  
my lovely wife, *Desak Made Suastri*,  
my lovely daughter, *Desak Ayu Krystina Winastri*,  
my lovely sons, *Dewa Ngakan Made Bagus Krishna and Dewa Ngakan Nyoman  
Bharata Dhikara*,  
for their support, patience and sacrifice during completing my study.

## ACKNOWLEDGEMENTS

I would like to express my special gratitude to all the supportive staffs of Urban and Regional Planning Department, School of Built Environment, Curtin University who helped to carry out my research work by delivering skills, guidance and technical support.

I am deeply grateful to my supervisor, Associate Prof. Shahed Khan and co-supervisor, Dr. Shane Greive for their greatly attention, support, critical comments, enthusiastic and dynamic from preparing research proposal, conducting field work and writing thesis.

For the period of fieldwork surveys, I co-operated with key actors who strongly involved in delivery of affordable housing provision in Sarbagita Metropolitan. I would like to thank to the important information and constructive input from Local Development Planning Board, Public Work Department, Urban Management Department, public and private developers, representative of REI (Real Estate Indonesia) Bali, universities, NGOs and CBOs in Bali Province. Moreover, I am deeply grateful to dwellers who live in affordable housing provision projects, for their good willingness to inform a lot of information in the research projects.

I owe my deepest gratitude to the DIKTI Scholarship of Ministry of Education, who gave me the opportunity and support to study at Curtin University, Western Australia. In addition, I should pay my tribute to all my close friends in particular, Diana, Yoga, Mbak Juli and Mas Safli for their sharing thoughts, easing my sorrow and showing the unforgettable brotherhood in Australian life. My grateful also offer to all postgraduate students in Curtin University and the DIKTI Scholarship groups of Udayana University for their support, sharing experience and giving me positive words to encourage completing my study.

Lastly, I am indebted to my beloved family in Bangli and Ubud Bali for giving me spirit and unchallenged able emotional support to finish my study, especially my lovely wife and my kids, who were settling thousands of miles away from me for their patience, understanding and well wishes.

Perth, September 2014

**Ngakan Ketut Acwin Dwijendra**

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## LIST OF ABBREVIATIONS

<b>ADB</b>	Asian Development Bank
<b>AHURI</b>	Australian Housing and Urban Research Institute
<b>ANCPA</b>	Australia National Capital Planning Authority
<b>ANHS</b>	Australia National Housing Strategy
<b>APBN</b>	Anggaran Pendapatan dan Belanja Negara (National Revenue and Expenditure Budget)
<b>BAPPEDA</b>	Badan Perencanaan Pembangunan Daerah (Regional Development Planning Board)
<b>BAPPENAS</b>	Badan Perencanaan Pembangunan Nasional (National Development Planning Board)
<b>BKP4N</b>	Badan Kebijakan Pembangunan dan Pengendali Perumahan dan Pemukiman Nasional (National Development Policy and Guideline for Housing and Settlement Board)
<b>BP4D</b>	Badan Pembangunan dan Pengendali Perumahan dan Pemukiman Daerah (Local Development and Guideline for Housing and Settlement Board)
<b>BPN</b>	Badan Pertanahan Nasional (National Land Agency)
<b>BTN</b>	Bank Tabungan Negara (National Saving Bank)
<b>BUMN</b>	Badan Usaha Milik Negara (State Enterprise)
<b>CBO</b>	Community Based Organisation
<b>CLG</b>	Communities and Local Government
<b>CoBILD</b>	Community Based Housing Development Program
<b>COHRE</b>	Center of Housing Right and Evictions
<b>DITJEN CIPTA KARYA</b>	Directorate General of Human Settlement
<b>FGD</b>	Focus Group Discussion
<b>GBHN</b>	Garis-garis Besar Haluan Negara (Broad Outline of State Policy)
<b>GOI</b>	Government of Indonesia
<b>INKINDO</b>	Ikatan Kontraktor Indonesia (Indonesian Contractor Association)
<b>IUIDP</b>	Integrated Urban Infrastructure Development Program
<b>KABUPATEN</b>	District of Regency, administrative level II of Government, sub-division of province, headed by a Bupati
<b>KASIBA</b>	Kawasan Siap Bangun (Planned Areas with Serviced Plots)
<b>KECAMATAN</b>	Sub-regency, the intermediate level of government administration between village level and regency or municipal level

<b>KEMENPERA</b>	Kementerian Perumahan Rakyat (State Ministry for People Housing and Settlement)
<b>KIP</b>	Kampung Improvement Programme
<b>KLBI</b>	Kredit Likwidasi Bank Indonesia (Liquid Credit of Bank Indonesia)
<b>KOTAMADYA</b>	Municipality, administrative level II of Government, headed by a Mayor (Walikota)
<b>KP-KSB</b>	Planned Areas with Service Plot
<b>KPR</b>	Kredit Pemilikan Rumah (Houses Ownership Credit)
<b>MENPERKIM</b>	Menteri Negara Perumahan dan Pemukiman (State Ministry for People Housing and Settlement)
<b>MOF</b>	Ministry of Finance
<b>MOHA</b>	Ministry of Home Affairs
<b>MPW</b>	Ministry of Public Works
<b>NGO</b>	Non-Government Organisation
<b>P2LTD</b>	Pengembangan Perumahan dan Lingkungan Desa Terpadu (Integrated Rural Housing and Environment Programme)
<b>PDAM</b>	Perusahaan Daerah Air Minum (Regional Water Enterprise)
<b>PEMDA</b>	Pemerintah Daerah (Local Authority)
<b>PERUM PERUMNAS</b>	Perusahaan Umum Perumahan Nasional (National Urban Housing Corporation)
<b>PJM</b>	Program Jangka Menengah (Medium-Term Development for IUDP)
<b>PJPT II</b>	Pembangunan Jangka Panjang Tahap II (Second Long-Term Programme)
<b>REI</b>	Real Estate Indonesia
<b>REPELITA</b>	Rencana Pembangunan Lima Tahun (Five Year Development Plan)
<b>ROW</b>	Right of Way
<b>RS</b>	Rumah Sederhana (Simple Housing)
<b>RSS</b>	Rumah Sangat Sederhana (Very Simple Housing)
<b>RT</b>	Rukun Tetangga (Neighbourhood Units)
<b>RW</b>	Rukun Warga (Groups of Neighbourhood Units)
<b>SARBAGITA</b>	Denpasar, Gianyar and Tabanan (Area of Sarbagita Metropolitan)
<b>SPSS</b>	Statistical Package for the Social Sciences
<b>T.15</b>	Type rumah 15 m <sup>2</sup> (Type of housing with 15 m <sup>2</sup> of building)
<b>T.21</b>	Type rumah 21 m <sup>2</sup> (Type of housing with 21 m <sup>2</sup> of building)

<b>T.27</b>	Type rumah 27 m <sup>2</sup> (Type of housing with 27 m <sup>2</sup> of building)
<b>T.36</b>	Type rumah 36 m <sup>2</sup> (Type of housing with 36 m <sup>2</sup> of building)
<b>UNDP</b>	United Nations Development Programme
<b>UNSD</b>	United Nations Division for Sustainable Development
<b>UNESCAP</b>	United Nations Economic and Social Commission for Asia and Pasific
<b>UN-HABITAT</b>	United Nations Human Settlements Programme
<b>UNHR</b>	United Nation Human Rights
<b>WTO</b>	World Trade Organization

# Chapter 1

## INTRODUCTION

### 1.1. Background

#### 1.1.1. The Meaning of Housing

Issues relating to housing provision are assuming a global dimension in urban development, particularly in the form of housing shortages for the urban poor in third world countries (Wakely, Schmetzer, and Mumtaz 1996, p. 196). These issues include the gap between supply and demand, quality concerns regarding existing housing and settlement patterns, issues of affordability, and socio-economic and cultural appropriateness problems, among others. These issues are only likely to increase in the future because of migration both within the urban and rural areas of a country but also the rising trend of transnational migration patterns fuelled by the globalised economy. The resultant growing numbers of urban people in urban areas requires an increase in housing supply.

Architects, planners, and builders involved in housing provision need to understand that a house is not merely a place to live, but has a variety of functions for people. Good quality housing design must be able to respond to a range of human needs (Heywood 2004, p. 717; Imrie 2004b, p. 687). The wider meaning of a house needs to be taken into account by policymakers in housing provision.

Housing has a diversity of meanings to reflect human needs. Blauw (1994, p. 33) identified the meaning of a house in terms of its functions. First, shelter is considered to be the most basic function of a home and neighborhood. Second, the utilitarian function is identified - the facilities that the dwelling and the neighborhood carry out (activities such as cooking and washing). Third, the domain function - the home as one's own territory, a place that guarantees the dweller's privacy. Fourth is the social function - the facility to communicate from the home base with the outside world. And, fifth is the symbolic or cultural function of a house.

The meaning of housing is more complex than merely people's way of sheltering themselves from weather and coming to terms with the environment. It is also an expression of their culture and way of life, of who they are as individuals, as a social group or community. It is also an indicator of people's fears and prejudices. For some, it is a symbol of pride; for others, a badge of inferior social status and poverty. It seems that a house and neighborhood present possibilities for preferences or design choices as a living symbol of a way of life and the subsequent values that the residents want to be associated with (Blauw 1994, pp. 44-46; Bhatti and Church 2004, p. 42).

Housing as shelter reflects levels of living, welfare, safety, personality and culture (Thomas et al. 2000, p. 34; Silas 2001, p. 45). Housing cannot be seen merely as being a living and infrastructure-facilities function, for it also involves a settlement process and functions as a way for people to communicate with the environment (neighborhood, society, natural surroundings). Therefore, housing is a means for both actualization of the individual and for integration with the environment.

A house is like the heart of people's life (Hanson 1998, p. 165; Heywood 2004, p. 712). A house is a place of retreat, privacy, safety, relaxation and support for work and leisure activities. It provides autonomy and independence. It is an expression of ourselves and shows our social status. Indeed, a house is the means to meet various needs, such as shelter, aspirations, status, cultural value, etc.

Housing, in this sense, is a part of human rights. As the Universal Declaration of Human Rights clearly mentions in article 25 (1), "everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, ....." and in article 27 (1) stated that "everyone has the right freely to participate in the cultural life of the community ..." (UNHR 2008, pp. 3-6). It means that for housing to be adequate for people "it must provide more than just four walls and a roof over one's head. It must at a minimum, include the following elements: security of tenure, adequate service, material and infrastructure, affordability, habitability, accessibility, location and cultural adequate" (COHRE 2006). It is asserted that all human beings, including the urban poor, have the right to affordable housing and services.

Birch and Wachter (2008, p. 239) describe the three components of sustainable urban housing development, environment, society, and economy, as overlapping circles of the same size with the area of overlap in the centre representing human well-being. It seems, however, that issue of society, in particular cultural perspectives, becomes neglected and treated as less important than ecology and economy matters. Socio-cultural sustainability of housing needs to consider the recognition of housing is part of human right in the long-term future in order to meet the needs of people in the present without compromising the ability of future generations (Chiu 2004; Chaudhury 2006; UNDSD 2008; Rovers and Klinckenberg 2008).

In addition, COHRE (2006) mentioned that governments has responsibilities to identify the rights to adequate housing for people through "taking steps by all appropriate means, maximum of its available resources and achieving progressively" This is related to the role of government in equity matters as part of good governance to plan housing to fulfill people needs. Governments have to take into account the needs of the poor. Indeed, planning in housing provision with community involvement should be

collaborative planning. Partnership, aiming for *community buy-in* in housing provision projects can not only reduce costs of providing house but also build relationships and create a sense belonging of community to develop and maintain their house. Planners have the power to assist as facilitators to meet the needs of the poor in the planning of projects (Barlow and Chambers 1992, p. 45).

Tipple (1996, pp. 367-376) argued that, since the 1960s, most international agencies and other actors, such as planners, architects, builders, universities, NGOs, and CBOs, have been greatly concerned about housing provision for the urban poor in third world countries. All the main urban services in developing countries, such as health, education, waste disposal, water supply and electricity, have been largely dominated, either completely or partially, by direct public provision (Bennet, Russel, and Mills 1995; Batley 1996; Nickson 1996).

Over last decade, the provision of affordable housing has been largely dominated by the non-public sector, which includes formal and informal housing, and co-operatives. However, Keivani and Werna (2001, pp. 65-118) and Brown, David, and Badanes (2004, p. 65) claimed that the heartless underdevelopment of institutional capacities - human and material capital together with complicated and complex social, political, cultural and economic interactions between various providers and mechanisms of housing provision - generated major barriers to the efficiency of housing development in developing countries to being more affordable and enabling a better quality of housing stock.

In most cases, such constraints are likely to encumber the developers in scaling up housing production to meet the needs of large sections of the urban poor (Adams 1995; Keivani and Werna 2001). Even worse, the huge production of affordable housing projects has never fulfilled the needs of people and cultural appropriateness, for mostly houses have been provided with small plot size, lack of quality design, and services not being available for people to settle (Tunner 1976, p. 73; Kent 2000, pp. 26-77).

Moreover, Lewin (2001, pp. 103-115) noted that houses are built and given directly to urban dwellers merely as boxes, unable to cater for housing as an expression of a way of life and as a cultural process of people. It seems that housing is becoming far beyond the reach of urban poor households confronted by issues of affordability and housing provision that does not fulfill people's needs in terms of cultural appropriateness and housing quality.

Housing quality is subjective. Quality is a dimension of housing that relates to implications for human beings (Redval 1997; Garcia Mira 2005, p. 175; Apparicio et al. 2008, pp. 355-380). The concern for quality is largely associated with minimum

standards that houses must reach for people to live in them (Duncan 1971; Feijten and Mulder 2005, p. 577).

It seems that housing quality has been differently defined by different attributes or the extent of the housing problem in a given community (Landaeta 1994; Blauw 1994; Hayashi 2002; Cousins 2009). Attempts to measure housing quality are complicated by the social, economic and political characteristics of communities. Yet, all the different measurements used consider the physical structure of dwellings and the facilities offered by the house, including amenities like water, electricity, size, number of rooms, availability of kitchen, toilet and bath facilities; as well as the physical environment, including the location.

There has been extensive study of affordable housing provision in developing countries. The research shows that lack of clarity in the meaning of housing has a correlation to the provision of housing quality (Batley 1996; Godish 2001; Heywood 2005; Karsten 2007). Such a narrow understanding of housing tends to result in the production of housing that could be not useful, substandard, and harmful. Those involved in the provision of affordable housing, including builders, must realize that housing is a reflection of human needs, so they also need to focus more sharply on specific needs and the direct implications of housing design. Some constraints on housing provision, of course, cannot be avoided, but good quality, embracing of human need, is fundamental to fostering the well being of people.

Good quality housing must be able to respond to the variety of human needs and the shifting needs of individuals. Qualitative research has used “*cultural probes*” to help understand the unique values and lifestyles of people (Adams 1997; Heywood 2004, pp. 709-726; Njoh 2006). Therefore, house quality is not just the end product, but correctly belongs at the start of design and ensures the autonomy and power for the end user in the design steps (Wentling 1995, p. 23; Harrison 2004, p. 708). Urban authorities in the developing world would find housing quality unsatisfactory if it did not meet official housing standards and regulations (Hanson 1998; Godish 2001; Firman 2002, p. 236). Thus, housing provision would be seen as satisfactory if built of permanent building materials with all the required infrastructure and facilities. Any attempt to measure housing quality should be related to the physical qualities of the product (house) and the uses (use-value) to the community. Waterson (1990, p. 78-93) argued that the value of a house is when houses are suitable for people, satisfying their way of life and cultural values as well.

### 1.1.2. Study Context in Indonesia

Indonesia, as a large archipelago, is located in Southeast Asia and situated near the equator. At present, the total population is almost about 280 million people (BPS 2008c, p. 123). In terms of global trends, the level of urbanization in Indonesia has increased sharply since the 1970s, and will grow constantly in the coming decades. In 1975, the urban population represented 19 per cent of the total population, getting to 42 per cent in 2005 and an expected 60 per cent by 2025 (Jawapost 2007, p. 10).

Meanwhile, the rural population has declined. High rates of urbanization have placed extreme pressures on the natural, social and cultural resources. Many urban dwellers survive in sub-standard conditions, in squatter settlements without suitable drinking water and with inadequate basic services and infrastructure. As a result, like most other developing countries, Indonesia is facing the complicated problem of housing and infrastructure provision in urban areas (Marcussen 1990, p. 123; Steinberg 2007, pp. 354-365).

The scarcity of housing in urban areas of Indonesia has been a noticeable reality for a long period of time. Due to the economic crisis of 1997 and the global economic crisis starting in 2008, Indonesia is facing a very serious, multi-dimensional crisis involving economic and political chaos. Firman (2002, p.12) outlined how “the economic crisis underpins the political crisis”. This has been manifested by low economic growth, high inflation, high rates of violence, instability in the social and political situation, low investment, deficits in the country’s budget for development, and scarcity of loans, which has all affect the country’s social economic circumstances. The ability of people to afford a standard house has abated, and the capability of the government to supply housing has decreased sharply. At the same time, there are a rising number of inhabitants who moved to urban areas, and cities have become more crowded. All these factors have contributed to the intensification of the current housing crisis.

According to Kemenpera (Ministry of Indonesian Housing State), the aim of housing and settlement development in Indonesia is “to enhance the quality of life of people and is basically concerned with poor people” (2002, p. 19). In the 1960s, Indonesia did not have any significant and effective housing policy or program. But, from 1969, the government started a public housing program through the National Development Program. Many programs have been undertaken to create affordable housing for low-income groups by increasing the housing stock.

Indonesia needs to build 1.5 million housing units each year, to recover from the housing deficit and accommodate the continuing rapid population growth and urbanization. However, the central government can provide only 0.1 million houses a year. The housing development plan in Indonesia stressed that the urban housing policy

consists of preparing 500,000 units of affordable housing and strengthening urban housing finance (mortgage) (Kemenpera 2002, p. 27; DPU 2000, p. 43). Perumnas<sup>1</sup> (public developer) is expected to supply 250,000 units (50%), a private developer through organization of REI<sup>2</sup> (Real Estate Indonesia) is expected to build 200,000 units (40%) and co-operatives will build 50,000 units (10%). The main elements in this policy were promoting home-ownership of houses built by real-estate developers, and provision of mortgages at subsidized interest rates.

The REI has committed to be involved in affordable housing development programs in Indonesia. DPU (Department of Indonesian Public Works) noted that the aim of the program is “to improve the quality of physical conditions, to enhance equity for low-income groups, and to decrease the price per unit of low-income housing” (2000, p. 46). This program is considered to be achieving affordable housing in all cities in Indonesia, including big cities in Bali. Good communication and strong inter-dependency between government and the private sector has achieved high housing production levels in recent years (Jawapost 2007, p. 11).

### 1.1.3. Study Area: Sarbagita Metropolitan Region

The Metropolitan Region of Sarbagita (Denpasar, Badung, Gianyar, and Tabanan) is one of the fastest growing urban populations in Indonesia, which consists of 4 big cities and 15 districts, and 168 sub districts. It is a large area (72,399 Ha, 65% urbanized) with 1,327,737 inhabitants in 2007 (53.7% of Bali), and a growth rate of 2.13% (BPS 2008b, p. 10). It has an important role to play as the centre of commercial, tourism, industrial and urban housing development. The economic growth is 3.11%, GDP per capita is 7,166,142 rupiahs (USD 700), the labor force participation rate is 80.79%, and the unemployment rate is just 2.57% (BPS 2008b, p. 12). Rapid population growth and rural-urban migration in the Sarbagita Metropolitan area has produced a very high demand for land, housing and infrastructure.

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<sup>1</sup> Based on the awareness of the importance of house for Indonesian welfare, Government established Perumnas (National Urban Housing Corporation) on July 18<sup>th</sup> 1974 by Government Decree No. 29/1974 under the Public Work Ministry. The head office of Perumnas is located in Jakarta and has branch offices, area co-ordination unit, project and sub project in all over Indonesia. The primary mission of Perumnas applies the government programs of affordable housing provision in urban area, especially for low-income groups. Besides that, in order to create a mixture community and a source of cross subsidy, therefore, Perumnas is also build housing for higher income but in limited number. Perumnas housing can be obtained cash or credit for 5 to 20 years through home ownership loan (KPR) from several banks such as state savings bank (BTN), Papan Sejahtera Bank, Export Import Bank, etc.

<sup>2</sup> Real Estate Indonesia (REI) is an institution and professional organization, which has aim to develop and contribute the real estate activity. REI is participating as a motivator to increase development and innovation of the housing construction. The REI was established on February 11<sup>th</sup>, 1972 with 26 enterprises as its members. In the early 1997, members of REI reached 2400 enterprises. But, in 1999, the number of REI member decreased sharply to become 941 enterprises. Formerly, REI was involved in the housing development for middle and upper class society. In 1970s, REI has been guided by government to develop the housing development also for lower class society. This time around 80% of REI members develop the simple house (RS) and very simple house (RSS), which are the house types for low-income society.

There has been a significant input by government agencies to provide affordable housing in Sarbagita Metropolitan Region. It has increased affordable housing provision projects, including formal and informal housing projects that are provided by public, co-operative, private developers and individual owners. They are aimed at addressing the housing needs of low-income groups by imposing a requirement of providing 60% 'very simple' houses. The housing ratio in these projects is required to be 1 luxury house (high income), 3 simple houses (middle income) and 6 very simple houses (low income). This target is part of co-operation between institutions to provide development costs (public, private, co-operative, BTN<sup>3</sup>/National Saving Bank, and community as beneficiaries). Therefore, low-income groups can borrow long-term loans at subsidized interest rates from the BTN. Low-income groups benefit from the programs having access to housing loans (mortgage finance) to purchase shelters with soft interest.

While substantial progress has been made in terms of increase in affordable housing numbers, however, it appears that most housing projects ignore the fact that a house means more than a comfortable shelter with physical value, but that the most important value is its socio-cultural appropriateness (Sueca 2003, p. 87; Indriyati 2006; Balipost 2007, p. 7). It is doubtful whether the quality of various modes of affordable housing projects (housing condition, infrastructure, public facility, and service delivery) meets minimum acceptable standards and cultural acceptability of the dwellers.

The study is positioned to provide an understanding of the needs and aspirations of the urban poor in housing provision and to examine the constraints on the housing supply side. Furthermore, understanding and identifying the cultural factors that shape the perceptions of the housing needs of the urban poor is critical. The study looks at housing as an activity (housing as verb) rather than merely a product treating housing as a manifestation of culture.

## 1.2. Research Gap

Affordable housing projects in Bali have been developed largely by providers, formal and informal, in order to help poor people to either access or upgrade their housing. However, the projects may not guarantee the delivery of better quality nor culturally acceptable housing that meets the needs of people. Balinese dwellers' local knowledge and strong cultural values, especially in relation to housing, needs to be incorporated into the projects. For this, they need to be actively involved during the development

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<sup>3</sup> In 1974, Government appointed BTN as the source to finance housing development programs. Then, BTN as a saving bank started to provide additional service began offering housing loans. BTN took their responsibility by drawing up housing loans programs called home ownership credit program (KPR). BTN established its home ownership credit program (KPR) in 1976 with goal of increasing the supply of housing finance to low and middle income households. Initially, the KPR Program only provided finance for homes built by Perumnas. However, in 1978, housing built by private developers became eligible for KPR financing.

processes so as to adequately meet their housing needs. This is needed to facilitate a match between housing products with the people's needs.

Recently, there has been some research on and documentation of affordable housing provision for the urban poor (Jones, Pettus, and Pyatok 1997; Brown and Badanes 2004; Cartwright 2006; Whitehead 2007; Beer, Kearins, and Pieters 2007; Paris 2007). There are generally two types of research on affordable housing provision: one focuses mainly on the supply side and the other focuses more on the demand side.

Researchers focusing on the supply side have mostly been concerned with issues relevant within a specific context in relation to planning and strategies to provide affordable houses (ANHS 1991; Osipowicz 2003; Oxley 2004; Berry et al. 2004; AHURI 2004; Cartwright 2006; CLG 2006; Chiu 2007; AHURI 2008a, 2008b). Some research is focused on the modes of housing provision, in term of economic efficiency by enhancing the role of public, private and co-operative builders to deliver low cost housing units (Batley 1996; Venkatesh 2000; Keivani and Werna 2001; Bell 2003; Mak, Choy, and Ho 2007).

Researchers on the demand side have focused on the ability of people to access housing which is more affordable and which meets their preferences (ANCPA 1993; Kamara 1995; Brody and Semel 2006; Norris and Shiels 2007; Chen, Tsai, and Chang 2007). Some research is also concerned with the role of the community or empowering the community in affordable housing provision projects (Tipple 1996; Silas 2001; Sueca 2003; Imrie 2004a; Lizarralde 2008).

However, there have been few studies that have focused on both demand and supply side factors while looking into the quality of housing products. There seems to be a need to study the products of various modes of affordable housing provision in specific relation to the local cultural requirements of dwellers. It seems that there has been little research within the context of affordable housing examining the failure to provide quality products and cultural appropriateness in housing provision and the matching of housing products to people's needs by utilizing their local knowledge.

This research aims to fill the gap in literature on affordable housing by focusing on the relations between the supply side factors (developer's constraints), and demand side factors (the role of dwellers), with a special focus on cultural appropriateness of the products. The study will focus on housing quality from a cultural acceptance point of view in affordable housing provision by exploring the possibilities of involvement of the broader community in the development process relying on the principles of "*collaborative planning*" (Healey 2006; Madanipour et al. 2001; Innes 1994). The concept of "*community buy-in*" will also be explored to strengthen the social pillar of

sustainability, which is often neglected in the pursuit of sustainable development. This community buy-in concept will be tied to the collaborative planning principles.

Turner (1976, pp. 77-101) coined the phrases “*housing as a verb*”, “*housing as process*”, and “*housing as an activity*” in housing development. There is more room for collaboration in housing provision, when housing is seen not merely as a product, but as an extended process. By engaging the community in “housing as a process” and ensuring effective collaboration, the extended exposure and involvement of the community will allow more expression of the community’s culture into shaping their housing. Therefore, it is assumed that the dwellers can express their cultural values which could shape the housing product. In short, this study seeks to investigate how the concept of ‘*housing as a verb*’ as defined by Turner (1976) can be applied in the framework of collaborative planning principles deliver affordable housing that is culturally appropriate.

In terms of cultural appropriateness, Balinese people have a very strong cultural perspective and cultural identities that need to be integrated into housing planning and provision (Geriya 1989, p. 77; Gelebet 1998, pp. 98-106). Balinese communal culture is a significant aspect of everyday activities and relates to the nature of the spaces required to carry out daily activities. Houses have great value in Balinese culture in that each household has its own house and temple (Gelebet 1998; Dwijendra 2007). The Balinese are concerned about their houses as part of their lifestyle in terms of layout, plot size, orientation, style, material, construction, etc. (Salija 1975; Nirarta Samadhi 2001; Dwijendra 2008).

Greater efficiency in the delivering of affordable housing of higher quality and cultural acceptability to suit the needs of urban poor is a key motivation for this study. Through assessing product quality, developer’s constraints in housing provision mechanisms, the role and perceptions of dwellers, and cultural appropriateness of housing provision, the results of the study will have significance for housing planning and policy in the Asian context. In Bali, as in the rest of Asia, there are strong and distinctive cultural identities, which are being exposed to various forces resulting from the rapid urbanization in developing Asian nations. This study concentrates on Bali which provides a context where the issue of product quality and cultural appropriateness in affordable housing provision is highly significant as the Balinese lifestyle is affected by the strong influences of religion, customs, norms and behaviors.

### **1.3. Research Objectives**

The study investigates three factors related to affordable housing provision: (1) the supply-side factors including developer’s constraints; (2) the role and perception of

dwellers as end users in the process; and (3) the cultural appropriateness of housing provision. The objectives of the research are:

- 1) To develop an understanding of the dynamics of housing for the urban poor in order to identify any gaps or mismatch between the housing products available and the needs or aspirations of the users.
- 2) To analyze the constraints of both formal and informal housing provision.
- 3) To understand and identify the cultural factors that shapes the perception of housing needs.
- 4) To identify various modes of affordable housing provision by formal and informal providers that is available.
  - a) To appraise the product quality of the prevailing model of affordable housing projects in terms of housing condition (house design and layout, physical house condition), infrastructure, public facilities and service delivery.
  - b) To assess the development mechanism process of housing provision projects as supply-side factors and to identify the constraints faced by providers in providing better quality and more culturally appropriate housing projects.
  - c) To assess the suitability socio-cultural appropriateness of affordable housing projects currently available within the prevalent culture.
- 5) To formulate recommendations for housing policy to ensure greater efficiency in the future, in order to deliver affordable housing of a better quality that are more culturally appropriate.

#### **1.4. Research Questions**

The main research question is: *to what extent do the products of various modes of affordable housing projects meet the minimum quality standards and requirements of cultural appropriateness from the user's perspective?*

Based on the research questions, four subsidiary research questions are:

**Question 1:**

*Does the quality of housing projects (condition of housing, infrastructure, public facility and service delivery) satisfy minimum acceptable standards? Do the projects meet the official housing standards, regulations and cultural acceptability of the people?*

**Question 2:**

*What are the critical constraints faced by developers in providing better quality and culturally appropriate housing?*

**Question 3:**

*To what extent can dwellers influence housing provision to increase the socio-cultural adequacy of projects?*

**Question 4:**

*How do dwellers perceive their houses when they first move in?*

## 1.5. Research Methodology

The research setting is the Sarbagita Metropolitan Region (Denpasar, Badung, Gianyar, and Tabanan) as the biggest city of Bali Province. The study carried out a comparative analysis of various modes of affordable housing provision projects prevalent in Bali, including both formal and informal housing. The various modes of affordable housing provision projects were assessed with respect to three aspects: provision mechanisms or provider's constraints, housing product quality, and Balinese dwellers (their role and perceptions of satisfaction). An understanding of developers' constraints was obtained through interviews. To assess the quality of housing products visual surveys or observations were used via a checklist and a rating scale. To understand dwellers' roles, perceptions and satisfaction were gathered through questionnaires survey using multiple choices, a checklist, and a rating scale.

Housing provision mechanisms were critically assessed in terms of finances, procedures, cultural approach, and legal and regulation matters. Dwellers were examined in terms of their perception of the projects, their need and perceived power to intervene in the process of development and their perception of the projects' cultural appropriateness. Socio-cultural issues were focus on Balinese culture's strong influence on the concept of spatial, layout, building, material, orientation, building height, etc. Furthermore, evidence of affordable housing provision and prevailing housing provision mechanisms in Indonesia were also briefly explored in this study. Current programs or schemes for housing were discussed to draw lessons from.

In this study, data was collected from both primary and secondary sources and using various techniques, such as observations, interviews, questionnaires and focus group discussion. The primary data was be collected from various types of affordable housing provision projects selected, and the secondary data was gathered from published and official data, archives, statistics, laws and regulations and other reports or documentation from the representative agencies. In term of the behavior their dwellers adaptation of the projects and the adequacy of the projects in respect to Balinese cultural aspects were observed and noted. The quality of projects will be investigated in terms of the quality of housing, infrastructure, service delivery, and facilities by using a checklist and rating scale.

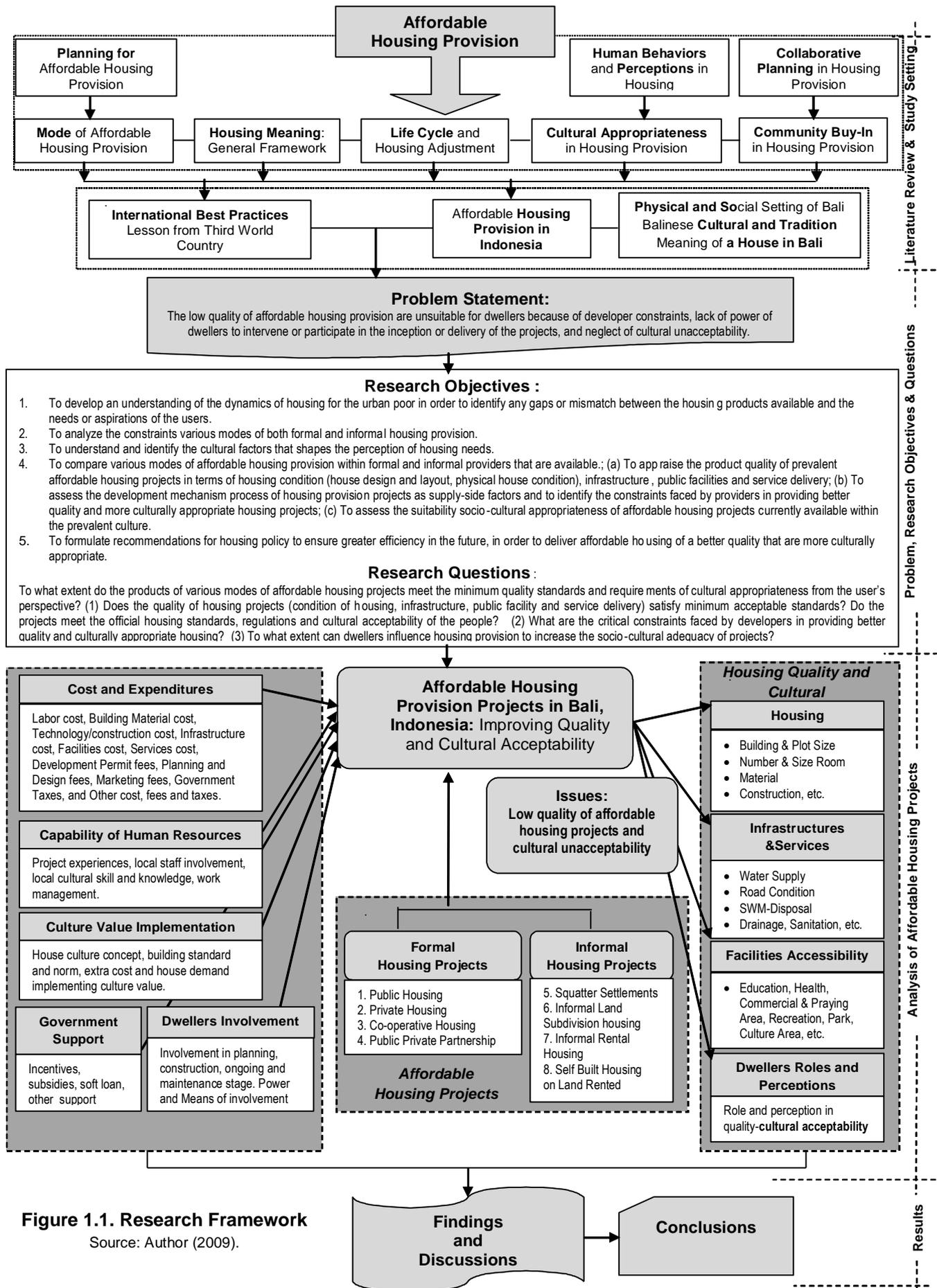
The interviews were semi-structured and face-to-face with all actors involved in the projects, to get information about the provision mechanisms or provider's constraints in providing a better quality housing products and cultural appropriateness for dwellers. The questionnaire consists of closed and open-ended questions using multiple choices, a checklist and rating scale. The design of questionnaire consists of some variables and indicators such as: demographic characteristics, house conditions, dwellers roles, and dwellers perceptions in the projects. Establihsed/standard sampling technique was be

employed in conducting the survey. To make a sample of the population representative, the study will use probability sampling, in particular stratified random sampling, to define the proportional numbers of the project selected, for inclusion the developers and the dwellers from among heterogeneous projects and populations.

The focus group discussion is part of research methodology aimed at bringing together representatives of stakeholders that have been involved in this study to sit together in one room to discuss the implications of preliminary findings of the study. The aim of focus group discussion is to get inputs, comments and suggestions based on preliminary findings and focus on specific issues that emerge. It was felt that participants were reluctant to express disagreement in the forum. To allow for open discussion with participants, representing each stakeholder were interviewed separately at later date. This interview is conducted in order to get feedback from representatives of stakeholder based on focus group discussion results. The aim of interview was to get more implication inputs, comments and suggestions based on specific issues that have emerged on focus group discussion results.

Secondary data was used to support the observations (visual surveys) and finding from interviews. The data was gathered from national and local government institutions, developers companies, universities, NGOs, and CBOs. The data was pictures, drawings, sketches, data and statistics, law, regulations, decrees, norms, standards, mapping, etc. Data collected through survey was analyzed by quantitative analysis, while data collected by observation, documents, and interviews will be analyzed by qualitative analysis. Quantitative analysis was done using the SPSS package software to examine the relationships between the projects and variables being studied, such as quality of dwelling conditions, socio-culture-economic dwellers characteristics, dwellers' roles and perceptions. Meanwhile, qualitative analysis will be documented using Nvivo software to focus on the identification of reasons, constraints of developers to providing better quality affordable housing projects and cultural appropriateness, and the socio-cultural significance of housing quality using multi-method techniques.

Figure 1.1 depicts the logical framework adopted for this study. It describes the hierarchical framework of research that began with a review of the literature related to affordable housing provision. The literature review led to the formulation of the problem statement and research objectives, followed by the identification of variables associated with issues related to cultural acceptability both in terms of supply and demand factors. These include factors such as: cost and expenditure, human resources, affordability and type of (formal and informal) housing projects. The figure also lists data collection methods employed, including interviews, questionnaires, observation and focus group discussions. Findings from the research were then discussed and final conclusions and recommendations were formulated.



**Figure 1.1. Research Framework**  
Source: Author (2009).

## 1.6. Summary and Structure of Report

This paper is organized in the conventional way, being structured from the general idea to more specific results starting with the introduction, literature review, research methods, research results and discussion, and the conclusions.

*Chapter one* provides the introduction, and then followed by chapters two and three that examine relevant theories about urbanization, housing provision and planning, and meaning of housing, housing quality, housing culture, housing affordability and life cycle and housing consumption. This theoretical framework will be used to understand and analyze the research data.

*Chapter four* is explaining the research setting which is divided into three main sections. The first section gives a general picture of Indonesia and Denpasar, including issues in housing policy, housing conditions, housing problems, housing finance, the socio-demography, and socio-economic situation of Bali and Sarbagita metropolitan Sarbagita. This section is followed by an explanation of Balinese culture, with focus on some main issues such as the Balinese worldview, belief system, social organization, social stratification etc. It is not intended to offer a complete description or examination of Balinese culture and tradition; there are many books which do that. Any readers who would like to learn more can do so from the original references used in this thesis. The last section of this chapter explores the meaning of the house to the Balinese, including discussion on such matters as the terminology used for the house, the importance of orientation, the distinction between public and domestic spheres in the Balinese house, etc.

Based on the four previous chapters, *chapter five* explains research methods and techniques and its rationale. It illustrates the strategy and techniques used to collect and analyze the data. This chapter discusses the importance of an integrated approach in dealing with a complicated phenomenon such as housing culture and quality. The theoretical and conceptual criteria for each technique and method applied are also provided. This chapter also draws upon empirical issues that emerged during the fieldwork, including sampling techniques, ethical issues, the pilot study, fieldworker problems, constraints etc. Hopefully these can contribute to better field work, in any future research in this field.

*Chapter six* (findings and analysis of fieldwork and survey) in turn describes, discusses and examines the study areas and survey results. It begins with a description of the case study (research results), which gives more detailed information about physical, demographic and socio-economic factors, housing condition in term of quality and culturally acceptable, dwellers roles and perceptions, and developer's constraints as well.

*Chapter seven* (focus group discussion findings) describes, discusses and examines the results from findings of focus group discussion and interviews following focus group discussion.

*Chapter eight* (discussion of findings) discuss the housing condition: quality and culturally acceptable, developer's constraints in project and dwellers role in cultural appropriateness. Housing condition: quality and culturally acceptable discuss the housing condition in term of quality of house, infrastructure, facilities and service delivery and whether the affordable house is culturally acceptable both descriptively and statistically. Developer's constraints in project explore in more detail the barriers of developers in providing better quality and culturally acceptable of affordable housing projects as supply side factors. After exploring the constraints of developers, the final analytical is dwellers role in cultural appropriateness, elucidates cultural significances of the phenomenon and whether the dwellers have influence and able to engage in housing process in socio-cultural adequacy.

*Chapter nine* (conclusions and recommendations) summarizes the findings, discusses the theoretical context and attempts to explore the policy and practical implications, with recommendations for housing policies in Indonesia and for further research.

## Chapter 2

# URBANIZATION, HOUSING PROVISION AND PLANNING

### 2.1. Introduction

To have better understanding affordable housing and culture, the most common concept and review of urbanization, housing provision and planning and its consequences pros and cons will be discussed in this chapter.

Urbanisation is a influential process of long historical duration, current vibrancy and even stronger future impact and it is not unidimensional. On the other hand, it carries several crucial dimensions that collectively produce macro and micro impacts on the society and everyday life. It necessary to identify a range the socioeconomic consequences of urbanisation and other major processes such as population growth, industrialisation and social transformation.

Furthermore, this chapter will emphasize through illustrative findings and empirical examples, which can help pave the way to examine the consequences of urbanisation related to housing provision planning and socio cultural transformation particularly in developing countries whereas a heavy demographic and strong cultural attached.

### 2.2. Urbanization: Why Do People Move to Cities?

Population shifts or migrants to and from world urban areas have traditionally been a tell-tale sign of many issues. People move for many different reasons; assumed advantages, such as employment, educational and economic opportunities, or forced movement to flee environmental crises, political or religious conflict. Denied human rights or access to health care also motivates mass movement. People are generally driven by hope or despair, opportunities for sustainable development and an understanding of where they may realize their potential.

Davis, K (1972, p.73) and Dyson, T (2003, p.27) noted that the idea of urbanization grew when people believed bustling cities would offer higher paying jobs with more benefits and prospects for growth. More was perceived as necessarily better. In fact, people often traditionally felt they had to move to big population areas to obtain experience and to develop a career. Rural areas have typically been left with small populations to tend agriculture, though rural areas also have seasonal economies including, tourism. Rural industries based on natural resources draw people into forestry, mining, and oil and gas exploration. People uninterested in such work or trades tended to migrate to cities.

In addition, urbanisation refers to the process by which rural areas become urbanized as a result of economic development and industrialisation (Davis, K 1969, p.71; Soja, E and M. Kanai 2007, p.57). Demographically, the term urbanisation indicates the transfer of populations from rural to urban settlements over time. The basic difference between rural and urban is that rural populations live in smaller, more sparse and less differentiated rural places as against to larger, denser and more heterogeneous places (Yowait 1995; Viera1998, p.57).

Urbanization can describe a specific condition at a set time, i.e. the proportion of total population or area in cities or towns, or the term can describe the increase of this proportion over time (Dyson T. 2003, p. 38; William K. 2007, p.69; Chen X. 2007, p.57). So the term urbanization can represent the level of urban relative to overall population, or it can represent the rate at which the urban proportion is increasing (William K. 2007, p.70; Chen X. 2007, p.60)..

Furthermore, urbanization or urban drift is the physical growth of urban areas as a result of rural migration and even sub-urban concentration into cities, particularly the very largest ones. The United Nations projected that half of the world's population would live in urban areas at the end of 2008. By 2050 it is predicted that 64.1% and 85.9% of the developing and developed world respectively will be urbanized (Soja, E and M. Kanai 2007. p.61).

Asia as large continent also has seen some massive demographic changes over the last five decades. One of the most dramatic changes of all has been the movement of people from villages to cities. The percentage of people living in Asian cities and towns, as compared to total country populations, is increasing fast. In 1950, about 232 million people lived in urban areas, which represented about 17% of Asia's total population. In 2005, Asia's urban population had risen to 1.6 billion people, or about 40% of the region's total population. There's no doubt that as the Asian region continues to develop, the level of urbanization will increase. The United Nations estimates that urbanization in Asia between 2005 and 2015 will increase at the rate of about 2.5% each year. At this rate, more than half of Asia's total population will live in urban areas by the year 2025, and by 2030, it is expected that 54.5% of Asia's population will be urbanized. This means that by 2030, one out of every two urban residents in the world will be in Asia (UNESCAP 2008, p.2; Soja, E and M. Kanai 2007, p.47).

Urbanization have long been researched in developing countries in Asia, but it is a comparatively new area of study for Indonesia. Rapid urban growth and the appearance of complex metropolitan areas have been a new phenomenon in Indonesia (Gardiner 1997b). Indonesia as part of South East Asia is one the largest archipelagic countries in the world, with five major Islands namely Sumatra, Java, Kalimantan, Sulawesi and

Papua. The population reached 203.5 million in 2000 and is approximated to have been near to 255 million by 2010 (BPS 2011), which makes the country the fourth most densely inhabited in the world. The population distribution in Indonesia is highly unequal, where about sixty per cent of the population is concentrated in Java, which consists of seven per cent of the total land area (BPS 2011).

Firman, T. (2008) noticed that the urbanization in Indonesia is also characterized by confusing distinction between 'rural' and 'urban'. Both agricultural and non-agricultural activities have effect alongside in the bordering areas of the urban centers, while the urban physical development expands further than city administrative boundaries. Firman, T. (2008) and see also McGee (1995) labels this phenomenon 'mega-urbanization' whereas in his earlier work he calls this phenomenon '*kotadesasi*' a phrase coined from the Indonesian language (Bahasa Indonesia) meaning process of socioeconomic and physical integration between urban areas (Kota) and rural areas (Desa).

It was only one city with a population of more than one million people in Indonesia in 1950, namely Jakarta. The number had increased to four by 1980, with the addition of Surabaya, Bandung and Medan. The number had increased further to eight by 1990, with the addition of Semarang, Yogyakarta, Palembang, and Ujung Pandang. Clearly, Indonesia has been experiencing a fast and massive transformation from predominantly rural to an urban society in the last three and half decades (see also Gardiner and Gardiner, 2006).

Bali Island as part of Indonesia is also fastly growing as famous tourism destination in the world. Population growth in 2010 was 2.14% increased from its previous 1.89% in 2000. More specifically, number of population in Bali in 2000 was 3,146,999 people increased to 3,891,428 people in 2010 and occupy 5,636.66 km<sup>2</sup> of land, means the density in 2010 was 690 people/km<sup>2</sup> (BPS 2012, p.89). Denpasar the capital of Bali province is the densest city 6.170 people/km<sup>2</sup>. Population growth in Denpasar is the highest among other cities with 4% annually and population growth boost from 532,440 people in 2000 to 788,445 in 2010 becoming part of Sarbagita Metropolitan. Migration to the city cannot be stopped. Movement of people from neighboring island or internationally will continue for decades as people and business seek for new advantage (Brugmann 2007, p.23).

This clearly shows that a massive urbanisation has been occurring in Western countries and also extending into Asian-Pacific countries. As Kalnay, E and M, Cai (2003, p.39) noticed that there are seven reasons which help to explain the nature and advantages of this modern urban-to rural population shift such as: desire for enhanced personal

lifestyle, wish for affordable land, availability of technology, fear of terrorist attacks, exploring retirement options, quest for longevity and growing environmental awareness.

### **2.3. Urbanization: Modernization, Industrialization, and Globalization**

Theories on urbanisation have been around for such a long time that they have mixed theories that also have relevance to cities, industrialisation, and more recently, globalization. Urbanization is closely linked to modernization, industrialization, and the sociological process of rationalization. As Williamson (1987, p. 6) Situates urbanization as an essential ingredient in modernization:

“Industrialization . . . is at the heart of a larger, more complex process often designated as modernization. Modernization comprises such developments as urbanization . . . ; the so-called demographic transition; the establishment of an effective, fairly centralized bureaucratic government; the creation of an educational system capable of training and socializing the children of a society . . . ; and of course, the acquisition of the ability and means to use an up-to-date technology”

If we focus on cities instead of urbanization, this theory accounts for the endogenous conditions that facilitate the transition from pre-industrial to industrial cities, first in the west and then in the rest of the world, in an uneven manner. This theoretical perspective that remains relevant today in light of the close relationship between industrialisation and urbanization, it suffers from the drawback of focusing narrowly on the rural-urban shift within countries as the key to urbanization. This theoretical tradition was enriched by scholars like Kingsley Davis in the 1950s through the 1970s (Davis 1951, 1965, 1969, 1972).

Timberlake (1987, p71), and Smith (1996, p.53) noted that how modernization would view subsequent developing-country urbanization as being driven by industrialisation, technological progress, information penetration, and cultural diffusions. This optimistic prospective view was very developmentalist in indicating the more positive outcomes of accelerated urbanization in the developing world, but only to be challenged by the more depressing reality of economic and spatial inequalities, as well as other social problems from urbanization in poor countries (see also Gardiner, P. 1997a, 1997b).

In line with classical economists, rural population are attracted to urban areas by high industrial wages. Industrialization has been the locomotive of urbanization in the past will continue to be so in the future. People will continue to drift town ward as long as their expected urban wages exceed their current rural wages. Michael S., Patricia A., and Robert M (2009, p.89) mentioned that although the rising costs related to urban expansion, modernization theory generally views urbanization as a positive phenomenon: (1) urbanization supposedly facilitates economic growth by increasing “modern sector” output in developing countries; (2) city life is conducive to the formation

of modern ideas necessary for economic growth and overall development; and (3) increasing industrialization, education, and urbanization may provide more opportunities for women to advance economically and socially.

It is also clear that the developing world continues to urbanize at a rapid rate. Despite such growth, it is also clear that slums, unemployment, and crime in the Third World Cities call into question the positive features of the modernization perspective. Modernization Theory asserts that industrial employment attracts people to urban areas, where they work in modern sector occupations that facilitate national economic expansion. In addition, urbanization, education, and industrial employment should increase labor opportunities for women.

Moreover, Michael S., Patricia A., and Robert M (2009, p.77) asserted that urbanization is inextricably linked to industrialization and modernization, both historically and among rapidly growing developing countries today. There are good economic reasons for this relation, supported by both theoretical and empirical work. Cities have been shown to support high productivity and high-growth activities in ways that rural areas simply cannot. Despite this evidence, there is discomfort with the urbanization process, and few countries have an explicit policy stance that proactively seeks to incorporate cities in the growth process. Part of the discomfort may be explained by three influential, but largely erroneous, beliefs about urbanization in developing countries: rural–urban migration is unmanageable, rural–urban migration is unproductive and urban growth is driven by pro-urban bias rather than economic fundamentals.

Latest research on urbanization in developing countries has concentrated on impacts of globalization on urbanization. Globalization is identified as the process of growth and extending of the global market for commodities and goods, finance and services, which was intensely facilitated by the fast development of transportation and communication technology and presently by trade liberalization (Cho 1997; Firman, T. 2008; see also Castells 1996 and Willis 2005).

In addition, the institution of the World Trade Organization (WTO) in 1995 has greatly reduced trade barriers among countries, which in turn effected in a large boost in exports and imports and therefore interconnections among large harbour cities in the world (see Mera 2002). As Dicken (1992) argues the process has resulted in the fast growing integration of big cities into a global financial system and the global economy in general, which in turn has offered delivery to 'Global Cities', the term used to illustrate the development of large cities in the world in the context of global economic reform (Cho 1997, p. 271; Firman, T. 2003, 2006, 2008). As Douglass (2001) argue, globalization has in turn resulted in urban spatial restructuring, characterized by spatial polarization in a few urban centers, the configuration of large mega-urban regions around the centers

and slow rates of urbanization in inner regions, particularly the densely agricultural regions away from urban centers (see also Douglass 2005, 2006).

In short, looking at urbanization through the lens of modernization and globalization, first, the present state of urbanization in any given society is set by its initial state at the beginning of modernization and globalization. Secondly, technology is fundamentally more important than a society's social organization in shaping urbanization. Finally, the path and pattern of urbanization within and between developed and developing countries are most likely to converge through cultural diffusion despite breeding inevitable social disquilibria (Kasarda and Crenshaw 1991).

#### **2.4. Urbanization: Cultural Transformation**

Urbanization is not about simply increasing the number of urban residents or expanding the area of cities. More importantly, it's about a complete change from rural to urban style in terms of industry structure, employment, living environment, and social cultural and security (Harris 1987, p.58; Kasarda 1991, p.71).

Smith (1996) and Brugmann (2009) asserted that urbanization is not merely a modern phenomenon, but a rapid and historic transformation of human social roots on a global scale, whereby predominantly village culture is being rapidly replaced by predominantly urban culture (see also Harris 1987; Vieira 1988). The last major change in settlement patterns was the accumulation of hunter-gatherers into villages many thousand years ago. Village culture is characterized by common bloodlines, intimate relationships, and communal behavior whereas urban culture is characterized by distant bloodlines, unfamiliar relations, and competitive behavior (Dyson, T. 2003; Young, G. 2008). This unprecedented movement of people is forecast to continue and intensify in the next few decades, mushrooming cities to sizes incomprehensible only a century ago.

Indeed, today, in Asia the urban agglomerations of Dhaka, Karachi, Mumbai, Delhi, Manila, Seoul and Beijing are each already home to over 20 million people, while the Pearl River Delta, Shanghai-Suzhou and Tokyo are forecast to approach or exceed 40 million people each within the coming decade. Outside Asia, Mexico City, Sao Paulo, New York City, Lagos, and Cairo are fast approaching or home to over 20 million people already (Soja, E and M. Kanai 2007; Firman, T. 2008).

In terms of development and growth concept, Firman, T. (2003a, 2003b) appealed that urbanization occupies a puzzling position. On the one hand, it is recognized as fundamental to the multidimensional structural transformation that low-income rural societies undergo to modernize and to join the ranks of middle and high income countries (see also McGee 1995; Gardiner 1997b; Firman, T. 2004, 2006, 2008). Some models, such as Lucas's (2004, 2007), explicitly consider how urbanization affects the

growth process primarily through the enhanced flow of ideas and knowledge attributable to agglomeration in cities.

The cities have always fascinated human thought and action. It is a place where ordinary people hope to build viable lives and enjoy decent living. Thus, each generation of urbanites, including migrants, bring hope, optimism, vitality, and energy that keep cities alive and dynamic. Most people know that the city encompasses both problems that it faces and the possibilities it offers. The essential physical dimensions of a city's existence are the fixed sites, the durable shelters, the permanent facilities for assembly, interchange and storage, the essential social means and the social division of labour, which serve not merely the economic life, but the cultural process as well (McGee 1995; Gardiner 1997b; Soja, E and M. Kanai 2007).

Davis K. (1969, p.113) and Dyson T. (2003, p.89) asserted that urbanization and growth go together; no country has ever reached middle income status without a significant population shift into cities. Urbanization is necessary to growth in developing countries and it yields other benefits as well. But it is not painless or always welcomed by policymakers or the general public. Managing urbanization is an important part of nurturing growth; neglecting cities, even in countries in which the level of urbanization is low, can impose heavy costs (Smith 1996; Douglas I. 2001; Carroll 2007).

Unmistakably, urbanization encompasses a comprehensive structural change in the economy, and in the nature and character of society. The transformation from a traditional agricultural based economy and culture into an urban dominated society is underpinned by increasing levels of productivity and consumption. But the chronic under-provision of the physical and social infrastructure that rapidly growing cities and their populations require is also a common feature with this pattern of development (Carroll 2007; Soja, E and M. Kanai 2007).

Indonesia has the cities of the post-colonial era that have always been viewed in terms of their demographic growth as expanded cities with blasting population, without addressing development in either social or physical infrastructure (Forbes 1997, Firman, T. 1992, 1996, 1997). For instance, terms like '*pseudo-urbanisation*', '*hyper-urbanisation*' or '*overurbanisation*' are used to illustrate the social culture and economic dilemmas of urbanisation in most of the megacities of the developing countries, to indicate the fact that urbanisation has not been attended by economic or social culture development of the right kind (Forbes 1997, Firman, T. 1992, 1996, 1997).

Cities in Bali has been growth of urbanisation resulted Bali as tourism destination, recently becoming Sarbagita metropolitan region with Denpasar as capital. Balinese people have a very strong cultural perspective and cultural identities which is a tradition of myth and symbol. The symbol system expresses these beliefs by abstracting and

translating them into principles of organisation. Balinese communal culture is a significant aspect of everyday activities and relates to the nature of the spaces required to carry out daily activities (Michael P. 1996; Sentosa 2000; Nirarta 2001).

Cities in Bali, in the past, was built and formed traditionally based on traditional rules and guidance. Main feature of traditional guidance was a piece of land or an area divided into three major part for three different main uses which are sacred part, accommodation and economic center part and preserved area part. The norm and guidance generally similar from one city to another in Bali creates similar urban character. The cities were built in collective values and personal value was not the major consideration though has been taken into account. Similar pattern occurs from the smallest scale, house, to the bigger scale, neighborhood and to urban scale. Similarly, in Denpasar, the houses, neighborhoods and urban pattern also had been built on traditional rules and guidance. Since the migrants have flooded the city, now it becomes more overcrowded than in the past. The migrants built their own houses and create new neighborhood units which do not have a link with the previous neighborhood unit while on the other hand indigenous inhabitants has also changes their own housing and neighborhood pattern to meet their new needs. The globalization of architectural styles, improvement of building technology and new paradigm of urban space has impacted the city design dramatically. Built environment which are culturally rooted, locally produced, and technologically adapted for decades are being rapidly eroded. (Zetter and Watson 2006, p.19).

New place making method has substantial differences from previous traditional place making method. Collective value has not been taken as primary consideration, but personal values taking more significant rule. Hildebrand (1999, p.77) argued the phenomena of today's city as undetermined as today's urban society where collective values left behind individual needs. Furthermore he also said that urban development is incremental and a result of a sequence independent, frequently speculative intervention of economic forces. This type of urban development is the challenge to sustainability of the city. The challenges can be define in three major areas, environmental sustainability, urban services sustainability and social sustainability. There are vast literature on cities and urbanization in the developing world which framed the sustainability discourse largely in term of an environmental agenda preoccupied with green issues. Most literature has largely neglected the challenge of designing cities as sustainable and livable places which adapt their unique cultural identities and specific historic heritage to contemporary needs although the city is made up of myriad nested local city system at the metropolitan, district, and neighborhood levels and formed by houses and other local urban facilities. City is a place with unique qualities, advantages and vulnerability. (Zetter and Watson 2006, p.99; Brugmann 2010, p.37).

According to Tomas R. (1998, p. 77), transformation of culture or cultural change is defined as the dynamic process whereby the living cultures of the world are changing and adapting to external or internal forces. This process is occurring within Western culture as well as non-Western and indigenous cultures and cultures of the world. Forces which contribute to the cultural change described in this article include: colonization, globalization, advances in communication, transport and infrastructure improvements, and military expansion.

As the Balinese are becoming socially more integrated with outside world however, Balinese culture have been transform and changed (Sentosa 2000, p.17; Nirarta 2001, p. 561). Although the culture changes due to globalization, Balinese house symbolic is still strong maintenance. The trend is loss on some part or elements of Balinese culture, but it is still less compared to others cultures within Indonesia. Balinese culture has still rich of religious, belief, symbolism as social capital and development potential of tourism and economy in Indonesia. However, Bali as in the rest of Asia, there are strong and distinctive cultural identities, which are being exposed to various forces resulting from the rapid urbanization in developing Asian nations. Balinese lifestyle is affected by the strong influences of religion, customs, norms and behaviors.

## **2.5. Urbanization: Housing Provision and Planning**

### **2.5.1. Urban Housing Problem: *Slums of Despair and Slums of Hope***

According to the United Nations, more than one billion people now live in the slums of the cities of the South (UN-HABITAT 2008, p.2). Mike Davis (2006) explores the future of a radically unequal and explosively unstable urban world. From the sprawling barricades of Lima to the garbage hills of Manila, urbanization has been disconnected from industrialization, and even from economic growth. Davis reveals a vast humanity warehoused in shantytowns and exiled from the formal world economy. He argues that the rise of this informal urban proletariat is a wholly unforeseen development, and asks whether the great slums, as a terrified Victorian middle class once imagined, are volcanoes waiting to erupt.

In addition, Davis (2006, p.74) takes a global approach to documenting the astonishing depth of squalid poverty that dominates the lives of the planet's increasingly urban population, detailing poor urban communities from Cape Town and Caracas to Casablanca and Khartoum. Davis argues health, justice and social issues associated with gargantuan slums (the largest, in Mexico City, has an estimated population of 4 million) get overlooked in world politics: "The demonizing rhetoric of the various international 'wars' on terrorism, drugs, and crime are so much semantic apartheid: they construct epistemological walls around gecekondu, favelas, and chawls that disable

any honest debate about the daily violence of economic exclusion." Though Davis focuses on individual communities, he presents statistics showing the skyrocketing population and number of "mega slums" since the 1960s. Layered over the hard numbers are a fascinating grid of specific area studies and sub-topics ranging from how the Olympics has spurred the forceful relocation of thousands (and, sometimes, hundreds of thousands) of the urban poor, to the conversion of formerly second world countries to third world status. He paints a bleak picture of the upward trend in urbanization and maintains a stark outlook for slum-dwellers' futures.

During the period of 1950-1955, the rate of population growth in Asia as a whole was 1.95% per year. This growth rate declined steadily over the years to 1.25% per year by the period 2000-2005. But during those same two periods, the rate of population growth in urban areas was 3.74% (1950-55) and 2.67% (2000-05) (UN-HABITAT 2008, p.3). This means that about half of the urban growth rate was caused by natural population growth. The rest of the urban population growth was the result of rural-to-urban migration and reclassification of previously rural areas into urban areas. In other words, rural-to-urban migration is not the only cause of urbanization, although it plays an important role. In many cities in the Asia region, the creation of new slums and squatter settlements is more due to formation of new urban households rather than rural-to-urban migration. 42% of all urban Asians live in slums. That means that 533 million people are living in squalor and insecurity in the region's poor and informal urban slums. The overwhelming majority are not layabouts or criminals, but ordinary, hard-working people who cannot afford decent housing (UN-HABITAT 2008, p.1).

There are many different types of migration such as: people don't only migrate from rural to urban areas — they also migrate from one rural area to another and from one city to another. Some migrants move permanently, while others go temporarily, for a season or for a few years, and then return to their villages. Some migrants are unmarried and move alone, some leave households behind, while others come to the cities with spouses, children, and parents. In some countries, it is mostly men who migrate, while in other places, women are the main migrants. It is important to pay attention to these different types of migrants, because they will likely have very different housing needs (Payne 1977; Mehta 2000; UN-HABITAT 2006, 2008).

Urban poor settlements come in a variety of sizes, shapes, histories and political cultures, and they are called by a variety of names. In many places, a clear distinction is drawn between slums and squatter settlements. Usually the term *slum* is used to cover a wide range of areas with poor quality housing, insufficient infrastructure and deteriorated living environments, but in which the occupants have some kind of secure land tenure: as owners, legal occupants or formal tenants of the land. While, the term *squatter settlement* is usually used to describe areas where people have built their own

houses on land that doesn't belong to them and for which they have no legal permission or lease or building permit, and usually built without following building and planning regulations.

In developed countries, the term slum has more of a negative connotation than in developing countries. In developed countries, a slum is an area of town that is deteriorating, probably occupied by a marginalized group of people, and is therefore ripe for demolition or "urban renewal." Peter Lloyd (1979, p.56) used the term *slums of despair* to describe such neighbourhoods. In cities of developing countries, the people who live in slum and squatter settlements are usually too busy getting on with their lives to despair. For them, the hope for a better living environment and a better future for themselves and their children are very much alive. And they are ready to invest their resources— no matter how small — in improving their houses and communities, if the conditions are favorable. Lloyd calls these kinds of settlements *slums of hope* (UN-HABITAT 2008, p.1).

Rapid urbanization is happening across Asia, with more and more people in need of housing. Providing adequate housing to everyone in our cities is not an impossible goal. It's possible to solve the serious housing problems, if we can begin to see urban poor settlements not as problems, but as sources of energy and important contributions to the production of housing. And it's possible if we can look at the poor not as beneficiaries of someone else's ideas, but as the primary actors at the centre of their own development (Payne 1977; Mehta 2000; UN-HABITAT 2001, 2003, 2004, 2006).

### **2.5.2. Housing Supply: Subsidy and Affordability**

Urbanization and the population flows that it represents are stimulated by the productively gains across a broad range of sectors, which together with industrial and manufacturing include; transport and communications; utilities and infrastructure; commercial services and retail, and health and education, are all integral to urban expansion. Although the rural sector experiences inevitable declines, agriculture productivity may actually increase with the introduction of new farming techniques, more capital investment, and access to competitive markets.

People move to cities because there are many more opportunities, but the housing that they need takes much longer to be developed, if at all. The informal settlements, slums, barrios, and the street sleepers and other homeless people that populate these cities, are all there because it better for them than were they came (Hariss 1987, p.97; Brugman 2009). What Mike Davis(2006) is arguing is that many of these people will not be able to earn the incomes that can lift them out of poverty and for them to afford appropriate or even secure housing. In his vision of Planet of Slums, the endemic

proportions of the housing shortage become clear as do the intractable problems with housing affordability.

Within the spectrum of urban development oriented theories, there is broad based recognition that housing supply and affordability are chronic issues, which to varying degrees can be understood as symptomatic of a city's success at attracting people. This perspective consolidated during the 1980s, and contrasted significantly with the earlier dominant view that in-migration to cities could and should somehow be stemmed because it (in-migration) was the source of the problems, including urban poverty, homelessness, squatter settlements, and overloaded services and infrastructure (Mike Davis, 2002, 2006).

The challenge in respect to housing provision in other rapidly developing nations is driven by the process of industrialization and the rural to urban migration of predominantly younger people into fast growing cities (Haris 1987, p.87). As people move to cities in large numbers, the demand for housing and serviced land in urban areas expands rapidly. Unfortunately, the market rarely meets this demand affordably. Ill-conceived planning laws and building standards coupled with insufficient public finance for infrastructure mean that supply responds sluggishly. As a result, the price of land and housing rises beyond the reach of poor people. Even in desperately poor countries such as Bangladesh, big-city land prices can be comparable to prices in industrialized nations.

The Republic of Korea provides one example of a dramatic effort to raise supply. By the late 1980s, the cost of housing had far outpaced GDP. The ratio of house prices to income reached 13:1, as compared with 3:1 in the United States. The government stepped in. Overnight, 25 percent of the country's land was declared "urban," clearing the way for real estate development, compared with 5 percent before. In addition, 2 million homes were added to the housing stock over seven to eight years. Today, Korea's house price-to-income ratio is about 3.5:1. The case of Singapore is also revealing. Singapore's government controlled the land and maintained a near monopoly over house-building.

Quite exceptionally, the government could also control migration since the borders of the city and the nation coincided. In contrast to Eastern Europe, where unresponsive state monopolies produced low-quality, high-cost housing, Singapore's public housing was standardized and cheap. Its heavy housing subsidies served both social and economic ends. They brought an end to squalid slums and defused ethnic strife. They also ensured the wage competitiveness of workers in Singapore's small, open economy, which had pinned its hopes on foreign investment and exporting success. The success of Singapore's housing subsidies is more the exception than the rule, however, and they

carried significant risks. Its provident fund, a mandatory saving scheme, was heavily invested in real estate. If Singapore had ever suffered a housing downturn, the consequences might have been disastrous.

Fortunately, the economy thrived and home prices did not tumble. Subsidies for housing can become a political necessity, but they are also costly and hard to confine to the poor. Certainly, they should not be seen as a substitute for serious efforts to expand supply, including the supply of public services that often constrain efficient land use. Only a greater supply of serviced land and housing can lower costs, because it helps to solve the problem at its root as well as contain the fiscal burden of subsidies. In Mexico, for example, an upfront subsidy was combined with efforts to provide better infrastructure and security of tenure, allowing households to make investments in their home on their own.

Mortgages can improve households' ability to buy decent housing. But finance relaxes demand constraints only. Unless it is accompanied by measures to increase supply, better finance may result in overshooting prices. This volatility can jeopardize macroeconomic stability. In a typical pattern, strong income growth leads to a rapid increase in housing demand. An injection of liquidity from some source, often overseas, may help over stimulate the market, leading to over optimism and a dangerous concentration of wealth in real estate. This leaves buyers and bankers dangerously exposed when the bubble bursts, as illustrated by Thailand and Hong Kong, China, in 1997, Shanghai in 2003, and recently in the United States. In Sweden, the relaxation of mortgage-lending regulation left banks overexposed to a housing bubble and very vulnerable in the face of an economic contraction.

In respect to housing provision, these two fundamentally different perspectives serve to frame vastly different planning responses. One perspective seeks to restrict and discourage rapid population growth, with slum clearance in the cities and rural development initiatives in the countryside. The other recognizes that the new immigrants add to the labor force and to the expanding markets and therefore need to be appropriately housed and integrated within the city to maximize their potential.

## **2.6. Housing Provision in Developing Countries: Issues and Schemes**

The World bank (2004, p.23) writes 'despite the efforts of the governments and international organizations, more than one thousands million people have shelter unfit for habitation' and this situation will expand dramatically unless determined measures are taken immediately.

There also seems to be an agreement that annual requirement for new housing causes more pressure on the urban areas of developing countries. The World bank (2004,

p.28) estimates that the number of households requiring new dwellings in the cities of developing world increase each year by 12-15 million.

Both the state and private sector beyond the reach of housing programs promote large majorities. The programs implemented for these groups are often isolated attempts with little impact on national policies for low-income housing (Landaeta 1994, p.58). In Latin America, these programs were often far from reaching the poor, and were instead a means to ensure the growth and legitimating of groups in power. More recent experience from South America suggests that while these dynamics still exist (Kamara, John M. 1995). There are also many more successful outcomes as NGOs and communities have adapted to the challenges (Kamara, John M. 1995).

As discussed earlier, this does not mean that there is consensus on the causes of the problem, nor the mechanism to address it more effectively, nor even what is an 'adequate housing solution'. Until now, it has been difficult for housing 'expert' to demonstrate that implemented solutions are appropriate, at least to stop the spiraling house shortage in developing countries. It is not easy to blame this situation on a lack of knowledge of the problem or to the lack of interest in facing it. The seminars, conferences, and concrete actions on the international, national, and local levels demonstrate that this issue has been often discussed in recent decades.

Some housing program in African countries, in the early 1980s, was made in the housing provision for the low-income inhabitants. For a period, when the central government and donor resources were presented, mainly from USAID and the World Bank, local authorities engaged in the site and services scheme. These programs were controlled and implemented jointly by local authorities, developer's banks and building societies. The velocity of urbanization, however, hindered the speed to counter to the demand and strain on the central and local government's capacity to supply housing and infrastructure. When donor funding stopped, the site and service schemes were suspended. Simultaneously, it was obvious that the waiting list system was not working for the poor people (Mangizvo and Dzikiti 2009).

In general, housing delivery in developing countries has been organized by the government, local authorities, private land developers and housing cooperatives. Demand for affordable housing is increasing, yet the accessibility is getting more complicated due to population growth, urbanization and high costs of building materials and services. Dwellers are able to access housing through type of institution such as cooperatives, pay for own service schemes, and private sector investment programs.

Some governments in developing countries, seeks efforts to lower cost in housing delivery for the poor in slum area. The concept 'sweat equity' which is promoted by Larry Angel (2001), have been significantly acceptable and applicable to lower costs of

housing provision for low income residents. The concept of sweat equity in the projects is commonly used through increasing the worth of a project created by the unpaid physical hard work of the occupant, or increasing the value of a property created by the hard work of the occupant in enhancing its amenities (Angel 2001, p.18). However, it seems this concept might be applicable for the occupants who are willing to contribute the labor in construction stage of housing provision projects.

In developed countries, problem such as rapid urbanization, squatter areas, and high deficit and deficiencies of housing and services are not unknown. When the industrial revolution signaled a new stage in the development of production, the government in Europe had difficulties in providing houses and services for migrant people. Even today, no country can claim that it has succeeded in solving satisfactorily the housing situation of its whole population; considering not only quantity and quality, but also the cost to families of housing and services such as drinking water, electricity, and sewage. Estimates of the homeless in USA vary among 250,000 to 3,000,000 people today. The number of persons without an own place to live has increased in Sweden in the last years, in spite of all subsidies to production and consumption of dwellings, and the high number of houses and flats that are unoccupied.

The housing crisis of low-income sectors is not isolated from economic, political, and social crisis that affected all countries. Factors such as rural-urban migration, population growth, increased poverty, the high cost of urban land and housing, and the absence of appropriate policies to meet the housing needs of the poor, can be identified as central for worsening of the housing situation.

One of the main challenges of developing and controlling the developing countries is that of presenting sufficient housing to its residents. Fast urbanization has for many years, been thoughtfully influence the lives of city inhabitant and, indeed the economies of many developing countries (Tibaijuka 2005, p.97). The growth of the larger cities has resulted in a number of problems including substandard housing conditions, overcrowding of households, inadequate and unreliable infrastructure and services (Tibaijuka 2009, p.99). Researchs have shown that a growing number of urban dwellers have limited access to suitable and sufficient housing, transportation, water supply, health and education services in African countries like Ethiopia, Somalia, etc and Asian countries such as India, Bangkok, Indonesia, Bangladesh, etc. In this connection, the shortage and substandard nature of urban housing has generated squatter or informal settlements, slums, and backyard shacks (UNDP1996). Today, the global number of slum tenants is now near to one billion (UN-HABITAT 2003).

For the first time in human history, more than half of the world's population is settling in cities (UNESCAP 2008). In this new age, it is generally recognized that the provision of

adequate shelter to rapidly growing cities poses one of the greatest challenges (Warah 2003). The world as a whole is urbanizing at a fast speed. In the developing countries, urbanization processes are strengthening at an alarming rate. Three-quarters of the overall inhabitants increase is currently happening in cities in developing countries. It can be noticed that urban centers are typified by an intense concentration of inhabitants and by the communicating need for intricate delivery systems to assemble their resources and service needs (adequate housing, drinking water and sanitation). The struggle for space indicates that housing, a principal asset for the urban poor, and land on which to build are at a finest.

In many cities, there has been a continuing dependence on the classical severe master plans, which are often impracticable, rather technocratic, and too expensive to realize. Often the lack of a comprehensive perspective in city visions, the disparity between old standards, and lower levels of affordability, all lead to unsustainable urban development. Also there is growing exclusion, compounding the production of slums and squatter settlements (UN-HABITAT, 2003). Warah (2003, p.73) and UN-HABITAT (2003) noted that within the developing countries, sub-saharan Africa has the largest proportion of residents in slums and squatter settlements with 71.9 percent; South- central Asia 58 percent, Eastern Asia 36.4 percent, Latin America and the Caribbean 31.9 percent and Northern Africa with 28.2 percent.

The urban housing crisis has mainly been attributed to fast urban population expansion, a product of natural increase and rural-urban migration, effecting in the ability of central and local government resources to meet the housing demand. There is necessary to fully recognizing this urban housing problem. From a survey of the literature, this researcher has noted that a study of the role of urban housing delivery programs in addressing the urban housing crisis has been partially and not fully carried out.

The degree of the tension on housing delivery is clearly reflected by the level of overcrowding, the flourishing of prohibited settlements, unlawful backyard structures, and illegal extensions (UNDP 1996; UN-HABITAT 2003). The low-income urban method employed by the metropolis, have not been able to restrain the housing disaster. This condition has effected in the manifestation and blast of various sub standard shelter systems in and around the city. This is so because a substantial bulk of the city inhabitants is economically and socially relocated from quality housing.

## **2.7. Summary**

This chapter summarized that the examination the impact of urbanisation, modernization, industrialization and globalization to housing provision, planning and

socio cultural transformation in developing countries have a heavy demographic and strong cultural attached.

People shift to urban area for many different reasons as assumed advantages, such as employment, educational and economic opportunities, or forced movement to flee environmental crises, political or religious conflict. However, urbanization is not about just leading to high number of urban population and urbanized cities area, but changing the style of rural to urban in terms of industry structure, employment, living environment, and social cultural and security.

Urbanization comprehends a broad structural change in the economy, and in the nature and character of society. The transformation from a traditional agricultural based economy and culture into an urban dominated society is underpinned by increasing levels of productivity and consumption. Urbanization is inextricably linked to industrialization and modernization, both historically and among rapidly growing developing countries recently. Modernization would show subsequent developing-country urbanization as being driven by industrialisation, technological progress, information penetration, and cultural diffusions. It is also clear that the developing world continues to urbanize at a rapid rate. As people move to cities in large numbers, the demand for housing and serviced land in urban areas expands rapidly.

The urban housing crisis has mainly been attributed to fast urban population expansion, a product of natural increase and rural-urban migration, effecting in the ability of central and local government resources to meet the housing demand. It is necessary to fully recognizing this urban housing problem. In fact, the research study shows that the role of urban housing delivery programs in addressing the urban housing crisis has been partially and not fully carried out.

In developing countries, provision of housing has generally been organized by the government, local authorities, private land developers and housing cooperatives. Demand for affordable housing is increasing, yet the accessibility is getting more complicated due to population growth, urbanization and high costs of building materials and services.

## Chapter 3

### HOUSING AS A PROCESS AND COMMUNITY INVOLVEMENT

#### 3.1. Introduction

To settle in the affordable housing provision is not just a matter of demography, socio-economic reason or simply a function of the housing market; but is likely also to be related to the meaning of the house for the dwellers, especially in a culture where religious attachment to the house is very strong, as in Austronesian countries. Because a house is not just a dwelling, but part of the temple, or a place for conducting ceremonies during the cycle of life, many people invest large amounts of their money or resources to keep a building alive even though they might not use it for 'domestic' activities.

Although there are many empirical and theoretical analyses of housing quality (Duncan 1971; Forsythe et al. 1989; Garcia Mira 2005), housing culture (Njoh 2006; Cousins 2009), housing human right (Bennett 1997; COHRE 2006), affordable housing (ANHS 1991; Brown and Badanes 2004; AHURI 2008a), collaborative planning (Healey 2006), little has been done to synchronize into one single theory. Every observer has his or her particular interests, method, preferences etc. and may have even done only a single piece of fieldwork. Therefore, it remains difficult to build a coherent cross-cultural theory on housing provision. The dwellers who is Balinese (indigenous people) have right to preserve their cultural in housing. It need attempt to compile the research that is focusing especially on quality and cultural appropriateness in housing provision through community (dwellers) engagement; collaborative planning and community buy in.

The goal of this chapter is to identify relevant theories refer to how the concept of 'housing as a verb as' can be applied in the framework of collaborative planning principles deliver affordable housing that is culturally appropriate.

#### 3.2. Meaning of Housing: General Framework

##### 3.2.1. The Meaning of Housing

A house is a building for people to live in, protecting them from different kinds of damaging elements such as wind, cold, rain, sun heat and others. Housing means accommodation in houses. Home means one own house, a place where one lives specially with family. Like food and clothing, housing is basic need, even for those who live in places where only the minimal shelter is required. Housing is more than man's way of protecting himself from weather and coming to terms with the environment. It is

also an expression of his culture and the way of life, of himself, of family and tribal folk-ways, of the concept of community. It is also an indicator of man's fear and prejudices. For some it is a symbol of pride for others a badge of inferior social status and poverty (UNCHS 1992).

Architects, planners, and builders involved in housing provision need to understand that the value of a house is not merely as a place to live, but has a variety of functions for people. Good quality housing design must be able to respond to a range of human needs (Heywood 2004, p. 717; Imrie 2004b, p. 687). The meaning of a house needs to be taken into account by policymakers in housing provision.

Housing has also a diversity of meanings to reflect human needs. Blauw (1994, p. 33) identified the meaning of a house as having five functions. First, shelter is considered to be the most basic function of a home and neighborhood. Second, the utilitarian function is identified - the facilities that the dwelling and the neighborhood carry out (activities such as cooking and washing). Third, the domain function - the home as one's own territory, a place that guarantees the dweller's privacy. Fourth is the social function - the facility to communicate from the home base with the outside world. And, fifth is the symbolic or cultural function of a house.

The meaning of housing is more complex than merely people's way of sheltering themselves from weather and coming to terms with the environment. It is also an expression of their culture and way of life, of who they are as individuals, as a social group or community. It is also an indicator of people's fears and prejudices. For some, it is a symbol of pride; for others, a badge of inferior social status and poverty. It seems that a house and neighborhood present possibilities for preferences or design choices as a living symbol of a way of life and the subsequent values that the residents want to be associated with (Blauw 1994, pp. 44-46; Bhatti and Church 2004, p. 42).

Housing as shelter reflects levels of living, welfare, safety, personality and culture (Thomas et al. 2000, p. 34; Silas 2001, p. 45). Housing cannot be seen merely as being a living and infrastructure-facilities function, for it also involves a settlement process and functions as a way for people to communicate with the environment (neighborhood, society, natural surroundings). Therefore, housing is a means for both actualization of the individual and for integration with the environment.

A house is like the heart of people's life (Hanson 1998, p. 165; Heywood 2004, p. 712). A house is a place of retreat, privacy, safety, relaxation and support for work and leisure activities. It provides autonomy and independence. It is an expression of ourselves and shows our social status. Indeed, a house is the means to meet various needs, such as shelter, aspirations, status, cultural value, etc.

### 3.2.2. Housing and Human Rights

Housing is becoming a global issue in urban development, particularly housing shortages for the urban poor in Third World Countries. Housing in urban areas has become a worldwide problem, but most particularly in the Third World (Wakely, Schmetzer, and Mumtaz 1996, p. 196). These problems include the gap between supply and demand, lack of housing and settlement quality, issues of affordability, socio-economic and cultural appropriateness problems, etc. These issues will increase in the future because of migration and the numbers of urban people in urban areas increasing rapidly requiring an increase in housing supply.

Housing, in this sense, is a part of human rights. As the Universal Declaration of Human Rights clearly mentions in article 25 (1), “everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, ....” and in article 27 (1) stated that “everyone has the right freely to participate in the cultural life of the community ...” (UNHR 2008, pp. 3-6). It means that housing to be adequate for people “must provide more than just four walls and a roof over one's head. It must at a minimum, include the following elements: security of tenure, adequate service, material and infrastructure, affordability, habitability, accessibility, location and cultural adequate” (COHRE 2006). It is asserted that human beings, the urban poor also have the right to affordable housing and services.

Birch and Wachter (2008, p. 239) describe the three components of sustainable urban housing development, environment, society, and economy, as overlapping circles of the same size with the area of overlap in the center representing human well-being. It seems, however, that issue of society, in particular cultural perspectives, becomes neglected and treated as less important than ecology and economy matters. Socio-cultural sustainability of housing needs to consider the recognition of housing is part of human right in the long-term future in order to meet the needs of people in the present without compromising the ability of future generations (Chiu 2004; Chaudhury 2006; UNDSD 2008; Rovers and Klinckenberg 2008).

In addition, COHRE (2006) mentioned that governments has responsibilities to identify the rights to adequate housing for people through “taking steps by all appropriate means, maximum of its available resources and achieving progressively” This is related to the role of government in equity matters as part of good governance to plan housing to fulfill people needs. Governments have to take into account the needs of the poor. Indeed, planning in housing provision with community involvement should be collaborative planning in order to help the poor. Poor People must be involved as partnership or *community buy-in* in housing provision projects to build relationships and

create a sense belonging of community to develop and maintain their house. Planners have the power to assist as facilitators to meet the needs of the poor to the planning of projects (Barlow and Chambers 1992, p. 45).

Tipple (1996, pp. 367-376) argued that, since the 1960s, most international agencies and other actors, such as planners, architects, builders, universities, NGOs, and CBOs, have been greatly concerned about housing provision for the urban poor in third world countries. All the main urban services in developing countries, such as health, education, waste disposal, water supply and electricity, have been largely dominated, either completely or partially, by direct public provision (Bennet, Russel, and Mills 1995; Batley 1996; Nickson 1996).

Over last decade, the provision of affordable housing has been largely dominated by the non-public sector, which includes formal and informal housing, and co-operatives. However, Keivani and Werna (2001, pp. 65-118) and Brown, David, and Badanes (2004, p. 65) claimed that the heartless underdevelopment of institutional capacities - human and material capital together with complicated and complex social, political, cultural and economic interactions between various providers and mechanisms of housing provision - generated major barriers to the efficiency of housing development in developing countries to being more affordable and enabling a better quality of housing stock.

In most cases, such constraints are likely to encumber the developers in scaling up housing production to meet the needs of large sections of the urban poor (Adams 1995; Keivani and Werna 2001). Even worse, the huge production of affordable housing projects has never fulfilled the needs of people and cultural appropriateness, for mostly houses have been provided with small plot size, lack of quality design, and services not being available for people to settle (Tunner 1976, p. 73; Kent 2000, pp. 26-77). Moreover, Lewin (2001, pp. 103-115) noted that houses are built and given directly to urban dwellers merely as boxes, unable to cater for housing as an expression of a way of life and as a cultural process of people. It seems that housing is becoming far beyond the reach of urban poor households confronted by issues of affordability and housing provision that does not fulfill people's needs in terms of cultural appropriateness and housing quality.

### **3.2.3. Housing Quality and Culture**

Housing quality is subjective. Quality is a dimension of housing that relates to implications for human beings (Redval 1997; Garcia Mira 2005, p. 175; Apparicio et al. 2008, pp. 355-380). Quality on its own does not mean good quality or poor quality, but is

more about providing minimum standards that houses must reach for people to live in them (Duncan 1971; Feijten and Mulder 2005, p. 577).

It seems that housing quality has been differently defined by different attributes or the extent of the housing problem in a given community (Landaeta 1994; Blauw 1994; Hayashi 2002; Cousins 2009). Attempts to measure housing quality are complicated by the social, economic and political characteristics of communities. Yet, all the different measurements used consider the physical structure of dwellings and the facilities offered by the house, including amenities like water, electricity, size, number of rooms, availability of kitchen, toilet and bath facilities; as well as the physical environment, including the location.

There has been extensive study of affordable housing provision in developing countries. The research shows that lack of meaning in housing has a correlation to the provision of housing quality (Batley 1996; Godish 2001; Heywood 2005; Karsten 2007). Such a narrow understanding of housing tends to result in the production of housing that is not useful, substandard, and harmful. The builders must realize that housing is a reflection of human needs, so they also need to focus more sharply on specific needs and the direct implications of housing design. Some constraints on housing provision, of course, cannot be avoided, but good quality, embracing of human need, is fundamental to fostering the well-being of people.

Good quality housing must be able to respond to the variety of human needs and the shifting needs of individuals. Qualitative research has used “*cultural probes*” to help understand the unique values and lifestyles of people (Adams 1997; Heywood 2004, pp. 709-726; Njoh 2006). Therefore, house quality is not just the end product, but correctly belongs at the start of design and ensures the autonomy and power for the end user in the design steps (Wentling 1995, p. 23; Harrison 2004, p. 708; Law No. 1/2011).

Urban authorities in the developing world would find housing quality unsatisfactory if it did not meet official housing standards and regulations (Hanson 1998; Godish 2001; Firman 2002, p. 236). Thus, housing provision would be seen as satisfactory if built of permanent building materials with all the required infrastructure and facilities. Any attempt to measure housing quality should be related to the physical qualities of the product (house) and the uses (use-value) to the community. Waterson (1990, p. 78-93) argued that the value of a house is when houses are suitable for people, satisfying their way of life and cultural values as well.

In the Indonesia society housing as a shelter reflects the level of living, welfare, safety, personality and culture. Housing cannot be seen merely as a living and infrastructure/facilities function, but also as settlement process and as facilities for people to communicate with the environment (neighborhood, society, nature

surroundings). So housing is a means both to actualization of the individual and to integration with environment (Law No. 4/1992; Pembangunan Perumahan 1994; Law No. 1/2011).

### **3.3 Planning for Housing Affordability**

#### **3.3.1. Definition of Housing Affordability**

Housing is basic human rights, it is an essential requirement to a life of dignity for the person and peace and economic prosperity for the nation. Population growth, rising cost of land and housing has physically and financially outstripped the ability of governments and private industries to meet the shelter needs of the general population. The price of housing and land has risen faster than other expenses. Houses in the open market are often priced beyond the reach of most low-income people (Basu 1988; Berry et al. 2004).

Nowadays, when public investment in housing is at such low levels, planning for affordable housing becomes crucially important to secure affordable housing as part of new developments taking place in the private sector. The concept of affordability is complex, most often it refers to the proportion of income that a household must or is willing to spend on housing. Friedrichs (1988, p.35) defined that housing affordability is the ratio of a household's housing costs to its income. Three important factors are underlining the meaning of affordability, such as a household income, financing term available for purchasing a house, and the price of housing itself (Osipowicz 2003, p.57; Berry et al. 2004, p.38).

According Landaeta, (1994) affordable housing is used instead of terms like social housing that were commonly used in the past to refer to housing for the low income or poor people. Both terms are now controversial and are linked to ideological conceptions. In the first case it is very much linked to lowering standards as the only means to make housing affordable for the poor. In the second, low-income housing is often understood as charity. Low-income housing will be used for activities for and by people with low-incomes, thus the population that is often not reached by both the public and private formal housing sector. Moreover, the affordable housing can be defined as a type of housing adapted to the potential resources with specification satisfactory to habits and affordable by low-income as a target groups.

The World Bank (2004, p.28) writes 'despite the efforts of the governments and international organizations, more than one thousands million people have shelter unfit for habitation' and this situation will expand dramatically unless determined measures are taken immediately.

There also seems to be an agreement that annual requirement for new housing causes more pressure on the urban areas of developing countries. The World bank (2004, p.31) estimates that the number of households requiring new dwellings in the cities of developing world increase each year by 12-15 million.

Both the state and private sector beyond the reach of housing programs promote large majorities. The programs implemented for these groups are often isolated attempts with little impact on national policies for low-income housing (Landaeta 1994, p.97). In Latin America, these programs have always been far from reaching the poor, and have instead been a mean to ensure the growth and legitimating of groups in power.

This does not mean that there is consensus on the causes of the problem, nor the mechanism to address it more effectively, nor even what is an 'adequate housing solution'. Until now, it has been difficult for housing 'expert' to demonstrate that implemented solutions are appropriate, at least to stop the spiraling house shortage in developing countries. It is not easy to blame this situation on a lack of knowledge of the problem or to the lack of interest in facing it. The seminars, conferences, publications and concrete actions on the international, national and local levels demonstrate that this issue has been often discussed in recent decades.

In developed countries, problem such as rapid urbanization, squatter areas, and high deficit and deficiencies of housing and services are not unknown. When the industrial revolution signaled a new stage in the development of production, the government in Europe had difficulties in providing houses and services for migrant people. Even today, no country can claim that it has succeeded in solving satisfactorily the housing situation of its whole population; considering not only quantity and quality, but also the cost to families of housing and services such as drinking water, electricity, and sewage. Estimates of the homeless in USA vary among 250,000 to 3,000,000 people today. The number of persons without an own place to live has increased in Sweden in the last years, in spite of all subsidies to production and consumption of dwellings, and the high number of houses and flats that are unoccupied.

The housing crisis of low-income sectors is not isolated from economic, political, and social crisis that affected all countries. Factors such as rural-urban migration, population growth, increased poverty, the high cost of urban land and housing, and the absence of appropriate policies to meet the housing needs of the poor, can be identified as central for worsening of the housing situation.

### **3.3.2. Indicators of Housing Affordability**

How to measure affordability? ANCPA (1993) and Berry et al. (2004, p.57) noted that one simple and appealing way to measure affordability is to calculate rent-to-income and

house value-to-income ratios. These ratios give a good measure of how much people are willing to spend on housing.

A preliminary evaluation of household affordability for housing can be conducted through using several indicators (ANHS 1991) such as: (1) house price to income ratio, (2) rent to income ratio, (3) house price appreciation, and (4) down-market penetration. Those indicators are designed to identify whether housing market able to functioned well by measure two keys aspects of housing market such as: (1) housing expenditure and (2) house values.

House price to income ratio defined as the ratio of the median free-market price of a dwelling unit and the median annual household income. The median priced should be calculated for the total stock, not only for new housing. The price should also be calculated for all housing units, i.e. both owner-occupied and rental units. In much of the research done on housing markets in developing countries, it has been found that median incomes are generally about 70 percent of the average. While rent to income ration indicator is the ratio of the median annual rent of a dwelling unit and the median household income of renters.

House price appreciation indicator is defined as the annual rate of change of house prices measured as an annual average of the percentage increase in house prices over the five-year period. For this indicator there are not expected to be large differences between medians and means so means can be used. If data on average house prices are not readily available, then two suggested possibilities are to use changes in new house prices or to rely on estimates of professional values as alternatives. While, down-Market Penetration indicator is the ratio of the lowest-priced (unsubsidized) formal dwelling unit produced by the private sector in significant quantities (not less than 2% of annual housing production) and the median annual household income. This indicator measures the degree to which the formal construction sector is penetrating down-market to provide affordable housing for low-income families. The lower the value for this indicator, the more affordable formal housing is to lower income households. The formula of down-market penetration indicator is  $A/B$ , which A is price of lowest-priced formal sector dwelling unit and B is median annual household income.

Four indicators as mentioned above are strong indicators that quantify in a single measure a wide range of supply and demand distortion. In a well-functioning housing market, housing expenditure should not take an undue portion of household income and house values should be fairly stable over time. If these conditions are not hold, it is an indication of an underlying problem, which is restricting affordability or causing instability in the supply of housing (Berry et al. 2004; CLG 2006, p.79)

### 3.3.3 Development Regulation of Affordable Housing Production

According Barlow and Chambers (1992, p.99) revealed that, there are three broad classes of regulations have significant and distinctive effects on residential development and the production of affordable housing, such as: restricting development, imposing impact fees and requiring costly review processes with uncertain outcomes.

Firstly, restricting development of otherwise suitable land causes the price of developable land to rise. Extensive restrictions, combined with a surge in housing demand, lead to speculative excesses in the land market. The consequences include smaller building lots, higher home prices, and less housing production. Of course, in a slack market, the restrictions are not binding. Secondly, imposing impact fees that differ by jurisdiction redirects development to low-fee jurisdictions, but competition between jurisdictions tends to even out their fees. Developers sometimes must eat fees imposed after they have purchased a site, but the burden of impact fees is usually divided between homebuyers and the sellers of developable land. The consequence is higher home prices and less production, especially for the low end of the market. Thirdly, requiring costly review processes with uncertain outcomes has an effect similar to that of impact fees, but with greater variability in individual cases. Costs are divided among homebuyers, developers, and land-sellers, with the developer as the mediating risk-taker. The perceived costs of delay depend not only on the elapsed time, but also on the market conditions.

### 3.3.4. Prerequisites for an Effective Housing Policy

The prerequisites for an effective housing policy are an efficient housing market and an efficient land market. A variety conditions need to be fulfilled before a housing market can operate successfully: *“an adequate housing market and private sector are not a spontaneous occurrence, but depend upon a number of factors, some of which require at least some government intervention”* (UNCHS 1976, 2009). These factors include:

1. A system of land tenure and property rights for the efficient exchange of land and dwellings;
2. A financial/capital market in which there is investor and consumer confidence;
3. A contractual basis for the relationships between the various parties;
4. An adequate supply of skilled labor for the building and modernization industry;
5. An efficient building industry;
6. A supply of building materials, machinery and tools;
7. A good distribution of information on all aspects of the housing sector;
8. Regulations that control the physical condition of buildings from a health and safety point of view;
9. A land flow system which facilitates access to land at low prices; and
10. The involvement of tenants (sometimes)

Government who has role as “enabler” is often facing a capacity problem, where they unable to achieve its performance goals even though it has access to the necessary financial resources. Capacity is understood as an enabling factor. It is the effective existence, at the local level, of the tools that make possible for the local government to perform successfully. Those tools are labor, capital and technology.

A key dimension of local government capacity is the quality of its staff, which we view as a function of their skills and knowledge as well as of the way such skills are utilised within the local bureaucracy structure, to which we will refer as staff professionalization. It is the combination of skills and professionalization that determine staff quality. While in many cases inadequate or insufficient skill can explain weak capacity, in others the limiting factor is their ineffective use. Thus, civil service issues, personnel policies, reward systems are important factors to consider in any analysis of local capacity.

Conventionally, staff quality tends to associate with capacity for production efficiency for example; better “technicians” make the local government more capable to expand service provision. But, this dimension of local capacity could be important for the achievement of allocation efficiency, which might require specific skills and different motivations for public sector employee.

Most public sector activities require the use of capital in addition to labour. High quality labour could become ineffective when they have no access to the necessary equipment. Labour should be seen as the “human dimension” of local capacity, capital can be regarded as the “physical dimension”.

The third dimension of local capacity consists of the government’s internal organisation and management style. This dimension includes aspects related to structure and distribution of functions and responsibilities within the organisation, management, planning, decision-making and control and evaluation functions, and information gathering, processing and distribution. Along these dimensions, local government capacity for production efficiency is expressed in the existence of an organisation in which responsibilities are matched with implementing bodies, tasks and output are clearly defined, management techniques are effective, and information flows are needed.

According Fiszbein (1992) and Blauw (1994) revealed that capacity for allocate efficiency is manifested in the presence of a customer-oriented government. It involves the existence and adequate functioning of mechanism through which the community can voice demands, channels by which authorities can translate those demands into action and instruments for government accountability. The presumption is that failure in any of these elements would diminish the capacity to achieve the allocation of public resources that maximises welfare.

### **3.3.5. Demand and Supply Side of Affordable Housing Provision**

Housing outcomes, including prices, physical conditions, levels of investment, tenure choice, and residential mobility, are determined by the interplay of supply and demand forces, each of which is affected by housing policies (Keivani and Werna 2001; Blake and Golland 2004).

Demographic conditions are the main determination of housing demand, for example the rate of urbanization, the growth of natural population and macro-economic conditions that affect household incomes. Housing demand is also influenced by property rights, by the availability of housing finance, and by government fiscal policies, such as taxation and subsidies, particularly subsidies targeted to the poor.

On the other side, housing supply is affected by the availability of resources such as residential land, infrastructure, and construction material. Moreover, supply side is also influenced by the organization of the construction industry, the availability of skilled and productive construction labor and the degree of dependence on imports.

The quality and quantity of housing in urban areas are an important aspect of the urban problem. To improve the housing supply, policy makers must take into account in greater detail the behavior of market demand and the cost of providing housing. The demand for housing reflects willingness to pay for a set of housing services. It is important to measure adequately the demand for housing in the context of the growth of cities, income expansion and changes in relative prices.

Nothing influences the efficiency and responsiveness of housing supply more than the legal and regulatory framework within which housing suppliers operate. A wide range of regulations dealing with building codes, infrastructure standards, and land use influence all housing markets. Both the demand and supply sides of housing are affected by regulatory, institutional and policy condition (Hayashi 2002; Blake and Golland 2004).

Policies that affect the performance of the housing sector as a whole tend to affect the housing conditions of the poor in a more pronounced fashion. In broad terms, when housing policies are designed to enable housing markets to function well, limited resources are effectively translated into housing improvements. When markets are not functioning well, access to good-quality, affordable housing and infrastructure will be in short supply, with the inevitable result that better-off households will capture most of the benefits of housing and infrastructure improvements (Urban Land Institute. 1991; Keivani and Werna 2001; Brown and Badanes 2004).

### **3.3.6. Approach in Affordable Housing Development**

The World Bank and the United Nations are the two international agencies with most influence on the definition of housing strategies in developing countries. Their guidelines have gone through change in the last decades and they have clearly been linked to international development strategies accepted by government all over the world.

The main objectives can be inferred from the World Bank's new approaches:

1. The housing sector must function as an effective and profitable economic sector;
2. Private sector might assume the main responsibility in shelter supply;
3. Public sector has to limit its role to managing the housing sector;
4. Investment should be put in large infrastructure projects (water supply, sanitation and urban transport); and
5. To develop the building materials industry.

This part articulates the housing policy of the World Bank more in depth. The Bank advocates the reform of government policies, institutions and regulations to enable the housing market to work more efficiently and move away from limited, project-based support of public agencies engaged in the production and financing of housing.

Changes in housing policies of the World Bank are explained by its experience working on housing with developing countries during the last twenty years. The Bank considers that in the past its intervention was 'too narrow', and therefore it should now play an expanded role in enabling housing markets to work more efficiently.

According to World bank (1996, 2008) there are seven instruments to enable the housing market to work efficiently:

1. Developing property right: ensuring that rights to own and freely exchange housing are established by law and enforced, and administering programs of land and house registration and regularization of insecure tenure;
2. Developing mortgage finance: creating healthy and competitive mortgage lending institution, and fostering innovative arrangement for providing access to housing finance by the poor;
3. Rationalizing subsidy: ensuring that subsidy programs are of an appropriate and affordable scale, well-targeted, measurable and transparent;
4. Providing infrastructure for residential land development (roads, drainage, water and sewage);
5. Regulating land and housing development;
6. Organizing the building industry;
7. Developing institutional framework for managing the housing sector: bringing together all the major public agencies, private sector, NGOs and CBOs.

The World Bank (1999) suggested that (a) the provision of infrastructure, (b) the involvement of private sector and (c) rationalizing subsidy in housing production all have a bearing on the production of housing. These instruments affect the quantity of the housing available to meet the needs of final consumers of housing services, and the prices and hence the affordability, equity and production of informal housing, which accommodates most of the population in developing countries.

Moreover, the critical importance of housing has been highlighted in the second UNCHS (Habitat II), held in Istanbul where various nations of world gathered together to discuss shelter and human settlement issues under the broad themes of Adequate Shelter for All and Sustainable Settlements in Urbanizing World.

The goal of adequate shelter for all by year 2000, is stated to mean more than a roof over one's head, it means adequate privacy, adequate space and security, adequate lighting and ventilation, adequate infrastructure and location in regard to work and basic facilities at a reasonable cost (UNCHS 2001, 2007).

To operate this goal, government must assume an enabler or facilitator role in the provision of low cost housing. This means that government has to create the environment whereby laws, institutions and policies are developed such that both the users and the builders can obtain the necessary resources, which they would need in terms of land, infrastructure, materials and finance. The enabling approach hinges on the following role of government:

1. An institutional structure to maintains basic structure and services which is responsive to local needs and priorities
2. A regulatory and incentive structure to encourage more sustainable levels of resources use
3. The enabling environment to support and encourage the initiatives of individuals and community organizations to improving housing and living conditions.

This does not mean that government shuns away from its responsibility, but rather, what is required is a relocation of public activities and human, physical and financial resources.

### **3.3.7. Guidelines of Affordable Housing Provision**

#### **a. Guidelines in Assessing Housing Projects**

Many factors can influence the ability of projects to meet the needs of the poor. These factors provide a basis for development of future projects, though the importance of each will, of course, vary with local conditions. To assist in the preparation and assessment of project proposals, it is recommended that specific objectives be prepared

that indicate the scope and nature of the projects and the means whereby it is intended that the objective will be attained.

The following points are offered as guidelines that should be included in all project proposals:

1. The aspects of policy that the project is intended to demonstrate or test;
2. The elements that distinguish the projects from previous projects addressing the needs of the poor;
3. The intended impact of the projects on land and housing markets;
4. The degree to which the projects is intended to be self-financing or dependent upon direct or indirect subsidies;
5. The cost of entry to the projects compared with other options for residents to use housing as means of income generation;
6. The option of residents to participate actively in the planning, implementation and management of the project;
7. The adequacy and flexibility of administrative structure;
8. The methods for monitoring and evaluating the projects and indicating the extent to which the objectives have been fulfilled, so that lessons learnt can be incorporated into future projects.

#### **b. Role of Projects in National Policy Context**

The shortage of independent evaluations of projects, in terms of internal objectives as well as their impact on wider policy issues, makes it difficult to identify future roles for the project approach with confidence. More effort is needed to learn from experience gained so far, and greater willingness is equally necessary to accept and act upon such evaluations. In general, there are at present too few incentives for public sector personnel in developing countries to learn from previous experience and to rectify the limitations of previous projects when preparing new ones (Habitat and Cooperation 1998, 2005)

Despite these difficulties, it is clear that projects can fulfill several roles in promoting the formation and implementation of national shelter policies and their ability to help the poor. Some of these roles are outlined below.

1. One of the most important roles is the possibility to provide the basis for relationships between the public and private sectors, NGOs and Community groups. This will require a transformation from traditional administrative practices, towards innovative, flexible and demand-driven managerial approaches. Although such a change will take several years to complete, projects can provide the necessary practical experience and feedback.

2. Secondly, and to assist the development of the above process, it will be necessary to establish an effective monitoring and evaluation component all projects, so that from lesson learned are incorporated into mainstream practices and sectoral policies as appropriate.
3. A third role can consist of experiments in the acceptability of revised standards, norms, regulations and procedures developers and NGOs. Current standards and procedures, based upon ideals rather than realities, have in general been demonstrated to be counter-productive, since the force households that are unable to conform to pursue the much unauthorized options they are intended to prevent. One way of achieving this objective would be to distinguish between initial and long-term standards, so that the traditional process of incremental development can flourish openly. Another would be to relax selected regulations that do not have a direct bearing on the public aspects of development, such as floor area ratios. Yet another could be to formulate separate standards for low-income areas, changes based upon performance specifications, rather than prescribed solutions, would enable a range of innovative technologies and materials to gain wider acceptance.
4. A fourth role would be to link low cost housing projects more effectively with economic development programmers, so that they could contribute to, and benefit from, the evolution of multi-nucleated urban centers, offering a range of employment prospects in areas of intended growth.
5. Fifthly, it will be necessary to use projects as a means of providing feedback for development of policies, rather than merely the means of implementation them. To this end, the terms of reference for low cost housing projects should be based upon assessments of total needs and resources in the sector.
6. Finally, projects should concentrate on providing those elements of housing that residents cannot provide or organize for themselves, such as affordable land, infrastructure and public services.

### **3.4. Modes and Barrier in Affordable Housing Provision: Mechanism Constraints in Supply Side**

As Keivani and Werna (2001) noticed that the provision of affordable housing has been largely dominated by public and private developers through formal and informal affordable housing projects. The various modes of formal affordable housing provision projects prevalent generally in Asian countries comprise four types: (1) public housing, (2) private housing, (3) co-operative housing and (4) public and private partnership housing. While the informal affordable housing projects also consist of four types: (1) squatter settlements upgrading, (2) informal land subdivision housing, (3) informal rental housing, and (4) self-built housing on land rented.

Brown, David, and Badanes (2004) mentioned that some aspects shaped major constraints to the efficiency of housing development in developing countries to being more affordable and better quality of housing product such as lack of institutional capacities both human and material capital, complex social, political, cultural and economic interactions between various providers and lack of mechanisms of housing provision.

To provide the housing project that is able to afford by low income people is not came off the barriers. According to Keivani, and Werna (2001), some indicators as barriers of developers in providing better quality and culturally acceptable of affordable housing projects as follows:

1. *Cost and expenditure*, it will reflect to the selling price of house. The high price of house will reflect better culture appropriateness, quality and the completeness of housing, infrastructure and facilities available. Because these cost will calculated in the selling prices of house. Less house prices could influence less quality of projects. To measure the relation house prices to quality of projects would be measured by the spending in labor cost, land prices, building material cost, infrastructure and facilities cost, development permit and planning fees, marketing fees, government taxes and other cost. Obviously, these cost influence to the house prices more than 15% of total development cost. The permit fee that is written in standards and permission regulation is low; however, the developers often have to pay more as extra cost for the permits. The ability of developers to adjust the ceiling prices of house will influence to the quality of projects. The higher selling prices of house than the ceiling prices will lead better quality of projects in those areas.
2. *Government support* such as: incentives, subsidies, soft loan and other support from government could determine the quality of projects. The support could be infrastructures provision and facilities, subsidy programs for customers, the ease of obtaining the funding source and administration process like permission and land acquisition process. Logically, the sufficiency of incentives for developers will tend to provide better quality of projects than inadequate of it.
3. *Capability of human resources*, the capability of developers, in particular human resources will influence to the quality of projects. Although this factor determines indirectly to the quality of projects, however, the prudence of developers with the adequacy of professional human resources will provide better quality of projects in those areas. This will include the training skill and knowledge of staff, working management and involvement of local partner as well.
4. *Culture value implementation*, the building standards and regulations, which are issued by Public works department, are ideals rather than realities sometimes viewed as being cumbersome. These are related to the local government role in

controlling and monitoring the projects. The enforcement of these rules will determine the quality of housing projects. It could be measured through the presence of institutions to be responsible to evaluate the project proposals and supervise their implementation. Moreover, the corporation among the controller institution to verify the projects in those areas will lead better quality of projects. Otherwise, less enforcement of these rules will create low level the quality of projects.

5. *Dwellers involvement*, the involvement of household, as customers are the most important factors to determine the quality and cultural appropriateness of projects. It means that whether the residents as means to participate actively in pre-construction (planning and design stage), construction and ongoing-maintenance stage of the project, in particular in construction phase of projects, or not. The adequacy of power and efforts undertaken by household in projects will provide better the quality of housing projects.

### **3.5. Human Behavior and Perception in Relation to Residential: Cultural Perspectives**

Human behavior has been defined as physical and psychological activities associated with motorist activities as well as sensory processes (Traindis 1994; Tangney 2007). The behavior of individuals needs to be studied in relation to cultural provision and activities. It is also important to be aware of societies who share a common habitat which influences their individual behavior. Cultural, social, physical, as well as geographical environments are responsible for the process of moulding behavior. Physical built environments also have a strong behavioral relation. Spatial housing conditions influence inhabitants' behavior in their daily life (Wyer 1965; Tangney 2007).

The way individuals behave depends on their perception of the environment. Individual perception is not simple as the sensation process, but it contains cognitive, effective, interpretative and evaluative components, which all occur at the same time. Some factors that are identified as playing a role in molding and influencing a person's perception concern individual values of needs, past experience (culture norms and value, including daily behavior and habits), personality, age, religion and ethnicity (Kecmanovic 1969; Traindis 1994).

Within the scope of individual perceptions of space, the concepts of personal value and space, privacy, territoriality, crowding and density are discussed. Cultural personal value has been frequently forgotten in designing space for homes, especially housing provision project.

Culture highly affects human behavior. The beliefs of certain cultures are taught to children from such a young age that they are greatly affected as they grow up. These beliefs are taken into consideration throughout daily life, which leads to people from different cultures acting differently. These differences are able to alter the way different cultures and areas of the world interact and act (Traindis 1994).

Moreover, Traindis (1994) and Tangney (2007) noted that the social dimension of a residential development should be able to provide opportunities for humans to meet their needs and desires. The social environment for the housing development has been defined broadly to include all factors, other than physical quality of the dwelling unit itself, which directly affects the level of dwellers satisfaction. The quality of the neighborhood is considerably important concerning firstly, physical safety, this refers to security in the face of natural or man-made hazards. Secondly, it concern health risks related to atmospheric, water or soil pollution and quality of physical setting preventing from illness for the young to elderly. Thirdly, neighborhoods should be within accepted noise levels and support privacy. Lastly, security must be guaranteed with an appropriate culture value and criminality.

Human perceptions are a determining factor of human attitudes, which lead to human behavior. A need to cope with physical environment is initiated upon the perception of the environment by an individual. In this situation where perceptions are negative, this will be followed by stress and an effort to cope with the environment.

### **3.6. Community Engagement in Housing Provision: Housing as Verb in Collaborative Planning and Deliberative Approach**

#### **3.6.1. Collaborative Planning in Housing Provision**

This part will introduce the collaborative planning model (Healey 1997, p. 218) as a practical framework for community participatory in housing provision. Community participatory is a principle of social governing and indicates a desirable state on the side of social structure, and collaborative planning is an active and advisable action strategy on the side of social change. Collaborative planning is focused on changing a society, in so far as participatory governance is on interpreting one. Just as knowledge and action are complementary, participatory governance, and collaborative planning are the interdependent concepts, and approaches.

"Local environmental planning is therefore quite clearly a part of governance, and a particular style of policy-driven governance. Clearly, also, the introduction of planning processes into governance has the capacity to challenge the forms of governance, the

distribution of power within government agencies, and the power relations of governance activity” (Healey 1997, pp. 218-219).

According to collaborative planning, the aim of planning in housing provision is to construct the institutional capacity, the main actors are inclusive stakeholders, and the process is social learning through communication, and discussion (Healey 1997, 2006; Carson L. 2006). The planner is an important actor who empowers, steers, promotes, and sometimes initiates a planning process rather than a bureaucratic engineer. Institutional capacity means an institutional framework, and trust for promoting collaborative, and comprehensive consensus building. It is the normative and functional argument that the main actors of the planning are inclusive stakeholders because not only directly related agents participate, but citizens who are affected indirectly have to participate in the main process of the policy. Finally, social learning process is the promoting process of mutual understanding and consensus through partnership, communication, and dialogue.

In this context, forums and approaches which promote dialogue and build consensus among the various stakeholders have become crucial. Such approaches include city development strategies, urban forums and city consultations. The key common features of these approaches are that they are based on an extensive and multi-stakeholder process of research, discussion, planning and implementation. Such dialogues can be initiated by national or local governments, as is often the case with city development strategies and city consultations. (UNESCAP 2008, p.27).

'Institutional capacity' as the aim of collaborative planning has three dimensions: knowledge resource, relational resource and its capacity for mobilization (Healey 2006) 'Knowledge resource' also has two aspects. One is concrete knowledge to be used in solving a given problem, and the other is for changing the setting itself of the problem. The knowledge resource includes not only technological and abstractive information, but also the type embedded in a practical context like experience and action process. 'Relational resource' means the construction of a social network in which knowledge and human resources are interwoven. Relational resource also has two dimensions: one is rather formal and tangible, and the other is rather informal and intangible. For example, something like trust among stakeholders or social groups is informal and intangible. 'Capacity for mobilization' is the ability to mobilize the resource of knowledge and relational resource, and it can develop well when knowledge resource is matured and relational resource is rich. It has, however, the adaptive and self-organizational capacity to reconstruct knowledge and relational resource. Collaborative planning in housing provision contributes to constructing institutional capacity through its effect on these three dimensions (Healey 1997, 2006; Innes 1994a, 1994b; Madanipour et al. 2001).

Agents of collaborative planning are not only immediate interest groups, but broader stakeholders including indirect ones, that are inclusive stakeholders. Under the circumstances in which various and broad interests are competing in public policy process, the new perspective that interests are not fixed is important to understand. If we regard interest as fixed, agents having different interests conflict with each other. Therefore, including various agents having diverse interests means increase of discords. If we regard interest as dynamic, however, individuals might not know the way to think about some problems, and can learn to think differently by discussion and learning. Then, citizens can make consensus through mutual learning prior to fixing their interests.

According to collaborative planning, the planning process is not a calculative one, but a communicative and learning one (Innes 1994, p. 284; Forester, J. 1999). The relationship between policy and action is rather a framing and enabling one. The collaborative planning process replaces the end-means sequences of the rational process model. These are the driving force of a broadly-based and coordinated transformation of knowledge and values into actions (Healey 1997: pp. 284-285). What planners do in collaborative planning is not the same as what technocrats do in rational comprehensive planning: that is to find out the optimal means to achieving a given goal (out of planning process) through rational calculation. The activities which technocrats do in rational planning are only a part of the whole planning process in a collaborative model, so it can be incorporated into the planner's tasks in collaborative planning, or be delivered to those of various experts who have different approaches.

In collaborative planning, more important tasks of the planner should be the role of a communication promoter and coordinator. The planner is the actor who should empower stakeholders and the new role of the planner is to promote interplay among various value arguments and to invent and apply an institutional frame through which social discussion is promoted, and conflicts are dissolved in a collaborative way (Innes and Judith 1994; Thomas 2000; Lizarralde, G. 2008),. In these respects, the power of planner is not decreased in that the new role of planner as a coordinator is enforced. This perspective corresponds with the changing roles of a state: from control to guiding, coordinating, empowering, and prompting cooperation. If a strong state is needed, it must be the strong state being concomitant with the change of institutions that capture the significance of these changing roles and their practical implication.

The potential of collaborative planning is that community or residents are able to take part in decision making and able to mobilized their resources such as labor or cash. It requires that the value of partnership and becoming synergy among stakeholders involved. Looking a cultural acceptance point of view in housing planning would be by

exploring the possibilities of involvement of the broader community in the development process relying on the principles of “collaborative planning” The concept of “*community buy-in*” has strengthened the social pillar of sustainability, which is often neglected in the pursuit of sustainable development. This community buy-in concept is tied to the collaborative planning principles (Healey 2006; Madanipour et al. 2001; Innes 1994).

In addition, the phrases “housing as a verb”, “housing as process”, and “housing as an activity” in housing development offers more room for collaboration in housing provision, when housing is seen not merely as a product, but as an extended process (Tunmer, 1976, pp. 77-101). By engaging the community in “housing as a process” and ensuring effective collaboration, the extended exposure, and involvement of the community will allow more expression of the community’s culture into shaping their housing. Therefore, it is assumed that the dwellers can express their cultural values which could shape the housing product. In short, the concept of ‘housing as a verb’ as defined by Turner (1976) can be applied in the framework of collaborative planning principles deliver affordable housing that is culturally appropriate.

### **3.6.2. Deliberative Approach in Community Engagement**

Delli Carpini MS, et al (2004, pp. 315-344) stated that community engagement is a process of community involvement in planning and development of policies and provision. Community engagement is an approach of promoting mutual decision making and democratic regeneration (Rogers B, Robinson E.2008). Community engagement can work at a variety of levels, ranging from simple information assembly exercises that involve listening to the community's perspective, through to more complex processes that are built around two-way conversations, deliberation, and collaborative decision making (Delli Carpini MS, et al 2004, pp.315-344; Gregory, J. 2008).

Consultation processes provide some opportunity for the community to contribute to the policy process, the community's input is limited, with no opportunity for two-way discussion, learning, and dialogue (Carson, L. 2001, pp. 7-22). There is increasing proof that the community can provide in a meaningful way to policy decisions, but that this requires an collaborative and deliberative approach (Parkinson J. 2004, pp. 377-395).

Deliberative Democracy Consortium (2003) noted that deliberation is an approach to decision-making in which people consider relevant facts from multiple points of view, talk with one another to consider significantly about options before them and broaden their perspectives, opinions, and understandings (see also Hartz-Karp J. 2004, 2005).

The deliberation is the solution to effective community engagement. The end result of effective deliberation is not only good governance, but also the chance to prompt members what it means to be a inhabitant (Dryzek, J. 2000; Weeks, E. C. 2000, pp.

360-372). Carson and Hartz-Karp (forthcoming) noted that the key elements of deliberative approach (deliberative democracy) as a process requires: (1) Influence - capacity to influence policy and decision making; (2) Inclusion - representative of population, inclusive of diverse viewpoints and values, equal opportunity to participate; and (3) Deliberation - open dialogue, access to information, space to understand and reframe issues, respect, movement toward consensus.

Carson and Hartz-Karp (2005, pp.120-138) asserted that deliberative processes can provide essential means for supporting communities, agencies, government to create the best possible decision and planning processes. Deliberative processes involve: (1) considering information and the development of manifold options; (2) empowering stakeholders to comprehend the perspectives of others through dialogue; and (3) picturing community futures, as opposed to simply infrastructure solutions (see also Dryzek, J. 2000).

In conclusion, by using deliberative techniques, key stakeholders can contribute to joint decision making and policy development. Deliberative approaches to engagement are illustrated by a process of reasoning, where participants are given an opportunity to reflect, discuss, question, and think. In context of affordable housing provision, it is important for key stakeholders to consider ways of effectively involving community in developing and implementing their policies. This incorporates decisions about the delivery of affordable housing provision, affordable housing finance, and broader systemic questions about model and mechanisms system. The key stakeholders can benefit from deliberation on finding opportunities for collaboration with community/dwellers to resolve issues of affordable housing provision, ideally leading to specific proposals or models that can be accepted by policy makers.

### **3.7. Summary**

This chapter described the theories of housing meaning and concept related to housing as process can be tied into the framework of collaborative planning principles deliver affordable housing that is culturally appropriate.

The house has many meanings and performs many functions in any society. Starting from the basic form of shelter, the house has numerous functional values in addition to economic value. In some cultures the house attains additional social and symbolic values as well. In short, housing is a cultural product and needs to be seen and understood in its cultural context before effective policies for housing provision could be established.

The concept of affordability is complex, most often it refers to the proportion of income that a household must or is willing to spend on housing. Housing affordability is the ratio

of a household's housing costs to its income. Three important factors are underlining the meaning of affordability, such as a household income, financing term available for purchasing a house, and the price of housing itself.

People who are poor have no power as individuals in housing provision and planning. Only when they link together into community organizations, and into larger city-wide and country-wide networks. To create housing provision close to the poor and culturally acceptable is through exploring the possibilities of engagement power of communities in the development process with the concept of 'collaborative planning' (Healy 1997, 2006), 'community buy-in' (Healy 1997, 2006 and Innes 1994) and 'housing as process' (Tunmer 1997). When organized together into strong community-based organizations and the poor have power to collaborate, engage and deliberate in housing provision, then the poor can very efficiently and effectively improve their housing and settlements, in ways that ensure the quality and cultural appropriateness of housing provision.

## **Chapter 4**

### **RESEARCH SETTING OF BALI, INDONESIA**

This chapter firstly deals with affordable housing provision in Indonesia then it focuses on Housing Provision in Bali especially in Sarbagita Metropolitan. It explores the housing policy, housing finance, norms standards, regulation and meaning of Balinese house related to concept, culture, tourism development and globalization.

#### **4.1. Housing Provision in Bali, Indonesia**

Poor urban housing conditions are a global problem; however, conditions are worst in developing countries. As a developing country, Indonesia also faces a housing problem, which is fully evident in metropolitan regions and the big cities, underscoring the need to address its problems of housing and urban surroundings.

The trends in housing policies since the pre-independence period describe efforts made by the government to provide homes for Indonesian people. The housing policies during later years were genuinely developed from those implemented by the Colonial Government of Dutch Indies. The housing development and improvement programs, the housing development company, government bank, domestic health standards and designs adapted to the local climate were all introduced prior to independence.

Housing development policies were further developed and improved in response to the issue of housing needs – one of which was to generate a healthy environment for new housing developments. Kampoeng Improvement Program (KIP) and the Community-Based Housing Development Program (CoBILD) were two programs dedicated to promoting quality healthy conditions and setting up Kampung Services to generate economic activities for the Indonesian people. These programs have been in place for a long time, even before the independence period (prior 1945). These programs were further improved and strengthened during the New Order Period (1969-2998) and were successfully implemented in terms of physical improvement. At the same time, however, they failed in social and economic dimensions. These limitations were due to a lack of funds available for skills training and the difficulties for target groups in attending training sessions on how to live in vertical housing. The limited experience of the occupants and inability to absorb the training program were found to be reason for failure in their social and economic dimension of life.

Other than slum-upgrading activities like KIP and CoBILD, integrated city housing development was also introduced in 1974. This program was for the provision of infrastructure, sanitation and public facilities. Later a new housing policy for mass

housing developments was introduced in 1979 (as part of third five-year development plan) and aimed to provide population distribution equity in all areas in the country. The mass housing development in urban areas faced the issue of land constraints which was further developed into the concept of vertically-built low-income housing for high-density areas and introduced in 1979 under the New Order Government.

Mass housing development, both vertical and horizontal-built houses, adopted the concept of affordability, exemplified by the housing policy over the location for the housing of low-income earners as with the centre of city where transportation costs would be less. The government decided that the development of vertical housing was the only way to control urban spatial development. A broader concept of affordability was employed in conjunction with feasibility, health, security and environment friendliness. The affordability concept was also applied to housing design policy, in which small housing units with 36 sqm were adopted for 70% of the entire housing development targeted by the government (Kemenpera 1994).

A concept of integrated housing development also brought into being ideal population distribution, appropriate land use, the creation do more job opportunities, environmental acceptability (including health), social facilities and local amenities, the use of cheap local building material and adaptable housing design with the local area (Kemenpera 1994). In 1989, The UNCHS emphasized the importance of health standards with regard to housing (shelter, health and family), suggesting that such questions were even more important for low-income societies. The continuous KIP was one response to this. Key to this were three requirements which consisted physical issues (infrastructure, water, drainage, facilities, disposal treatments, etc.), biological issues (free from insects) and social conditions (healthy life behavior) (Kemenpera 1994).

Several housing institution were established in order to implement these housing development programs. The Perum Perumans as a state housing company, the National Savings Bank (BTN) as the government's National Mortgage Bank, and other financial and no financial supporting institutions were established and responsible for providing a range of homes. The participations of the private sector were also significant in providing homes. Perum Perumnas, together with the private developers, successfully provided homes until the monetary crisis hit the country in 1996. Government targets for providing homes were met throughout the New Order period.

However, many design problems also exist in mass housing development. Many existing houses are not suitable for physical occupation. Minimum standards for housing space are implemented, but only in response to meeting housing demands, with ignoring other aspects. Spatial housing standards, namely floor space requirements,

were gradually reduced over the years and as a result the psychological, social and culture needs of occupants became neglected.

Policy makers have not been able to identify these requirements, leading to the failure to priorities the needs for desirable housing and social provision. As a result of these deficiencies, the physical conditions require occupants to adapt and cope with whatever space is available to them. This becomes a failure of architecture, as the rooms do not function in the way conceptually envisioned by the architects. Apart from this, the physical appearance of housing built by Perumnas is unattractive and little building maintenance has been undertaken. The main point here is clearly financial, both on the part of the government to build the low cost building and that of the occupants who have limited ability to pay for building maintenance.

All issues above need to be addressed. Housing programs seem more effective when they take into account the different roles and need of their targeted beneficiaries. Housing schemes are more likely to succeed when they take into account the economic, social and cultural roles of residents.

#### **4.1.1. National Housing Policies**

The housing policy or program in Indonesia started in mid-1960 which is reflected into National Development Program (Silas 1987) (please refer to Appendices A.3 to A.9 for details on the Five Year Plans).

##### **a. Five Year Development Plan/Repelita I (1969-1974)**

In the term, housing construction was regarded as a dominant part of the population welfare program. The aim of the program was to provide housing in an environment that met the minimal socio-economic and health standards. For the first time, housing policy was formulated and implemented within the Repelita. Responsibility was given to the Department of Public Works, working closely with respective local governments and local universities. In 1969 the local government of Jakarta and Surabaya improved their low-income housing (Kampung Improvement Programme) using local resources. These first attempts were convincing success stories. Simultaneously KIP was then prepared as another full-scale National Housing Program.

##### **b. Five Year Development Plan/Repelita II (1974-1979)**

In this Repelita emphasis was put on the study of building materials, the development of the construction industry and the development at an effective and efficient financial system. Housing supply should be increased in order to reduce the housing shortage. People should take the main responsibility of supplying new houses. The public sector should support the efforts of the people. The efforts of the public sector should mainly benefit low-income groups through land supply and KIP as part of urban renewal. Other support should also be encouraged, such as urban infrastructure and services,

mortgage banks, and co-operatives. The production of less expensive building materials should be increase, including the formulation of production standards.

In 1974 three important housing institutions were established: PERUMNAS, BKPN (National Housing Policy Formulation Board) and KPR-BTN (Housing Ownership Credit provided by the National Savings Bank). In 1976 an effective housing program was implemented producing low-income housing and KIP. Also, private housing developers and real estate developers started to build middle and high income housing for private ownership sale only. Perumnas was mainly concerned with the construction of low-income housing of different types and size. Towards the end of the Repelita, 73,000 units of low-income housing had been built. Private housing developers were invited to construct low-income housing with the support of housing ownership loans from BTN. Private housing developers built only a few thousand units.

c. Five Year Development Plan/Repelita III (1979-1984)

It is important to note that during the latter half of this Repelita, the world experienced a sharp decrease in oil prices. This had a significant impact on development funds to carry out the policies and programs in this Repelita. The capacity of the low-income groups to build their own houses is still limited, especially in the Kampung. Shortage of land is one of the reasons for this. It was estimated that within the period 1974-1984, the capacity to build their own houses was approximately 60 per cent. The remaining 40 per cent needed support to increase their existing potential through housing loans or other means. About 20 per cent of the total population lived in urban areas. The majority of them were low-income people. They lived in Kampung where the general environmental conditions were sub-standard and where population densities were very high. KIP should be increased to include medium and small-sized cities and towns.

Housing construction by PERUMNAS should be implemented in wider area to include all provincial capital cities. There are 27 provinces throughout Indonesia. Within this Repelita period, PERUMNAS built 120,000 low-income houses. Additional 30,000 units of low-income housing were expected to be built by private developers and this will be supported by a home-ownership loan program from the National Savings Bank. In the third Repelita, KIP was intensively carried out in no less than 200 small and medium cities and towns. It was jointly implemented by local and provincial government officers. Financially, about ten cities were supported by loans from IBRD, ADB, and the Dutch Government.

d. Five Year Development Plan/Repelita IV (1984-1989)

In this time, the shortage of urban land for housing has been strongly felt, especially in the field of public housing provision and the provision of the housing by the people themselves. Compared to previous Repelita, in this Repelita, housing policy has taken three different courses. First, it comprised policy to improve existing housing condition in

order to reach the desired standard level. Second, the aim of the housing policy is to improve the general housing conditions, especially in urban areas, by introducing standardized low-income housing. The third course intends to improve the performance of housing programs through research, development and dissemination of information.

In general, in this Repelita the scale of public programmes in housing construction has decreased. The private sector is expected to build more than before, still with assistance from home-ownership loans. Also, the size of the houses should be reduced compared to the previous Repelita. The final target of the Repelita is 140,000 units to be built by the public sector and 160,000 units by the private sector. This does not include medium and large-sized houses supplied to the free market, which has reached its saturation point.

e. Five Year Development Plan/Repelita V (1989-1994)

It was realized that the urban housing policies adopted in the past were not able to significantly address urban housing problems. The number of houses provided has not been able to satisfy the increasing needs. On the other hand PERUMNAS and Private developers found themselves with a considerable number of unsold houses, as the supposedly low-income housing they produced was still too expensive for low-income groups (Yudohusodo and Salam, 1991).

f. Five Year Development Plan/Repelita VI (1994-1999)

The Second Long-Term Development Plan (25 Year Plan), which has been started in (1994-1999), stressed that the urban housing policy consist of (a) preparation of large-scale housing areas ready for building (KASIBA), (b) preparing of 500,000 units of low-income housing (RSS/RS), (d) strengthening urban housing finance (mortgage). State intervention in the field of housing, which started explicitly in 1975, is still continued in Repelita VI. This includes a mortgage programme of the BTN (National Saving Bank), as well as the foundation of a State Housing and Urban Development Corporation (PERUMNAS). Main elements in this policy were: promoting home-ownership of houses built by commercial real-estate developers, provision of mortgages at subsidised interest rates, PERUMNAS acting as a spearhead in urban development with the idea of PERUMNAS being a fellow player within the emerging real-estate sector.

The target that should be achieved in Repelita VI is the development of 500,000 units of low-income housing. PERUMNAS is expected to supply 250,000 units (50%). A private developer ((REI) is expected to build 200,000 units (40%) and Co-operatives will build 50,000 units (10%). It is necessary to notice that Real Estate Indonesia (REI) has committed to be involved in low-income housing development projects in Indonesia. Good communication and strong inter-dependency between government and private sector has achieved a massive housing production in Indonesia in particular in big cities and metropolitan cities.

In order to realize the target, the Department of Public Works, has established a programme, the so-called basic infrastructure provision for low-income housing and a very simple housing standard (RSS/Rumah Sangat Sederhana) and a simple housing standard (RS/Rumah Sederhana) since 1994/1995. The aim of the programme is to improve the quality of physical conditions, to enhance equity for low-income groups, and to decrease the price per unit of low-income housing. This programme is considered to be conceived as a programme to realise affordable housing for low-income groups.

In addition, development of housing policies in Indonesia cannot be separated from international housing circumstances and developments. Housing policies in Indonesia do seem to correspond with international trends. The role of the World Bank, IMF and ADB in providing loans, either for new housing construction, housing or settlement upgrading, is very important.

**Table 4.1.** The Relationship between National Housing Policy and the Role of the World Bank in Housing Development

Period	Housing Policies	The role of the World Bank in housing development
1945-1969 Post-colonial government	Established housing institutions and regulations (preparation and consolidation period)	Unknown
1969-1979 (1970s) New-Era Modernization	<ul style="list-style-type: none"> <li>Housing bodies were established</li> <li>Direct housing provision for low-income people (subsidized)</li> <li>Settlement upgrading (KIP) in urban and rural areas to encourage people to improve their housing conditions</li> <li>Resettlement programmes</li> </ul>	<p><b>Objectives:</b> implementation of <i>affordable</i> land and housing projects for the poor; achieve cost recovery; create conditions for <i>replicability</i> of projects</p> <p><b>The role of government:</b> emphasis on <i>direct provision</i> by government of land, housing, and finance to facilitate progressive development of housing conditions</p> <p><b>Policies and lending instruments:</b> site-and-services demonstration projects <i>emphasizing affordable housing and infrastructure standards; tenure security, and internal cross-subsidy</i></p>
1979-1989 (1980s)	<ul style="list-style-type: none"> <li>Involvement of private sector in housing provision for middle- and upper-income people</li> <li>Housing Ministry was established to sort out growing housing shortage</li> </ul>	<p><b>Objectives:</b> create <i>self-supporting</i> financial intermediaries capable of making long-term mortgage loans to low- and moderate-income households; <i>reduce and restructure housing subsidies</i></p> <p><b>The role of government:</b> emphasis on <i>provision of housing finance</i>, mainly by public institutions; <i>rationalization of housing subsidies</i></p> <p><b>Policies and lending instruments:</b> interest rate reform; subsidy design and improved institutional financial performance of government agencies involved in direct provision of land, infrastructure and housing.</p>
1989-1998 (1990s)	<ul style="list-style-type: none"> <li>Adoption of IYSH and GSS 2000 Shifting government's role from provider to enabler</li> <li>It was realized that housing is an important part of the macro-economics of the country</li> <li>Community-based programmes</li> </ul>	<p><b>Objectives:</b> create a <i>well-functioning housing sector</i> as a whole to enhance economic development, alleviate poverty, and support a sustainable environment</p> <p><b>The role of government:</b> adoption of an <i>enabling role</i> to facilitate provision of land and housing by the private sector; improved coordination of sector and macro-economic policy.</p> <p><b>Policies and lending instruments:</b> <i>integrated array</i> of policy and lending instruments to <i>stimulate demand; facilitate supply and manage the housing sector as a whole.</i></p>
1998-2002 Post Soeharto era	<ul style="list-style-type: none"> <li>Rationalize subsidies (in general policies)</li> <li>Major role of the private sectors</li> </ul>	Tightening of foreign debt for Indonesian government during the political and economic crisis (from most international funding agencies)

**Source:** Sueca, 2003, 2005.

Along the lines of the international declaration, the goals of national housing development are to provide adequate housing for all and to improve the quality of human settlements in terms of regional development, economic growth, and balancing urban and rural development. Urban development in Indonesia is marked by high population growth rates, a high proportion of low-income families, inequality of development among regions and a lack of housing supply for the poor. This in turn affects sporadic development of housing and human settlements in urban areas, where the need for cheap and accessible land causes difficulties in infrastructure development.

From the early years of independence until 1970, Indonesia established fundamental housing schemes and institutions to tackle the national housing problem. The post-colonial government faced the challenge of planning for the future development of the nation. In the 1950s it established housing institutions and developed healthy and adequate housing standards. In 1964 the government ratified the basic housing law to help alleviate some of the confusion evident in building new houses. This continued during the late 1960s, when a research institute in housing was established to investigate the problem areas attaching to housing in hot humid areas. This institute was supported by the United Nations (Silas 1997). However, little is known about what housing conditions used to be, how many houses were built, etc. In the 1970s, Indonesia adopted two systems for delivery of housing: informal and formal schemes or non-conventional and conventional housing policies. These resulted from international advocacy, seeking a balance between state intervention and community participation. Informal schemes encompass over 80 per cent of all housing, including location of the site and implementation of services, urban renewal, legal matters and upgrade schemes for the squatter and slum settlements. This informal system works properly, is highly responsive and reasonably efficient (Struyk, Hoffman, and Katsura 1990).

On the other hand, the policies of state intervention emphasize production of social and public housing that is planned, designed and built by public and private agencies. It is often characterized by being heavily subsidized. Three major components of this scheme are Perum Perumnas (a state agency), informal cooperative organizations, and private professional real estate developers to provide 20 per cent of housing production annually. The concept underlying public housing provision is cross-subsidy between the rich and the poor. Housing developers are expected to build houses for high-income, middle-income, low- and very low-income households in the proportion of 1, 3 and 6 respectively.

Since the inception of housing policies in Indonesia, the government has emphasized the central role of the people as the prime agents of development. In housing development particularly, this has been explicitly stated in the housing legislation and

national development guidelines (GBHN). The government realized that it has limited financial and human resources available; therefore there has been an essential shifting of the government's role from being the provider to the enabler of housing provision. The Kampong Improvement Programme<sup>4</sup> (KIP) is recognized as one very successful initiative which could enhance the mobilization of community participation in improving housing conditions in Indonesia. This program concentrates on the installation and improvement of settlement infrastructure such as roads, footpaths, water supply, drainage, sanitation, primary schools and health clinics. The KIP program is considered to be an effective model, particularly for low-income households. The appropriate government authorities also provided basic amenities to the squatter and slum settlements. In addition some resettlement has also been encouraged by the Indonesian government, particularly in transmigration program to redistribute the population from dense to less dense areas; for example from Java, Madura and Bali to Sumatra, Kalimantan, Sulawesi, Irian and West Nusa Tenggara.

During the eighties low-cost housing and settlement upgrade programs remained two of the major housing policies in Indonesia, whether in urban or rural areas. These policies were maintained due to their relatively affordable solutions for the poor who could not access market-supplied housing products, and these policies can attract the poor to invest more to improve their housing conditions. However, Indonesia is still facing serious housing problems due to high population growth rates, high rates of urbanization, scarcity of resources, in-efficiency of housing production, the economic crisis, massive corruption, lack of land price control, land speculation, miss targeted subsidies etc. All schemes, to some extent, have failed to provide adequate housing for all. Indeed, the gap between supply and demand has been widening.

#### **4.1.2. Housing Conditions in Indonesia**

It is commonly recognized that housing is one of the basic social needs, besides food and clothing. As a shelter, a refuge, a place to build a social life, a material vehicle for expressing personality and identity, to own a house is a lifetime dream for everyone. Unfortunately, for numerous and varied reasons, many people cannot afford adequate housing. Millions of new households need new houses every year, and millions of old houses need improvement or even full reconstruction. Although it is hard to know

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<sup>4</sup> KIP was initiated in two cities, Semarang and Surabaya in 1924. In the late 1960s it was remodelled in Jakarta and Surabaya. There are five main objectives of the programme: to strengthen and recognize the *kampung*s, which house 60 per cent of Indonesia's urban population; to integrate the *kampung*s with urban housing and services systems; to increase *kampung* community participation and empowerment; to stimulate the social and economic mobility of the inhabitants; and to ensure the sustained improvement of the quality of life in *kampung*s.' (Silas, 2001).

exactly<sup>5</sup>, it can be stated generally that housing problems in Indonesia, particularly in urban areas, are still acute.

One of the most serious problems of housing in Indonesia is lack of supply. There is a demand either for new housing, or maintenance of the old stock. The figures presented each year by the formal institutions in housing show that there is always a housing deficit. This indicates that the housing stakeholders cannot achieve the targeted housing production required to fulfill the total demand. The needs have always exceeded the capacity and ability to provide basic shelter.

By the year 2000, it was estimated that there were around 49,895,000 households in Indonesia. This number increases by more than 4 million every five years or almost 800,000 households each year. If each needs a new house, this means that 800,000 new houses should be built each year. Additionally, it also requires improvement or even demolition of the old stock. However, during the economic crisis only around 200,000 housing units can be built annually.

In the last five years, the production of housing has declined steeply for certain reasons. Increases in tax, the cost of building materials, oil, electricity and transportation have hampered housing developers building units for low- and very low-income households (Kompas 7 March 2003, 15 May 2005). During the crisis many banks went bankrupt, causing scarcity of housing finance. Land prices have also grown rapidly, due to the instability of local currency exchange values (Balipost 13 March 2001). All those events triggered increased house prices and in turn, reduced the possibility of the poor to afford a house. Given the uncertainties of political and economic recovery, it could take decades to bring the situation back to normal.

Although there is a positive trend towards housing quality, a substantial proportion of people still occupy inappropriate dwellings. In 2000, about 30 per cent of households occupied less than 10 sq. meters per person, and more than 40 per cent enjoyed less than 50 sq. meters per household. Around 50 per cent still live in make-shift houses. A considerable proportion of households (more than 80 per cent) are without piped drinking water, while 20 per cent do not have electricity (Kompas 15 May 2005).

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<sup>5</sup> Tipler states that there are many reasons why it is almost impossible to determine the shortage of housing in the Third World. Those reasons are: insufficient data availability; lack of agreement among countries on units and aspects of measurement; households and housing have a dynamic relationship, so that any data are soon out of date; and it takes so long to collate census data. However, he adds "characteristics that expose housing shortages show that there are very many more people who cannot afford, or obtain through welfare benefits, housing which provides them with the mix of sheltered space and services which any particular society may define as adequate" (Tipler, 2000).

### **4.1.3. Housing Organisation**

#### **a. Perum Perumnas (National Urban Housing Corporation/Public Developers)**

Base on the awareness of the importance of house for Indonesian welfare, Government established Perum Perumnas (National Urban Housing Corporation) on July 18<sup>th</sup> 1974 by Government Decree No. 29/1974 under the Public Work Ministry. The head office of Perum Perumnas is located in Jakarta and has branch offices, area co-ordination unit, project and sub project in all over Indonesia.

The primary mission of Perum Perumnas applies the government programs of housing provision in urban area, especially for low-income groups. Besides that, in order to create a mixture community and a source of cross subsidy, therefore, Perum Perumnas is also build housing for higher income but in limited number. Perumnas housing can be obtained cash or credit for 5 to 20 years through home ownership kredit (KPR) from several banks such as state savings bank (BTN), Papan Sejahtera Bank, Export Import Bank, etc.

#### **b. Real Estate Indonesia (REI)**

Real Estate Indonesia (REI) is an institution and professional organization, which has aim to develop and contribute the real estate activity. REI is participating as a motivator to increase development and innovation of the housing construction. The REI was established on February 11<sup>th</sup>, 1972 with 26 enterprises as its members. In the early 1997, members of REI reached 2400 enterprises. But, in 1999, the number of REI member decreased sharply to become 4541 enterprises (REI 2008).

Formerly, REI was involved in the housing development for middle and upper class society. In 1970s, REI has been guided by government to develop the housing development also for lower class society. This time around 80% of REI members develop the simple house (RS) and very simple house (RSS), which are the house types for low-income society (REI 2008).

#### **c. The State Savings Bank (BTN)**

In 1974, Government appointed BTN as the source to finance housing development programs. Then, BTN as a saving bank started to provide additional service began offering housing loans. BTN took their responsibility by drawing up housing loans programs called home ownership credit programme (KPR).

BTN established its home ownership credit programme (KPR) in 1976 with goal of increasing the supply of housing finance to low and middle income households. Initially, the KPR Programme only provided finance for homes built by Perumnas. However, in 1978, housing built by private developers became eligible for KPR financing.

BTN offers housing loan for all levels of society, from the high income, medium, and low-income levels. According data from the State Savings Bank (BTN), BTN provide houses ownership credit which is divided into three categories, such as: (1) *KPR Paket A* for low-income community, (2) *KPR Paket B* for middle income community and (3) *KPR Paket C* for higher income community.

#### **4.1.4. Affordable Housing Provision in Indonesia**

Presidential Decree No. 5 1990 instructs central and local government organizations to co-ordinate co-operate and integrate in the resettlement activities. The aim of these activities is to improve the living for low-income people who lived in the slum or unplanned-settlement areas. With regard to the resettlement development, it is important to encourage them in social and economic aspects, and furthermore in the physical operation and maintenance of the project. Co-ordination between institutions should be stimulated as well as the co-operation and integration among the actors involved in the development process (the Central Government, PERUMNAS, Local Government, Local Enterprise, Private Sector and Community).

In the Law No. 4 1992 about Housing and Human Settlement, is that with regard to low-cost housing the togetherness principle (joint undertaking) should be implemented in each phase of the development. Based on the role of government as an enabler, the potential resources of the development should be mobilized to facilitate affordable housing for low-income groups. The direction more focused on the 'community based development' should be translated as co-operation and integration in the urban circumstances.

The low income housing development periods in Indonesia are as following:

##### **a. Improvement into Development Orientation - Kampung Improvement Program (KIP)**

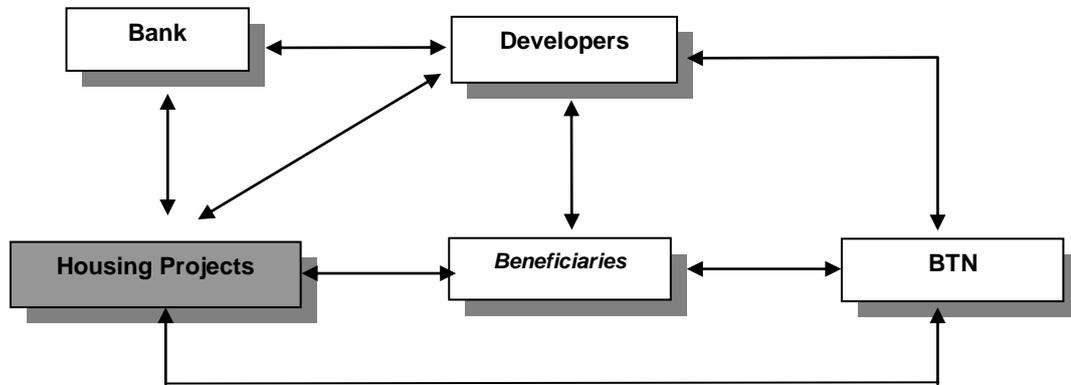
The Kampung Improvement Program (KIP) was introduced in Jakarta in 1974 and continued in Surabaya in 1976. The orientation was to improve the existing kampungs that have grown unplanned and have poor infrastructure and urban facilities. The target of the KIP mainly is low-income people. There was co-operation between central government and local government to encourage community participation to maintain the housing and infrastructure. Social and economic improvement also started to be introduced through the supporting guidance.

##### **b. Housing Development Orientation**

###### **1. Simple Housing**

The simple housing was started to develop in metropolitan cities in 1976. The size of the houses is about 15 square meters in core houses till 70 square meters in the simple

houses (on 60-200 square meter plots). The target is co-operation between institutions to provide development cost (PERUMNAS, Private Developer, BTN/National Saving Bank and community as beneficiaries). The groups of people can borrow a long-term loan at subsidised interest rate. From the National Saving Bank the government through this method, encourages and gives guidance to the people to save money through the housing saving bank.



**Figure 4.1** Low Income House Ownership Scheme

**Source:** Ministry of Housing and Human Settlement, Housing and Human Settlement, 1992

## 2. Walk-up Flat Dwelling Unit

The walk-up flat development (three-storey dwellings) was introduced in Jakarta in 1984 as a main activity in urban renewal. The land efficiency was an important reason to build the housing units in vertical development. Another reason derived from the focus on urban renewal and slum or squatter upgrading and also cross subsidy opportunities, between low, middle and high income. But in this decade, the co-operation and integration approach was gradually becoming used between actors involved in the development process. There is no co-operation to sustain in the inhabitants to be more established in their social and economic improvement.

## 3. Multi-Storey Housing Unit

The four-storey housing units are introduced first in Jakarta as a pilot project of the low-cost housing development in metropolitan cities in 1989. This development came as response of the government in terms of housing provision for the low-income and middle-income groups, to the scarcity of land in urban fast growing areas. Generally, vertical development was needed because conditions are inferior in the inner city, and because of environment degradation and the growth of unplanned-settlement in the densely populated areas. In its resettlement programme, there are so many actors who should be involved in these activities, so it was important to co-operate and integrate in the development process.

The housing development on the large scale cannot be separated from the system of the strategic planning development citywide. So, there are interconnections between housing and the biggest part of the city function. The comprehensive challenge in the resettlement programme is that the community should be aware in this development through the co-operation and integration approach. So there is an instrument to encourage the inhabitants to improve their living conditions and participate in urban productivity.

#### **4.1.5. House Ownership Credit and Ceiling Prices of House for Low Income Groups**

House ownership credit for low-income groups in Indonesia is implemented in into simple housing (RS) and very simple housing (RSS). It means that the credit, which is granted by national bank to low income groups who need loan subsidy in the form of low interest rate to purchasing their house.

Moreover, in the low cost housing projects, the cross-subsidies also were implemented between low-income groups who are mostly original inhabitants and the newcomers who are usually the middle or high-income inhabitants. And furthermore cross subsidy is also possible between housing settlement and a commercial centre handled mainly by private sector.

Based on Decree of Housing and Settlement Ministry No. 01/KPTS/1989, No. 03/KPTS/1992 and the latest, No. 06/KPTS/M/1999 about *Housing and Settlement Provision with Housing Ownership Credit of KP-KSB (Planned Areas with Service Plots), RS (Simple Housing) and RSS (Very Simple Housing)*, explained that the interest rate subsidy is given to low income groups who has already fulfilled the prerequisites of subsidy of ownership credit facility (KP), which is provided by banks that is recorded by government. These prerequisites are like income level of households, not yet have house and customer of bank as well.

These ownership credits are noticed above defined into *Kavling Siap Bangun/KSB (Planned Areas with Serviced Plots): 54 m<sup>2</sup>, 60 m<sup>2</sup>, 72 m<sup>2</sup>*, *Rumah Sangat Sederhana (Very Simple Housing): T.21, T.27 and T.36*, and *Rumah Sederhana (Simple Housing): T.18, T.21, T.27, T.36*. Simple and Very Simple Housing is addressing to low-income people who do not have means to purchase their house.

**Table 4.2** Housing Ownership Credit of Affordable Housing in 1989

No.	Housing Type (M <sup>2</sup> )	Down Payment (%)	Interest Rate (%)	Credit Time Max. (Years)	Credit Maximum (Rp Juta)		
					Region 1	Region 2	Region 3
1	T-15	10	9	20	3,41	3,69	5,51
2	T-18	10	9	20	3,92	4,42	6,61
3	T-21	10	9	20	4,48	5,16	7,71
4	T-27	20	12	20	5,01	5,90	8,81
5	T-36	20	12	20	6,52	7,86	11,75

**Source:** Decree of Housing and Settlement Ministry No. 01/KPTS/1989.

Table 4.2 indicates that the housing ownership credit of low cost housing based on Decree of Housing and Settlement Ministry No. 01/KPTS/1989 viewed from type of housing, down payment, interest rate, credit time maximum and credit maximum.

**Table 4.3** Housing Ownership Credit of Affordable Housing in 1999

No.	Housing Type (M <sup>2</sup> )	Down Payment (%)	Interest Rate (%)	Credit Time Max. (Years)	Credit Maximum (Rp Juta)		
					Region 1	Region 2	Region 3
	RSS						
1	T-21	10	8.5	20	5,51	5,84	6,67
2	T-27	10	8.5	20	6,10	6,75	7,37
3	T-36	10	8.5	20	7,76	8,36	8,67
	RS						
1	T-18	10	11	20	10,52	11,10	11,43
2	T-21	10	11	20	12,22	15,61	17,40
3	T-27	20	14	20	14,83	15,12	17,41
4	T-36	20	14	20	19,77	21,54	22,28

**Source:** Decree of Housing and Settlement Ministry No. 06/KPTS/M/1999.

**Note:**

**Region 1** : Province of DKI Jakarta, DI Aceh, North Sumatera, West Sumatera, South Sumatera, Jambi, Lampung, Bengkulu, Riau, West Jawa, Middle Jawa, DI Yogyakarta, East Jawa, **Bali (Denpasar)**, West Nusa Tenggara, East Nusa Tenggara, Middle Sulawesi, South Sulawesi, North Sulawesi and South East Sulawesi.

**Region 2** : Province of Riau (Island), South Kalimantan, East Kalimantan, Middle Kalimantan, West Kalimantan Barat and Maluku

**Region 3** : Province of Irian Jaya and East Timor (now independent)

Because of crises economic hindering in Indonesia, Housing and Settlement Ministry issued the new law No. 06/KPTS/M/1999. This also is considered on the increasing of house selling prices leading directly to rise of down payment that have to be paid by low-income groups. To create the balancing of them, the latest house ownership credit begin to be used from July 1999 for all private developers and PERUMNAS in Indonesia.

Moreover, based on Decree of Housing and Settlement Ministry No. 01/KPTS/1989, No. 03/KPTS/1992 and the latest, No. 06/KPTS/M/1999, the government also set the ceiling prices of house depending on region in Indonesia.

**Table 4.4** Ceiling Prices of Affordable House in Indonesia

No.	Housing Type (M <sup>2</sup> )	Ceiling Prices of House after crises (Rp.)
	<b>RSS</b>	
1	T-21	6,130,000 – 8,520,000
2	T-27	6,750,000 – 8,210,000
3	T-36	8,630,000 – 11,430,000
	<b>RS</b>	
1	T-18	11,690,000 – 17,000,000
2	T-21	13,550,000 – 22,340,000
3	T-27	18,540,000 – 28,360,000
4	T-36	24,710,000 – 37,140,000

**Source:** Decree of Housing and Settlement Ministry No. 01/KPTS/1989 and No. 06/KPTS/M/1999.

#### 4.1.6. Norm Standard and Regulation of Affordable Housing Provision

In order to enhance attempts of low income housing projects both provided by PERUMNAS and private developer, need to be supported by norms, standard and regulation that could be as base in planning, implementation and controlling of housing and its environment. Below there are three significant regulations in low cost housing and settlement project.

Firstly, to guide the builder not out of track from quality standards of a housing and settlement that concerns to the quality of housing, infrastructure, public and social facilities. The government of Indonesia originated the guidance technique of affordable housing projects as norm standard of a housing and settlement which is reflected into laws, which is issued by Ministry of Public Works and Directorate General of Human Settlement. These laws are:

1. Decree of Ministry Public Works No. 20/KPTS/1986
2. Decree of Ministry Public Works No. 54/PRT/1991
3. Directorate General of Human Settlement, *Technique Guidance of Simple Housing Provision*, 1980

**Table 4.5** Guidance Technique of Affordable Housing Projects

##### a. Housing Quality

No.	Type of indicator	Prerequisite
1	Size of building and plot	<ul style="list-style-type: none"> <li>▪ The form of building: single, double or multi-double</li> <li>▪ Min size of building: 15 m<sup>2</sup> – 36 m<sup>2</sup> (T15 – T36)</li> <li>▪ The height of building : max 1 level</li> <li>▪ Plot size : 60 – 200 m<sup>2</sup></li> <li>▪ The width of plot : 6 – 10 m</li> <li>▪ The front distance of building : min 2 m</li> <li>▪ The side distance of building: min 2 m</li> <li>▪ The back distance of building: min 3 m</li> <li>▪ The length of all plot: max 100 m</li> </ul>
2	Number and Size of Room	<ol style="list-style-type: none"> <li>1. <i>Need of room minimum</i> <ul style="list-style-type: none"> <li>▪ Bed room</li> <li>▪ Living Room</li> <li>▪ Kitchen</li> <li>▪ Toilet + WC</li> </ul> </li> </ol>

No.	Type of indicator	Prerequisite
		2. <i>Size of room</i> <ul style="list-style-type: none"> <li>▪ Master room = min 9 m<sup>2</sup></li> <li>▪ Kids room = min 6 m<sup>2</sup></li> <li>▪ Guest and eating room (living room) = min 12 m<sup>2</sup></li> <li>▪ Kitchen = min 4 m<sup>2</sup></li> <li>▪ Toilet + WC = min 2.25 m<sup>2</sup></li> </ul>
3	Ventilation of house	<ul style="list-style-type: none"> <li>▪ Using cross ventilation</li> <li>▪ There are at least 1 or more ventilation</li> <li>▪ Large min 1/10 x total m<sup>2</sup> of floor</li> <li>▪ Min open large 1/20 x total m<sup>2</sup> of floor</li> <li>▪ Flexibility of the sun trough into room</li> </ul>
4	Structure and Construction of house	1. <i>Foundation</i> <ul style="list-style-type: none"> <li>▪ Min using river stone construction</li> <li>▪ Strong with tonnage till 20 years</li> </ul> 2. <i>Floor</i> <ul style="list-style-type: none"> <li>▪ Resistance of water (water proofing)</li> <li>▪ Strong with tonnage till 20 years</li> <li>▪ Elevation of floor min 20 cm from outside level</li> </ul> 3. <i>Door</i> <ul style="list-style-type: none"> <li>▪ Strong and safety till 20 years</li> <li>▪ The width min of door 70 – 90 m and its length 190 - 200 m</li> </ul> 4. <i>Walls</i> <ul style="list-style-type: none"> <li>▪ Strong and safety till 20 years</li> <li>▪ Complete with coping of wall</li> <li>▪ Water resistance</li> </ul> 5. <i>Ceiling</i> <ul style="list-style-type: none"> <li>▪ Strong and safety till 20 years</li> <li>▪ The high of ceiling 175 – 240 m</li> </ul> 6. <i>Roof</i> <ul style="list-style-type: none"> <li>▪ Strong and safety till 20 years</li> <li>▪ Using aluminium foil for water resistance</li> </ul>
5	Material of house	1. <i>Floor</i> <ul style="list-style-type: none"> <li>▪ Min using cement or tile</li> <li>▪ Wall</li> <li>▪ Using cement or wall paper</li> </ul> 2. <i>Ceiling</i> <ul style="list-style-type: none"> <li>▪ Using asbestos, plywood or the others</li> </ul> 3. <i>Roof structure</i> <ul style="list-style-type: none"> <li>▪ Using wood class1 2 3 or steel</li> </ul> 4. <i>Roof coping</i> <ul style="list-style-type: none"> <li>▪ Using tile or others</li> <li>▪ The material have to use Balinese traditional architecture performance</li> </ul>
6	Utility of house	1. <i>Water</i> <ul style="list-style-type: none"> <li>▪ Available PDAM or Wells (distance wells with septic tank min 8 m and have recommendations from health authority)</li> <li>▪ Available water pipe installation</li> <li>▪ Construction of pipe connected have recommended/checked by PDAM authority</li> </ul> 2. <i>Sewage Disposal</i> <ul style="list-style-type: none"> <li>▪ Available pipe installation for sewage disposal</li> <li>▪ Kitchen and toilet waste to filter wells checked by tube controller before to public sewage disposal</li> <li>▪ Human waste to septic tank and filtered before throughout public sewage disposal</li> </ul> 3. <i>Solid disposal (garbage + rubbish)</i> <ul style="list-style-type: none"> <li>▪ Available solid disposal place each house</li> <li>▪ Solid disposal place is easy taken by collector</li> <li>▪ The capacity of solid disposal place is 15 lt.</li> </ul> 4. <i>Rain water disposal</i> <ul style="list-style-type: none"> <li>▪ Available pipe installation for rain water using concrete pipe either open pipe or close pipe</li> <li>▪ The slope of pipe min 4 %</li> <li>▪ The height of pipe min 15 cm</li> <li>▪ The ratio of wall slope of pipe min 3 : 1</li> </ul>

No.	Type of indicator	Prerequisite
		5. <i>Electricity</i> <ul style="list-style-type: none"> <li>▪ Available electricity installation each house</li> <li>▪ Capacity of electricity in each house min 450 KVA, 220 Volt</li> </ul> 6. <i>Telecommunication</i> <ul style="list-style-type: none"> <li>▪ Available telecommunication installation each house</li> </ul> 7. <i>Fire system</i> <ul style="list-style-type: none"> <li>▪ Available fire system each house</li> <li>▪ Fire system can be sprinkler system, stand pipe system or tube system</li> </ul>

#### b. Infrastructure and Service Delivery

No.	Type of indicator	Prerequisite
1	Road	1. <i>Size of Road</i> <ul style="list-style-type: none"> <li>▪ Connecting Road of Housing with Main Road               <ul style="list-style-type: none"> <li>ROW min : 13 m</li> <li>Coping min : 6 m</li> <li>Each road side min : 1 m</li> <li>Each sidewalk min : 1 m</li> <li>Each public drain : 1.5 m</li> </ul> </li> <li>▪ Housing Main Road               <ul style="list-style-type: none"> <li>ROW min : 11 m</li> <li>Coping min : 4.5 m</li> <li>Each road side min : 1 m</li> <li>Each sidewalk min : 1 m</li> <li>Each public drain : 1.25 m</li> </ul> </li> <li>▪ Connecting Road of Each Block House               <ul style="list-style-type: none"> <li>ROW min : 7.5 m</li> <li>Coping min : 3.5 m</li> <li>Each road side min : 1 m</li> <li>Each public drain : 1 m</li> </ul> </li> <li>▪ Path Way I               <ul style="list-style-type: none"> <li>ROW min : 3.6 m</li> <li>Coping min : 1.5 m</li> <li>Each public drain : 1.05 m</li> </ul> </li> <li>▪ Path Way II               <ul style="list-style-type: none"> <li>ROW min : 3.6 m</li> <li>Coping min : 0.9 m</li> <li>Each public drain : 1.35 m</li> </ul> </li> <li>▪ Radius of turn way for Connecting Road of Each Block House:               <ul style="list-style-type: none"> <li>min 5 m</li> </ul> </li> </ul> 2. Coping material is min asphalt 3. Construction depends on soil condition, traffic flow and the use of material. It is strong for 20 years
2	Water supply	<ul style="list-style-type: none"> <li>▪ Available public pipe installation</li> <li>▪ Water capacity enough for households demand</li> <li>▪ The source of water is PDAM or wells (checked by Health Department)</li> </ul>
3	Electricity	<ul style="list-style-type: none"> <li>▪ Available public installation</li> <li>▪ Electricity capacity enough for households demand</li> </ul>
4	Telecommunication	<ul style="list-style-type: none"> <li>▪ Available public installation</li> <li>▪ Telecommunication capacity enough for households demand</li> </ul>
5	Sewage Disposal	<ul style="list-style-type: none"> <li>▪ Available public sewage disposal installation</li> <li>▪ Sewage disposal capacity enough for households demand</li> </ul>
6	Solid disposal	<ul style="list-style-type: none"> <li>▪ Available public solid disposal</li> <li>▪ Every 100 households are available 6 m<sup>3</sup> public sewage disposal</li> <li>▪ Available collector or truck to take from households</li> <li>▪ Accessible for public works</li> <li>▪ Frequency of collecting max once time of 2 days</li> </ul>
7	Drainage	<ul style="list-style-type: none"> <li>▪ Available public drainage</li> <li>▪ The capacity of public drainage is enough for sewage disposal and rain water disposal</li> </ul>

No.	Type of indicator	Prerequisite
8	Fire system	<ul style="list-style-type: none"> <li>▪ Available public fire system</li> <li>▪ Using fire hydrant with distance 400 – 800 m</li> <li>▪ Accessible (mobility and service radius) for fire department</li> </ul>

### c. Accessibility to Public and Social Facilities

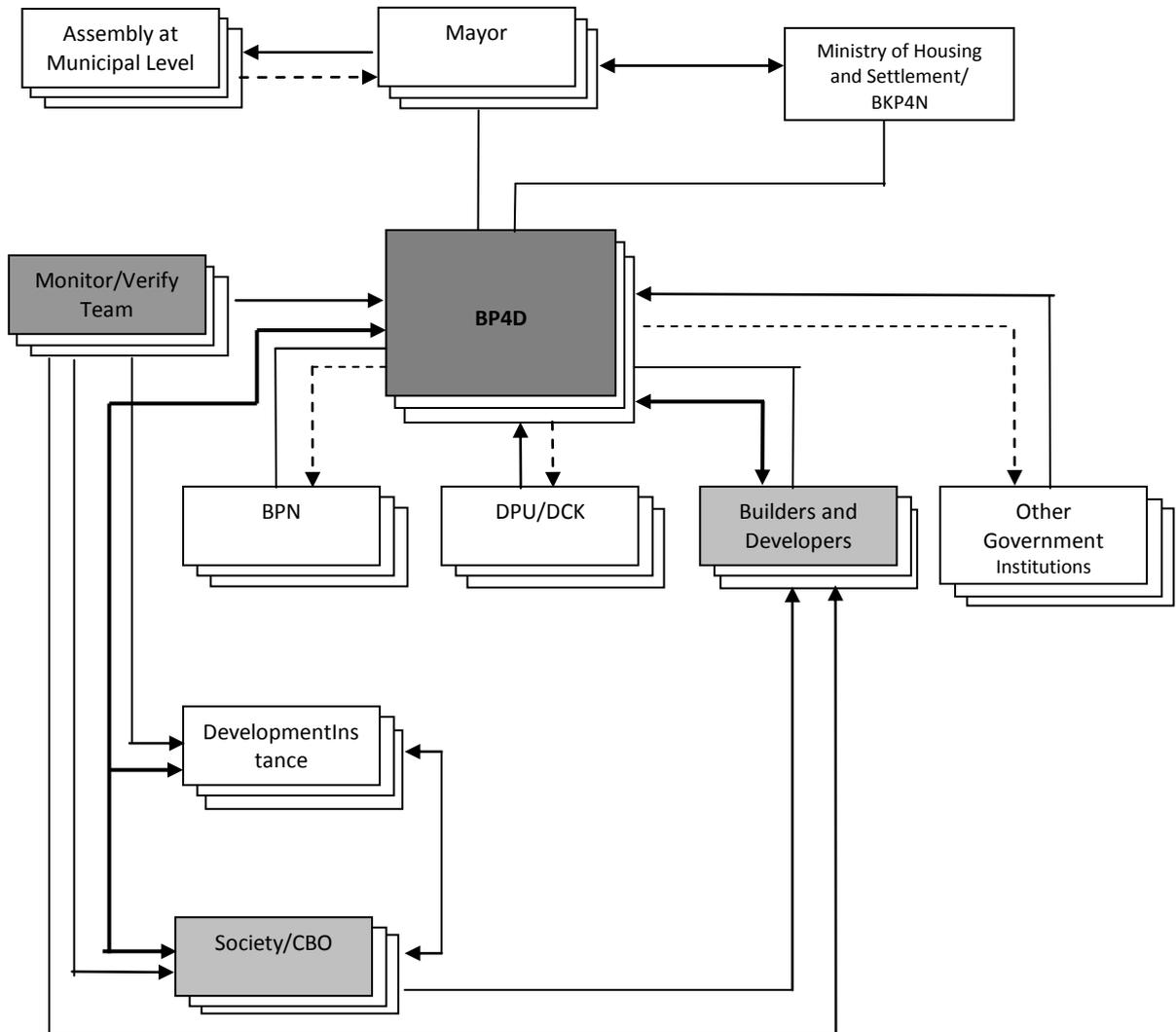
No.	Type of indicator	Prerequisite
1	Education facilities	<ul style="list-style-type: none"> <li>▪ Kinder Garden min 1000 inhabitants (1200 m<sup>2</sup>) and accessibility 500 m</li> <li>▪ Elementary School for min 1600 inhabitants (3600 m<sup>2</sup>) and accessibility 1000 m</li> <li>▪ Secondary School for min 4800 inhabitants (6000 m<sup>2</sup>)</li> <li>▪ Senior High school for min 4800 inhabitants (6000 m<sup>2</sup>)</li> </ul>
2	Health facilities	<ul style="list-style-type: none"> <li>▪ Assistance Health society centre for min 30000 inhabitants (1200 m<sup>2</sup>) and accessibility 1500 m</li> <li>▪ Health society centre min for 30000 inhabitants (300 m<sup>2</sup>) and accessibility 3000 m</li> <li>▪ Doctor Practical min for 30000 inhabitants (400 m<sup>2</sup>) and accessibility 1500 m</li> <li>▪ Childbirth Clinic min for 10000 inhabitants (1600 m<sup>2</sup>) and accessibility 2000 m</li> <li>▪ Drug store min for 10000 inhabitants (400 m<sup>2</sup>) and accessibility 1500 m</li> </ul>
3	Commercial and trade facilities	<ul style="list-style-type: none"> <li>▪ Small shop min for 250 inhabitants (100 m<sup>2</sup>) and accessibility 300 m</li> <li>▪ Shopping centre min for 2500 inhabitants (1200 m<sup>2</sup>) and accessibility 500 m</li> <li>▪ Public Market min for 30000 inhabitants (1200 m<sup>2</sup>)</li> </ul>
4	Government and public service facilities	<ul style="list-style-type: none"> <li>▪ Security Office min for 30000 inhabitants (300 m<sup>2</sup>)</li> <li>▪ Community centre office min 1600 inhabitants (200 m<sup>2</sup>)</li> <li>▪ Public parking min for 2500 inhabitants (100 m<sup>2</sup>)</li> <li>▪ Public toilet min for 2500 inhabitants (100 m<sup>2</sup>)</li> <li>▪ Post Office min for 30000 inhabitants (300 m<sup>2</sup>)</li> <li>▪ Fire office min for 30000 inhabitants (300 m<sup>2</sup>)</li> <li>▪ Public transport for 2500 inhabitants</li> <li>▪ Public telephone 2500 inhabitants (100 m<sup>2</sup>)</li> </ul>
5	Space for Praying	<ul style="list-style-type: none"> <li>▪ Mosque for Moslem min for 2500 inhabitants (300 m<sup>2</sup>)</li> <li>▪ Church for Christian min for 2500 inhabitants (300 m<sup>2</sup>)</li> <li>▪ Temple for Hindus min for 2500 inhabitants (300 m<sup>2</sup>)</li> <li>▪ Ch temple/Pagoda for Buddhist min for 2500 inhabitants (300 m<sup>2</sup>)</li> </ul>
6	Recreation and culture facilities	<ul style="list-style-type: none"> <li>▪ Multifunction building min for 2500 inhabitants (300 m<sup>2</sup>)</li> <li>▪ Youth building min for 2500 inhabitants (300 m<sup>2</sup>)</li> </ul>
7	Sport and open space facilities	<ul style="list-style-type: none"> <li>▪ Playground area min for 250 inhabitants (250 m<sup>2</sup>)</li> <li>▪ Sport centre min for 250 inhabitants (250 m<sup>2</sup>)</li> <li>▪ Park min for 250 inhabitants (250 m<sup>2</sup>)</li> </ul>

**Source:** Decree of Public Works Ministry No: 20/KPTS/M/1986, No: 54/PRT/1991, Directorate General of Human Settlement, *Technique Guidance of Simple Housing Provision*, 1980 and Ministry of Domestic Affairs, No: 1/1987, *the Delivery of Infrastructure, Public Utility and Social Facility of Housing to Local Government*.

This technique guidance will be adopted relation with responsibility in project upkeep and maintenance. If prerequisites of project quality are unable to be completed both by private developer and PERUMNAS, the local government will not hand over these projects to be local government responsibility.

Secondly, Ministry of Domestic Fair issued the regulation No. 1/1987 about *the Delivering of infrastructure, Public Utilities and Social Facilities of Housing to Local Government*. This regulation issued that in order to verify and appraise the infrastructure, public utilities and social facilities based on norm standard of housing and

settlement issued by Public Works, which will be delivered by developers to local government. The mayor has already established a verifier team who is a corporation between Local Development Planning Board (BAPPEDA), Land Agency (PERTANAHAN), Water Supply Board (PDAM) and PERUMNAS.



**Figure 4.2.** Administrative Procedure of Monitoring, Controlling and Evaluation of Housing and Settlement Development

**Source:** BK4PN, *Kerangka Penyusunan Tata Kerja BP4D*, 1996

**Note:**

- BK4PN** : National Development Policy and Guideline for Housing and Settlement Board
- BP4D** : Local Development and Guideline for Housing and Settlement Board
- DPU/DCK** : Public works Department
- BPN** : National Land Agency

- > Input/suggestion
- - - - -> Recommendation/Output
- <—> Dialog and control

Thirdly, Denpasar Municipality have issued Decree No. 565/1998 about *the Formation of Controlling Housing and Settlement Development Board in Denpasar*. In order to supervise and control the development of housing and settlement in Denpasar, the mayor have established the controlling and supervising board of housing and settlement. This board is a corporation between Municipality Denpasar, Public Works (DINAS PU), Local Development Planning Board (BAPPEDA), Land Agency (KANTOR PERTANAHAN) and other institutions to work together as team to control the implementation of projects.

#### **4.1.7. Institutional of Affordable Housing Provision**

##### **a. Role and Partnership of Actor Involved**

With the co-operation and integration approach, there are many actors involved in this area. The involvement has as a consequence that each actor has concerns based on their roles. The expectation in the co-operation and integration approach is to create partnership among actors involved.

##### **1. Government**

In the housing and human settlement field are involved the central government, the provincial and the local government or municipality. Especially in the affordable housing development the first key actor is the *State Ministry of Housing* (Kantor Menteri Negara Perumahan Rakyat). This Ministry has the principal responsibility for the formulation of national housing policies and programs (Kemenpera 1994).

The State Ministry of Housing coordinates the national forum, namely the National Housing Policy Board (BKPN). This board includes representatives of all ministries in the Government of Indonesia who are concerned with housing development. The second one is a *Bureau of Spatial Planning and Human Settlements* in BAPPENAS (National Development Planning Board). That bureau is especially concerned with the development of housing and infrastructure programs. The third one is the *Directorate General for Human Settlements* in the Ministry of Public Works. This ministry is responsible for physical aspects of the housing activities, including regulations, standardization, technical assistance and implementation of housing programs. Under the Ministry of Public Works is the *Housing and Urban Development Corporation* (PERUMNAS), whose main mission is to develop low-cost housing for low-income people. The fourth one is the *State Saving Bank* (BTN) which has a responsibility in the home loan financing. BTN provides mortgage finance for housing development for Housing and Urban Development Corporation and Private Developers.

In the local government the provincial level (the Provincial Development Planning Board) is responsible to co-ordinate development activities. The provincial level and

municipal/regency level (the Municipal/Regency Housing Service and Development Section) has to co-ordinate in the city/region level. Specially, in Sarbagita, there is the PU Cipta Karya (Public Works of Housing and Settlement/Housing Board) which is responsible for housing and human settlement planning, including management, building permits, habitation permits and the regulatory of the housing development.

The government as an enabler should stimulate the co-operation among actors in the different government levels by bringing them together and by creating the appropriate circumstances.

## 2. Private Sector

In the affordable housing unit's development, the private sector should be involved in three steps of development. First is the *pre-construction* phase. In this planning phase the private firm or private developers has to consult the future users. It should prepare the housing planning orientation with consideration to the low-income people as beneficiaries. And also consider being strategic, meaning that housing should prepared as a means to improve the social economic circumstances of the inhabitants. In the planning process the community aspiration through the co-operation and integration approach should be facilitated in the right way, to be common design for users. Second is *construction phase*. The private should implement the planning in the right way. While the users are low-income groups, the construction and finishing should provide for nice living and attractive housing units. Third is *the post construction phase*. The private sector can be involved in the social and economic activities as well as physical improvement. In term of social activities, the charity spirit to help the lowest income should be emphasized. The economic activity should support and motivate the community to more competition to be established in their living. The private sector service based on negotiation and this spirit can be improved for the public-private partnership in the future.

## 3. Community

The community as beneficiaries of affordable housing should be involved in the beginning of development process. In the *pre-construction phase* the community should be aware regarding the development and resettlement program. It is important as a starting point to attract people to understand about development in their territory. In these terms the role of information and communication as well as motivation among actors is important. The board should be as a bridge to facilitate each actor's concern in the communication in development process. In this phase the role of community is expected to give a positive contribution concerning development. Furthermore, the *construction phase* the community should support the development by their resources and commitment should participate in the social and economic activities to improve their

living. The community should *support the operation and maintenance* activities based on community management itself.

#### **b. Co-operation and Integration among Actors**

Affordable housing development in order to satisfy the demand of low-income groups often faces complicated problems. Such problems are related with important resources for instance land. The interest and expectation of each actor involved often obstruct (hamper) the effectively of development. The co-operation and integration approach is an instrument to manage the development, which should give a chance to be effective and equitable for all actors involved. The requirement to co-operate and integrate is enough information, communication and motivation of actors. It should be based on their concern to contribute in the settlement to support the urban productivity in the dynamic situation.

The conflict of interest and expectation in the field between in the main actors involved should be reduced as far as possible to facilitate preparation in the early planning in this approach. For the effectiveness and equitable distribution of the benefits of the housing development seeking the same perspective is required to be a common objective for all actors.

The interrelationship in the implementation of the co-operation and integration approach in the low cost housing development is as follows:

1. The Government has a role in the policy, planning and programming. It should become a facilitator or sponsor to create the Steering Committee and Management Board who is the key actors involved in this organization. In the each phase of development there are actors who have a leading role based on their characteristic with regard to the potential resources.
2. The Public sector or government sector should be a pioneer or leading in the preparation phase (pre-construction). In the implementation (construction phase) the leading sector are the Housing and Urban Development Corporation together with the private sector. Furthermore local government should have an important role in the development process and community development. The private sector has a role in the building development implementation. The roles of private business should create employment opportunity for the low-income groups.
3. The community has an important role in the development process. It could be involved in the land acquisition process and should be facilitated to do so in an open dialogue among actors involved base on the local regulation. In the construction phase the contribution should be based on the resources (building worker and supplier of material as far as possible). In the post construction phase the community should participate not only in the occupancy activities, but also the most

important are the operation and maintenance activities through the Community Based Organization (CBO).

#### **4.1.8. Housing Finance: Formal and Informal Agencies**

Housing finance in Indonesia has been described as poorly developed compared with other countries in Asia (Lee, 1996), and remains largely isolated from broader financial markets (Struyk et al., 1990). Malaysia, Thailand and the Philippines have benefited from massive state and private loans for housing finance. In contrast, Indonesian house buyers mostly rely on their own financial resources. Therefore incremental and informal housing are preferred by most householders, with very little or no government intervention. By accounting ratio of housing credit to national housing investment, Lee (1996) notes that Indonesia is still in the early stages of a housing finance development system. Leaving aside any doubt about its sustainability, housing finance in 1990s has been relatively responsive.

Generally speaking, there are two modes of housing finance in Indonesia: the formal and informal housing finance systems. The formal system is characterized by long term loans; collateral being required; interest rates below market levels, especially for the low and very low income groups. It is highly subsidized, but poorly targeted. Since deregulation of the economy in the 1990s, BTN has improved housing finance schemes to be more competitive by finding means of borrowing money on the open market, increasing interest rates closer to the commercial levels, reducing arrears and eliminating subsidized credit, especially for middle-income households (Lee, 1996). On the other hand, informal finance is characterized by short-term loans with high interest rates, no collateral being required, no subsidies, and being responsive to the market, for further discussion see (Struyk, Hoffman, and Katsura 1990; Lee 1996; UNCHS 1993).

#### **4.1.9. Housing Conditions in Bali**

Statistically, housing conditions in Bali have demonstrated significant quality improvement over time, from households occupying houses between 50 to more than 100 square meters with improvements in building materials, basic environmental infrastructure and services. The percentage of households owning smaller houses, between 20 and 49 square metres, declined from 44 per cent in 2004 to 38 per cent in 2007. On the other hand, households who occupy larger houses of 50 to 99 square meters increased from 32 per cent to 37 per cent. Moreover, houses finished with marble or ceramics also increased, from 29 per cent in 2005 to 31 per cent in 2009.

**Table 4.6.** Percentage of Households by Number of Bedrooms

	Number of bedrooms				Total
	1	2	3		4+
Bali	14	36	27	23	100
Indonesia	21	42	27	10	100

**Source:** Bali Statistic Board, *Statistic of Households in Bali*, 2010

The urban housing stock in Sarbagita, Bali is dominated by privately owned, traditional compound houses and single dwellings. In traditional compounds, there is commonly single-story structures built in a rectangular plots ranging from 600 and 2000 square meters or even larger. Many traditional compounds have been turned into western style dwellings, often built on two or three story. In every traditional compound there are at least five pavilions and a household shrine, always facing onto a rectangular inner courtyard. The pavilion is commonly full of ornamentation and decoration with high quality wood or brick carving done by specialists, therefore being more costly per square meter. The majority of Balinese are willing to invest a large amount of money in their house, although it is rarely occupied for domestic activities. Compound houses tend to be built incrementally, a single building, a pavilion or kitchen at a time. Compound houses are small structures but most of them become bigger than initially built, due perhaps to the growing family, improved economic circumstances and their perceptions.

In a multi-household compound, households tend to share family provisions such as the house temple, the courtyard, sometimes the toilet, kitchen, pavilions and the like. Almost all houses appear to have a tap or other water source, a toilet and electricity. It is hard to find public toilets in the settlement or neighborhood, except in public facilities such as terminals, or government offices.

The majority of households occupy dwellings or compounds as owners, owners' representatives or relatives. However, some of them are renters who live with or without the owners. It is also common for people, especially migrants, to build their own dwellings on a rented plot for a couple of years, before they can become owner-occupiers. They use rented plots or rental housing as a common milestone in the process of housing consolidation. The landlords, who are mostly natives, provide empty plots and the renters build their dwellings and acquire an infrastructure. This housing provision is regarded as cheaper than rental housing. They have full autonomy in the process of building design and construction; therefore they can adjust their housing consumption according to their economic and demographic circumstances.

There is no data of housing tenure proportion, and it is difficult to estimate. Although the government does not allow the creation of squatter settlements, it still exists in some hidden parts of urban areas.

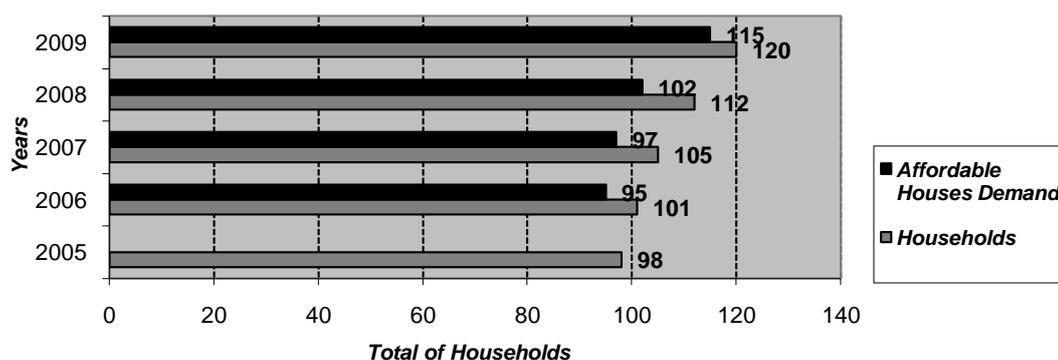
**Table 4.7.** Percentage of House Size in Bali

No. of Households		2005	2006	2007
Floor areas (m <sup>2</sup> )		%	%	%
1.	< 20	11	12	11
2.	20 – 49	42	44	38
3.	50 – 99	36	32	37
4.	> 100	11	12	14
Total	100	100	100	100

**Source:** Bali Statistic Board, *Statistic of Households in Bali*, 2009

#### 4.1.10. Affordable Housing Provision in Sarbagita, Bali

Sarbagita Bali is also one of the fastest growing urban in Indonesia and has an important role to play as center of tourism, industrial and urban housing development. Rapid population growth and rural-urban migration in Sarbagita have produced a very high demand for affordable housing and rapid urban expansion. This can be seen from 2005 to 2009 the houses demand in Sarbagita Bali increasing by 4.12% per year.



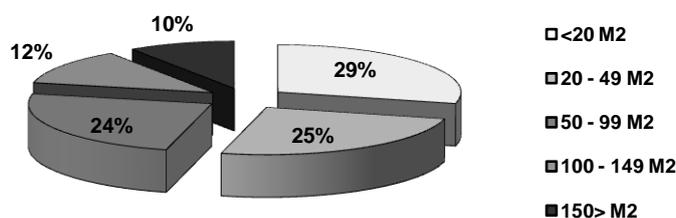
**Figure 4.3** Households and Affordable Houses Demand in Sarbagita Bali in 2005-2009

**Source:** Bali Statistic Board, *Statistic of Households in Bali*, 2010

The other hand, the limited land tend to conceive narrower for housing and settlement and also the housing available is only close to the certain groups, is the main obstacle for the people to access their need of housing. The high price of land in Sarbagita Bali will influence significantly to the selling price of house units (the land use maps of Sarbagita has been attached on Appendix B.11.1 till B.11.2). Because this effect induces indirectly on the high price of houses, while the purchasing power parity is not the same. As result, the most of households live in the eligible house with crowding room, the house that is allocated normally to 4 people, in fact living more than it.

The households, which live in floor large less than 20 m<sup>2</sup> and 20 to 49 m<sup>2</sup>, are still high in Sarbagita Bali. Almost 30% the households stay in less than 20 m<sup>2</sup> and while only 9%; they live in more than 150 m<sup>2</sup>.

**Source:** Bali Statistic Board,  
*Statistic of Households in Bali, 2010*



**Figure 4.4** Percentage of Households Based on Floor Large of House

The local government in Sarbagita Bali realizes to undertake approach to overcome to be worst this situation especially for low-income groups who do not have means to meet their demand and to live in better quality of houses and its environment. The local government encourages both PERUMNAS and private developer to provide the new housing and settlement that is focusing to address for low-income groups.

Perumnas in Bali generally started the housing projects in 1981. Till now, the housing and settlement and the amount of houses that are built. From all of housing projects, is only two projects allocated in Sarbagita with 2814 house units of low-income groups and 48 of middle and high income so that the total of 2841 units.

**Table 4.8** Housing and Settlement Projects Provided by PERUMNAS in Bali (1981-2005)

Projects	Location	Started (years)	Areas (Ha)	Low Income Houses (units)	Middle and High Income Houses (units)	Houses built (units)
Monang-Maning	Denpasar	1981-1991	45.164	2207	16	2223
Bukit Sanggulan Indah	Denpasar	1994-2005	27.165	607	33	640
Baler Bale Agung	Jemberana	1985-1994	10.397	689	0	689
Loloan Barat Negara	Jemberana	1993-1993	0.207	18	0	18
Taman Griya Nusa Dua	Badung	1989-1996	20.045	77	632	709
Padangkertha Kiri	Amlapura	1984-1996	7.680	611	0	611
<b>Total</b>		<b>1981-2005</b>	<b>110.658</b>	<b>4209</b>	<b>681</b>	<b>4890</b>

**Source:** Perum PERUMNAS (2006), *Housing Projects of Perum PERUMNAS in Bali*, Denpasar: Perum PERUMNAS

The housing and settlement of PERUMNAS are defined by T.15 m<sup>2</sup>, T.21 m<sup>2</sup>, T.25 m<sup>2</sup>, T.27 m<sup>2</sup>, T.36 m<sup>2</sup> for low-income groups and for middle and high income are T.45 m<sup>2</sup>, T.54 m<sup>2</sup>, T.70 m<sup>2</sup>, T.100 m<sup>2</sup> and Ruko (house and office).

While low cost housing project development by developers in Sarbagita, plan to be built is 27,865 units house but the realization is only 13,122 units house (*Table 4.6*). This is going down sharply when economic crises hindering in Indonesia. However, the private

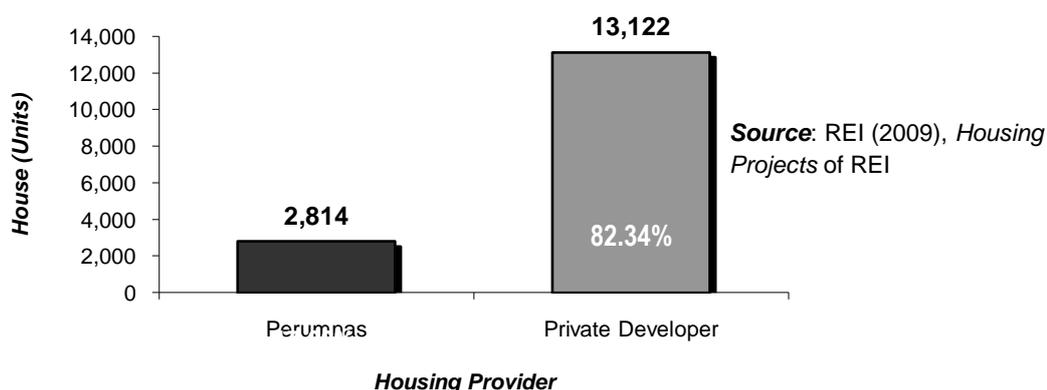
developer has still main role as provider of low-income housing and settlement in Sarbagita.

**Table 4.9** Affordable Housing Projects Provided by Private Developer in Sarbagita Bali (2005 –2008)

No	Year	Plan to be Built (units)	Realization (units)	Percentage of Realization (%)
1	2005	6,877	1,632	23.73
2	2006	8,141	2,448	30.07
3	2007	7,869	4,064	51.65
4	2008	4,978	4,978	100.00
	<b>Total</b>	<b>27,865</b>	<b>13,122</b>	

**Source:** REI (2009), *Housing Projects of REI*

If we compare the low-income housing projects provided by PERUMNAS and private developer, the private has more units than PERUMNAS.



**Figure 4.5** Comparison of Affordable Housing Projects Provided by PERUMNAS and Private Developers

The new housing and settlement in Sarbagita has different characteristic in the other city in Bali. It is more influenced by the capital of Bali Province and the central of tourist to live. As capital, it leads to rapid urbanisation and as tourism it is surrounding by tourist objects like Sanur Beach, Kuta Beach, Nusa Dua and Jimbaran lead the house demand of employment.

Those encourage the growth of new housing and settlement projects surrounding the city. Public agencies (PERUMNAS) and private developer have tried to expanse the area in Sarbagita to anticipate the housing demand. However, they used land in peripheral areas, which are allocated to agriculture areas. This is caused by lack of authorities in permission permit.

Moreover, lack of co-ordination actor involved and lack of controlling and monitoring of local government in Sarbagita have result of the housing and settlement provided by both PERUMNAS and private developers are lack quality and culturally acceptable of house, infrastructure and public facilities.

#### 4.1.11. Variables of Affordable Housing Provision in Bali

The government of Indonesia generally applies the same parameters to define and evaluate the urban housing all across Indonesia, including Bali. These parameters include aspects such as: land, building standard, and financial aspect.

##### a. Land

In Sarbagita, the pattern of owned land is influenced by kinds of special condition relating to history aspect, social-culture pattern, and economy. Particularly is tradition system, which connected with customary rule. Generally, the status of the land possessory right in Sarbagita are 87,79% owned by private sector ( individual land, 'adat' land and temple land) and 12,21% owned by state (Bali 2009).

##### a) Policy and Regulation in Land Development

The most important formal law base for land development in Indonesia is the Constitution 1945. Urban land development in Sarbagita mostly based on regulation from Denpasar Municipality No. 10/1999 concerning the plan of district space arrangement (RTRW). The function of this regulation is as basic of the implementation of development programs, location permit approval, as well as a guide of district space arrangement.

##### b) Selling Price of Land

Regarding current regulation that is regulation from Ministry of National Land /the head of National Land Agency No. 1/1994, revealed that land value is based on its real value with focus on object selling value of building and land taxes (NJOP/ 'Nilai Jual Obyek Pajak Bumi dan Bangunan') the last year of land. There are several factors affected land price, which can be denoted such as: location, types of tenure, the status of land authority ('*status penguasaan tanah*'), land use, the appropriateness between land use and district zoning plan, the availability of public facility (school, market, etc), facility and infrastructure, and neighborhood/environment.

##### c) Land Acquisition Process

Generally, there are four different methods used to acquire land for housing development, which the use of particular method is determined by at least three factors:

1. The status of the land purchaser (private individual, private corporation or state agency or corporation)
2. The status of the land (state land or privately held land)
3. The housing type to be developed (formal or informal)

In the housing provision by developers, they could not release the land without development permission from local government. It means, the first step to acquire the land is developers must submit an application form to local government to get

development permit or location permit. The time spent to finish location permit in theory is around 12 days.

After local government issued location permit, developers get permission to begin release the land. In land acquiring process, some factors as already mentioned previously such as availability evidence of land title or legal status of the land, the desire of the local landowners to sell their land, location factors, etc., will be direct influence the selling price of the land and process to release the land. Regarding current regulation, there is a significant changing in the procedure of release the land. In the past, both of Perumnas and private developers can use Land Release Committee from National Land Agency (BPN) for negotiation with the landowners to acquire the land.

By using the services of the committee, there were fewer problems convincing owners to release their rights. Moreover, the overall level of payment was lower. Otherwise, since Government issued a new regulation that is regulation from Ministry of National Land/the Head of National Land Agency Number 1/1994, private developers cannot use the Land Release Committee for negotiating with the landowners to acquire the land. On the other hand, Perumnas as a public company (BUMN) still able to ask assistance of land release committee in order to acquire the land. As an evidence of land purchasing, developers must apply a purchasing certificate (akta jual beli) to land authorization agency (PPAT/Pejabat Pembuat Akta Tanah)

#### d) Land Titling

After developers release the land, developers submit a new right application for that land in order to get master certificate (*sertifikat induk*). The overall process of land titling is cumbersome. Regarding current regulation that is regulation from Ministry of National Land/the Head of National Land Agency Number 3/1997 concerning *Utilization Certainty of Government Regulation Number 24/1997 concerning Land Registration* revealed that there is two types of land registration process that influence the amount of time consuming to grant a new title, namely:

1. Land has a legal title or registered.
2. Land is not has a legal title

In the first case, its time processing will be shorter. It is around two months, if the whole document needed was complete. in the second case, the time consuming for processing a new title is longer that is between 3 and 4 months (calculated after land surveying), because it involving surveying the overall boundaries of the site. In order to maximize surveyor and measurement tools, so that, for measuring less than 1000 hectares of site is conducted by Local Land Agency, and for measuring more than 1000 hectares is conducted by National Land Agency. After the master title has been registered, then developers have full right to acquire the land.

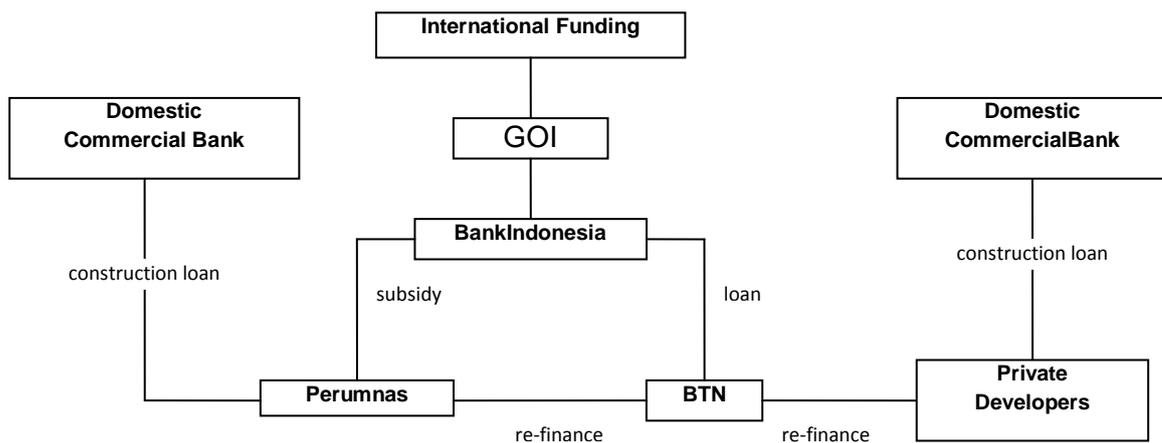
## b. Building Standards and Regulations

A wide range of building standards and regulations dealing with building codes, infrastructure standards, construction material standards, ceiling price standards, and land use influence both the demand and supply sides of housing. Several regulations and building standards issued by central and local government, which are have a close relationship with housing production, particularly housing for low-income groups such as:

- a. Decree of Ministry of Home Affairs No. 7/1993, concerning building permit
- b. Decree of Ministry of National Land/National Land Agency No. 2/1993, concerning Development Permit Regulation and Land Right for Enterprise in order to capital investment
- c. Regulation of Local Government No. 11/1995 concerning building permit
- d. Decree of Ministry of National Land/National Land Agency Nomor: 2/1999 concerning location permit.

## c. Financial Aspects

Financial support is one of the most determinant factors of the successful of developers to develop housing and new settlement. Both of Perumnas and private developers usually used loans from the State Savings Bank (BTN) or other financial institutions to encourage the financial for housing and new settlement development. *Figure 4.6* shows organisations of housing finance of Perumnas and Private Developers.



**Figure 4.6** Flow Chart of Formal Housing Finance

**Source:** Ministry of housing and human settlement, Housing and Human Settlement, 1992

Base on information gathered from the State Savings Bank, BTN provide a kind of construction credit called *Kredit Yasa Griya* (KYG). The purpose of the credit is to help developers in order to finance housing development. Its requirement can be defined as follows:

- a. Developers are REI members
- b. Developers are as the real estate enterprises
- c. Developers have account number at least 3 months at BTN
- d. Priority will be given to a developer, which has experience in housing and settlement development.
- e. Developers are not listed in the black list of BI (Bank Indonesia)

Credit requirements are: (1) the maximum credit can be provided is 80% of the whole construction cost, (2) interest rate is the adjusted interest rate and (3) Credit time maximum is 18 months.

## **4.2. Physical and Social Condition of Sarbagita**

### **4.2.1. Denpasar: Global Town of Sarbagita**

The formation and growth of traditional towns in South-East Asia cannot really be dispersed from the existence of the palace. In earliest times and even in the modern period, the palace has happened as a growth center, being economic, social, cultural and political. Most evidence shows that cities developed based on a cosmologic belief in which the city is the center of a magical region, where the king as a representation of God resides. This is obviously true that town of Denpasar has developed from a village, to become a global town (Sueca, 2003).

From being a small village Denpasar is currently the most beautiful city in Bali, both for locals and tourists from all over the world. After Bali was finally dominated in 1908, the Dutch developed Denpasar as a center of economic development based on trading and tourism in Southern Bali. The idea of cultural conservation was initiated by adopting local architecture to construct modern facilities.

After Bali was finally conquered in 1908, the Dutch developed Denpasar as a center of economic development based on trading and tourism in Southern Bali. The idea of cultural preservation was originated by adopting local architecture to build modern facilities such as the Bali Museum<sup>6</sup>.

The Bali Hotel was also built to offer tourist accommodation in the city center. The colonial authority decided to assert Bali a living museum and banned missionaries from coming to Bali. The development of the tourism industry in Bali cannot be parted from these first ingenuities of the colonial establishments in promoting, conserving and developing Balinese culture.

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<sup>6</sup> More detailed description of Bali and Denpasar can be found in McPee (1979) and Cuvarrubias (1937).

The government of the Republic of Indonesia has developed Bali as the center of the tourism industry there. Two main facilities were built in the 1960s: Ngurah Rai airport, and the Bali Beach Hotel (now The Grand Bali Beach). By the 1980s, the development of tourism in Bali had intensified. Thousands of tourist beds have been provided in the three main tourist resorts, Nusa Dua (the most luxurious resort), Kuta and Sanur, including starred and non-star hotels; especially in Denpasar and the hinterlands.

Most tourist and public facilities are now concentrated in Denpasar. This has confirmed Denpasar as a growth center for Bali, and it has had an important role in the development of the region. Therefore, it has been impossible to elude urbanization and migration, bringing both positive and negative significances upon the socio-culture, spatial structures, infrastructure, housing development, the environment and economic development (Sueca, 2003).

One key spatial development in Denpasar has been an ongoing land conversion from productive wet paddy rice fields into built-up areas, as described by Drysdale (1991) quoted by Bater (1995).

Some traditional settlements have agglomerated into the large, modern city of Denpasar and have lost their architectural and spatial characteristics.

“.....the impact of land conversion is greatest in the core area of economic activity, Kabupaten Badung, in which Denpasar, Sanur, Kuta and Nusa Dua, amongst other well-known centers, are located. The concentration here of manufacturing which caters to tourist demands has done little to ease the already considerable burden placed on the environment by the huge expansion of tourist facilities, not least of which is starred hotel development.” (Bater 1995: p. 88).

#### **4.2.2. Demographic Characteristics**

The population of Bali province has increased progressively in the last three decades. In 1980 an estimated 2,469,401 people lived in Bali. By 2007 this figure had increased to 2,777,356, and it reached 3,054,201 at the end of the Twentieth century (Mantra 1995; BPS 2008a).

Although family planning has been very successful in Bali, because of urbanization the population growth rate is still high, around 2 per cent annually. The economic and political situation in Indonesia post-1997 has prompted people to migrate to Bali, due to the better living opportunities there compared with other regions of Indonesia. In turn this has increased the population, especially in urban growth centers such as Denpasar.

Generally, apart from the effects of the bomb on 12<sup>th</sup> October 2002 which killed around 180 people, mostly foreigners from Australia and Britain, Bali may be presumed to be a stable and safe area with regard to both economic circumstances and job opportunities. Unfortunately, the disaster also damaged the Balinese economic infrastructure, which is highly dependent on tourism.

**Table 4.10.** Percentage of Total Population, and Population Density of Bali and Indonesia 2003- 2007

Percentage of Total Population	Population Density per km2		
	Bali		Indonesia
2003	1.67	438	76
2004	1.55	493	93
2005	1.49	514	101
2006	1.48	528	104
2007	1.47	535	106

**Source:** Bali Statistic Board, 2008.

After Java and Madura, Bali is the most populated area of Indonesia. The population density of Bali is much higher than the national figure. It has become five times higher than Indonesia in the last five years.

However, the population is not evenly dispersed among the nine districts of Bali. The attention of the Balinese population in Denpasar and the Badung Regency is very closely related to its status as the capital city of Bali province, and as a center with tourist attractions and facilities (Mantra 1995) which entice migration.

These and other factors have steered to Denpasar being the most crowded area in Bali. In 2007 there were 3903 people per square kilometer living in Denpasar, while it was just 542 for the whole Balinese context.<sup>7</sup>

**Table 4.11.** Household Characteristics of Bali Province and Denpasar 2008

Year	Bali		Denpasar*	
	Households	Density/km2	Households	Density/km2
2003	613240	502	81641	2939
2004	639543	510	74959	2996
2005	650039	516	75683	3011
2006	660687	522	**	**
2007	683581	542	**	3903

**Source:** Bali in Figures 2009 \*\* Data not available

<sup>7</sup> Compare with Indonesian population density 114 people/sq. km and the world, 46 people/sq.km (<http://www.worldbank.org>).

Interestingly, Bali today remains the center of the Hindu tradition which exists in this Moslem country<sup>8</sup>. Most inhabitants of Bali are Hindu (more than 93 per cent) followed by Moslem, Christian and Buddhist at around 5, 0.7, and 0.6 per cent respectively.

**Table 4.12.** Population by Religion in Bali

Year	Moslem	Hindu	Buddhism	Protestant	Catholic	Total
2003	158,564	2,631,210	16,037	10,258	11,957	2,828,026
2004	163,259	2,672,151	16,054	10,454	12,157	2,874,075
2005	151,702	2,635,891	14,974	14,367	12,627	2,829,561
2006	151,702	2,635,891	15,974	14,367	12,627	2,830,561
2007	170,930	2,800,313	16,879	22,294	15,951	3,026,367

**Source:** Bali Statistic Board, 2008.

### 4.2.3. Geographic and Topographic Characteristics

Bali is part of the Indonesian archipelago, which consists of approximately 13,000 islands and isles extending some 5,120 kilometers from west to east and just about 6,000 are inhabited (Parimin 1986). Similar the rest of Indonesia, Bali has two seasons, the dry and rainy seasons. The prior is characterized by steady trade winds from the southeast from early April until late September, and the latter is influenced by the westerly monsoon from October until March. It is quite common to have long periods of continuous heavy rain during the wet season and during the dry season as well. During the wet or rainy season, most of the days are cloudy. Heavy rainfall is usually accompanied by thunder storms.

Bali is one of Indonesia's smallest provinces, covering just 5,561 square kilometers, or 0.3 per cent of the country's total land area. The island is located between Java and Lombok islands, separated by the narrow and very shallow Bali Strait from Java and by the wider, very deep and stormy Lombok Strait, from Lombok Island. A dynamic volcanic mountain belt extending from east to west, in the middle of the island divides Bali into two main parts: northern and southern Bali. In the north the mountains drop sharply to the sea, rivers flow only during the rainy season, and the climate is drier than in the south. The southern region on the other hand is mainly an expanse of slopes and valleys, where rivers flow all year. Only two of the volcanic mountain peaks are active at present. These are Gunung Agung, which spreads 3,142 metres and is the highest and most sacred mountain in Bali, and Gunung Batur (1,717 meters). These often explode. Geologically, the island is unsteady as it lies over two overlapping tectonic plates which cause earthquakes to occur frequently. Average temperature is 25.7° – 32.4° C with very high humidity, more than 80 percent on average.

<sup>8</sup> See Wall (1995: 59) who wrote: 'Bali is unique in that it is 'a Hindu island in a Moslem sea.'

### 4.3. Balinese Culture and Tradition

#### 4.3.1. Balinese Social Culture History

To understand the modern socio-culture of the Balinese we require tracing back the social and cultural history of this ethnic from prehistory almost up to the present era. This section examines how the Balinese cultural development influences the way people build, perceive and conceptualize their settlement planning and designs.

Balinese culture has been prejudiced by various nations and cultures, with variable degrees of intensity<sup>9</sup>. The Indian culture is prominent, but there are also Chinese, Moslem and Western influences. The development of the Balinese culture can be divided. McKean (1973) in Geriya (1978, 1989) the evolution of the Balinese culture into three periods: the little tradition, large tradition, and modern tradition respectively, to describe the traditions existing before and after the arrival of Majapahit Hinduism, and the period after colonization up to the present. On the other hand, Goris (1955) divided the historic culture of the Balinese in more detailed fashion, into five periods: the pre-historic, the old indigenous, the old Hindu-Balinese, the later Hindu Balinese and the modern periods. Both were very much concerned with the particular role of Hinduism in Balinese culture. However, Goris (1955) note that Balinese culture is not exclusively based on Hindu tradition; elements of every period still remain. They state that *“we may not lose sight of the fact that these cultural phases are not just chronologically successive, as if the one were to cease abruptly where the next one began”* (Goris 1955: p. 14). They describe those periods thoroughly, incorporating the wide range of Balinese principles and the physical culture.

The ancient people in Bali had a greatly developed civilization, however there is no clear evidence about how they built and planned their settlements. It seems tough to determine anthropological hints, as most of the land is covered by very thick volcanic layers of earth except in the western part of Bali. The ancient Balinese might be considered as a peasant culture, which is distinct from a culture of hunters or nomads and the trade culture (Eisman 1990b).

The ancient and modern Hindu Balinese settlement can be represented by the settlements around the mountain and the settlements in plain areas individually. Both settlements diverge in their morphology. The former, mountain village is varied, and in which the *Bali Aga* people live as a classless community. The last is more unvarying, occupied by migrants, indicating a stratified community from the Empire of Majapahit (14 century). Most villages in the mountain areas categorized by their linear pattern have a plaza as their core and the land belongs to the community. On the other hand, villages

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<sup>9</sup> Through archaeological and linguistic analysis, the pre-historic migration from South of China to Taiwan, the Philippines and then Indonesia has convinced us of the origin of Indonesian people, including Balinese.

in plain areas are distinguished by a grid pattern, have a crossroad at the center and land rights for individuals. Social stratification in the plain areas is also established in their dwellings. Buildings or homes have been constructed through community self-help.

In the modern era, where democratization has been familiarized into the social life of the Balinese, society has developed more mobile both horizontally and vertically. The role of the traditional social class or 'caste' system has been fading, although in some cases it still dominates. (For further discussion of the dynamics of the caste system in Bali (Bagus 1969a; Wiana and Santeri 1993). Skills, professionalism, prosperity and other modern points are more important than the previous rights from the 'caste' system. Besides the social life, these changes also influence how the Balinese recognize, build and use their settlements. In this period, contacts between Balinese and more global cultures through modernization or 'westernization', and tourism have become more intense, with positive and negative significances (Udayana 1973; Geriya 1989). Building technology, materials, building typology, construction management, building morphology and the like have been extended, and these greatly affect housing planning and design including building construction. Religion as part of culture plays an important role in daily life of the Balinese (see on Figure 4.7). The Balinese have engaged foreign culture and tradition, and blended them into their new way of life and new ways of creating and shaping the built environment.



**Figure 4.7.** Balinese Culture: between Space, Ceremonial and Daily Activities

**Source:** Author's Survey, 2009.

### 4.3.2. Balinese Concept

Based on Hindu lessons, there is a close association between man, the environment and the cosmos, even the Supreme Being. Man (microcosm) is the image of the environment and the cosmos (macrocosm) or vice versa, or man may even be seen as the cosmos (Khambatta 1989; Eisman 1990b). As a microcosm, man bonds the same structure with the universe. To animate in harmony in the universe, therefore, the environment should have the same structure and elements as man and the cosmos. This idea is manifested in how the Balinese have organized and conceptualized their built environment. Like the universe and the human being, the environment has three basic elements: the physical element (the physical area), the ambiance (the temples, shrines), and the energy (the societies). These things are the sources of happiness, called *tri hita karana*.

The Balinese live in three real worlds; the past, the present and the future, due to their belief in reincarnation. They believe in the living world and the world after passing away. For them, life is infinite and time is circular, not linear (Budiharjo 1995). The past cannot be separated from the present, and the future is the real expectation. This is expressed in their dwellings and settlements, as the Balinese live with their ancestors in the houses and villages. The role of the ancestors is enormously important in daily life, particularly when religious ceremonies are accompanied.

Parimin (1986) explains that there are two pairs of antipodal directions. They are *kaja-ke lod* (toward the mountain, against to the sea) and *kangin-kauh* (east or sunrise, versus the west or sunshine direction). *Kaja* and *kangin* have the similar meanings of the sacred or upper world, while on the other hand *kauh* and *kelod* are acknowledged as profane or lower worlds. The spatial organization of settlements and houses is stated by this worldview. This is no more than a general description of the very complex Balinese spatial organization. Parimin (1986) identified that there is no single description that can justify the various Balinese settlement concepts.

However, unlike Western people who are familiar with worlds in antagonism, the Balinese live in harmony between those opposing powers, keeping a balance between the two; the divine and the evil, good and bad, sky and earth, mountain and sea, positive and negative, sacred and profane, constructive and destructive, male and female. The Balinese distinguish these divisions not as mutually restricted but complementary comprehensive, not either or, but both and. So the centre is a very important position, as reflected in traditional house and village patterns, this being obviously proved during religious activities<sup>10</sup>.

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<sup>10</sup> The concepts of *sanga mandala*, *nawa sanga*, *padma bumi* and the like are examples of the significance of the centre. (For further information see Sueca, 1997; Samadhi, 2001; Budiharjo, 1995).

### 4.3.3. Social Organization and Stratification

At the village level, there are at least two basic institutions which overlay and cooperate in complicated ways in the modern Indonesian state. They are the Balinese customary (*adat*) institutions called *desa adat* (the customary village), and bureaucratic (*dinas*) institutions called *desa dinas*. These institutions are, in some important respects, extraordinarily harmonizing. The former (village) is a self-contained, independent community in which everyone has equal rights and obligations, with a significant basis of customary community action. Meanwhile the latter has been primarily responsible for the successful accomplishment of national development activities (Warren 1991; Cuvarrubias 1937). The complex relationship between these two village areas was defined diagrammatically by Parimin in his doctorate dissertation (Parimin 1986: p.25) and also Sueca, in his case study in Denpasar (1997: p.54). Family life in the customary village is completely tangled with the life of the whole village (Eisman 1990b). However this is not the case in bureaucratic villages.

Similar to what (Waterson 1993: p.45) observed, traditional villages are regarded as the village of origin or the 'old village', which has strong associations with the forefathers. All Balinese are bound to one village at least, where they have their own house of origin within which all their religious ceremonies are typically conducted. Every household head is a member of one customary village, usually the village of origin even though they may live in an urban area or far away. The house in the village of origin and the village itself are therefore not just physical territories or properties, but have very strong social and religious implications.

In addition, there endure several customary corporate institutions such as *banjar* (hamlet-parts of the village), *subak* (the irrigation association), *seka* (voluntary work group), *pemaksan* (temple congregation) and *dadia* (patrilineal descent group). These groups cooperate in a way Geertz (1991) called 'pluralistic collectivism' as the heart of Balinese social structure. The basics of the corporate authority of the residential village are primarily social and cultural. During modernization, the dynamic of social organization has transformed (Bagus 1969a).

As a replication of the macrocosm, the village structure and organization is dependable with the structure and organization of the universe. Three main elements of the village are the soul (temples), the body or physical elements (the village or settlement), and the energy (the village members and inhabitants). Three main temples are spread out in the village area: *pura puseh* or the temple of the origin in the mountain ward direction (called *kaja*); *pura desa* or the temple of the village in the middle of the village; and *pura dalem*, or the temple of the death in the seaward direction (called *kelod*) (Eisman 1990b: p.191).

However, we need to accept in mind that this is just the most popular general structure for the Balinese village. As Parimin (1986) points out, each village in Bali is unique. In other words, there is an enormous diversity of villages in Bali either in their structure, spatial organization and morphology. He insists therefore that no single description can be offered to clarify the complexity.

Eiseman (1990a) wrote that caste is the least unspoken aspect of Hinduism, and the most execrated. In Bali the caste system has become one of the most interesting topics of discussion, especially among parties that support or dispute it (Bagus 1969a). He observed the dynamics of Hinduism in Bali in terms of 'caste' conflicts between two opposing groups, during the era of modernization. As he points out, modernization has contributed to the alteration in social stratification practices. Social classes are becoming more open, both vertically and horizontally in contrast with the closed traditional system. Although caste performs are no longer dominant, issues and problems sometimes emerge in the current situation. Regardless of religious practices, generally the caste system in Bali has been fading. Ancient Balinese lived in egalitarian but toughly structured communities, as seen in mountain villages such as Tenganan, Sembiran, Julah and Sidatapa. However, following the influence of Majapahit 'caste' was adopted as part of the Balinese social structure. Social stratification was introduced with the recognition of the Hindu religion. In the Hindu holy book called Rig-veda it is mentioned that through sacrifice, the god Purusha created human beings. The Brahmanas (priests) came from his mouth, the Ksatriya (rulers and warriors) from his arms, Wesya (merchants) from his thighs and the Sudra (workers) from his feet (Eisman 1990a: p.17). This original Hindu social class division was called '*warna*, which originally meant 'colour' but came to mean 'station,' implying choice of occupation' (Eisman 1990a: p.27). This social class structure is open, and based historically upon social function. People can move up and down depending on their achievements and worth, as discussed by Eiseman (1990b: p. 27): 'there was movement between the four *warnas*, and merit or demerit could result in a change of station'. This adaptable and open class system, however, 'evolved into the more rigid Hindu idea of *wangsa*<sup>11</sup>, or birthright-based classes' (Eisman 1990b: p. 29).

Traditional social class affects the spatial organization of the built environment to a certain degree, particularly in house building. The name of the home for every class and the structure of their houses, the pavilions, or buildings that may be constructed, the ornamentation etc. could be an honor for certain classes or castes.

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<sup>11</sup>*Wangsa* means inherited by descent.

#### 4.4. Meaning of Balinese House

In understanding meaning in the built form, Waterson (1993: p. xvi) quotes Rapoport (1982) that "... *meaning resides not in things but in people: people want their environment to mean certain things*" and those meanings are hidden and associational, rather than noticeably well-designed. The following sections explore the concepts and meanings of the house for the Balinese in order to comprehend how they outline, perceive, conceptualize and use the house.

##### 4.4.1. Terminology of Balinese House

Silas (1997) claims that one reason for the catastrophe of housing schemes in Indonesia is applied inappropriate concepts of a house. Under the United Nations and other international advocacies, a house is merely defined by its physical aspects, as designated in housing programmes. Tipple (1994) were also concerned that decoding the world house into the local language would certainly verify difficult. In order to define proper housing policies, it is significant therefore to classify the more appropriate local language applicable to a house.

Among those western countries which state English the words house, home and dwelling are little distinguished, and are sometimes used interchangeably. According to the Oxford Dictionary, house means "*a building made for people to live in, usually for one family*". On the other hand, a home is defined as "*the place where one lives, especially with one family; the district or country where one was born or where one has lived for a long time or to which one feels attached*". Barnet (1984: p. 3) differentiates as follows: "*houses are physical structures, homes are social, economic and cultural institutions*". In the introduction to his book, Christian Norberg-Schulz elucidates that concept of home does not just refer to the physical thing. He quotes Tarjei Vesaas from his short story 'Last Man Home', who tells that Knut feels the forest is his whole life. Knut is certainly 'at home' in the forest, but he still needs a house, a dwelling in the usual sense of the word (Norberg-Schulz 1985: p. 9). It can be concluded that the word "house" is usually used to mean the building or the physical aspects of the home, whereas the word "home" recommends the qualitative aspects of the house.

In oriental cultures, the term house has diverse meanings among tribes. Blust (1987) in Fox (Fox 1993b: p. 9-12), for example, identifies similarities and differences in Austronesian cultural traditions associated with the term house. Blust has recorded certain terms that signify some kind of 'house', such as *rumaq*, *balay*, *lepaw*, *kalamir* and *banua*. The term *rumaq* is most widely used among Austronesian populations to mean house, and also refers to the symbolic meaning for origin or ritual unity. The second term '*balay*' may refer to a house in the Philippines, or denote a 'public meeting house' in other languages. For the Balinese, this term means '*a raised platform or a kind of*

*pavilion which may have a roof and walls on one or two sides'* (Fox 1993b: p. 11). These can be found in household compounds, as well as in temples and other public places. The third term, *lepaw* takes a variety of meanings, such as a house, a store for grain, hut, a building other than a longhouse, back verandah or kitchen verandah, farmhouse while *kelamir* generally refers to a granary, store house or barn. Finally, the term *banua* denotes an area that may be defined as land, country, place, settlement, an inhabited territory or village. Thus among nations or tribes around the world there are specific or local terminologies related to the house that may hold the same or different meanings.

In Bali there are some terms which represent a house, such as *umah*, *jero*, *puri*, *grya*, *pondok*, *bale*, *kubu*, etc. Each term has its meanings. It may mean buildings, houses, home, village, island, territory, state, the earth, globe, an institution, kinship, place, dwellings, and settlements. *Umah*, *jero*, *puri*, and *grya* all refer to a house for diverse social groups; for the ordinary people, honorable families, king and for the priest families, separately. These terms may indicate to family house or compound, housing unit or buildings, and in a symbolic wisdom to define units of kinship and origin. *Umah* and *bale* may be used interchangeably, to indicate buildings. A compound is an *umah* within which one or more households live; share some common facilities while each household may also own a house unit in the compound. A household shrine is almost always delivered within a single house or compound.

#### **4.4.2. House as Physical, Cultural, and Alive Entity**

*“The house, as a physical entity and as a cultural category, has the capacity to provide social continuity. The memory of a succession of houses, or a succession within one house, can be an index of important events in the past.”* (Fox 1993b).

In western culture a house is viewed as a physical creature, and an investment. A house in oriental culture especially in Austronesian tradition, on the other hand is not simply physical entity but falls within a cultural category (Fox 1993a; Waterson 1993). A house can be an manifestation of significant events in the past, a repository of ancestral objects, a ritual attractor, the centre of social ceremonies; while it is a ritually ordered structure, *‘a center, a combination of theatre and temple’* (Fox 1993b: pp. 1-2), or a unit of kinship (Waterson 1993). Fox concludes that: *“Thus, in a complex way, the house is culturally emblematic: it has a clear, concrete representation but relates to and embodies abstract social ideals and a variety of culturally specific values”* (Fox 1993a, 1993b). In his cross-cultural studies, Rapoport (1969) also found out that culture noticeably influences how houses have been planned and formed.

Fox (1993a) observed that the house in South-East Asia does not just establish a physical domain but also can indicate the group of people who claim membership to it,

or 'house societies' in Levi-Strauss terminology (Levi-Strauss, 1983). The role of the house as a temple, or dominant function of a compound as a place to lead ceremonies, particularly in Balinese societies support the arguments that a house is more than just a house and is culturally and socially constructed. The house is crucial concept to categorize social grouping or relationship patterns; therefore, it is important to recognize the society's existent in South-East Asian communities. Waterson (1993: p. 222) even argues strongly that in South-East Asia "*The function of the house as dwelling is relatively insignificant in some of these societies*"

Native 'animist' religions believe that vital force confers in differing concentration to people and things, and thus people contribute in the cosmos on much the same terms as everything else. This idea, to some extent, is developed through the region and it is important to note that ethnographers regularly note the idea that the house itself has a 'soul' or vigorous strength (Waterson 1993).

In many Austronesia communities, a house is regarded as an animate entity either through rituals during the construction process of the house, or through explanation of body symbolism and anthropomorphic imagery. Waterson (1993) quotes Howe (1983), who wrote that buildings are considered as living things by the Balinese although he found some difficulties in explaining in what sense buildings are regarded as being alive, see also (Fox 1993a; Budiharjo 1995: p. 34). The Balinese consider that like a human being, a building has a head, body, feet and a soul. This practice is based on the philosophy in Hinduism *tat twam asi*, meaning "*You are that*" (Eisman 1990b: p. 18). Another application or realization of this ethic can be seen in every aspect of the Balinese cultural system, for example the way the Balinese dress buildings is the same as the way people dress themselves up.

The process of building construction is full of ceremonies, from the foundation (digging a hole for the foundations) until the first living. This is part of the ritual harmonizing process necessary between the dwellers and the house. The final ceremony, called *mhaspas* is a purification rite that "*brings the building to life,*" (Eisman 1990b: p. 199). This process emulates the myth of the creation of the universe through sacrifice (Khambatta 1989)<sup>12</sup>. In addition, Eisman (1990a) notes that the alteration in building measurement called *urip*, which means "*bring to be alive*", acknowledges the building as a living entity. For further information on the construction of buildings in Bali read (Eisman 1990a; Kagami 1988). In other words for the Balinese a building, like a human being, consists of the same structure and elements; the body, the soul, head, body and feet.

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<sup>12</sup> Khambatta wrote that: "*Ritual and practices in a traditional society express a certain world view and serve to establish the position of the building, or any artifact, within the larger order of the universe. This embodies a fundamental way of thinking about man-made things and their relationship with ultimate reality*" (Khambatta, 1989: 257-8)

#### 4.4.3. House: Sacred Space, Orientation, and Cultural Elements

*“Direction is instrumental in the West. ... but orientation is exceedingly important to the Balinese. In Bali, a direction describes a vector not just in physical space, but in cultural, religious and social “space” as well. As a result, every Balinese seems to possess a built-in sense of direction. And if for some reason this feeling is lacking, the individual is visibly uncomfortable and disoriented.”* (Eisman 1990b: pp. 2-3).

*“Thus the Balinese perceive the space according to their religious experience, not as “homogeneous”, neutral, geometrical, Euclidean space, but as a space with a unique ontological status, a sacred space”* (Parimin 1986: p. 16).

The quotations above show how the Balinese concede space; however, they are not restricted. Khambatta (1989) implies that order is one crucial characteristic that differentiates traditional society. It is a sense of coherence in every aspect of life, which draws from a common knowledge of origins. The conception myth of the universe usually obliges as the source for organization; not just settlement, housing or territory, but also the society, house and the family.



**Figure 4.8.** Plan of Typical Balinese House  
**Source:** Dwijendra, Ngakan Ketut Acwin, 2008.



**Figure 4.9.** Pictures of Typical Balinese House  
**Source:** Fieldwork Survey, 2009.

Fox has assessed traditional houses in Austronesia. They have one common characteristic in their ordered structure, consisting of a formal orientation which orders the spatial harmonization and orientation (Fox 1993a: pp. 14-15). This may be external or internal to the house itself. The external orientation usually embodies the cosmological orientation, where spaces and buildings are located towards the elements of physical nature, such as the sun, a mountain, river, the sea, cardinal points etc. (Fox 1993a: p.79). The second basic orientation is the internal one, where houses are structured in terms of a set of internal orienting principles, e.g. a fixed order or where certain features of the house such as beams, posts and corners organize points of reference.

In Bali, space has manifold values and directions of sacredness. The most sacred direction is mountain ward, called *kaja* and within which gods live. It is towards this direction (mountain ward) that the Balinese position their temples, their head when they sleep, their face when they pray, and the most sacred pavilion in their compound. This idea was influenced by Indian Hindu mythology that respects the mountain as a holy place, and the centre of the cosmos. The opposite (seaward) direction called *kelod* is profane.



**Figure 4.10.** Elements of Balinese House

**Source:** Fieldwork Survey, 2009.

*“Balinese attach great significance to ensuring cultural appropriateness of the house. They have the significant cultural sensitivity as elements of Balinese House such as the concept of sacred and profane areas and Balinese traditional architecture and built form.”*

*The concept of “sacred” and “profane” areas concern of (1) zoning of living spaces – allocating praying place within sacred area, while inner courtyard and kitchen allocated within profane area, (2) room position and furniture arrangement (sacred – profane), and (3) orientation and Circulation - room position/ furniture arrangement in conformity with the rule that facing/ pointing towards the sunrise and mountain is considered sacred while facing sunset and beach is considered profane).*

*While the respect for Balinese traditional architecture and built form consist of (1) height of building – should remain under the height of a coconut tree, i.e. less than 15 meters, (2) boundary wall and Balinese gate, (3) building layout – seen as square or combination of squares, (4) building form (square or combination square), (5) Balinese structure and construction (using Balinese structure), (6) building material (use of local material), (7) elevation/ facade – should be readily identifiable as comprising three parts: head, body and foot (in line with the Tri Angga concept), and (8) Balinese ornament an colour – presence and compatibility of ornamental elements and colour within the house and the gate” (Parimin 1986; Eisman 1990a, 1990b; Budiharjo 1995; Gelebet 1998).*

The second sacred direction is toward the sunrise, called *kangin* (east) and its opposite is called *kauh* (west). Balinese traditional houses are designed with multiple orientations acknowledging the mountain and sea directions, the sun rise, the sky and earth orientation, and with regard to internal orientation such as the inner courtyard. All buildings in the compound will face onto this space, for further information see (Parimin 1986; Eisman 1990a, 1990b; Budiharjo 1995; Gelebet 1998). The inner courtyard, called *natah* acts as a ritual attractor around which most performances take place and are organized.

Most literature about housing has seen the house as merely accommodating domestic spheres, as a reproduction domain for the women. This is distinct from the public sphere, which is overlooked by men in the production process. This gender division is usually used to explore the organization of space and social structure. Women are acknowledged to have a secondary role that should be excluded from public or ritually important areas, and deceived in a domestic sphere that is merely a reproduction and consumption domain; by definition the place of the powerless. Meanwhile, the men are superior, independent, strong and dominate the production and public spheres.

However, Waterson (1990: p. 169) notes that: *“This division between ‘public’ and ‘domestic’ spheres and the attempt to relegate women to the latter, has frequently been identified as a prominent feature of Western industrial societies. ... as a by-product of the development of a capitalist industrial economy.”* Therefore, she argues that: *“Since these constructs really derive from a Western framework of ideas, however, we cannot uncritically assume that they will apply in other cultures too, however temptingly universal their themes may sound”* (Waterson 1990: p. 169). In addition, Waterson (1990: p. 169) explains that: *“the weaknesses of assuming that the ‘domestic’ is by definition also the ‘non-political’: she points out the lack of consensus in anthropology*

*over what constitutes 'politics' and what it encompasses is a culturally relative concept".* And she concludes that in South-East Asia, those divisions are significantly invalid.

In the Balinese dwelling, for example there is no severe division of spatial use based on gender discrepancy. Houses are used for domestic and also ritual activities, within which both men and women take part. In some ways women have a important role in preparing and performing ceremonies, particularly in making offerings, for further discussion see (McPee 1979).

*"For a month the women of Nyoman Kaler's household had been busy, like the women of every other household in the village, in preparing the offerings, the endless cakes, fritters, sweets, and ceremonial objects made of palm leaf. ... The morning mist was still in the air on the day of the feast as one by one the men came out of their doorways and walked towards the temple, to begin the festive cooking. It was not long before the courts were in turmoil. Soon there was the sound of chopping as groups of men prepared the spice, the sound of soft scraping as they grated huge mounds of coconut."* (McPee 1979: p. 46).

The quotation above shows the typical harmonizing roles of men and women in Balinese society. This practice of collaboration among men and women is the same whether in the village temple, household temple or kinship temple. Cooking is not overlooked by women, just as rituals are not dominated by men. As Waterson (1990) points out, the separation between public and domestic domains is culture specific. Therefore the concept of domestic and public domain and the activities happening in these spheres should be re-examined, in order to suit the concept into the local culture.

#### **4.4.4. House: Kinship, Household, and Temple**

Waterson (1993) perceived social life and the organizational aspects of architecture in the Austronesia world, which yield new visions linking architecture and anthropology. One main concept, among other crucial key points necessary to understand Austronesia houses is the function of the house as a unit of kinships. She argues that rather than being just a physical structure, the house in this community constitutes the "... *group of people who claim membership in it*" (Waterson 1993: p. 224). This idea is very closely related with the function of the house as a ritual site, or the village of origin (see also the following section concerning the house, temple and house temple).

As ritual sites, the Balinese trace their bonds to and through houses. The structure, and the position of houses in social bonds in Balinese society have been examined by Lansing (1983: 107) even though his categorization can still be debated, see also (Geertz and Geertz 1975; Geertz 1991; Sentosa 2001). The category of the house can also be tracked through the status of the household temple within the house.

One other important key point with which to understand the significance of the house in Austronesian societies is the use of houses as ritual sites. In other words, a house is regarded as a temple, a sacred place. Waterson observed that if we observe cross-culturally, there is a range between public and private, and between temple and house. She reveals that very often these functions are combined in a single structure. While in the western world the house is mainly a dwelling, in South-East Asia, however the *“house is not always primarily, or even at all, a place of residence. Some houses, although all-important as places of origin for the kin groups which claim descent from them, may actually be left uninhabited. Enormous effort and expense may be put into maintaining the unoccupied building, which remains above all a ritual site and as such should not be allowed to disappear”* (Waterson 1990: p. 43; Fox 1993a: p.222).

Waterson (1993) also suggests that the ritual functions of a house cannot be split from the house identity. As she states: *“What are sometimes referred to in older literature as ‘temples’ were in fact, simultaneously inhabited houses of a kin group”* (Waterson 1993: p. 46). In addition, what is sometimes regarded as a temple is part of a house, or house-temple.

The Balinese use most parts of the house to offer ritual ceremonies, these including *lebu* (space in front of the house gate), inner courtyard, pavilions and household temple. The central usage of the house for ritual sites leads to the rationale of enormous ‘investments’ being made to maintain the structure, even though it is not frequently used. The Balinese for example build and keep their pavilions and the household temples, which are most used for religious ceremonies, with wooden carving and costly finishes.

## **4.5. Balinese Culture, Religion, Tourism and Globalization**

### **4.5.1. Balinese Culture: Correlation between Religion, Art and Culture**

Many people have made a mistake to conclude that the Balinese culture adhered to a Hinduism religion, especially when they see that the performances of great ceremonies are always completed with art activities. Actually, this is attempt to show what religion looks like, indicating that hinduism should be applied by referring ‘truth, holiness, and beauty’ (*satyam, siwam, and sundaram*). Religion is revealed by God; what is revealed inspires humans to do which then lead to the creation of cultural words. Therefore, in the level of concepts, one should be able to distinguish religion from culture, although, in practice, religion cannot be separated from culture. Similiarly, culture and religion cannot be separated in Bali; Balinese house for instance is arts and one of the cultural elements which support religious practices, and so that every Balinese house performance is inspired by Hinduism. One of the values is regarding the ceremony as a ‘cultural asset’, meaning that ceremony has exchanging value or may be used as s cultural capital which is regarded as a resource of economy that can be beneficial in the long run.

Balinese house as art design are part of culture has many symbolize of people's life and daily activities. According to Koentjaraningrat (1978, p. 12), what culture contents can be grouped into seven cultural elements which are universal in nature; they are (1) religious system and ceremonies, (2) societal organizational system, (3) system of knowledge, (4) language, (5) arts, (6) livelihood system, (7) system of technology and equipment which can be further divided into sub elements.

As far as the life of the Bali-Hindu followers in Bali is concerned, religious elements and ceremonies seem to be related to the elements of cultural and arts. On one side, the implementations of religious elements are seen in the religious activities, which are completed with various type of arts and culture. On the other side, art activities are always completed with religious ceremonies as needed. Moreover, many ideas of arts appear from the concepts of Hinduism; therefore, it can be stated that religion is divine revelation which inspires art activities.

Religious spiritualization or attempt made to make religion the soul of art activities is so wide that it covers various fields of arts that the Veda contains and are observed in Bali such as: 1) architecture; 2) sculpture; 3) art of painting; 4) performing art; 5) art of songs; and 6) art of music. The spirit of the art activities is Hinduism which is believed to be the source of ideas and energy can revive movement, enthusiasm, the soul, and all the components of the art activities in Bali (Geriyana 2008, p.46; Artadi 2009, p.68).

As a concept, the essence of religion is to achieve what is referred to as a social integrity. Religion is the sources of creativity and sublimity for cultural development (Ali 1976, p. 124; Balipost 2004, p. 77). Religion as the sources of creativity means that it is the source of ideas which is abstract in nature. Religion only appears and can be observed from cultural practices. Therefore, it may be stated that the relation between religion and culture is like the living human body. Its body is culture, and its soul is religion. The physical existence is the feature of the spiritual existence. Thus, it is not exaggerating that in Bali religion is the spirit or soul of house design and art, it is the subsystem of culture.

#### **4.5.2. Balinese Cultural Capital: between Keeping Identity and Globalization**

Balinese architecture can be observed from the constructions of holy places such as mandira or other temples; and from the constructions of pasraman (Hindu boarding school) which reflect specific Indian architecture. In Bali much Indian architecture has been the model of Balinese architecture. The modified architecture is sometimes more complete than the original. The application of Balinese architecture is wide enough and includes the architecture of holy places such as *meru* (pagoda of Hindu temple), *candikurung* (a type of gate), *candibentar* (another type of gate), *padmasana* (a type of

shrine), housing, office, hotels, shopping centers, compuses or schools, place of amusement, *gapura* (a gate functioning as the entrance to a village), and a monument which is usually located at an intersection (Gelebet 1998, p.69; Dwijendra 2007, p.33). They are spiritualized through the choice of *dewasa ayu* (precious day) and a religious ceremony called *melaspas* (purification ceremony). The process of spiritualization of holy place, for example, is different from the process of spiritualization of a non holy place. The religious ceremony held for the process of spiritualization of holy place is completed with *mendempedagingan*; and the religious ceremony held for the process of spiritualization of a non holy place is not completed with *mendempedagingan*. In addition, simple buildings without high architecture in Bali such as chicken coops, pigpens, huts in the rice fields and the like are built on a precious day 'dewasa ayu' and the religious ceremonies used to spiritualize and purify them are referred to as *ngulapin* or *melaspas*.

Recently, cultural capital of Balinese Housing and Settlement is based on the traditional and contemporary tangible and intangible Tri Hita Karana (*palemahan, pawongan, and parhyangan*) used as the basis for village and tourism development to complete tourism activities. The cultural capital includes friendliness, the way of managing a village, tourism and beautiful beach as farmer, fisherman, gold smiths, vendors selling souvenirs, and the coastal activities which have something to do with the sea, the sun and the sand, ritual ceremonies such as *melasti* (pilgrimage performed at the beach), *tabuh rah* (cock fighting), etc. The stronger hegemony had caused the cultural capital to be used as the basis for developing tourism after the Government issued the Bali Regional Regulation Number 3 of 1974 concerning Balinese Culture.

The *Tri Hita Karana* based cultural capital of the housing and settlement in Bali has been used as the basis for developing tourism (Geriya 2008, p.57; Artadi 2009, p.49). The traditional village and urban settlement, as the owner of the intangible cultural capital in the domain of *palemahan* (environment) such as beautiful beach, greeny rice field, forest, etc, and the tangible cultural capital in the domain of *pawongan* (human being) such as friendly attitude, arts and religious tradition as the basis for developing tourism, on hand, should be able to maintain the sustainability if the cultural capital of Bali from the cultural influence of tourism industry; on the other hand, they are also used to fulfill the market taste, hegemony in tourism, pragmatic life style, and should also be able to make adaptation in the process of globalization.

The tradition and globalization in the perspective of cultural studies show binary opposition; in one side, two poles attract each other for different interests; on the other side, the process of globalization takes place in which the local culture and global culture form and become part of one another. In some part, cultural capital becoming

political economy as commodification. As stated by Vincent Mosco (1996, pp. 140-144), one of the main concepts used to explain what political economy is commodification. According to Marx, commodification is a process of collecting capitals and values in such a way that the value of usefulness changes into the value of exchange rate. Furthermore, Mosco explains that commodification refers to the process of changing the value of usefulness into the value of exchange rate. The value of product transformation is determined by the ability to fulfill the social and material need whose value is determined by the market. A commodity has the realization of material which can be directly and easily felt, as it is the natural result of the production process which has controlled social life.

It was believed that tourism could improve the local's economy. However, the highly strong pressure of the market ideology, as a result of hegemony in tourism, made the expected local people's welfare had not been achieved yet; many local people were getting marginalized in the development of tourism. A symbolic manipulation of market ideology, that is, the fact that among the sparkling activities of tourism and the rapid growth of the facilities of accommodation, there were still many local people who were in poverty. They become economically marginalized as they were not equipped with the knowledge and skills needed in tourism and this condition. The local people became poor and victims of the capitalistic market competition. This could be seen from those who had to sell the land which had been inherited from their ancestors; as a result, they were becoming homeless and lived in unfeasible residences.

#### **4.5.3. Importance of Balinese Culture: Diversity and Unique Culture**

Balinese is recognised as diversity and unique culture by world heritage organisation, government of Indonesia and tourists in all aspect of cultures elements including on houses which has strong concept, norm and architecture vernacular (Gelebet 1998). It attaches great significance to ensuring cultural appropriateness of housing: the extensive symbolism and strongly traditional elements at house carries within the cultural context even today.

Indeed, Balinese culture has a great value for tourism development and economy potential particularly in Bali and Indonesia in general. 'Cultural value' basically refers to the commonly held standards of what is acceptable or unacceptable, important or unimportant, right or wrong, workable or unworkable, etc., in a community or society (Geriya 2004, p.46). Or refers to its ideas about what is good, right, fair, and just. Sociologists disagree, however, on how to conceptualize values (Triandis 1994, p.57; Young 2008, p.88). The cultural value is the value which is not only defined by individuals but is also accepted by people. A culture has its own values which are possibly different from the values of another culture.

The internal value refers to the meaning of Balinese house and art, starting how its performed to its form, The external value refers to the effect or influence which can be more widely felt and is related to cultural preservation; how the network of information is created; the social interaction which leads to appreciation and cultural exchange.

Balinese tradition and culture is a tradition of myth and symbol. The organization of a cosmic territory's elements configuration as a result of cosmos-religious beliefs evolves from the translation of phenomena into symbol system. The symbol system expresses these beliefs by abstracting and translating them into principles of organisation. Believing that an individual must arrange his life in perfect harmony with cosmic order, the Balinese create their indigenous dwellings according to a centuries-old tradition generated by their idea of cosmic harmony. As the Balinese are becoming socially more integrated with outside world however, Balinese housing settlement have been slowly changing (Sentosa2000, p.17; Nirarta 2001, p. 561). Although the culture changes due to globalization, Balinese house symbolic is still strong maintenance. The trend is loss on some part or elements of Balinese culture but it is still less compared to others cultures within Indonesia. Balinese culture has still rich of religious, belief, symbolism as social capital and development potential of tourism and economy in Indonesia.

To achieve culturally appropriate houses, the design process has to acknowledge the Balinese Hindu psycho-cosmic concept as the core principle in the design of Balinese housing. As such, the existing indigenous cosmic territory, which accommodates the relationship between human (microcosm) and environment (macrocosm), along with its *adat* (traditional community organization) law and institution, has to be incorporated in contemporary housing design processes (Nirarta Samadhi2001, p.563). As a result, housing spatial organization, structure and form will significantly reflect the Balinese cultural identity.

#### **4.5. Summary**

We have learned from this chapter about the physical, social, and cultural meanings of the house for the Balinese which can be summarized as follows. Sarbagita is the most densely populated town in Bali which is very closely related to its status as the capital city of Bali province, and as a center of tourism industry in Indonesia which attracts immigration. Similar to urban areas in Indonesia, urban development of Sarbagita is marked by high population growth rates, a high proportion of low-income families, inequality of development among regions and a lack of housing supply for the poor. The figures presented each year by the formal institutions in housing show that there is always a housing deficit. This indicates that the housing stakeholders cannot achieve the targeted housing production required to fulfill the total demand. The needs have always exceeded the capacity and ability to provide basic shelter.

A house is not merely a physical entity but falls within a cultural category. A house does not just constitute a physical domain but also can signify the group of people who claim membership to it, or 'house societies'. The role of the house as a temple, or dominant function of a compound as a place to conduct ceremonies, particularly in Balinese societies undoubtedly support the arguments that a house is more than just a dwelling and is culturally and socially constructed.

The Balinese recognize space as not neutral but meaningful. In Bali, space has multiple values and directions of sacredness. The most sacred direction is mountain ward and toward the sunrise. It is towards this direction that the Balinese position their temples, their head when they sleep, their face when they pray, and the most sacred pavilion in their compound. The opposite direction is seaward or sunset is profane. Based on this spatial orientation, Balinese traditional houses are planned.

## **Chapter 5**

### **RESEARCH APPROACH AND TECHNIQUES**

#### **5.1. Research Setting, Scope and Limitation**

Most research into Balinese houses has focused on traditional settlements, from anthropological perspectives. There has been very little research concerned with urban housing development related to affordable housing for Balinese people, in particular the quality of houses from a Balinese cultural perspective. The study area is the Sarbagita Metropolitan Region (Denpasar, Badung, Gianyar, Tabanan) as the biggest city of Bali Province (Bappeda 2008, p. 78).

It would seem proper to examine as wide a range of housing projects as possible in order to represent a more precise generalization, as suggested by Soy (1997), Sueca (2003, 2004, 2005), Keivani (2001) and Brown (2004). Therefore, this research will conduct a comparative analysis of various modes of affordable housing provision projects prevalent in Bali, including both formal and informal housing.

The formal housing projects comprise four types: (1) public housing, (2) private housing, (3) co-operative housing and (4) public and private partnership housing. The informal housing projects also comprise four types: (1) squatter settlements upgrading, (2) informal land subdivision housing, (3) informal rental housing, and (4) self-built housing on land rented. Those projects will be assessed with respect to three aspects: provision mechanisms or provider's constraints, housing product quality, and Balinese dwellers (their role and perceptions of satisfaction). An understanding of developers' constraints will be obtained through interviews. To assess the quality of housing products visual surveys or observations will be used via a checklist and a rating scale. To understand dwellers' roles, perceptions and satisfaction will be gathered through questionnaires survey using multiple choices, a checklist and a rating scale. Provision mechanisms will be critically assessed in terms of finances, procedures, cultural approach, and legal and regulation matters. Dwellers were examined in terms of their perception of the projects, their need and perceived power to intervene in the process of development and their perception of the projects' cultural appropriateness. Socio-cultural issues will focus on Balinese culture's strong influence on the concept of spatial, layout, building, material, orientation, building height, etc.

#### **5.2. Data Collection Method**

Two significant matters influencing the quality of research data results are quality of research instruments and data collection (Strauss and Corbin 1998; Yin 2003; Zuriyah

2007; Sugiyono 2008). The quality of research instruments relate to validity and reliability, and the quality of data collection to accuracy of methods used to gather data.

In this study, data was collected from both primary and secondary sources and using various techniques, such as observations, interviews and questionnaires. The primary data was collected from various modes of affordable housing provision projects selected, and the secondary data was gathered from official data, statistics, laws and regulations and other reports or documentation from the representative agencies. Secondary data was used to support the primary data.

### **5.2.1. Observations**

Observation as a data collection technique does not just involve communicating human behavior, but also events, objects, and working processes (Kalton 1987; Babbie 1998; Zuriah 2007; Sugiyono 2008). In this study, observation was used to examine the behavior of dwellers in the projects and the quality of the projects related to Balinese cultural aspects. This method was used *to answer research question 1 and objective 4a*. The quality of projects was investigated in terms of the quality of housing, infrastructure, service delivery and facilities by using a checklist and rating scale. Some variables and indicators were investigated as follows:

- 1) The quality of housing related to norms and standards of Balinese culture: design layout, size of building and plot, number and size of room, orientation and circulation concept, house building material, house structure and construction, house façade, house height, etc.
- 2) The quality of infrastructure and service delivery: roads, water supply, solid waste management, disposal, drainage, sanitation, etc.
- 3) The availability and quality of public facilities: education facilities, health facilities, commercial area, security service, community center, public parking, public toilet, police station, space for praying, recreation facilities, sport center, open space facilities, park and other facilities

To support the observations, the study will also draw on housing plans, layouts, elevations, sections and taking photographs to show the physical and spatial usage of the houses.

### **5.2.2. Interviews**

According to Arksey (1999, p. 117), Yin (2003: p. 78), and Sugiyono (2008: p. 97), interviews are used to more deeply investigate information from respondents when the number of respondents are relatively small.

In this study, the interviews were semi-structured and face-to-face with all actors involved in the projects, to get information about the provision mechanisms or provider's

constraints in providing a better quality housing products and cultural appropriateness for dwellers. This method was used to answer *research question 2 and objective 1, 2, 4b*. The in-depth interviews were conducted using interview guides and a checklist for stakeholders as follows:

- 1) The representatives of the local government in Sarbagita Metropolitan, Bali, and other relevant government and non-government agencies and actors involved in housing development projects. The aim is to develop a better understanding of policy, instruments, procedures and constraints to housing provision projects development as supply-side factors.
- 2) Formal and informal developers and the REI (Real Estate Indonesia) as the providers of affordable housing projects to investigate the constraints to providing better quality projects that are culturally acceptability for Balinese dwellers.

Some variables and indicators as provider constraints were investigated during the interviews; these include:

- 1) Cost and fees: labor and material cost, infrastructure, facilities, services cost, finance (interest rate), government taxes, holding fees, planning fees and charges, selling prices of house, technology and construction, marketing fees, etc.
- 2) Government support: incentives, subsidizes, housing policy, economic crises, etc.
- 3) Human resources: human resources management, skill and knowledge, etc.
- 4) Procedures and mechanism: land permission, land acquisition process, bureaucracy barrier, etc.
- 5) Regulation: land use planning regulation, environment regulation, customer regulation, etc
- 6) Culture approach: Balinese house cultural and concept, role and power involvement of dwellers, Balinese building standard and norms, etc.
- 7) Controlling and monitoring: development control permit, responsibility in project up-keep and maintenance, supervising projects, etc.

### **5.2.3. Questionnaire**

Questionnaire is data collection techniques which is conducted by giving some questions to respondents required to answer in order to investigate deeply information from respondents (Sugiyono 2008; Zuriah 2007). This instrument was effective in gathering data when the researcher understand precisely the variables which were measured and know what is expected from respondents (Bradburn 1979; Yin 2003).

There are three principles which should be considered in making questionnaire such as: writing, measurement and performance of questionnaire itself. Sugiyono (2008) suggested that to write the questionnaire should be clear and straightforward such as: using simple language, common concepts, manageable and collecting an extensive of

information. In addition, the questionnaire designers should be well-educated person with great interest and understanding of the research topics because this instrument has commonly risks and disadvantages in research study (Zuriah 2007; Bradburn 1979).

In this research, the questionnaire consists of closed and open-ended questions using multiple choices, a checklist and rating scale. Some closed questions force the respondents to choose from the available options, rather than using their own words. On the other hand, some questions offer open choices to obtain unanticipated categories of response. Open-ended format is more risky and difficult to control except the researcher has skill to interview and familiar with the purposes of each open question (Bradburn 1979, p. 117; Sugiyono 2008, p. 86). This method was used *to answer the research question 1, 3, 4, and objectives 3, 4a, 4c.*

The design of questionnaire consists of some variables and indicators as follows:

- 1) Demographic characteristics: household composition, marital status, income level, education, etc.
- 2) House conditions: design layout, building and plot size, number and size of room, orientation, circulation, building material, structure construction, building façade, house height, etc.
- 3) Dwellers roles: the power to influence the quality and to increase cultural adequacy to the projects
- 4) Dwellers perceptions: the people needs of cultural appropriateness in the projects

#### **5.2.4. Focus Group Discussion**

Purpose of focus group session is that studies carried out by researchers can point to areas of possible intervention and improvement. These areas are often overlooked by practitioners involved in delivery and implementing solutions on a daily basis. In looking at the details of what confronts them, practitioners can often overlook or fail to comprehend the bigger picture and opportunities for doing things in a better way. However, it is equally important to realize that solutions based purely on theoretical reasoning may have their limitations. They may ignore some realities that would make the proposed solutions unworkable in reality.

The focus group discussion will serve the purposes of: (1) encouraging practitioners to endorse the proposed solution, and (2) ensuring that solution is workable from the point of view of practitioners who are key players in the delivery of affordable housing.

The focus group discussion is part of research methodology aimed at bringing together representatives of stakeholders that have been involved in this study to sit together in one room to discuss the implications of preliminary findings of the study. Discussants representing the stakeholders that were invited included: Local Government (3

representatives), Developers (3 representatives), Dwellers/CBO/NGO (3 representatives) and University (3 representatives).

The aim of focus group discussion is to get inputs, comments and suggestions based on preliminary findings and focus on specific issues that emerge. The following guideline set up as open questions were used to direct the focus group discussion. This method was used to support in qualitative analysis in order *to answer research question 1, 2, 3, 4, and objective 1, 2, 3, 4abc, 5.*

It was felt that participants were reluctant to express disagreement in the forum. To allow for open discussion with participants, representing each stakeholder were interviewed separately at later date. This interview is conducted in order to get feedback from representatives of stakeholder based on focus group discussion results. The stakeholders who are interviews: Local Government, Developers, CBOs, NGOs and University.

The aim of interview was to get more implication inputs, comments and suggestions based on specific issues that have emerged on focus group discussion results. The interview guideline set up as open questions were used to direct the interviews. This method was used to support in qualitative analysis *to answer research question 1, 2, 3, 4, and objective 1, 2, 3, 4abc, 5.*

#### **5.2.5. Secondary Data Sources**

Secondary data was used to support the observations (visual surveys) and interviews. The data was gathered from national and local government institutions, developers companies, universities, NGOs, CBOs, etc. The data was pictures, drawings, sketches, data and statistics, law, regulations, decrees, norms, standards, mapping, etc. This method was used to support in qualitative analysis in order *to answer research question 1, 2, 3, 4 and objective 1, 2, 3, 4abc, 5.*

### **5.3. Sampling and Units of Analysis**

#### **5.3.1. Sampling Techniques**

Surveys are broadly used to provide the statistical data on a wide range of subjects. The survey design must engage some important things such as: mode of data collection, questionnaire design, data processing methods and sampling techniques. Sampling is used as a technique to describe generality from a definite portion of the population, due to the limitation of funding, time and resources to complete the research (Bryman and Cramer 1992; Sugiyono 2008). It is important to define precisely at first the population before using sampling technique. There are two category of sampling techniques such as: probability and non-probability sampling. Probability sampling offers equal chance

for each element to be chosen as member of sample. In contrast, non-probability sampling cannot give a change to element of population as sample (Kalton 1987; Rubin 1995; Zuriah 2007).

According to Sugiyono (2008), probability sampling technique is divided into categories, such as simple random sampling, proportionate and disproportionate stratified random sampling, and cluster sampling. While non-probability sampling consists of systematic sampling, quota sampling, incidental sampling, purposive sampling, and snowball sampling.

The aim of any sampling procedure is to make sample of population as representative sample. This does not mean that the sample must represent all population characteristics, but those that are relevant to the substantive interests of the study (Babbie 1998; Kalton 1987). They mentioned that probability sampling is in general more representative than other sampling techniques. However, it is still not perfectly representative.

To make a sample of the population representative, the study uses probability sampling, in particular stratified random sampling, to define the proportional numbers of the project selected, for inclusion the developers and the dwellers from among heterogeneous projects and populations. A number of data collection techniques were employed such as: (1) interviews, (2) visual surveys (observations) and (3) survey questionnaires.

### **5.3.2. Sampling of Projects, Developers and Dwellers**

There are around 169 affordable housing projects, including formal and informal modes, in Sarbagita Metropolitan provided by developers (REI 2008, pp. 22-27; BPS 2008b, p. 69). Each affordable housing project consists of small, medium and large-sized units. By rule of the Government in Indonesia, the ratio of large development of affordable housing projects should be 10% large; 30% medium; and 60% small houses. These complexes are of various ages, ranging from 2-30 years, and were built by small, medium or large housing developers.

To select affordable housing projects and the dwellers' samples use stratified random sampling. Several key considerations were used to appraise the projects in order to ensure that all unit categories were represented in the sample and minimizing research costs (Strauss and Corbin 1998, p. 77). Such criteria include:

- 1) The projects should be prevalent and large housing development projects and consist of a higher number of low-income people (60% low income people).
- 2) Projects should house mostly native Balinese households (80%), to align with the predominant local culture in the city.

- 3) The projects should have been built at least 20 years before the survey was carried out.
- 4) The dwelling units in the projects should represent a variety of house sizes to make substantial comparison among the types and be sufficiently large for large number of samples to be obtained in order to save time, energy and resources.
- 5) The projects should provide a pointer of the respondent's representative in terms of dwelling type, scale of quality and culture appropriateness, etc.

### **5.3.3. Sample Size of Projects, Developers and Dwellers**

The matter of sample size is the most difficult question in sampling design (Zuriah 2007). The main issue is how many samples need to be taken from the population in order that the generalization becomes acceptable. There is no universal rule covering how to do sample size in social surveys. Kalton (1987) suggests some considerations when determining sample size; the degree of precision required, and response rates (by considering the non-response sample). Precision estimation is not an easy task in any social survey. Error can be tolerated, usually ranging from 2-5% with confidence around 98-95% or less.

Response rates should also be considered to ensure the targeted sample size was achieved. Kalton (1987: p. 64) specifies that samples need to be not only large, but also well chosen. Some researchers determine their sample size based on analyses to be made, and the number of variables that were analyzed. To a certain extent, the greater number in the sample does not much affect its representativeness. Sample size for this survey depends very much on practical considerations, especially the resources available (time, budget, human resources, geographical and climate factors during the fieldwork).

Based on the criteria above, by using stratified sampling, the sample size representing the total of 169 projects comes to 20 projects, which represents 12% of the total. The number of dwellers as the survey targets amounts to 166 respondents belonging to the selected projects. This represents 10% of the total population (1660) of the selected projects. There are an estimated 125 developers associated with the 20 selected projects. The sample of developers who were interviewed is 25 respondents drawn from these 125 developers (20%). This sample uses the theory of Isaac and Michael with a 10% margin of error (Sugiyono 2008, pp. 86-88). See details of samples size on *Table 5.1* and *Table 5.2*.

**Table 5.1.** Samples of Projects and Dwellers

Affordable Housing Provision Projects in Sarbagita Metropolitan	Sample of Projects Stratified Sampling		Sample of Dwellers-Stratified Sampling 10% margin of error (Isaac and Michael)	
	Total Number of Projects	Number of Selected Projects (Sample - 12%)	Total Number of Dwellers in Selected Projects	Number of Respondents (Sample - 10%)
<b>A. Formal Housing Projects</b>				
1. Public	11	1	250	25
2. Private	69	8	290	29
3. Co-operative	3	1	15	2
4. Partnership	7	1	355	35
<b>The Amount</b>	<b>90</b>	<b>11</b>	<b>910</b>	<b>91</b>
<b>B. Informal Housing Projects</b>				
1. Squatter Settlements Upgrading	23	3	310	31
2. Informal Land Subdivision	28	3	70	7
3. Informal Rental Housing	19	2	175	18
4. Self-Built on Land Rented	9	1	195	19
<b>The Amount</b>	<b>79</b>	<b>9</b>	<b>750</b>	<b>75</b>
<b>Total</b>	<b>169</b>	<b>20 projects</b>	<b>1660</b>	<b>166 respondents</b>

Source: Author Analysis, 2009

**Table 5.2.** Samples of Developers

Affordable Housing Provision Projects in Sarbagita Metropolitan	Sample of Developers - Stratified Sampling	
	The numbers of Developers associated with Selected Projects	Number of Respondents (Sample - 20%)
<b>A. Formal Housing Projects</b>		
1. Public	9	2
2. Private	58	11
3. Co-operative	2	1
4. Partnership	6	1
<b>The Amount</b>	<b>75</b>	<b>15</b>
<b>B. Informal Housing Projects</b>		
1. Squatter Settlements Upgrading	9	2
2. Informal Land Subdivision	26	5
3. Informal Rental Housing	11	2
4. Self-Built on Land Rented	4	1
<b>The Amount</b>	<b>50</b>	<b>10</b>
<b>Total</b>	<b>125</b>	<b>25 respondents</b>

Source: Author Analysis, 2009

#### 5.4. Analysis Method: Quantitative and Qualitative Analysis

Data collected by survey data was analyzed by quantitative analysis, while data collected by observation, documents, and interviews were analyzed by qualitative analysis.

Quantitative analysis was done using the SPSS package to examine the relationships between the projects and variables being studied, such as quality of dwelling conditions, socio-culture-economic dwellers characteristics, dwellers' roles and perceptions.

Meanwhile, qualitative analysis was recorded and analyzed using Nvivo Software to focus on the identification of reasons, constraints of developers to providing better quality affordable housing projects and cultural appropriateness, and the socio-cultural significance of housing quality using multi-method techniques.

Through the various modes of affordable housing provision was assessed the quality of projects, mechanism process and constraints of provision and the role of dwellers and perceptions to the projects related to cultural appropriateness. The expectation of findings is to have understanding the relation how strong the Balinese cultural significance covers the quality of affordable housing projects.

### **5.5. Ethical Issues**

The study is positioned to focus on the cultural dimensions of affordable housing provision and consumption. Accordingly, its methodological approach is inherently sensitive to both cultural norms and official protocols. In respect to the gathering of data (questionnaires, interviews, and observations), confidentiality was maintained through de-identifying sources. There are related issues that are likely to arise during the research process, so:

- 1) With reference to the research setting, the researcher acquires permission from the relevant government authorities; through formal approaches.
- 2) The researcher works in conjunction with staff from Udayana University and secures the appropriate letters of permission and authority.
- 3) The design of the questionnaire uses English for discussions with the supervisors and then be translated into Indonesian. This is the formal and common language normally used in fieldwork in Indonesia.

### **5.6. Methodological Issues**

The study demonstrated strongly that the integration between qualitative and quantitative research is a matter of technique rather than epistemological basis. The choice of research integration for this study lies in the research questions and problems. The techniques chosen need to create a comprehensive picture of the phenomenon being studied. Survey or structured interviews produce much information that can be statistically analyzed in a broad range of descriptive to inferential techniques.

In interviewing respondents, a good start in establishing a good relationship between interviewer and interviewee is one of the key factors determining success or failure of the interview. In other words interviewers either with knowledge of the subject or skill in human relations, are vital to research quality. In addition, commitments or motives of researchers, or indeed interviewers, are also a major factor in the success of an interview.

Ethical issues emerged, especially related to gender. Housewives commonly refused to be interviewed by male interviewers in the absence of their husband. They could not take the risk of entertaining male guests as that could cause a serious domestic problem, unless there was an adult daughter or son in attendance. Gender issues should be considered in advance, in respect of who was interviewed and who should conduct the interview; otherwise targets were not be achieved.

The sampling frame is an essential prerequisite for applying random sampling techniques. Some basic information can be used to make a sampling frame e.g., dwelling layout in the settlement, the list of residents in the settlement or other information depending on the analysis unit of the research. To create a sampling frame based on dwelling layout is much more difficult than one based on the list of dwellers, particularly in the developing world. This is due to the lack of information available from either the formal authorities or private sources. For that reason, the list of units for this research was extracted from the list of inhabitants in the chosen settlements.

#### **5.6.1. The Power and the Problems of Language**

In this research, particularly the interview, at least three languages were essential: English, Indonesian (Bahasa Indonesia) and Balinese (Bahasa Bali). When we designed the questionnaire, English was used for the discussion with the supervisor because this is the only language we share. When the final questionnaire had been approved, the researcher needed to translate it into Indonesian. This is the formal and common language normally used in fieldwork in Indonesia. By using Indonesian, we expected that almost everybody involved (especially urban Balinese) in the research field would understand the language. And finally, during the fieldwork the researcher used two languages together, Balinese and Indonesian, but mostly the former. Sometimes the researcher also used English for taking notes. Several important issues needed to be considered here; the power of the language and the problems of translation.

To enter the field, in order to obtain positive support from the people being interviewed and obtain permission from the local authorities in particular for CBOs, the use of proper local languages (Bahasa Bali halus) was considered to be essential. The use of Balinese especially proper Balinese would certainly help to make a good relationship with the interviewees and the use of Indonesian seems a bit clumsy. When seeking respondents' permission for the interview, the researcher used proper Balinese language and explained their personal identity, the objective of the interviews, etc. In Balinese culture, the way we speak can indicate our social status and this could certainly determine the way in which people respect us. This should be done effectively. We received a few, initial negative impressions from the interviewees when the researcher tried to enter their houses and asked for an interview, because some of them

suspected the researcher as an 'unexpected guest' such as a salesperson or a member of some NGOs which are usually asking for a donation. However, the circumstances improved when the researcher used proper Balinese to communicate and explain who they were and the reasons for coming.

Translating the questionnaire from one language to another creates some problems, both in the design process and during the interview. So the researcher needed to make the effort to translate every question into Balinese during the interviews, but sometimes the researcher simply read the questionnaire. Translating simple questions such as age, status, employment, etc. did not create any problems. However, asking about principal concepts such as the house, households, income, expenditure, habitable rooms and respondents' perceptions, proved to be problematic. In dealing with such problems, the researcher kept probing and asking confirmation from the respondents, to obtain accurate information. By doing this, we believed that miscommunication and misinformation could be avoided.

### **5.6.2. Some Difficulties: Delay Interviews and Focus Group Discussion**

Regarding to field workers' capability and credibility, students were recruited as fieldworkers to do the interviews, measure houses and draw up house plans.<sup>13</sup> There were many students interested in taking part in the fieldwork, however, none of them could do full time given their obligations in college. Although fieldwork training was done, most fieldworkers could not produce entirely acceptable interview results.<sup>14</sup> This was due to their limited capabilities in doing interviews, and there being questions on the questionnaire which were quite complicated and required more professional interviewers.<sup>15</sup>

The most crucial things were regarding data of household income and expenditure, the history of housing transformation and household perceptions (see Tipple, 1999; Moser, & Kalton, 1979).<sup>16</sup> To resolve this problem, the researcher examined all the interviews and revisited all respondents those were interviewed by students to ensure that trustworthy results were obtained.

In term of climate, respondent presence and ethical issues, during the fieldwork, there was rain almost every day and this delayed progress of the survey to achieve the

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<sup>13</sup> There are 14 students recruited from School of Architecture, University of Udayana consist of twelve men and two women.

<sup>14</sup> Some students came from the first and second years and knew nothing about interview techniques. However, their very strong motivation was pleasing. It would have been easier to find more qualified and full time fieldworkers had the research started toward the end of term (see Babbie, 1998: 265 for general rules for survey interviewing).

<sup>15</sup> Most fieldworkers just left most questions about income and expenditure, respondents' perception about transformation, and other difficult questions. To acquire good interview results, intensive training and evaluation are important prerequisites.

<sup>16</sup> Moser and Kalton (1979) argue that data on demographic and physical characteristics of houses are less open to error than information about behavior, opinions, perceptions and also historical facts.

interview target. While, in urban areas most people work during the day, 6 days a week. Some even work 7 days a week.

This situation greatly influenced the development of the survey and also during completing focus group discussion. It leads to extend the timing of observation, interviews, and questionnaire and also postponed the focus group discussion almost two months from the previous plan.

Problems were also encountered during focus group discussion process. Before the focus group, the questionnaire guideline and questions were sent to all stakeholders to fill in and write down the comments, input and any suggestion. Participants were given two weeks to complete it all and sent back to the Udayana University. However, due to rushing of local government, the feedback of comment was getting back behind schedule one month. The focus group discussion had to be rescheduled from the initial plan on Friday 18 November 2011 to on Wednesday, 21 December 2011 because the busy schedules of government officials.

Fortunately, during interviews as feedback of focus group discussion results, it was going well and fully supported by all actors who have been involved on focus group discussion, with great comment and inputs.

## **5.7. Summary**

In short, this research used a cross-sectional sample survey as the main method for collecting data, using a questionnaire as the main tool and observation to examine the behavior of respondents in the projects. Interviews with representatives of key stakeholders were held to collect specific information and their viewpoints on matters relevant to the delivery of culturally appropriate affordable housing. Focus group session facilitated deliberative decision making regarding the approach to delivering culturally appropriate and affordable housing within the specific context of Bali. To analyze it, these methods were used in order to explain the phenomenon most appropriately.

Even though the research had been properly prepared, the researchers still encountered certain unexpected difficulties in the fieldwork such as the fieldworkers' abilities and integrity, the climate, and ethical problems.

After discussing theoretical framework, research settings and research approach, the following chapters provide and discuss research results and analysis. It starts with general information about findings of survey, findings of focus group discussion and then to more specific discussion on housing quality and cultural appropriateness of affordable housing projects. The concluding remarks and recommendation will be the final chapter of this thesis.

## Chapter 6

# FINDINGS AND ANALYSIS OF FIELDWORK AND SURVEY

### 6.1. Introduction

As mentioned on chapter four, the study carry out analysis of various modes of affordable housing provision projects prevalent in the Sarbagita Metropolitan Region (Denpasar, Badung, Gianyar, Tabanan) as the biggest city of Bali Province, Bali, including both formal and informal housing. The various modes of affordable housing provision projects are assessed with respect to three aspects: housing product quality and culturall appropriatness, provision mechanisms or provider's constraints, and Balinese dwellers (their role and perceptions of satisfaction).

This chapter will provide general and detail descriptions about the finding fieldwork survey of housing product conditions, developer's constraints and dwellers perspectives. As product conditions, the chapter will focus on the description of the affordable housing projects, to assess the quality of housing products and the projects' cultural appropriateness based on the visual surveys or observations. As developers' constraints, the study investigates the dwellers' roles, perceptions and satisfaction and the provision mechanisms in terms of finances, procedures, cultural approach, and legal and regulation matters. As dwellers perspective, the chapter will explore their perception of the projects, their need and perceived power to involve in the process of development and their perception of the projects' cultural appropriateness.

Data analysis which present in this chapter, was being collected using various techniques, such as observations, interviews and questionnaires from both primary and secondary sources. The primary data was be collected from various modes of affordable housing provision projects selected, and the secondary data was be gathered from official data, statistics, laws and regulations and other reports or documentation from the representative agencies.

Observation was be used to examine the behaviour of dwellers in the projects and the quality of the projects related to Balinese cultural aspects. The quality of projects was being investigated in terms of the quality of housing, infrastructure, service delivery and facilities by using a checklist and rating scale. The interviews was conducted with all actors involved in the projects by semi-structured interviews and face-to-face, to get information about the provision mechanisms or provider's constraints in providing a better quality housing products and cultural appropriateness for dwellers. While the questionnaire consists of closed and open-ended questions using multiple choices, a

checklist and rating scale. The design of questionnaire consist of some variables and indicators such as: demographic characteristics, process to access the house, dwellers involvement, and dwellers perceptions in the projects.

## 6.2. Observation Results: Quality and Culturally Acceptable of Affordable Housing Projects

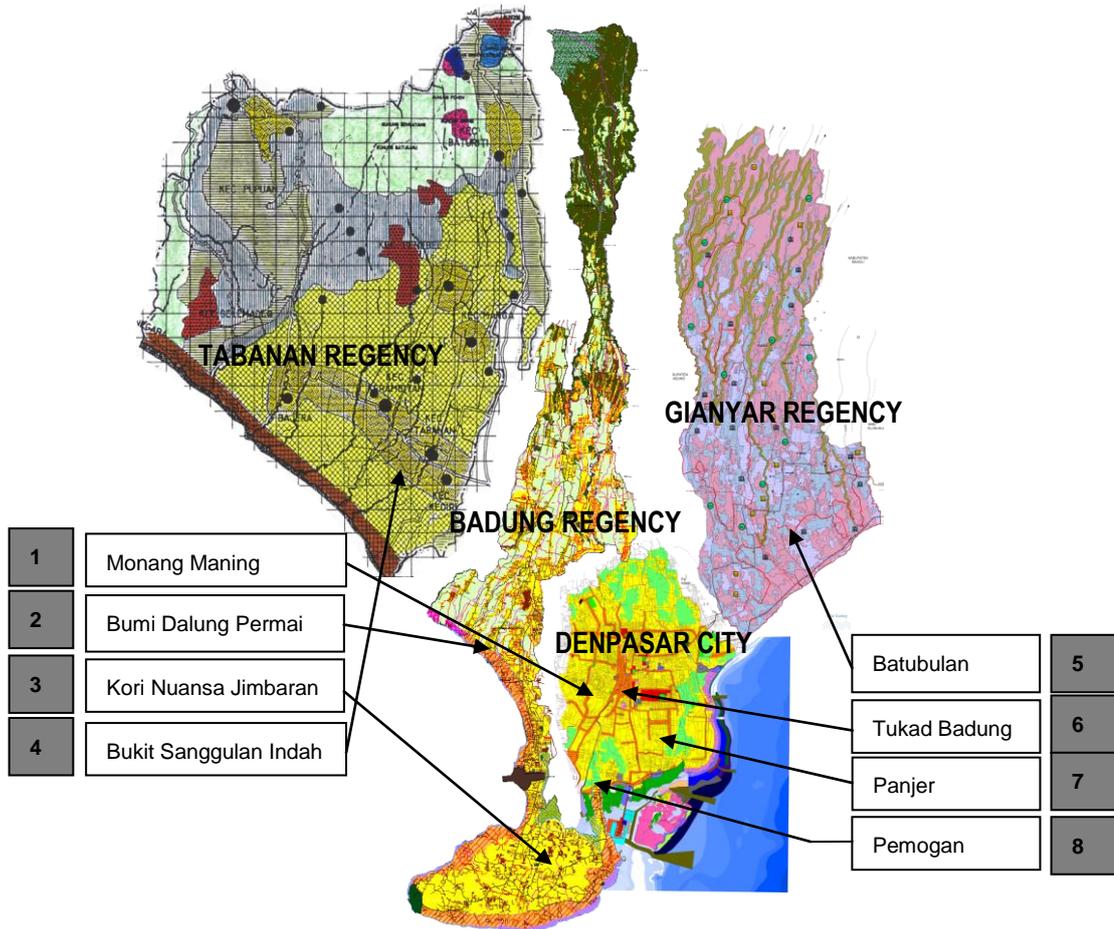
As discussed in previous chapter, the study was undertaken from various modes of affordable housing provision projects selected both formal and informal housing projects. The sample size represents the total of 169 projects (90 formal and 79 informal housing projects) comes to 20 projects (11 formal and 10 informal housing projects), which represents 12% of the total, as seen on *Table 6.1*.

For observation, there are 7 affordable housing project selected which explore to examine the quality of the projects related to Balinese cultural aspects. The quality of projects is investigated in terms of the quality of housing, infrastructure, service delivery and facilities. The study results will be supported by drawing location map, housing plans, layouts, elevations, sections and taking photographs to show the physical and spatial usage of the houses.

**Table 6.1.** Affordable Housing Projects Selected as Dwellers Questionnaire

No	Name of Projects	Name of Developers	Housing Area (Ha)	Housing Unit
<b>A</b>	<b>Formal Housing Projects</b>			
1	Monang-Maning	Perumnas/Public Developer	45.15	375
2	Taman Griya	PT Bali Karisma Pratama	37.24	235
3	Bukit Sanggulan Indah	Perumnas-PT Multi Aditama	27.16	225
4	Kori Nuansa Jimbaran	PT Nuansa Bali Utama	16.90	185
5	Bumi Dalung Permai	PT Kusemas Citra Mandiri	72.50	485
6	Green Lot Sem bada	PT Multi Aditama	43.00	275
7	Puri Gading	PT Mitra Surya Cemerlang	35.30	260
8	Taman Buduk Lestari	PT Cipta Kosala Dewata	25.00	225
9	Griya Nuansa Utama	PT Bali Karisma Pratama	28.00	255
10	Blna Mumbul Permai	PT Melkrita Bangun Nusa	35.23	310
11	Griya Asli Penyalin	PT Suryanadi	40.00	365
<b>B</b>	<b>Informal Housing Projects</b>			
12	Tukad Badung	PT Trimas Karya	25.00	175
13	Ubung Kaja	PT Bina Budaya	20.50	125
14	Batubulan	PT Taman Puteri	41.35	275
15	Kediri	PT Bukit Lumbang	37.60	160
16	Siulan	PT Baliva Graha	28.75	115
17	Panjer	PT Satya Dana Dewata	17.80	175
18	Sesetan	PT Marga Mahagotra	23.65	125
19	Pemogan	PT Arisandi Bangun Persada	27.50	225
20	Ketewel	PT Gajah Wahana	25.25	115

**Source:** Perum Perumnas Bali (2010) and REI Bali (2011).



**Figure 6.1.** Affordable Housing Projects Selected as Observation Study  
**Source:** Adapted from Master Plan of Sarbagita Metropolitan Year 2008-2013, Bali Planning Board (2008).

## 6.2.1. Formal Affordable Housing Projects

### 6.2.1.1. Monang-Maning Housing Project (Public Developer)

Monang-maning is affordable housing project in Denpasar City, which is located at Monang-maning (inner city) in Pemecutan sub district and district of West Denpasar. The project started building from 1991 and finished in 1999 with an area of 45.154 Ha and 375 units of house. From 375 units' house, 225 units are allocated to low income housing (very simple housing) and the others (150 units) for middle and high income groups (see on *Box 1*).

According to data of Perumnas (public developer), Monang-Maning is the first project of Perumnas that built in Denpasar. Evidently, the idea is to address the housing demand in Denpasar exceptionally of low-income people, which lived previously in the fringe of river (a slum area) and likewise for government employees who have low salary to purchase the house.

**Box 1. Monang-Maning Housing Project Condition**

Project started: 1991 –1999  
 Developer: Perumnas (Public Developer)  
 Area: 45.154 Ha  
 Occupied by: 374 households, 1496 inhabitants  
 Housing: 26.51 Ha (64.99%) = 375 units

- Low income: 225 units
- Middle income: 113 units
- High income: 37 units

Infrastructure: 8.34 Ha (18.36%)

- Road 10 M: 22,540 M<sup>2</sup>
- Road 8 M: 15,304 M<sup>2</sup>
- Road 6 M: 2,400 M<sup>2</sup>
- Road 4 M: 42,040 M<sup>2</sup>
- Road enter and bridge (10 M long): 13,680 M<sup>2</sup>

Public Facilities: 7.56 Ha (16.65%)

- Social facilities: 43,615 M<sup>2</sup>
- Commercial facilities: 10,725 M<sup>2</sup>
- Park and open space: 21,249 M<sup>2</sup>



**Source:** Perum Perumnas (2010), *Housing Projects of Perum Perumnas in Bali*

The development of Monang-Maning is divided into two steps. The first step covered about 225 units of house, which are all units of low-income house and none of middle and high-income house. The second steps are 113 units of middle-income and 37 units of high-income house. Monang-Maning was absolutely addressing for low-income groups, from all steps of projects are almost 99% of houses allocated for low-income people. This can be seen on *Table 6.2*.

**Table 6.2** Types of House in Monang-Maning

Step	Started (years)	T.15/60 (units)	T.21/90 (units)	T.25/120 (units)	T.45/150 (units)	T.54/200 (units)	Total (units)
Step I	1991-1995	75	50	100	-	-	225
Step II	1996-1999	-	-	-	113	37	150
<b>Total</b>		<b>75</b>	<b>50</b>	<b>100</b>	<b>113</b>	<b>37</b>	<b>375</b>

**Source:** Perum Perumnas (2010), *Housing Projects of Perum Perumnas in Bali*

From the start of the project, the selling prices of house in Monang-Maning were high compared to the ceiling price of government standard. Yet, because of housing location that is closed with city center and commercial areas, leading to the buying interest of people to purchase the house unchanged. The other reason is the high-price of land in inner city considered fairly the selling price of house to be enough high.

According to the Master Plan of Denpasar, Monang-Maning is anticipated to be an example of low income housing development to the west of city. The project was prosperous to stimulate the growth of new housing and settlements in the surrounding areas. At this moment, there are three new low-income housing and settlements developed by private companies close to the Monang-Maning area, although these areas are not as large as Monang-Maning.



**Figure 6.2** Housing and Infrastructure in Monang Maning Housing Project  
**Source:** Fieldwork Survey, 2010.

The numbers and size of the rooms in this project is proportionately small. This leads to crowding space, because in one house lives one household with their total family more than 5 persons and also some rooms are not yet complete. In terms of cultural appropriateness, all houses are not provided with praying area (temple). Developer just provided communal praying area that can be used for all dwellers. It seems that dwellers have no place to carry out daily activities relates to the nature of the spaces required (see on *Table 6.3 and 6.4*).

**Table 6.3** Types of House in Monang-Maning

Type of House	Size of Room					
	Guest + Eating Room (M <sup>2</sup> )	Bed Room (M <sup>2</sup> )	Kitchen (M <sup>2</sup> )	Toilet (M <sup>2</sup> )	Terrace (M <sup>2</sup> )	Praying place (M <sup>2</sup> )
T.15	3 x 4 = 12	NA	NA	2.3 x 1.1 = 2.53	2 x 1 = 2	NA
T.21	3 x 3 = 9	3 x 3 = 9	NA	1.5 x 2 = 3	-	NA
T.25	3 x 3.5 = 10.5	3 x 3.5 = 10.5	NA	1.5 x 2 = 3	1 x 2 = 2	NA

**Source:** Perum Perumnas (2010), *Housing Projects of Perum Perumnas in Bali*



**Figure 6.3** Type of House in Monang Maning  
**Source:** Fieldwork Survey, 2010.

In addition, houses are missing of Balinese ornaments and materials, inadequate Balinese style and orientation. While dwellers have concerned about their houses as part of their lifestyle in terms of layout, plot size, orientation, style, materials, construction, etc.

**Table 6.4.** Housing Specification, Infrastructure and Public Facilities Available in Monang-Maning

Housing Specification	Infrastructure	Public Facilities
<ul style="list-style-type: none"> <li>▪ Foundation : lime stone</li> <li>▪ Walls: cone block</li> <li>▪ Structure: concrete-steel</li> <li>▪ Roof structure: wood class 2</li>   <li>▪ Window frame: Wood class 3</li> <li>▪ Floor: concrete</li> <li>▪ Ceiling: wave asbestos</li> </ul>	<ul style="list-style-type: none"> <li>▪ Water supply: piped (PDAM)</li> <li>▪ Sewerage: pit latrines</li> <li>▪ Roads: asphalt</li> <li>▪ Electricity: 450 KVA, 220 Volt per house</li> <li>▪ Telephone network</li> <li>▪ Public transport:-</li> <li>▪ Solid waste and disposal: skips, open-bins dumping, dug pits</li> <li>▪ Drainage system: -</li> </ul>	<ul style="list-style-type: none"> <li>▪ 9 kinder garden</li> <li>▪ 3 basic school</li> <li>▪ 1 secondary school</li> <li>▪ 1 senior high school</li>   <li>▪ 10 small shop</li> <li>▪ 2 traditional market</li> <li>▪ 1 shopping centre</li>   <li>▪ 7 community centre</li> <li>▪ 4 temple</li> <li>▪ 1 mosque</li> <li>▪ 1 church</li> <li>▪ 3 sport area</li> <li>▪ 10 park</li> <li>▪ 1 post office</li> <li>▪ 1 health centre</li> <li>▪ 1 grave</li> </ul>

**Source:** Perum Perumnas (2010), *Housing Projects of Perum Perumnas in Bali*

Evidently, the success of housing development has to be full-fledged by the completeness of the available infrastructure and public facilities in that area. In the case of Monang-Maning, the infrastructure and facilities are considerable enough to support settlement. Because of the project catering for government employees, the project obtained incentives from the government, in particular through the provision of main infrastructure like access roads, drainage systems and electricity. Yet, this project is still far from the standard quality of housing products expected for an affordable housing project and inadequate of the projects' cultural appropriateness activities (see on *Table 6.4, 6.5 and 6.6*).

**Table 6.5.** Housing Quality in Monang-Maning

No.	Variables	Indicators	Quality	Need Improvement
1	House Quality	<ul style="list-style-type: none"> <li>▪ Design layout, Shape of lot</li> <li>▪ <i>Number and size of room</i></li> <li>▪ Building materials</li> <li>▪ <i>Structure and construction</i></li> <li>▪ <i>Sitting of the building within plot</i></li> <li>▪ Building façade and the height</li> <li>▪ Orientation and Circulation</li> </ul>	Fair <i>Poor</i> Fair <i>Poor</i> <i>Poor</i> Fair Fair	No Yes No Yes Yes No No
2	Infrastructure and Service delivery	<ul style="list-style-type: none"> <li>▪ Road: Width, materials and construction</li> <li>▪ Water supply</li> <li>▪ <i>Solid waste management and disposal</i></li> <li>▪ Drainage and sanitation</li> </ul>	Good Good <i>Poor</i> Good	No No Yes No
3	Public Facilities Accessibility	<ul style="list-style-type: none"> <li>▪ Education facilities: kinder garden, basic, secondary and senior high school</li> <li>▪ Health facilities: health centre, drug store, etc.</li> <li>▪ Commercial area facilities: shopping store</li> <li>▪ Government and public service facilities: security, community centre, public parking, public toilet and police station</li> <li>▪ <i>Space for praying facilities: mosque, church and temple</i></li> </ul>	Fair Fair Fair  <i>Poor</i> Fair	No No No  Yes No

No.	Variables	Indicators	Quality	Need Improvement
		<ul style="list-style-type: none"> <li>▪ Recreation facilities: playground area</li> <li>▪ Sport and open space facilities: sport centre and park</li> </ul>	Fair	Fair

**Source:** Observation results (2011).

**Table 6.6** Cultural Elements in Monang-Maning

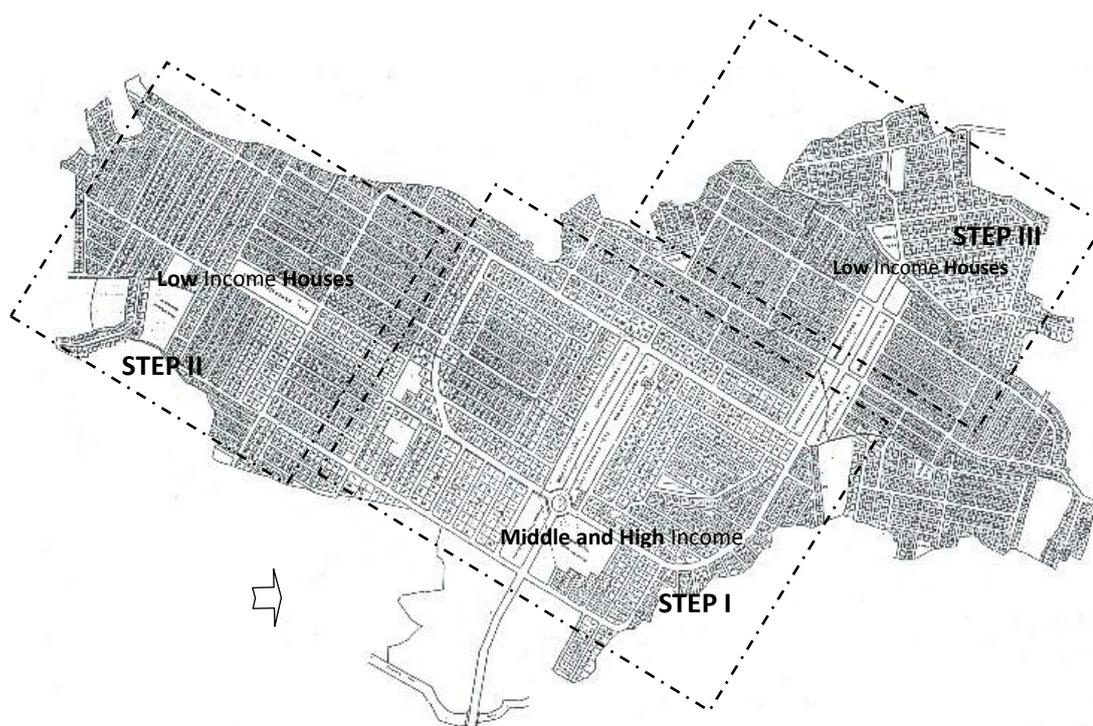
No.	Variables	Indicators	Cultural Adequacy	Need Improvement
1	Cultural Elements	<ul style="list-style-type: none"> <li>▪ <i>Zoning of living spaces (separation of sacred – profane areas within the house)</i></li> <li>▪ <i>Building materials (use of local materials)</i></li> <li>▪ Orientation and circulation (sun rise and mountain as sacred and sun set and beach as profane)</li> <li>▪ Balinese structure and construction</li> <li>▪ Building form (square or combination square)</li> <li>▪ Boundary walls and Balinese gate</li> <li>▪ Height of building (less than 15 meters)</li> <li>▪ <i>Elevation/façade (three parts: head, body, foot)</i></li> <li>▪ Form of roof</li> <li>▪ <i>Balinese ornament and color</i></li> <li>▪ <i>Room position and furniture arrangement (sacred – profane)</i></li> </ul>	Poor  Poor Fair  Fair  Poor Good Poor  Fair Poor Poor	Yes  Yes No  No  Yes No Yes  No Yes Yes

**Source:** Observation results (2011).

### 6.2.1.2. Bumi Dalung Permai Housing Project (Private Developer)

Bumi Dalung Permai is the biggest affordable housing project, provided by private developer (Kusemas Citra Mandiri Company) in Sarbagita Metropolitan. The location is relatively close to city center about 5 km to North West. Bumi Dalung Permai is located in the fringe area of the Denpasar city covering 72.5 ha. The housing area is around 65% (47.125 ha), 24.5% (25.375 ha) infrastructure and 10.5 % (7.25 ha) public facilities. This is shown in *Figure 6.4 and Box 2*.

The project started in 1997 and will become a new town in the millennium year. There is 485 units' house available with different types of houses. It consists of 291 very simple houses for low-income people, 146 middle and 48 high-class houses.



**Figure 6.4** Site Plan of Bumi Dalung Permai  
**Source:** Updated from Map of Housing Projects, REI (2011)

**Box 2. Bumi Dalung Permai Housing Project Condition**

Project started: Step I 1997-2005  
 Developer: Kusemas Citra Mandiri Company  
 Area: 72.5 Ha  
 Occupied by: 484 households, 1936 inhabitants  
 Housing: 47.125 Ha (65 %): 485 units

- Low income: 291 units
- Middle income: 146 units
- High income: 48 units

Infrastructure: 25.375 Ha (24.5%)  
 Public Facilities: 7.25 Ha (10.5%)

**Source:** REI (1999), *Housing Projects of REI*



Currently, Bumi Dalung Permai has already developed 100% of all the areas and already 484 households and 1936 inhabitants live there.

**Table 6.7.** Type of Houses in Bumi Dalung Permai

Type of House	Total (units)	Classification	Allocation
T.21/70	50	Very simple house	Low income
T.21/100	50	Very simple house	Low income
T.21/125	91	Very simple house	Low income
T.36/100	50	Very simple house	Low income
T.36/125	50	Very simple house	Low income
T.45/125	50	Simple house	Middle income
T.45/150	46	Simple house	Middle income
T.54/150	50	Simple house	Middle income
T.70/200	48	Luxury house	High income
<b>Total</b>	<b>485</b>		

**Source:** REI (2011), *Housing Projects of REI*

It is not different from other the projects mentioned formerly, in Bumi Dalung Permai, the economic crises also influenced the selling prices of houses. The selling prices increased between 96% and 130%. As a result, the down payment also increased dramatically between 200% and 867% within 1997 till 1999.



**Figure 6.5** Type of House in Bumi Dalung Permai

**Source:** Fieldwork Survey, 2010.

Most houses of Bumi Dalung Permai Project are precisely very simple houses, pledged by the very low level of construction materials and also small size of the rooms, which can be seen in *Table 6.8*.

**Table 6.8** Types and Sizes of Low-Income Room in Bumi Dalung Permai

Type of House	Size of Room					
	Guest + Eating Room (M <sup>2</sup> )	Bed Room 1 (M <sup>2</sup> )	Bed Room 2 (M <sup>2</sup> )	Kitchen (M <sup>2</sup> )	Toilet (M <sup>2</sup> )	Terrace (M <sup>2</sup> )
T.21	2.5 x 4 = 10	-	3 x 3 = 9	-	1.5 x 1.25 = 1.88	3 x 1 = 3
T.36	4.5 x 2.75 = 12.37	3 x 2.75 = 8.25	3 x 2.75 = 8.25	1.75 x 2.4 = 4.2	1.8 x 1.25 = 2.25	2.75 x 0.5 = 1.37

**Source:** REI (2011), *Housing Projects of REI*

The condition of housing, infrastructure and public facilities available in Bumi Dalung Permai are shown in *Table 6.9*.

**Table 6.9** Housing Specification, Infrastructure and Public Facilities Available in Bumi Dalung Permai

Housing Specification	Infrastructure	Public Facilities
<ul style="list-style-type: none"> <li>▪ Foundation : river stone</li> <li>▪ Walls: cone block</li> <li>▪ Structure: concrete-steel</li> <li>▪ Roof structure: wood class 3</li> </ul>	<ul style="list-style-type: none"> <li>▪ Water supply: wells</li> <li>▪ Sewerage: pit latrines</li> <li>▪ Roads: -</li> <li>▪ Electricity: 450 KVA, 220 Volt per house</li> </ul>	<ul style="list-style-type: none"> <li>▪ 10 small shop</li> <li>▪ 3 community centre</li> <li>▪ 4 shopping centre</li> <li>▪ 2 Office</li> </ul>

Housing Specification	Infrastructure	Public Facilities
<ul style="list-style-type: none"> <li>▪ Coping roof: local tile with aluminum foil</li> <li>▪ Window frame: Wood class 3</li> <li>▪ Floor: -</li> <li>▪ Ceiling: -</li> </ul>	<ul style="list-style-type: none"> <li>▪ Telephone network: -</li> <li>▪ Public transport system: -</li> <li>▪ Solid waste and disposal: skips, open-bins dumping, dug pits</li> <li>▪ Drainage system: concrete</li> </ul>	<ul style="list-style-type: none"> <li>▪ 1 Basic school</li> <li>▪ 1 Health centre</li> <li>▪ 1 Public transport terminal</li> <li>▪ Open space</li> </ul>

**Source:** REI (2011), *Housing Projects of REI*

As shown on *Table 6.10* and *Table 6.11*, houses provided in Bumi Dalung Permai are also neglecting the temple as praying for dwellers, inadequate of Balinese style, no ornament, and a lack of orientation. Developer also did not provide the communal praying area. As the other affordable housing project, in Bumi Dalung Permai, dwellers also have no place to present daily activities to express their culture.

**Table 6.10.** Housing Quality in Bumi Dalung Permai

No.	Variables	Indicators	Quality	Need Improvement
1	House Quality	<ul style="list-style-type: none"> <li>▪ Design layout, Shape of lot</li> <li>▪ <i>Number and size of room</i></li> <li>▪ Building materials</li> <li>▪ <i>Structure and construction</i></li> <li>▪ <i>Sitting of the building within plot</i></li> <li>▪ Building façade and the height</li> <li>▪ Orientation and Circulation</li> </ul>	Fair Poor Fair Poor Poor Fair Fair	No Yes No Yes Yes No No
2	Infrastructure and Service delivery	<ul style="list-style-type: none"> <li>▪ Road: Width, materials and construction</li> <li>▪ Water supply</li> <li>▪ <i>Solid waste management and disposal</i></li> <li>▪ Drainage and sanitation</li> </ul>	Good Good Poor Good	No No Yes No
3	Public Facilities Accessibility	<ul style="list-style-type: none"> <li>▪ Education facilities: kinder garden, basic, secondary and senior high school</li> <li>▪ Health facilities: health centre, drug store, etc.</li> <li>▪ Commercial area facilities: shopping store</li> <li>▪ Government and public service facilities: security, community centre, public parking, public toilet and police station</li> <li>▪ <i>Space for praying facilities: mosque, church and temple</i></li> <li>▪ Recreation facilities: playground area</li> <li>▪ Sport and open space facilities: sport centre and park</li> </ul>	Fair Fair Fair Fair Poor Fair Fair	No No No No Yes No Fair

**Source:** Observation results (2011).

**Table 6.11.** Cultural Elements in Bumi Dalung Permai

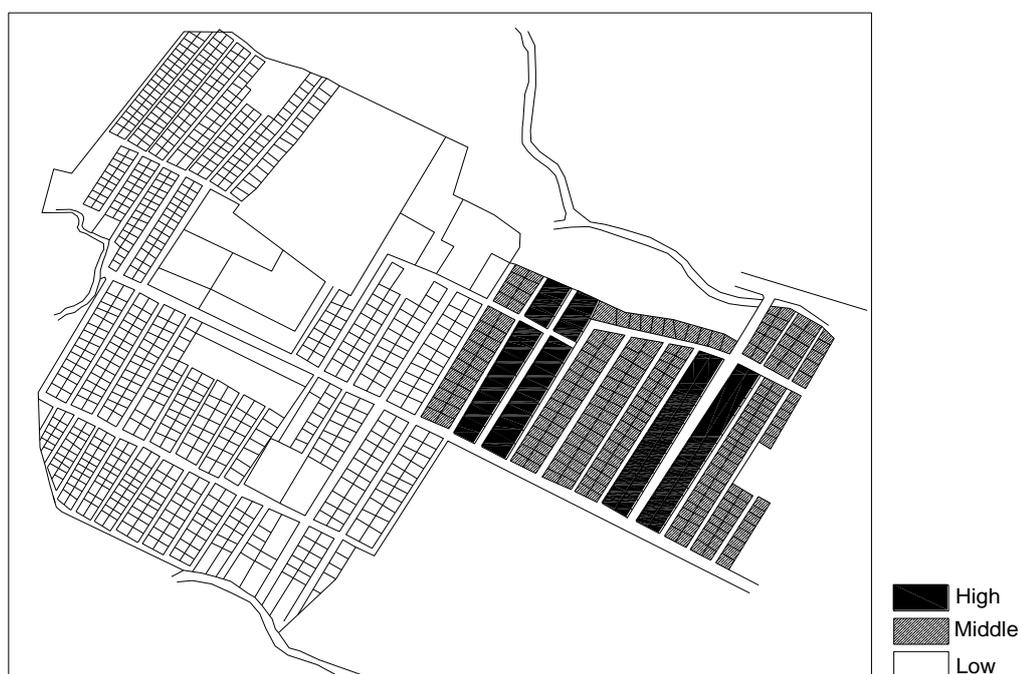
No.	Variables	Indicators	Cultural Adequacy	Need Improvement
1	Cultural Elements	<ul style="list-style-type: none"> <li>▪ <i>Zoning of living spaces (separation of sacred – profane areas within the house)</i></li> <li>▪ <i>Building materials (use of local materials)</i></li> <li>▪ Orientation and circulation (sun rise and mountain as sacred and sun set and beach as profane)</li> <li>▪ Balinese structure and construction</li> </ul>	Poor Poor Fair Fair	Yes Yes No No

No	Variables	Indicators	Cultural Adequacy	Need Improvement
		<ul style="list-style-type: none"> <li>▪ Building form (square or combination square)</li> <li>▪ Boundary walls and Balinese gate</li> <li>▪ <i>Height of building (less than 15 meters)</i></li> <li>▪ Elevation/façade (three parts: head, body, foot)</li> <li>▪ Form of roof</li> <li>▪ <i>Balinese ornament and color</i></li> <li>▪ <i>Room position and furniture arrangement (sacred – profane)</i></li> </ul>	<i>Poor</i> Good <i>Poor</i> Fair <i>Poor</i> <i>Poor</i>	Yes No Yes No Yes Yes

**Source:** Observation results (2011).

### 6.2.1.3. Kori Nuansa Jimbaran Projects (Cooperative Developer)

Kori Nuansa Jimbaran is one of large affordable housing project in Sarbagita Metropolitan. The project started 1999 with an area 26 Ha. The projects is developed purely by a private developer (Nuansa Bali Utama Company) to serve affordable housing for low and middle income people, and particularly to accommodate the employees of the university and a hotel because the project is close to this university and the tourism zone (*Figure 6.6*).



**Figure 6.6** Site Plan of Kori Nuansa Jimbaran

**Source:** Updated from Map of Housing Projects, REI (2011)

Kori Nuansa Jimbaran consists of various types of houses. Most houses are affordable for low and income people, in total around 111 units of very simple houses, 56 units of simple houses and 18 units of luxury houses (*see on Box 3 and Table 6.12*). According to REI Denpasar, at this moment, 100% of all projects have been actualized for step I and 45% for Step II.

**Box 3. Kori Nuansa Jimbaran Housing Project Condition**

Project started: Step I 1999-2007, Step II 2010-2015

Developer: Nuansa Bali Utama Company

Area: 26 Ha

Occupied by: 184 households, 736 inhabitants

Housing: 16.90 Ha (65%): 185 units

- Low income: 111 units

- Middle income: 56 units

- High income: 18 units

Infrastructure: 6.37 Ha (24.5%)

Public Facilities: 7.56 Ha (16.65%)

- Social facilities: 43.615 M2

- Commercial facilities: 10.725 M<sup>2</sup>

- Park and open space: 21.249 M<sup>2</sup>



**Source:** REI (2011), *Housing Projects of REI*

**Table 6.12** Types of House in Kori Nuansa Jimbaran

Type of House	Size of Building (M <sup>2</sup> )	Size of Plot (M <sup>2</sup> )	Total (units)	Classification	Allocation
T.21/70	21	70	31	Very simple houses	Low income
T.36/90	36	90	45	Very simple houses	Low income
T.36/120	36	120	35	Very simple house	Low income
T.45/150	45	150	30	Simple house	Middle income
T.60/180	60	180	26	Simple house	Middle income
T.70/200	70	200	18	Luxury house	High Income
			<b>185</b>		

**Source:** REI (2011), *Housing Projects of REI*



**Figure 6.7.** Type of House in Kori Nuansa Jimbaran

**Source:** Fieldwork Suvery, 2010

In Kori Nuansa Jimbaran, an interest-rate subsidy is provided to low-income dwellers for the type 21 m<sup>2</sup> namely 11% interest and for type 36 m<sup>2</sup>, it is 14%. The amount of credit, which provided is only 90% and it can be repaid in 10, 15 or 20 years, but dwellers have to provide 10% as down payment.

The economic crises had an important influence on the selling prices of houses in this project. It rose 69% for type 21 m<sup>2</sup> and 102% for type 36 m<sup>2</sup>. This also influenced the required down payment, which has to be paid by low-income dwellers. It increased sharply to 191% and 383 % respectively. This leads to the decreasing of the buying power of people. From 910 units of low-income houses, almost 30% is still not yet sold.

The size of room for affordable houses can be found in *Table 6.13*. The rooms are considered small and crowding. At this present, the infrastructure and public facilities available are still not fulfilling the normal standards for housing and human settlements. The available infrastructure and public facilities are shown in *Table 6.14*.

**Table 6.13** Type and Size of Affordable House in Kori Nuansa Jimbaran

Type of House	Size of Room					
	Guest + Eating Room (M <sup>2</sup> )	Bed Room 1 (M <sup>2</sup> )	Bed Room 2 (M <sup>2</sup> )	Kitchen (M <sup>2</sup> )	Toilet (M <sup>2</sup> )	Terrace (M <sup>2</sup> )
T.21/70	2.75 x 3 = 8.25	-	3 x 3 = 9	-	1.8 x 1.25 = 2.25	3 x 0.5 = 1.5
T.36/90	4.5 x 2.75 = 12.38	3 x 2.75 = 8.25	3 x 2.75 = 8.25	1.75 x 2.4 = 4.2	1.8 x 1.25 = 2.25	2.75 x 0.5 = 1.38
T.36/120	4.5 x 2.75 = 12.38	3 x 2.75 = 8.25	3 x 2.75 = 8.25	1.75 x 2.4 = 4.2	1.8 x 1.25 = 2.25	2.75 x 0.5 = 1.38

*Source:* REI (2011), *Housing Projects of REI*

**Table 6.14.** Housing Specification, Infrastructure and Public Facilities Available in Kori Nuansa Jimbaran

Housing Specification	Infrastructure	Public Facilities
<ul style="list-style-type: none"> <li>▪ Foundation : lime stone</li> <li>▪ Walls: cone block with finishing</li> <li>▪ Structure: concrete-steel</li> <li>▪ Roof structure: wood class 2</li> <li>▪ Coping roof: local tile with aluminum foil</li> <li>▪ Window frame: Wood class 2</li> <li>▪ Floor: concrete with ceramic tile</li> <li>▪ Ceiling: thin wood with finishing</li> </ul>	<ul style="list-style-type: none"> <li>▪ Water supply: piped (PDAM)</li> <li>▪ Sewerage: pit latrines</li> <li>▪ Roads: limestone</li> <li>▪ Electricity: 450 KVA, 220 Volt per house</li> <li>▪ Telephone network: -</li> <li>▪ Public transport: -</li> <li>▪ Solid waste and disposal: skips, open-bins dumping, dug pits</li> <li>▪ Drainage system: concrete</li> </ul>	<ul style="list-style-type: none"> <li>▪ 5 small shop</li> <li>▪ 1 community centre</li> <li>▪ 1 temple</li> <li>▪ 1 sport area</li> <li>▪ Open space</li> </ul>

*Source:* REI (2011), *Housing Projects of REI*

Affordable housing project in Kori Nuansa Jimbaran is also not provided with praying area (temple) both communal and private sacred area. Dwellers have no place to carry out daily activities relates to the nature of the spaces required. Houses are not adequacy of Balinese ornaments and a lack of Balinese style and orientation, as shown on *Table 6.15 and 6.16*.

**Table 6.15.** Housing Quality in Kori Nuansa Jimbaran

No.	Variables	Indicators	Quality	Need Improvement
1	House Quality	▪ Design layout, Shape of lot	Fair	No
		▪ <i>Number and size of room</i>	Poor	Yes
		▪ Building materials	Fair	No
		▪ <i>Structure and construction</i>	Poor	Yes
		▪ Sitting of the building within plot	Fair	No
		▪ Building façade and the height	Fair	No
		▪ Orientation and Circulation	Poor	Yes
2	Infrastructure and Service delivery	▪ Road: Width, materials and construction	Good	No
		▪ Water supply	Good	No
		▪ <i>Solid waste management and disposal</i>	Poor	Yes
		▪ Drainage and sanitation	Good	No
3	Public Facilities Accessibility	▪ Education facilities: kinder garden, basic, secondary and senior high school	Fair	No
		▪ Health facilities: health centre, drug store, etc.	Fair	No
		▪ Commercial area facilities: shopping store	Fair	No
		▪ <i>Government and public service facilities: security, community centre, public parking, public toilet and police station</i>	Poor	Yes
		▪ <i>Space for praying facilities: mosque, church and temple</i>	Fair	No
		▪ Recreation facilities: playground area	Fair	Fair
		▪ Sport and open space facilities: sport centre and park	Fair	Fair

**Source:** Observation results (2011).

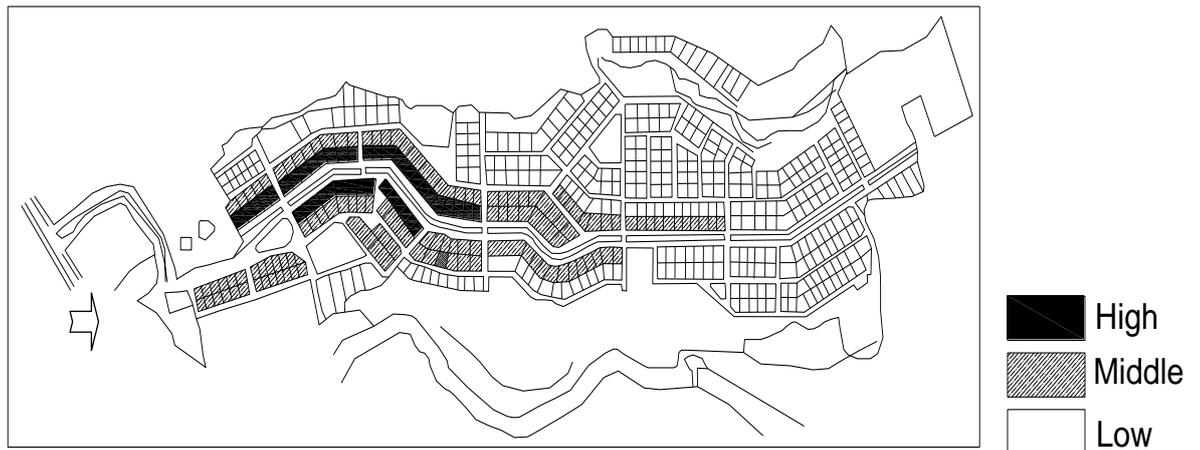
**Table 6.16.** Cultural Elements in Kori Nuansa Jimbaran

No.	Variables	Indicators	Cultural Adequacy	Need Improvement
1	Cultural Elements	▪ <i>Zoning of living spaces (separation of sacred – profane areas within the house)</i>	Poor	Yes
		▪ Building materials (use of local materials)	Fair	No
		▪ <i>Orientation and circulation (sun rise and mountain as sacred and sun set and beach as profane)</i>	Poor	Yes
		▪ Balinese structure and construction	Fair	No
		▪ Building form (square or combination square)	Fair	No
		▪ <i>Boundary walls and Balinese gate</i>	Poor	Yes
		▪ Height of building (less than 15 meters)	Fair	No
		▪ Elevation/façade (three parts: head, body, foot)	Poor	Yes
		▪ Form of roof	Fair	No
		▪ <i>Balinese ornament and color</i>	Poor	Yes
		▪ Room position and furniture arrangement (sacred – profane)	Fair	No

**Source:** Observation results (2011).

#### 6.2.1.4. Bukit Sanggulan Indah Housing Project (Public Private Partnership Developer)

Bukit Sanggulan Indah is one of big partnership projects in Sarbagita Metropolitan which is located about 10 km from the center to the North West. As partnership, the project is provided by public (Perumnas) and private developer (PT Multi Aditama Company), which started from 1994 and has already constructed 100% by the end of 1999. The covering area is around 27.165 Ha that is allocated 65% for housing units and others for infrastructure and public facilities (see on Figure 6.8 and Box 4).



**Figure 6.8.** Site Plan of Bukit Sanggulan Indah  
**Source:** Updated from Map of Housing Projects, REI (2011)

#### **Box 4.** Bukit Sanggulan Indah Project Condition

Project started: 1994–1999

Developer: Partnership Perumnas (Public Developer) and PT Multi Aditama (Private Developer)

Area: 27.165 Ha

Occupied by: 224 households, 896 inhabitants

Housing: 17.66 Ha (65%) = 225 units

- Low income: 135 units

- Middle income: 68 units

- High income: 22 units

Infrastructure: 4.89 Ha (18%)

- Road 10 M: 22,540 M<sup>2</sup>

- Road 8 M: 15,304 M<sup>2</sup>

- Road 6 M: 2,400 M<sup>2</sup>

- Road 4 M: 42,040 M<sup>2</sup>

- Road enter and bridge (10 M long): 13,680 M<sup>2</sup>

Public Facilities: 4.62 Ha (17%)

- Social facilities: 43,615 M<sup>2</sup>

- Commercial facilities: 10,725 M<sup>2</sup>

- Park and open space: 21,249 M<sup>2</sup>

**Source:** Perumnas (2010), *Housing Projects of Perumnas in Bali* and REI (2011), *Housing Projects of REI*

The project has 225 houses units consisting of 60% (135 units) for low income and others are 30% for middle-income (68 units) and high-income groups (22 units). The type, size and the total of house available are shown in *Table 6.17*.

**Table 6.17.** Types of House in Bukit Sanggulan Indah

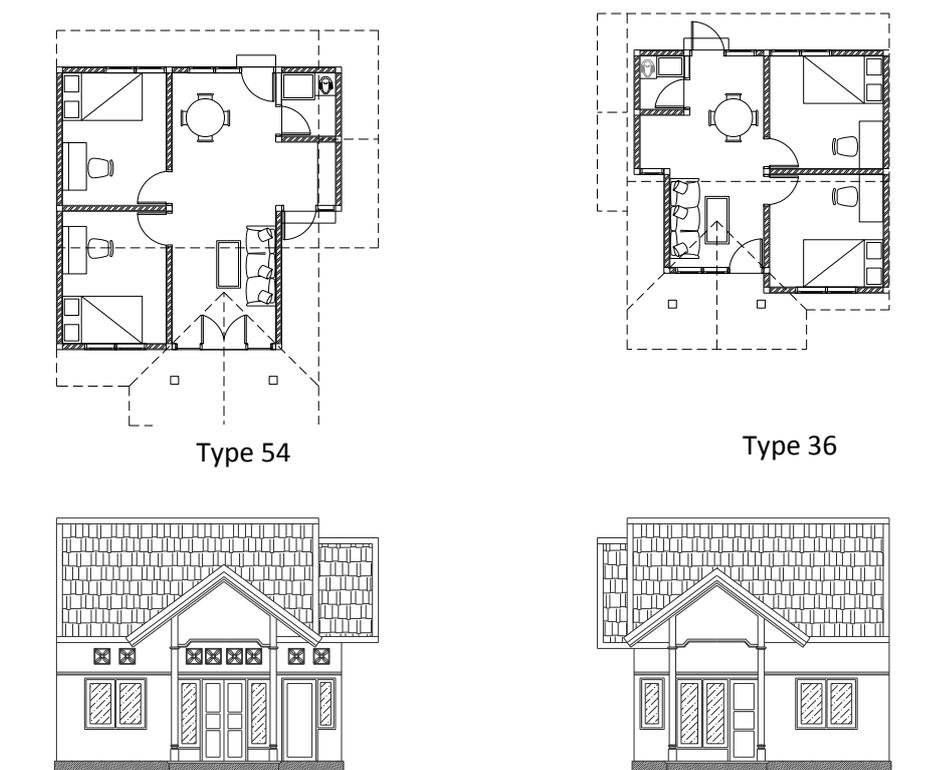
Type of House	Size of Building (M <sup>2</sup> )	Size of Plot (M <sup>2</sup> )	Total (units)	Classification	Allocation
T.21/84	21	84	35	Very simple houses	Low income
T.27/84	27	84	50	Very simple houses	Low income
T.36/96	36	96	50	Very simple house	Low income
T.54/153	54	153	68	Simple house	Middle income
T.70/150	70	150	22	Luxury house	High Income
			<b>225</b>		

**Source:** Perumnas (2010), *Housing Projects of Perumnas in Bali* and REI (2011), *Housing Projects of REI*

**Figure 6.9** Type of House in Bukit Sanggulan Indah

**Source:** Fieldwork Survey, 2010

Bukit Sanggulan Indah as partnership project, the interest-rate subsidy for low-income groups is reflected into very simple housing (type of 21 m<sup>2</sup> and 36 m<sup>2</sup>). Low-income peoples are given 11 till 14 % interest rate, which bellows market rate around 13 till 16%, this part of government support. The amount of credit that is able to be obtained only 90% and the other 10% is a down payment which has to be paid by low-income groups.



**Figure 6.10.** Type of House in Bukit Sanggulan Indah  
**Source:** Updated from Plan of Housing Projects, REI (2011)

Based on the plan prepared for the project, Bukit Sanggulan Indah is fundamentally allocated to low income people with consisting of the various layers of society. Most people are government and private employees who have low salary, but still able to purchase the house by credit. For this moment, this housing is being accommodated by 896 inhabitants with around 538 low-income households and 269 middle and 89 high-income households.

**Table 6.18.** Types and Sizes of Houses in Bukit Sanggulan Indah

Type of House	Size of Room					
	Guest + Eating Room (M <sup>2</sup> )	Bed Room 1 (M <sup>2</sup> )	Bed Room 2 (M <sup>2</sup> )	Kitchen (M <sup>2</sup> )	Toilet (M <sup>2</sup> )	Terrace (M <sup>2</sup> )
T.21	3.5 x 3.5 = 8.75	-	2.5 x 2.5 = 6.25	1.5 x 2.5 = 3.75	1.5 x 1.5 = 2.25	-
T.27	3.5 x 3.5 = 8.75	-	3 x 3 = 9	1.5 x 2.5 = 3.75	1.5 x 1.5 = 2.25	1 x 2 = 2
T.36	2.4 x 4.1 = 9.84	2.7 x 2.7 = 7.29	2.7 x 2.7 = 7.29	1.7 x 2.4 = 4.28	1.4 x 1.4 = 1.96	1 x 2 = 2

Perumnas (2010), *Housing Projects of Perumnas in Bali* and REI (2011), *Housing Projects of REI*

Most houses are simple houses, which are low level of construction and materials quality and the crowding size of room, which can be looked in *Table 6.18*. Bukit Sanggulan has already grown as the new settlement with some facilities were already developed, like a basic school, park, community center and also some economic activities like small shops. However, a number of public facilities that are positively

needed are still not serviceable to meet demand of people in this area. The housing specification, infrastructure and public facilities available are shown in *Table 6.19*.

**Table 6.19.** Housing Specification, Infrastructure and Public Facilities Available in Bukit Sanggulan Indah

Housing Specification	Infrastructure	Public Facilities
<ul style="list-style-type: none"> <li>▪ Foundation : river stone</li> <li>▪ Walls: cone block without finishing</li> <li>▪ Structure: concrete-steel</li> <li>▪ Roof structure: wood class 3</li>   <li>▪ Coping Roof: asbestos without aluminum foil</li> <li>▪ Window frame: Wood class 3</li> <li>▪ Floor: concrete without finishing</li>   <li>▪ Ceiling: without ceiling coping</li> </ul>	<ul style="list-style-type: none"> <li>▪ Water supply: piped (PDAM)</li> <li>▪ Sewerage: pit latrines</li>   <li>▪ Roads: asphalt</li> <li>▪ Electricity: 450 KVA, 220 Volt per house</li> <li>▪ Telephone network</li>   <li>▪ Public transport: -</li> <li>▪ Solid waste and disposal: skips, open-bins dumping, dug pits</li> <li>▪ Drainage system: concrete</li> </ul>	<ul style="list-style-type: none"> <li>▪ 1 basic school</li> <li>▪ 1 community centre</li> <li>▪ 6 small shop</li> <li>▪ 2 park</li> </ul>

**Source:** Perumnas (2010), *Housing Projects of Perumnas in Bali* and REI (2011), *Housing Projects of REI*

As shown on *Table 6.20* and *Table 6.21*, houses provided in Bukit Sanggulan Indah are neglecting the temple as praying for dwellers, inadequate of Balinese style, no ornament, and absent of orientation. Developer also did not provide the communal praying area, as place for dwellers to present their belief for God and express their culture.

**Table 6.20.** Housing Quality in Bukit Sanggulan Indah

No.	Variables	Indicators	Quality	Need Improvement
1	House Quality	<ul style="list-style-type: none"> <li>▪ Design layout, Shape of lot</li> <li>▪ <i>Number and size of room</i></li> <li>▪ Building materials</li> <li>▪ Structure and construction</li> <li>▪ Sitting of the building within plot</li> <li>▪ Building façade and the height</li> <li>▪ <i>Orientation and Circulation</i></li> </ul>	<ul style="list-style-type: none"> <li>Fair</li> <li><i>Poor</i></li> <li>Fair</li> <li>Fair</li> <li>Fair</li> <li>Fair</li> <li><i>Poor</i></li> </ul>	<ul style="list-style-type: none"> <li>No</li> <li>Yes</li> <li>No</li> <li>No</li> <li>No</li> <li>No</li> <li>Yes</li> </ul>
2	Infrastructure and Service delivery	<ul style="list-style-type: none"> <li>▪ Road: Width, materials and construction</li> <li>▪ Water supply</li> <li>▪ <i>Solid waste management and disposal</i></li> <li>▪ Drainage and sanitation</li> </ul>	<ul style="list-style-type: none"> <li>Good</li> <li>Good</li> <li><i>Poor</i></li> <li>Good</li> </ul>	<ul style="list-style-type: none"> <li>No</li> <li>No</li> <li>Yes</li> <li>No</li> </ul>
3	Public Facilities Accessibility	<ul style="list-style-type: none"> <li>▪ Education facilities: kinder garden, basic, secondary and senior high school</li> <li>▪ Health facilities: health centre, drug store, etc.</li> <li>▪ Commercial area facilities: shopping store</li> <li>▪ Government and public service facilities: security, community centre, public parking, public toilet and police station</li> <li>▪ <i>Space for praying facilities: mosque, church and temple</i></li> <li>▪ Recreation facilities: playground area</li> <li>▪ Sport and open space facilities: sport centre and park</li> </ul>	<ul style="list-style-type: none"> <li>Fair</li> <li><i>Poor</i></li> <li>Fair</li> <li>Fair</li>   <li><i>Poor</i></li> <li>Fair</li> <li>Fair</li> </ul>	<ul style="list-style-type: none"> <li>No</li> <li>Yes</li> <li>No</li> <li>No</li>   <li>Yes</li> <li>No</li> <li>no</li> </ul>

**Source:** Observation results (2011).

**Table 6.21.** Cultural Elements in Bukit Sanggulan Indah

No	Variables	Indicators	Cultural Adequacy	Need Improvement
1	Cultural Elements	▪ Zoning of living spaces (separation of sacred – profane areas within the house)	Poor	Yes
		▪ Building materials (use of local materials)	Poor Fair	Yes No
		▪ Orientation and circulation (sun rise and mountain as sacred and sun set and beach as profane)	Fair Poor	No Yes
		▪ Balinese structure and construction	Poor	Yes
		▪ Building form (square or combination square)	Good	No
		▪ Boundary walls and Balinese gate	Fair	No
		▪ Height of building (less than 15 meters)	Poor	Yes
		▪ Elevation/façade (three parts: head, body, foot)	Poor	Yes
		▪ Form of roof		
		▪ Balinese ornament and color		
		▪ Room position and furniture arrangement (sacred – profane)		

**Source:** Observation results (2011).

## 6.2.2. Informal Affordable Housing Projects

### 6.2.2.1. Batubulan Housing (Land Subdivision)

Batubulan Housing is an affordable housing project through land subdivision and sponsored by private developers, which is located at fringe of Denpasar city, around 7.5 km from the center of Sarbagaita Metropolitan to the East.

#### **Box 5** Batubulan Project Condition

Project started: 2006-2010  
 Developer: PT Taman Puteri (Land Subdivision Developer)  
 Area: 41.35 Ha  
 Occupied by: 274 households, 1096 inhabitants  
 Housing: 29.77 Ha (72%) = 275 units

- Low income: 165 units (60%)
- Middle income: 83 units (30%)
- High income: 27 units (10%)

Infrastructure: 7.44 Ha (18%)

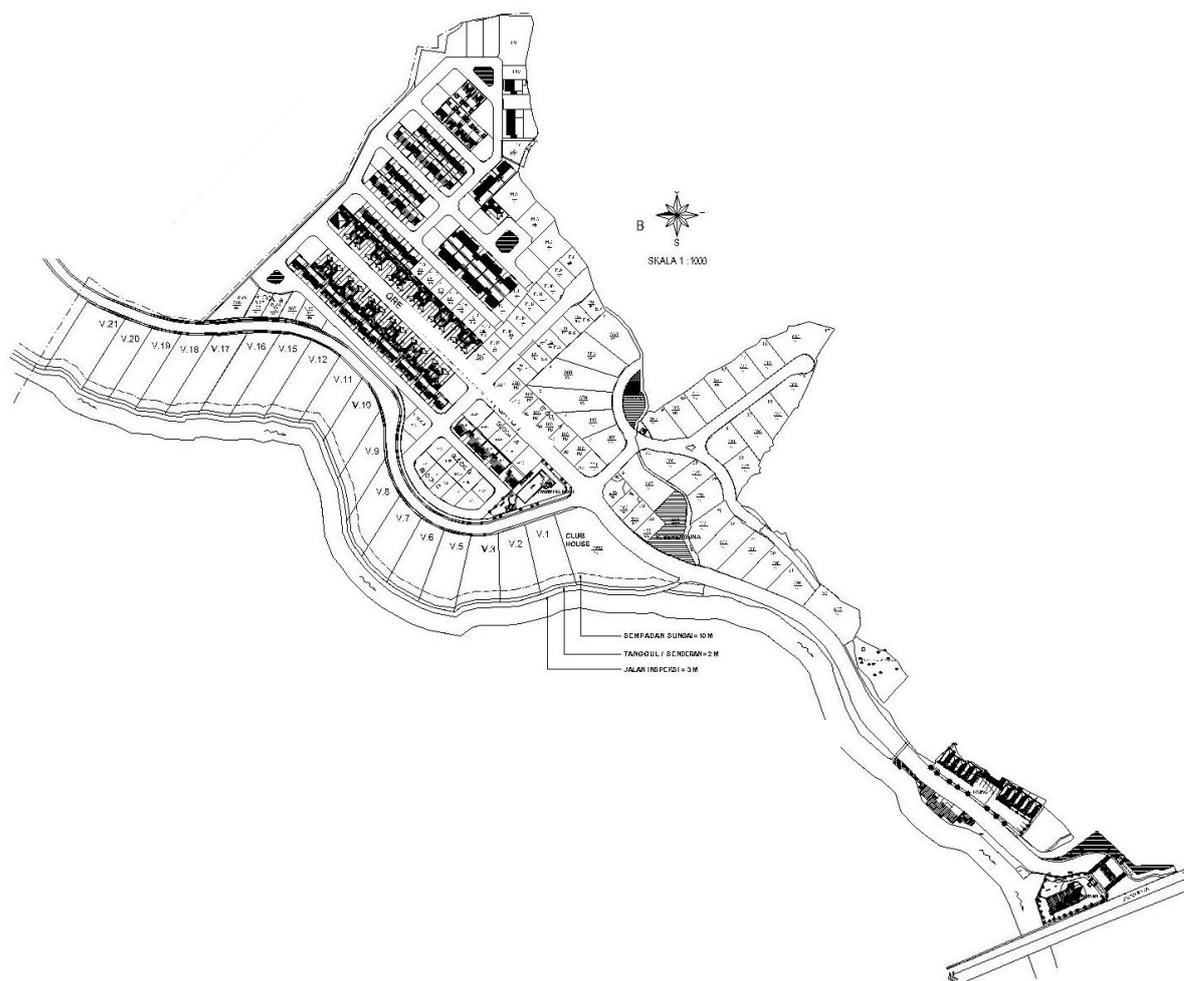
- Road 10 M
- Road 8 M
- Road 6 M
- Road 4 M
- Road enter and bridge

Public Facilities: 4.14 Ha (10%)

- Social facilities: 11.615 M<sup>2</sup>
- Commercial facilities: 10.725 M<sup>2</sup>
- Park and open space: 20.249 M<sup>2</sup>

**Source:** REI (2011), *Housing Projects of REI*

The project is quite new which started from 2006 in which it has already constructed 100% at the end of 2010. The covering area is around 41.35 Ha that is allocated 72% for housing, 18% infrastructure and 10% public facilities (see on *Box 5* and *Figure 6.11*).



**Figure 6.11.** Site Plan of Batubulan

**Source:** Updated from Map of Housing Projects, REI (2011)

The project has 275 house units consisting of 60% (165 units) for low income and others are 30% for middle-income (83 units) and 10% for high-income groups (27 units). The type, size and the total of house available are shown in *Table 6.22*.

**Table 6.22.** Types of Houses in Batubulan

Type of House	Size of Building (M <sup>2</sup> )	Size of Plot (M <sup>2</sup> )	Total (units)	Classification	Allocation
T.21/125	21	125	65	Very simple house	Low income
T.21/150	21	150	25	Very simple house	Low income
T.36/100	36	100	45	Very simple house	Low income
T.36/125	36	125	30	Very simple house	Low income
T.45/125	45	125	43	Simple house	Middle income
T.54/150	54	150	23	Simple house	Middle income
T.54/200	54	200	20	Simple house	Middle income
T.70/200	70	200	27	Luxury house	High income
<b>Total</b>			<b>275</b>		

**Source:** REI (2011), *Housing Projects of REI*



**Figure 6.12** Type of House in Batubulan

*Source:* Fieldwork Survey, 2010

Batubulan housing project consists of large simple houses with low quality of infrastructure and houses. Batubulan has already developed connecting to existing settlement with some facilities were already developed. However, a number of public facilities that are positively needed are still not serviceable to meet demand of people in this area. The housing specification, infrastructure and public facilities available are shown in *Table 6.23*.

**Table 6.23.** Housing Specification, Infrastructure, and Public Facilities Available in Batubulan

Housing Specification	Infrastructure	Public Facilities
<ul style="list-style-type: none"> <li>▪ Foundation : river stone</li> <li>▪ Walls: cone block with cement finishing</li> <li>▪ Structure: concrete-steel</li> <li>▪ Roof structure: wood class 3</li> <li>▪ Coping Roof: asbestos without aluminum foil</li> <li>▪ Window frame: Wood class 3</li> <li>▪ Floor: concrete without finishing</li> <li>▪ Ceiling: teakwood ceiling coping</li> </ul>	<ul style="list-style-type: none"> <li>▪ Water supply: piped (PDAM)</li> <li>▪ Sewerage: pit latrines</li> <li>▪ Roads: asphalt</li> <li>▪ Electricity: 900 KVA, 220 Volt per house</li> <li>▪ Telephone network</li> <li>▪ Public transport: -</li> <li>▪ Solid waste and disposal: skips, open-bins dumping, dug pits</li> <li>▪ Drainage system: concrete</li> </ul>	<ul style="list-style-type: none"> <li>▪ 5 basic school</li> <li>▪ 1 Secondary school</li> <li>▪ 5 community centre</li> <li>▪ 35 small shop</li> <li>▪ 1 park</li> </ul>

*Source:* REI (2011), *Housing Projects of REI*

As shown on *Table 6.24* and *Table 6.25*, Batubulan is poor structure and construction, inadequate of Balinese style, no ornament, and a lack of zoning living spaces.

**Table 6.24.** Housing Quality in Batubulan

No.	Variables	Indicators	Quality	Need Improvement
1	House Quality	▪ Design layout, Shape of lot	Fair	No
		▪ Number and size of room	Good	No
		▪ Building materials	Fair	No
		▪ <i>Structure and construction</i>	Poor	Yes
		▪ <i>Sitting of the building within plot</i>	Poor	Yes
		▪ Building façade and the height	Fair	No
		▪ Orientation and Circulation	Fair	No
2	Infrastructure and Service delivery	▪ <i>Road: Width, materials and construction</i>	Poor	Yes
		▪ Water supply	Fair	No
		▪ <i>Solid waste management and disposal</i>	Poor	Yes
		▪ Drainage and sanitation	Good	No
3	Public Facilities Accessibility	▪ Education facilities: kinder garden, basic, secondary and senior high school	Fair	No
		▪ Health facilities: health centre, drug store, etc.	Fair	No
		▪ Commercial area facilities: shopping store	Fair	No
		▪ Government and public service facilities: security, community centre, public parking, public toilet and police station	Good	No
		▪ Space for praying facilities: mosque, church and temple	Fair	No
		▪ Recreation facilities: playground area	Fair	Fair
		▪ Sport and open space facilities: sport centre and park	Fair	Fair

**Source:** Observation results (2011).

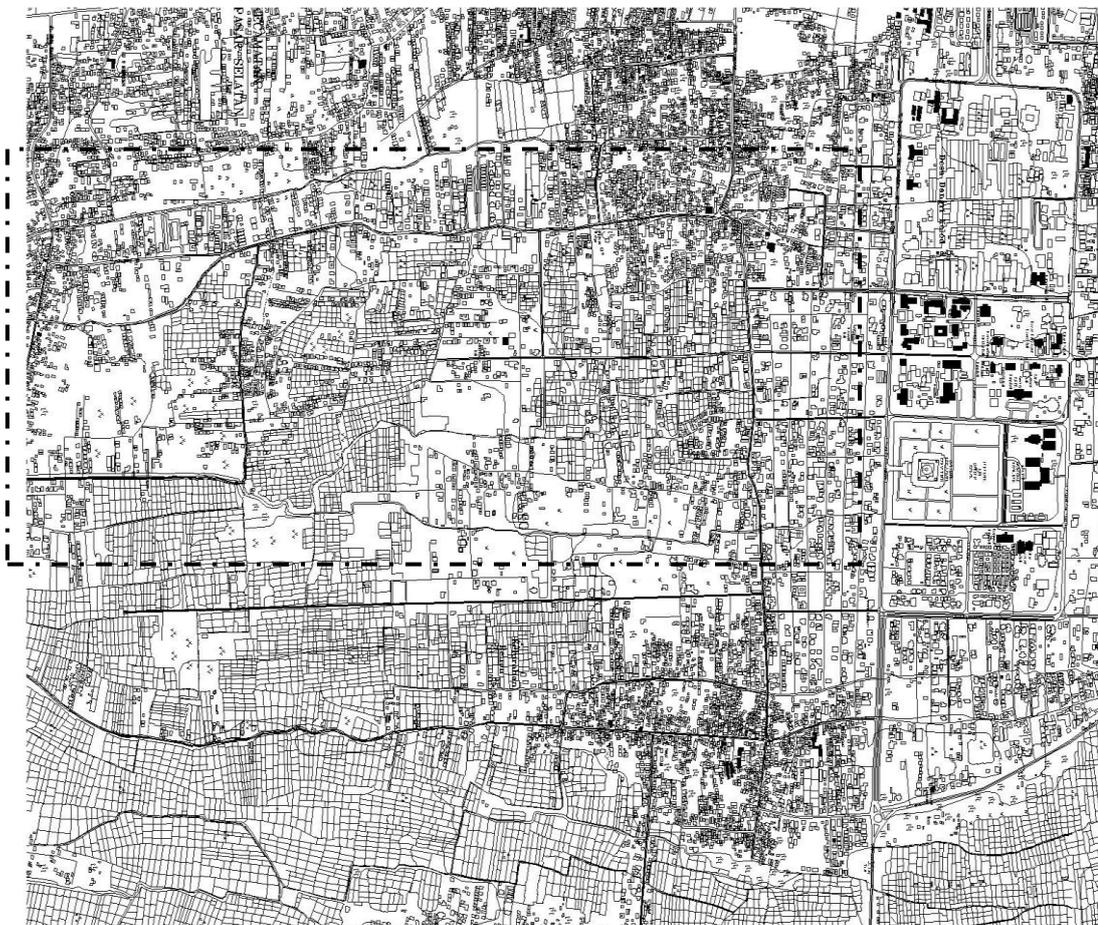
**Table 6.25.** Cultural Elements in Batubulan

No.	Variables	Indicators	Cultural Adequacy	Need Improvement
1	Cultural Elements	▪ <i>Zoning of living spaces (separation of sacred – profane areas within the house)</i>	Poor	Yes
		▪ <i>Building materials (use of local materials)</i>	Poor	Yes
		▪ Orientation and circulation (sun rise and mountain as sacred and sun set and beach as profane)	Fair	No
		▪ Balinese structure and construction	Poor	Yes
		▪ <i>Building form (square or combination square)</i>	Good	No
		▪ Boundary walls and Balinese gate	Poor	Yes
		▪ <i>Height of building (less than 15 meters)</i>	Fair	No
		▪ Elevation/façade (three parts: head, body, foot)	Fair	No
		▪ Form of roof	Poor	Yes
		▪ <i>Balinese ornament and color</i>	Poor	Yes
		▪ <i>Room position and furniture arrangement (sacred – profane)</i>	Poor	Yes

**Source:** Observation results (2011).

### 6.2.2.2. Tukad Badung Housing (Squatter Upgrading)

Tukad Badung is squatter upgrading project at bank of river in city centre in Denpasar. The aim is to upgrade the slum area and relocate new housing projects. The project started 1997 with an area 25 Ha. The project is developed by a private developer to serve affordable housing for poor people who live in Denpasar City (*Figure 6.13*).



**Figure 6.13.** Site Plan of Tukad Badung

**Source:** Updated from Map of Housing Projects, REI (2011)

#### **Box 6** Tukad Badung Project Condition

Project started: 1997-2006

Developer: PT Trimas Karya (Slum Upgrading Developer)

Area: 41.35 Ha

Occupied by: 171 households, 696 inhabitants

Housing: 29.77 Ha (72%) = 175 units

- Low income: 105 units (60%)
- Middle income: 53 units (30%)
- High income: 17 units (10%)

Infrastructure: 7.44 Ha (18%)

Public Facilities: 4.14 Ha (10%)

- Social facilities: 11.615 M<sup>2</sup>
- Commercial facilities: 10.725 M<sup>2</sup>
- Park and open space: 20.249 M<sup>2</sup>

**Source:** REI (2011), *Housing Projects of REI*

The project has 175 house units consisting of 60% (105 units) for low income and others are 30% for middle-income (53 units) and 10% for high-income groups (17 units). The type, size and the total of house available are shown in *Table 6.26*.

**Table 6.26.** Types of Houses in Tukad Badung

Type of House	Size of Building (M <sup>2</sup> )	Size of Plot (M <sup>2</sup> )	Total (units)	Classification	Allocation
T.27/100	21	84	40	Very simple houses	Low income
T.35/100	27	84	30	Very simple houses	Low income
T.45/100	36	96	35	Very simple house	Low income
T.54/153	54	153	53	Simple house	Middle income
T.70/150	70	150	17	Luxury house	High Income
			<b>175</b>		

**Source:** REI (2011), *Housing Projects of REI*



**Figure 6.14** Type of House in Tukad Badung

**Source:** Fieldwork Suvery, 2010

The sizes of room for affordable houses are considered small and crowding. At this present, the infrastructure and public facilities available are still not fulfilling the normal standards for housing and human settlements, as shown on *Table 6.26 and 6.27*.

**Table 6.27.** Housing Specification, Infrastructure and Public Facilities Available in Tukad Badung

Housing Specification	Infrastructure	Public Facilities
<ul style="list-style-type: none"> <li>▪ Foundation : river stone</li> <li>▪ Walls: cone block with cement finishing</li> <li>▪ Structure: concrete-steel</li> <li>▪ Roof structure: wood class 3</li> <li>▪ Coping Roof: asbestos without aluminum foil</li> <li>▪ Window frame: Wood class 3</li> <li>▪ Floor: concrete without finishing</li> <li>▪ Ceiling: teakwood ceiling coping</li> </ul>	<ul style="list-style-type: none"> <li>▪ Water supply: piped (PDAM)</li> <li>▪ Sewerage: pit latrines</li> <li>▪ Roads: asphalt</li> <li>▪ Electricity: 900 KVA, 220 Volt per house</li> <li>▪ Telephone network</li> <li>▪ Public transport: -</li> <li>▪ Solid waste and disposal: skips, open-bins dumping, dug pits</li> <li>▪ Drainage system: concrete</li> </ul>	<ul style="list-style-type: none"> <li>▪ 5 basic school</li> <li>▪ 1 Secondary school</li> <li>▪ 5 community centre</li> <li>▪ 35 small shop</li> <li>▪ 1 park</li> </ul>

**Source:** REI (2011), *Housing Projects of REI*

As shown on *Table 6.28 and Table 6.29*, affordable housing project in Tukad Badung is also missing of Balinese ornaments and materials, a lack of Balinese style and orientation. While dwellers have concerned about their houses as part of their lifestyle in terms of layout, plot size, orientation, style, materials, construction, etc.

**Table 6.28.** Housing Quality in Tukad Badung

No.	Variables	Indicators	Quality	Need Improvement
1	House Quality	<ul style="list-style-type: none"> <li>▪ Design layout, Shape of lot</li> <li>▪ Number and size of room</li> <li>▪ Building materials</li> <li>▪ <i>Structure and construction</i></li> <li>▪ <i>Sitting of the building within plot</i></li> <li>▪ Building façade and the height</li> <li>▪ Orientation and Circulation</li> </ul>	<ul style="list-style-type: none"> <li>Fair</li> <li>Fair</li> <li>Fair</li> <li>Poor</li> <li>Poor</li> <li>Fair</li> <li>Fair</li> </ul>	<ul style="list-style-type: none"> <li>No</li> <li>No</li> <li>No</li> <li>Yes</li> <li>Yes</li> <li>No</li> <li>No</li> </ul>
2	Infrastructure and Service delivery	<ul style="list-style-type: none"> <li>▪ <i>Road: Width, materials and construction</i></li> <li>▪ Water supply</li> <li>▪ <i>Solid waste management and disposal</i></li> <li>▪ Drainage and sanitation</li> </ul>	<ul style="list-style-type: none"> <li>Poor</li> <li>Fair</li> <li>Poor</li> <li>Fair</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> <li>No</li> <li>Yes</li> <li>No</li> </ul>
3	Public Facilities Accessibility	<ul style="list-style-type: none"> <li>▪ Education facilities: kinder garden, basic, secondary and senior high school</li> <li>▪ Health facilities: health center, drug store, etc.</li> <li>▪ Commercial area facilities: shopping store</li> <li>▪ Government and public service facilities: security, community center, public parking, public toilet and police station</li> <li>▪ Space for praying facilities: mosque, church and temple</li> <li>▪ Recreation facilities: playground area</li> <li>▪ Sport and open space facilities: sport center and park</li> </ul>	<ul style="list-style-type: none"> <li>Fair</li> <li>Fair</li> <li>Fair</li> <li>Fair</li> <li>Fair</li> <li>Fair</li> <li>Fair</li> </ul>	<ul style="list-style-type: none"> <li>No</li> <li>No</li> <li>No</li> <li>No</li> <li>No</li> <li>Fair</li> <li>Fair</li> </ul>

**Source:** Observation results (2011).

**Table 6.29.** Cultural Elements in Tukad Badung

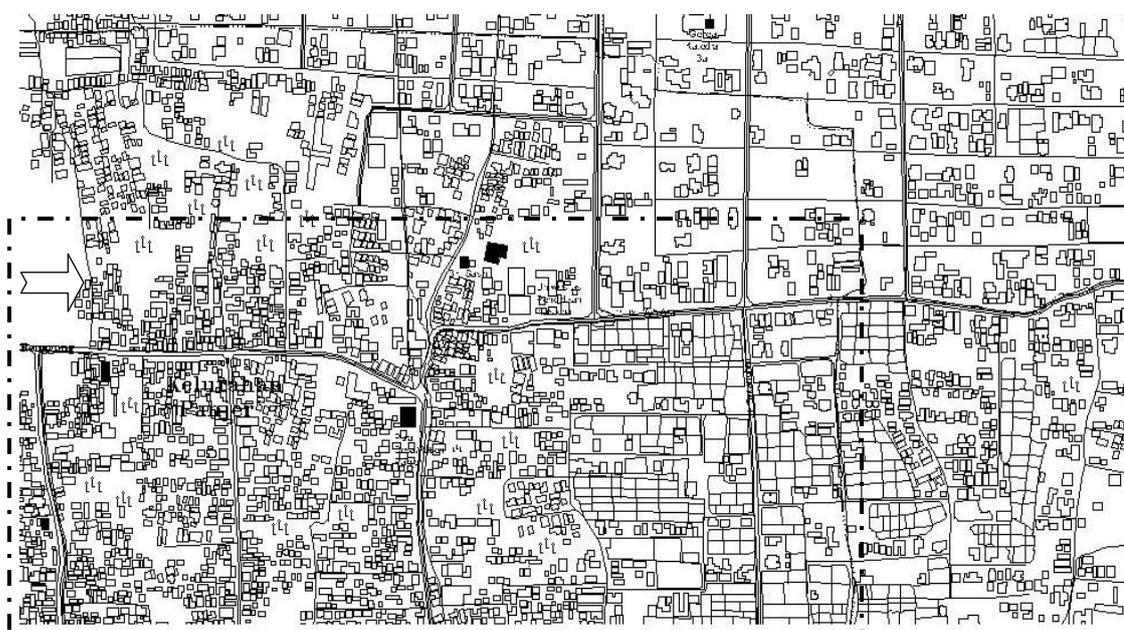
No	Variables	Indicators	Cultural Adequacy	Need Improvement
1	Cultural Elements	▪ Zoning of living spaces (separation of sacred – profane areas within the house)	Poor	Yes
		▪ Building materials (use of local materials)	Poor	Yes
		▪ Orientation and circulation (sun rise and mountain as sacred and sun set and beach as profane)	Fair	No
		▪ Balinese structure and construction	Fair	No
		▪ Building form (square or combination square)	Poor	Yes
		▪ Boundary walls and Balinese gate	Good	No
		▪ Height of building (less than 15 meters)	Fair	No
		▪ Elevation/façade (three parts: head, body, foot)	Poor	Yes
		▪ Form of roof	Fair	No
		▪ Balinese ornament and color	Poor	Yes
		▪ Room position and furniture arrangement (sacred – profane)	Poor	Yes

Source: Observation results (2011).

### 6.2.2.3. Panjer (Housing on Land Rental)

Panjer Housing is an affordable housing project through land rental and sponsored by private developers, which is located at Denpasar city, around 8 km from the center of Sarbagaita Metropolitan to the south.

The project is started from 1999 in which it has already constructed 100% at the end of 2006. The covering area is around 17.80 Ha that is allocated 72% for housing, 18% infrastructure and 10% public facilities (*Figure 6.15*).



**Figure 6.15.** Site Plan of Panjer

Source: Updated from Map of Housing Projects, REI (2011)

**Box 7 Panjer Project Condition**

Project started: 1999-2006

Developer: PT Satya Dana Dewata (Housing on Land Rental Developer)

Area: 17.80 Ha

Occupied by: 173 households, 696 inhabitants

Housing: 12.82 Ha (72%) = 175 units

- Low income: 105 units (60%)
- Middle income: 53 units (30%)
- High income: 17 units (10%)

Infrastructure: 3.20 Ha (18%)

- Road 10 M
- Road 8 M
- Road 6 M
- Road 4 M
- Road enter and bridge

Public Facilities: 1.78 Ha (10%)

- Social facilities: 11.615 M<sup>2</sup>
- Commercial facilities: 10.725 M<sup>2</sup>
- Park and open space: 20.249 M<sup>2</sup>

**Source:** REI (2011), *Housing Projects of REI*

The project has 175 unit houses units consisting of 60% (105 units) for low income and others are 30% for middle-income (53 units) and 10% for high-income groups (17 units). The type, size and the total of house available are shown in *Table 6.30*.

**Table 6.30.** Types of House in Panjer

Type of House	Size of Building (M <sup>2</sup> )	Size of Plot (M <sup>2</sup> )	Total (units)	Classification	Allocation
T.27/100	21	84	30	Very simple houses	Low income
T.35/100	27	84	45	Very simple houses	Low income
T.45/100	36	96	30	Very simple house	Low income
T.54/153	54	153	53	Simple house	Middle income
T.70/150	70	150	17	Luxury house	High Income
			<b>175</b>		

**Source:** REI (2011), *Housing Projects of REI*

Panjer housing project is also dominated by very simple houses, which are low level of construction and materials quality and small size of room. Panjer has already grown as part of existing settlement with some facilities were already developed, like a basic school, park, community center and also some economic activities like small shops. However, a number of public facilities that are positively needed are still not serviceable to meet demand of people in this area. The housing specification, infrastructure and public facilities available are shown in *Table 6.31*.



**Figure 6.16** Type of Houses in Panjer

*Source:* Fieldwork Survey, 2010

**Table 6.31.** Housing Specification, Infrastructure and Public Facilities Available in Panjer

Housing Specification	Infrastructure	Public Facilities
<ul style="list-style-type: none"> <li>▪ Foundation : river stone</li> <li>▪ Walls: cone block with cement finishing</li> <li>▪ Structure: concrete-steel</li> <li>▪ Roof structure: wood class 3</li> <li>▪ Coping Roof: asbestos without aluminum foil</li> <li>▪ Window frame: Wood class 3</li> <li>▪ Floor: concrete without finishing</li> </ul>	<ul style="list-style-type: none"> <li>▪ Water supply: piped (PDAM)</li> <li>▪ Sewerage: pit latrines</li> <li>▪ Roads: asphalt</li> <li>▪ Electricity: 900 KVA, 220 Volt per house</li> <li>▪ Telephone network</li> <li>▪ Public transport: -</li> <li>▪ Solid waste and disposal: skips, open-bins dumping, dug pits</li> <li>▪ Drainage system: concrete</li> </ul>	<ul style="list-style-type: none"> <li>▪ 5 basic school</li> <li>▪ 1 Secondary school</li> <li>▪ 5 community center</li> <li>▪ 35 small shop</li> <li>▪ 1 park</li> </ul>

*Source:* REI (2011), *Housing Projects of REI*

Houses are neglecting the temple as praying for dwellers, inadequate of Balinese style, no ornament, and a lack of orientation. Developer has not provided the communal praying area and no place to present daily activities to express their culture as seen on *Table 6.32* and *Table 6.33*.

**Table 6.32.** Housing Quality in Panjer

No.	Variables	Indicators	Quality	Need Improvement
1	House Quality	▪ Design layout, Shape of lot	Fair	No
		▪ Number and size of room	Fair	No
		▪ Building materials	Fair	No
		▪ <i>Structure and construction</i>	Poor	Yes
		▪ <i>Sitting of the building within plot</i>	Poor	Yes
		▪ Building façade and the height	Fair	No
		▪ Orientation and Circulation	Fair	No
2	Infrastructure and Service delivery	▪ <i>Road: Width, materials and construction</i>	Fair	No
		▪ Water supply	Fair	No
		▪ <i>Solid waste management and disposal</i>	Poor	Yes
		▪ Drainage and sanitation	Good	No
3	Public Facilities Accessibility	▪ Education facilities: kinder garden, basic, secondary and senior high school	Fair	No
		▪ Health facilities: health center, drug store, etc.	Fair	No
		▪ Commercial area facilities: shopping store	Fair	No
		▪ Government and public service facilities: security, community center, public parking, public toilet and police station	Poor	Yes
		▪ <i>Space for praying facilities: mosque, church and temple</i>	Fair	No
		▪ Recreation facilities: playground area	Fair	No
		▪ Sport and open space facilities: sport center and park	Fair	No

**Source:** Observation results (2011).

**Table 6.33.** Cultural Elements in Panjer

No.	Variables	Indicators	Cultural Adequacy	Need Improvement
1	Cultural Elements	▪ <i>Zoning of living spaces (separation of sacred – profane areas within the house)</i>	Poor	Yes
		▪ <i>Building materials (use of local materials)</i>	Poor	Yes
		▪ Orientation and circulation (sun rise and mountain as sacred and sun set and beach as profane)	Fair	No
		▪ Balinese structure and construction	Poor	
		▪ Building form (square or combination square)	Good	Yes
		▪ Boundary walls and Balinese gate	Poor	No
		▪ <i>Height of building (less than 15 meters)</i>	Fair	Yes
		▪ Elevation/façade (three parts: head, body, foot)	Poor	No
		▪ Form of roof	Poor	Yes
		▪ <i>Balinese ornament and color</i>		Yes
		▪ <i>Room position and furniture arrangement (sacred – profane)</i>		Yes

**Source:** Observation results (2011).

### 6.2.2.3. Pemogan (Self-Built on Land Rental)

Pemogan Housing is an affordable housing project Self Built on Land Rental and sponsored by private developers, which is located at fringe of Denpasar city, around 11 km from the center of Sarbagaita Metropolitan to the South West.

The project is started from 1999 in which it has already constructed 100% at the end of 2004. The covering area is around 27.50 Ha that is allocated 72% for housing, 18% infrastructure and 10% public facilities (see on *Box 8* and *Figure 6.17*).

<b>Box 8 Pemogan Project Condition</b>	
Project started:	1999-2004
Developer:	PT Arisandi Bangun Persada (Self Built on Land Rental Developer)
Area:	27.50 Ha
Occupied by:	225 households, 896 inhabitants
Housing:	19.80 Ha (72%) = 225 units
	<ul style="list-style-type: none"> <li>▪ Low income: 135 units (60%)</li> <li>▪ Middle income: 68 units (30%)</li> <li>▪ High income: 22 units (10%)</li> </ul>
Infrastructure:	4.95 Ha (18%)
	<ul style="list-style-type: none"> <li>▪ Road 10 M</li> <li>▪ Road 8 M</li> <li>▪ Road 6 M</li> <li>▪ Road 4 M</li> <li>▪ Road enter and bridge</li> </ul>
Public Facilities:	2.75 Ha (10%)
	<ul style="list-style-type: none"> <li>▪ Social facilities: 11.615 M<sup>2</sup></li> <li>▪ Commercial facilities: 10.725 M<sup>2</sup></li> <li>▪ Park and open space: 20.249 M<sup>2</sup></li> </ul>
<b>Source:</b> REI (2011), <i>Housing Projects of REI</i>	



**Figure 6.17.** Site Plan of Pemogan

**Source:** Updated from Map of Housing Projects, REI (2011)

The project has 225 house units consisting of 60% (135 units) for low income and others are 30% for middle-income (68 units) and 10% for high-income groups (22 units). There are 225 households and 896 inhabitants live in this affordable housing. The type, size and the total of house available are shown in *Table 6.34*.

**Table 6.34.** Types of House in Pemogan

Type of House	Size of Building (M <sup>2</sup> )	Size of Plot (M <sup>2</sup> )	Total (units)	Classification	Allocation
T.27/100	21	84	35	Very simple houses	Low income
T.35/100	27	84	55	Very simple houses	Low income
T.45/100	36	96	45	Very simple house	Low income
T.54/153	54	153	68	Simple house	Middle income
T.70/150	70	150	22	Luxury house	High Income
			<b>225</b>		

*Source:* REI (2011), *Housing Projects of REI*



**Figure 6.18** Type of House in Pemogan

*Source:* Fieldwork Survey, 2010

Pemogan housing project is dominated by very simple houses, which are low level of construction and materials quality. Pemogan has already grown as part of existing settlement with some facilities were already developed, like a basic school, park, community center and also some economic activities like small shops. However, a number of public facilities that are positively needed are still not serviceable to meet

demand of people in this area. The housing specification, infrastructure and public facilities available are shown in *Table 6.35*.

**Table 6.35.** Housing Specification, Infrastructure and Public Facilities Available in Pemogan

Housing Specification	Infrastructure	Public Facilities
<ul style="list-style-type: none"> <li>▪ Foundation : river stone</li> <li>▪ Walls: cone block with cement finishing</li> <li>▪ Structure: concrete-steel</li> <li>▪ Roof structure: wood class 3</li> <li>▪ Coping Roof: asbestos without aluminum foil</li> <li>▪ Window frame: Wood class 3</li> <li>▪ Floor: concrete without finishing</li> <li>▪ Ceiling: teakwood ceiling coping</li> </ul>	<ul style="list-style-type: none"> <li>▪ Water supply: piped (PDAM)</li> <li>▪ Sewerage: pit latrines</li> <li>▪ Roads: asphalt</li> <li>▪ Electricity: 900 KVA, 220 Volt per house</li> <li>▪ Telephone network</li> <li>▪ Public transport: -</li> <li>▪ Solid waste and disposal: skips, open-bins dumping, dug pits</li> <li>▪ Drainage system: concrete</li> </ul>	<ul style="list-style-type: none"> <li>▪ 5 basic school</li> <li>▪ 1 Secondary school</li> <li>▪ 5 community center</li> <li>▪ 35 small shop</li> <li>▪ 1 park</li> </ul>

**Source:** REI (2011), *Housing Projects of REI*

As shown on *Table 6.36* and *Table 6.37*, houses provided in Pemogan are neglecting the temple as praying for dwellers, especially inside house, inadequate of Balinese style, no ornament, and a lack of orientation. Developer has not provided the communal praying area and no place to present daily activities to express their culture.

**Table 6.36.** Housing Quality in Pemogan

No.	Variables	Indicators	Quality	Need Improvement
1	House Quality	<ul style="list-style-type: none"> <li>▪ Design layout, Shape of lot</li> <li>▪ Number and size of room</li> <li>▪ Building materials</li> <li>▪ <i>Structure and construction</i></li> <li>▪ <i>Sitting of the building within plot</i></li> <li>▪ Building façade and the height</li> <li>▪ Orientation and Circulation</li> </ul>	<ul style="list-style-type: none"> <li>Fair</li> <li>Good</li> <li>Fair</li> <li>Poor</li> <li>Poor</li> <li>Fair</li> <li>Fair</li> </ul>	<ul style="list-style-type: none"> <li>No</li> <li>No</li> <li>No</li> <li>Yes</li> <li>Yes</li> <li>No</li> <li>No</li> </ul>
2	Infrastructure and Service delivery	<ul style="list-style-type: none"> <li>▪ <i>Road: Width, materials and construction</i></li> <li>▪ Water supply</li> <li>▪ <i>Solid waste management and disposal</i></li> <li>▪ Drainage and sanitation</li> </ul>	<ul style="list-style-type: none"> <li>Poor</li> <li>Fair</li> <li>Poor</li> <li>Fair</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> <li>No</li> <li>Yes</li> <li>No</li> </ul>
3	Public Facilities Accessibility	<ul style="list-style-type: none"> <li>▪ Education facilities: kinder garden, basic, secondary and senior high school</li> <li>▪ Health facilities: health center, drug store, etc.</li> <li>▪ Commercial area facilities: shopping store</li> <li>▪ Government and public service facilities: security, community center, public parking, public toilet and police station</li> <li>▪ Space for praying facilities: mosque, church and temple</li> <li>▪ Recreation facilities: playground area</li> <li>▪ Sport and open space facilities: sport center and park</li> </ul>	<ul style="list-style-type: none"> <li>Fair</li> <li>Fair</li> <li>Fair</li> <li>Fair</li> <li>Fair</li> <li>Fair</li> <li>Fair</li> </ul>	<ul style="list-style-type: none"> <li>No</li> <li>No</li> <li>No</li> <li>No</li> <li>No</li> <li>No</li> <li>No</li> </ul>

**Source:** Observation results (2011).

**Table 6.37.** Cultural Elements in Pemogan

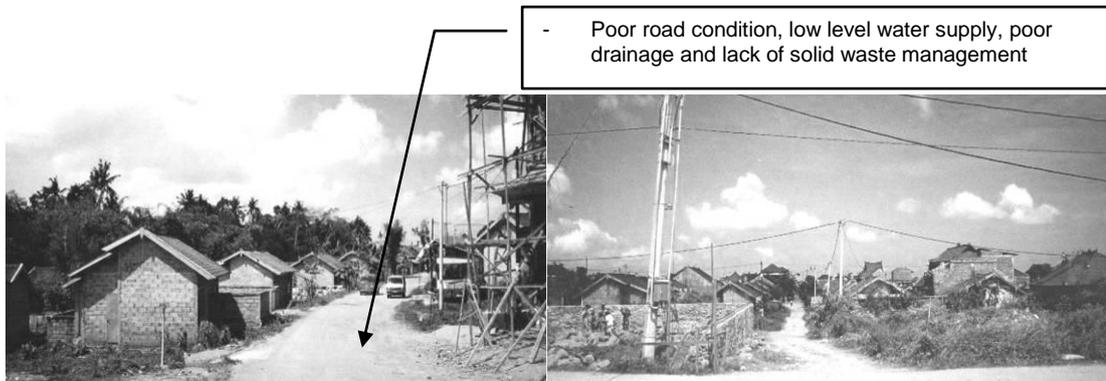
No.	Variables	Indicators	Cultural Adequacy	Need Improvement
1	Cultural Elements	▪ <i>Zoning of living spaces (separation of sacred – profane areas within the house)</i>	Poor	Yes
		▪ <i>Building materials (use of local materials)</i>	Poor Fair	Yes No
		▪ <i>Orientation and circulation (sun rise and mountain as sacred and sun set and beach as profane)</i>	Fair	No
		▪ <i>Balinese structure and construction</i>	Poor	
		▪ <i>Building form (square or combination square)</i>	Good Poor	Yes No
		▪ <i>Boundary walls and Balinese gate</i>	Fair	Yes
		▪ <i>Height of building (less than 15 meters)</i>	Poor	No
		▪ <i>Elevation/façade (three parts: head, body, foot)</i>	Poor	Yes
		▪ <i>Form of roof</i>		Yes
		▪ <i>Balinese ornament and color</i>		
		▪ <i>Room position and furniture arrangement (sacred – profane)</i>		

**Source:** Observation results (2011).

### 6.2.3. The Quality and Culturally Appropriate Housing Projects

From visual observation made during the survey of residential projects, relating to infrastructure and service delivery, it was noted that formal sector developers provided better infrastructure and service delivery as was evidenced from *road conditions, water supply provision, drainage and sanitation*. However, the level of garbage disposal management was poor. Meanwhile, the informal projects provided lower infrastructure provisions as apparent from *poor road conditions, low levels of water supply provision and also poor solid waste management (see on Figure 6.19)*. Interestingly, however, some informal sector projects tended to have better drainage and sanitation and even better water supply provision.

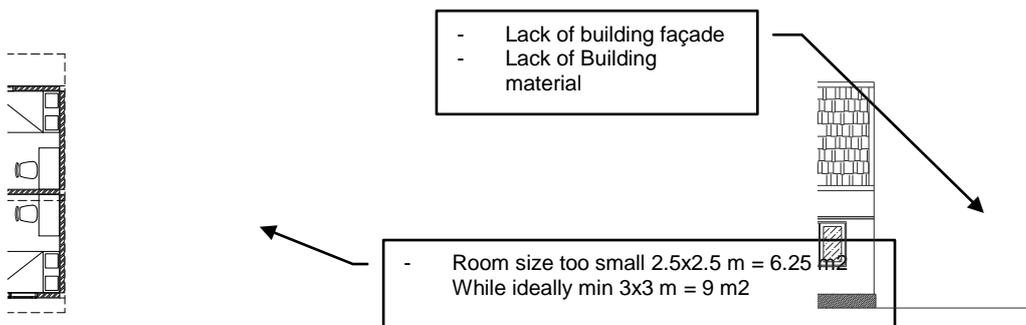
Informal sector housing projects tended to offer *larger plot size* compared to formal sector projects. They also made provision for relatively more *adequate communal areas for praying*. It was noted that the informal sector projects seemed to rely on *service delivery by the community*. In terms of house unit price, informal sector projects' affordable units tended to stay just within the ceiling price set by government, while formal sector projects often surpassed the ceiling price.



**Figure 6.19.** Poor Road Condition, Low Level Water Supply, Poor Drainage and Lack of Solid Waste Management of Projects

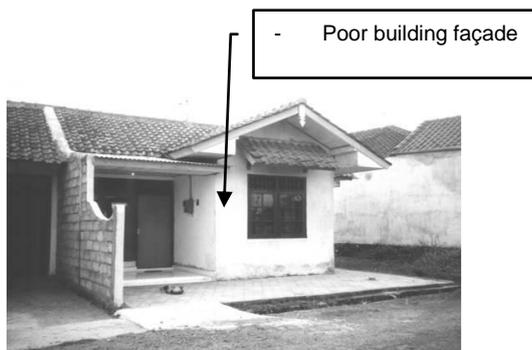
Source: Fieldwork Survey, 2010

Both formal and informal housing projects, the quality of projects in average is 0.4% very poor, 22.59% poor, 54.12% fair, 20.55% good and 1.87% very good (see on *Graph 6.1*). The graph shows that the poor quality of housing is referring to the number and size of room, building facade and building materials (see on *Figure 6.20*, *6.21* and *6.22*). In term of infrastructure and service delivery, the projects have low quality of road, width, materials and construction, solid waste management and disposal, drainage and sanitation. While, in term of public facilities accessibility, the projects have low quality of recreation facilities, sport and open space area.



**Figure 6.20.** Low Quality of Size Room, Building Materials, and Facade

Source: Adapted from Plan of Housing Projects, REI (2011)



**Figure 6.21.** Poor Building Facade in Monang Maning Project

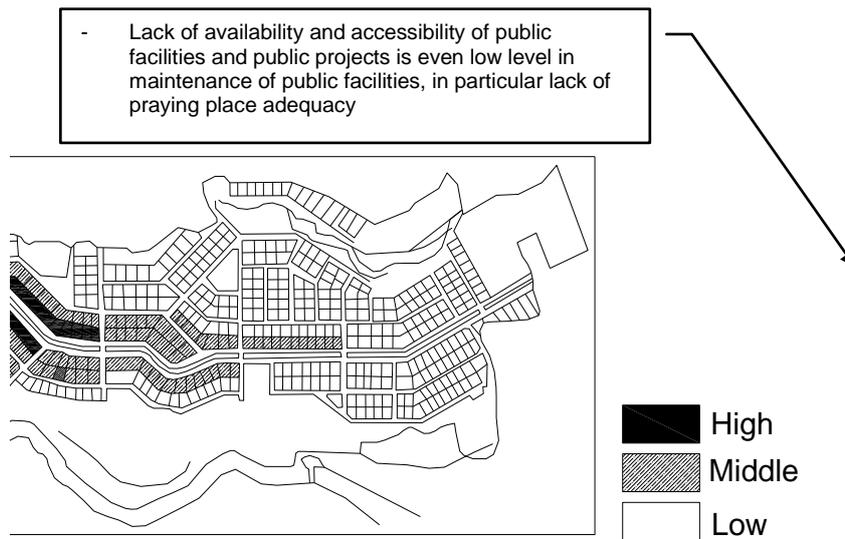
Source: Fieldwork Survey, 2010



**Figure 6.22.** Poor Building Materials in Dalung Permai Project

Source: Fieldwork Survey, 2010

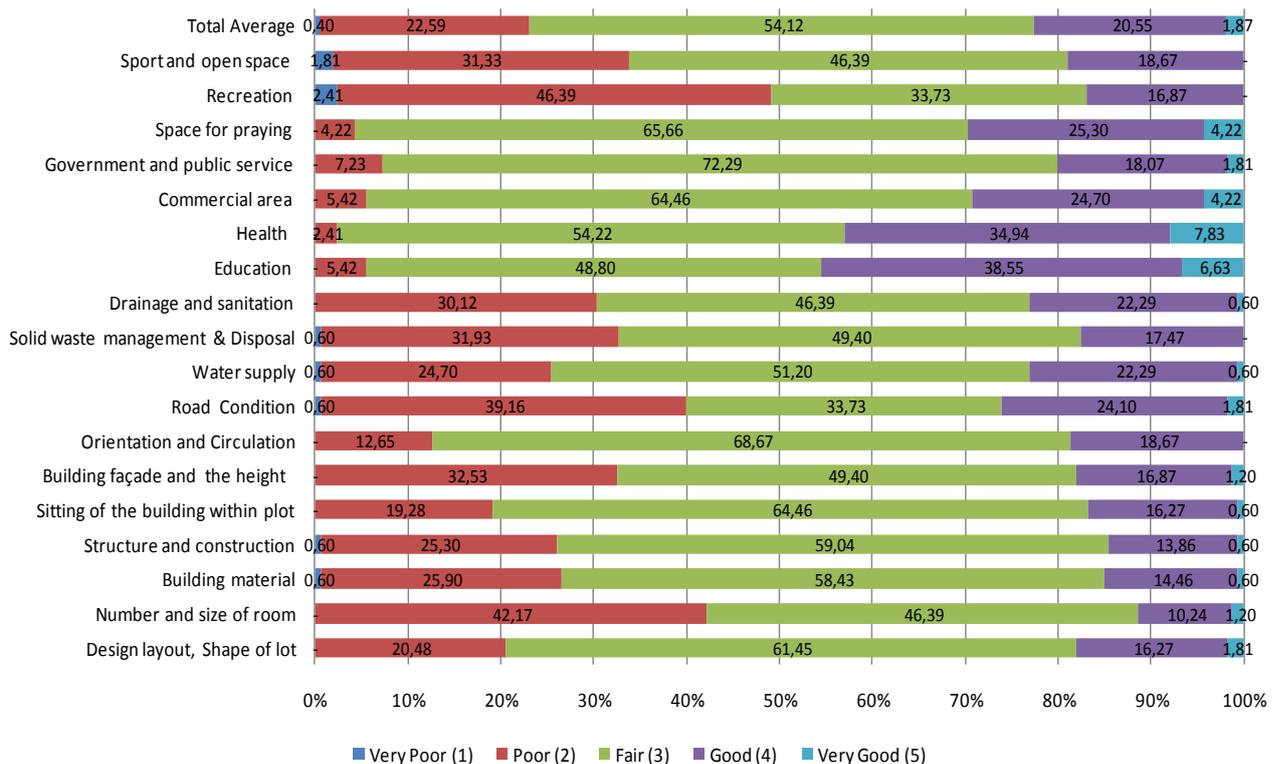
In addition to the cultural points, the following was also noted that insufficient public facilities and low levels of maintenance of public facilities, in particular a lack of communal praying place (see on Figure 6.23).



**Figure 6.23.** Lack of Availability and Maintenance of Public Facilities, in Communal Praying Place

Source: Adapted from Map of Housing Projects, REI (2011)

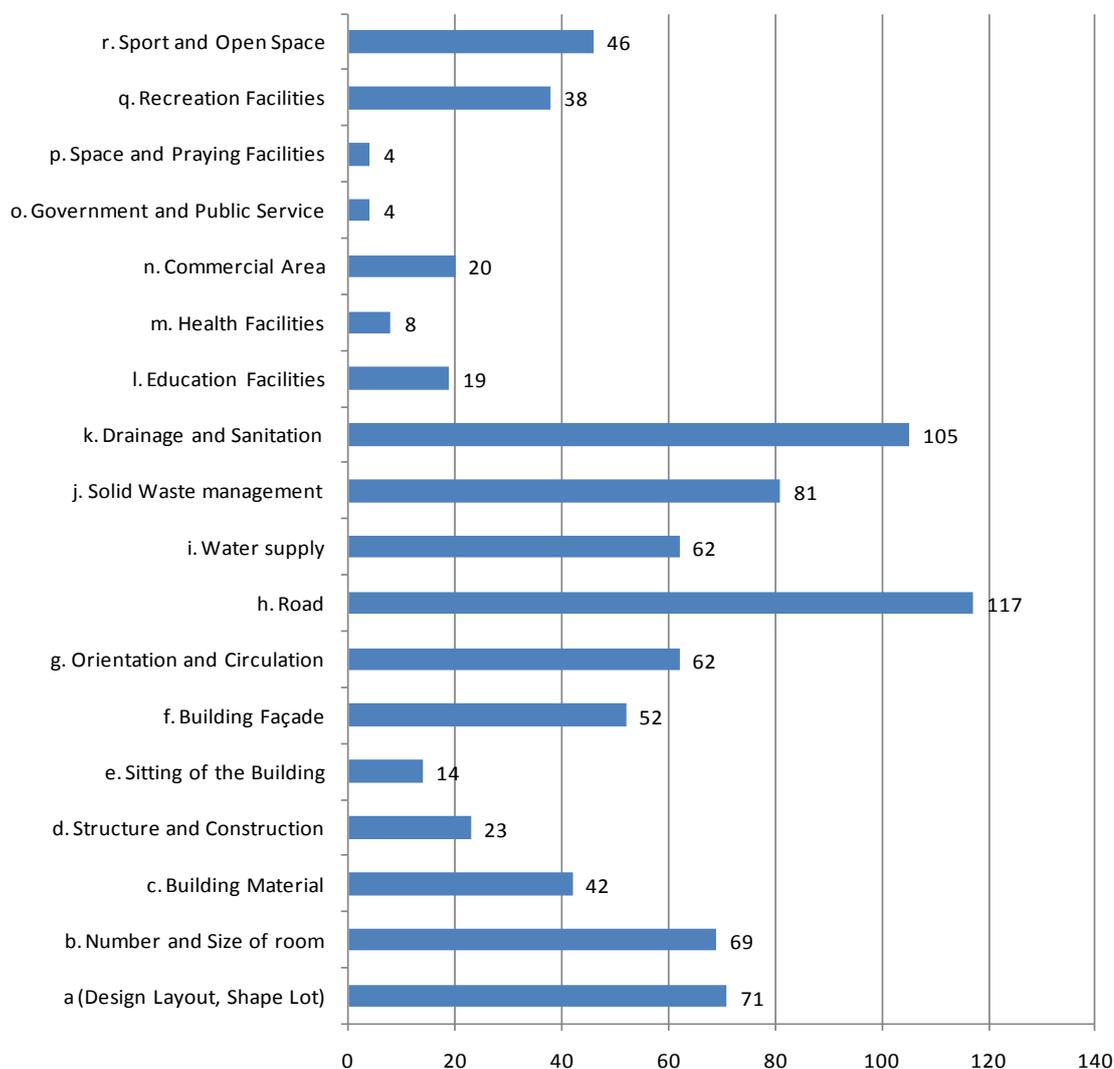
However, the affordable housing projects generally have good quality of health and commercial area facilities. Design layout, shape lot and waters supply provision are also considered good quality of the projects.



**Graph 6.1.** Housing Quality of Affordable Housing Project Selected

Source: Observation results (2011)

Regarding to need of improvement, observation study shows that the top 5 aspect of areas needing improvement in housing quality before dwellers comfortably move into the projects are (1) road condition, (2) drainage and sanitation, (3) solid waste management and disposal, (4) design layout and shape of lot, (5) Number and size of rooms (see on *Graph 6.2*).



**Graph 6.2.** Housing Quality (Indicate Top 5 Areas Needing Improvement)

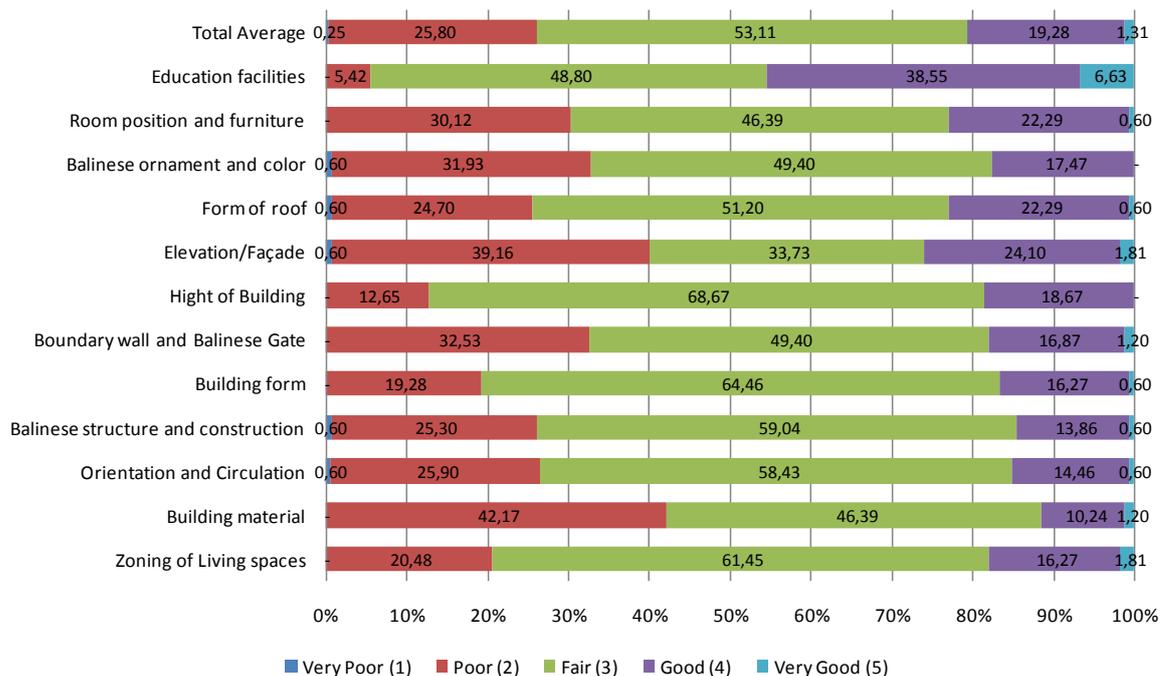
**Source:** Observation results (2011)

During observation, there are two significant concept which have been used as the checklist of cultural sensitivity indicators as elements of Balinese House. Those are the concept of “sacred” and “profane” areas and Balinese traditional architecture and built form which developed in consideration to the following elements:

1. Application of the concept of “sacred” and “profane” areas
  - a. Zoning of living spaces – allocating praying place within sacred area, while inner courtyard and kitchen allocated within profane area
  - b. Room position and furniture arrangement (sacred – profane)

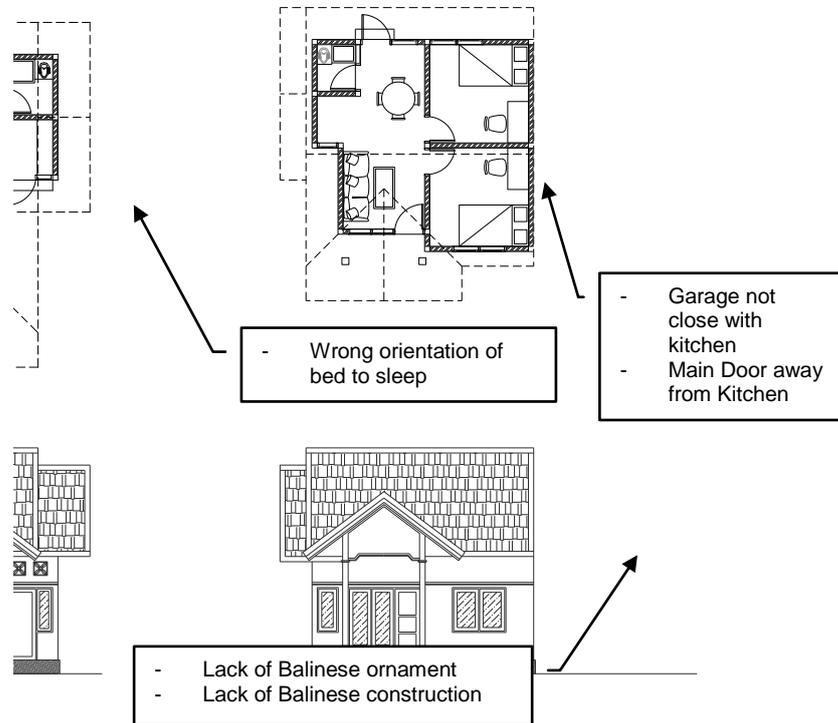
- c. Orientation and Circulation - room position/furniture arrangement in conformity with the rule that facing/ pointing towards the sunrise and mountain is considered sacred while facing sunset and beach is considered profane)
- 2. Respect for Balinese traditional architecture and built form
  - a. Height of building – should remain under the height of a coconut tree, i.e. less than 15 meters
  - b. Boundary walls and Balinese gate
  - c. Building layout – seen as square or combination of squares
  - d. Building form (square or combination square)
  - e. Balinese structure and construction (using Balinese structure)
  - f. Building materials (use of local materials)
  - g. Elevation/ facade – should be readily identifiable as comprising three parts: head, body and foot (in line with the Tri Angga concept)
  - h. Balinese ornament and colour – presence and compatibility of ornamental elements and colour within the house and the gate.

Observation results noted that the cultural elements of projects in average is 0.25% very poor, 25.80% poor, 53.11% fair, 19.28% good and 1.31% very good (see on Graph 6.3). As the graph shown, the the affordable housing projects is poor cultturally acceptable in elements of buidling materials, unclear division of building facade, boundary wall-Balinese gate, wrong orientation, a lack of praying place (temple), a lack of local materials and Balinese ornament/decoration (see on Figure 6.24 and 6.25). Yet, the projects generally have good culturall appropriatness in term of building layout, form of roof and room position-funiture.

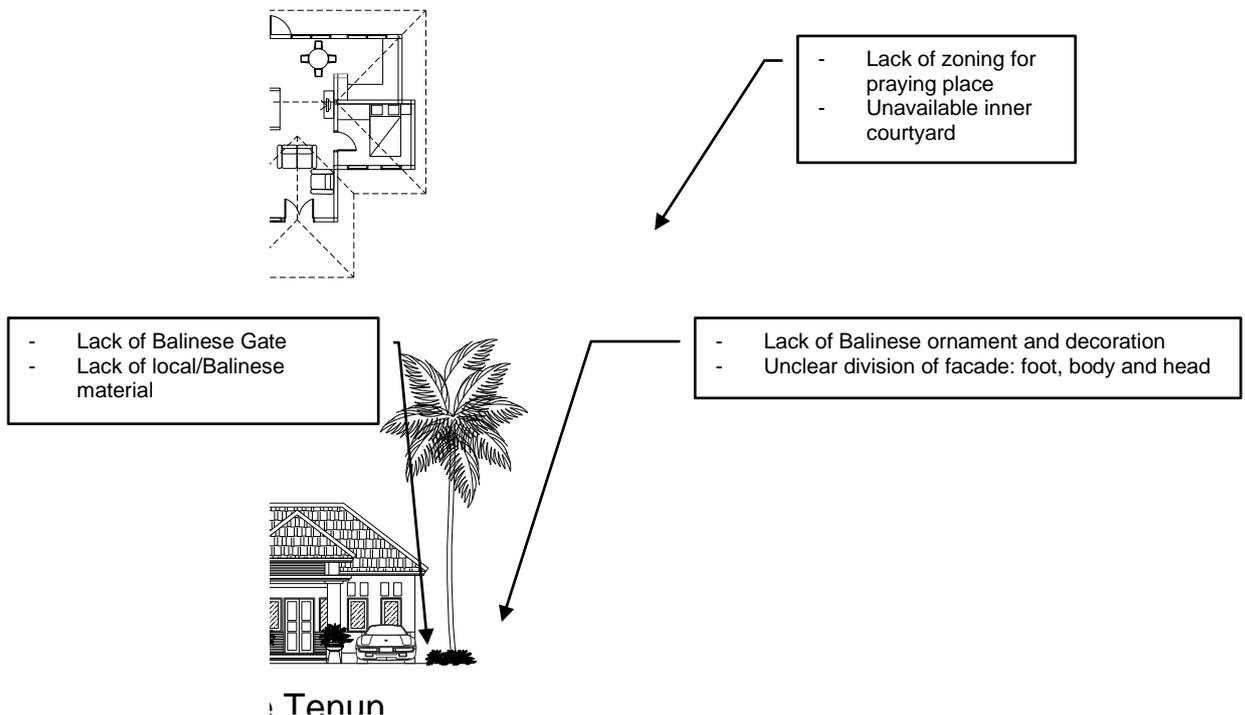


**Graph 6.3.** Cultural Elements of Affordable Housing Project Selected  
**Source:** Observation results (2011)

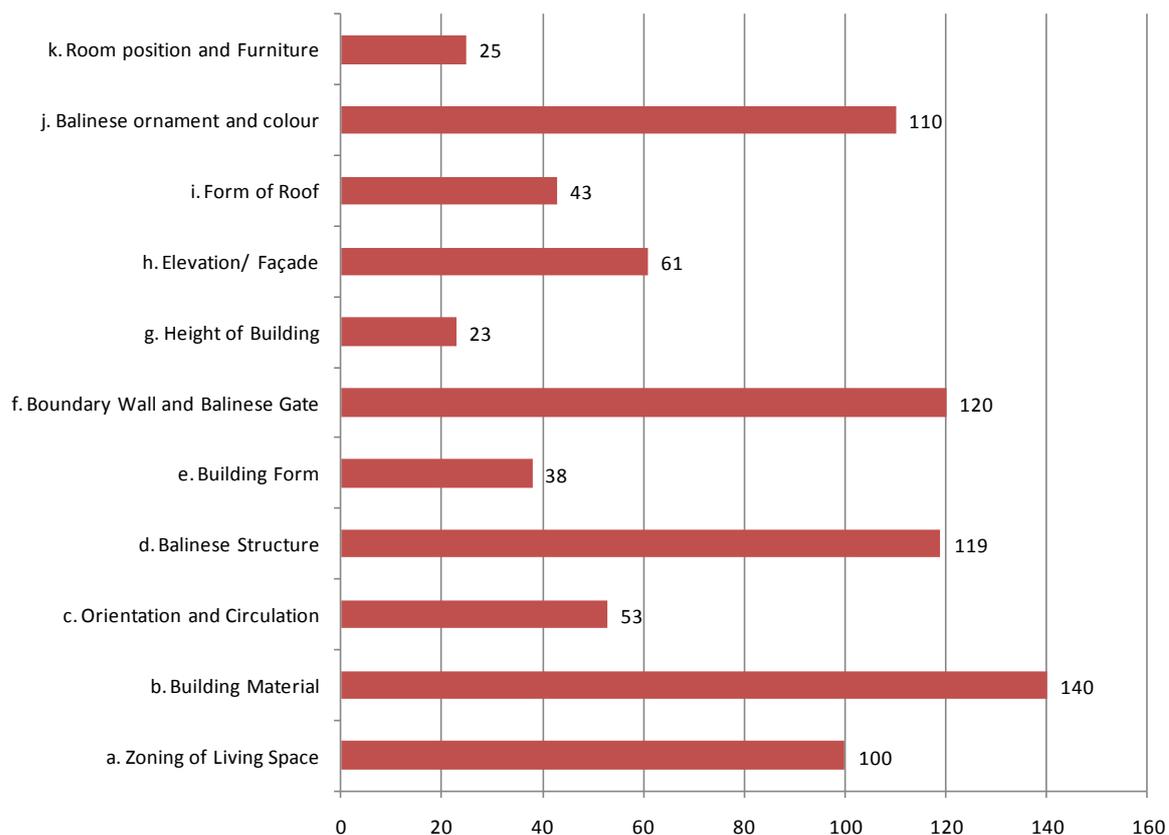
Referring to need of improvement, the observation showed that the top 5 the aspect of areas needing improvement in cultural elements before dwellers comfortably move into the projects: (1) building materials, (2) boundary walls and Balinese gate, (3) Balinese structure, (4) Balinese ornament and colour, (5) Zoning of living spaces (*Graph 6.4*).



**Figure 6.24.** Bukit Sanggulan – Formal Housing Project (Partnership)  
Source: Adapted from Plan of Housing Projects, REI and Perumas (2011)



**Figure 6.25.** Saba River Residence – Formal Housing Project (Private)  
Source: Adapted from Plan of Housing Projects, REI and Perumas (2011)



**Graph 6.4.** Cultural Element (Indicate Top 5 Areas Needing Improvement)

**Source:** Observation results (2011)

### 6.3. Developer Constraints in Providing better Quality and Culturally Appropriate Housing Projects

To identify with the constraints faced by developers in providing affordable and culturally appropriate housing product, the interviews were used with developers and government representatives, and also supported by secondary data from Real Estate Indonesia. The developers involved are private and partnership ventures and others are public and cooperative with housing projects operated both types - formal and informal projects.

There are 125 developers which consist of 75 developers of formal and 50 developers of informal housing projects, associated with the 20 selected projects. The sample of developers who are interviewed is 25 respondents (20%), which 15 developers is coming from formal housing projects and 10 developers from informal housing projects.

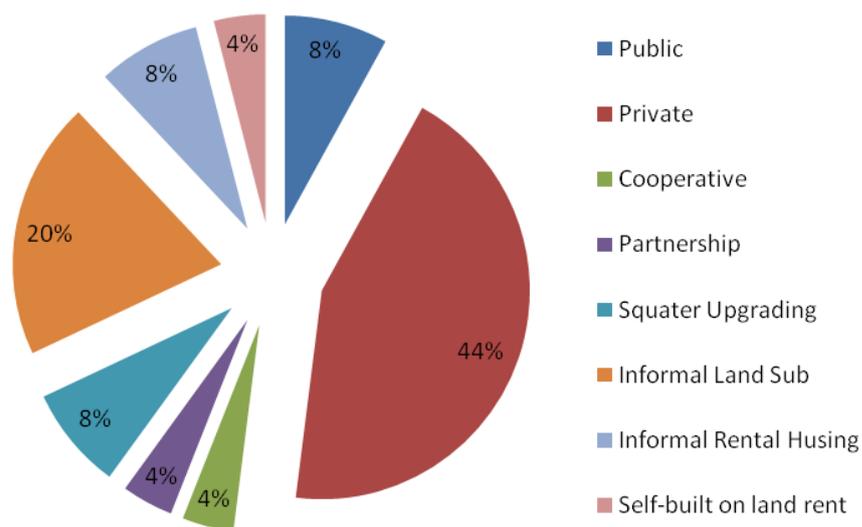
To get more understanding of the provision mechanisms or provider's constraints in providing a better quality housing products and cultural appropriateness for dwellers, the interviews were also undertaken with all actors involved in the projects (15 respondents). They are coming from local government such as: Denpasar Municipality (3 representatives), Local Development Planning Board (3 representatives),

Urban Management Department (3 representatives), Public Work Department (3 representatives), and Housing and Human Settlement Department (3 representatives).

The investigation study concern on determining company profile and organizational culture of developers active in the field and widely examine their appreciation with Balinese culture in the projects. The key indicators focused on during the investigation include such as: (1) costs and expenditure of affordable housing project, (2) access to government support/incentives, (3) capability of human resources of design team, (4) Cultural value implementation: cultural awareness and commitment towards conservation of Balinese culture, (5) dwellers involvement: room for community engagement in the design, implementation and/ or maintenance stages of operation, (6) perception of housing affordable product and (7) developers constraints in providing better quality and cultural appropriateness of affordable housing projects.

### 6.3.1. Developers Identification, Profile and Project Selection

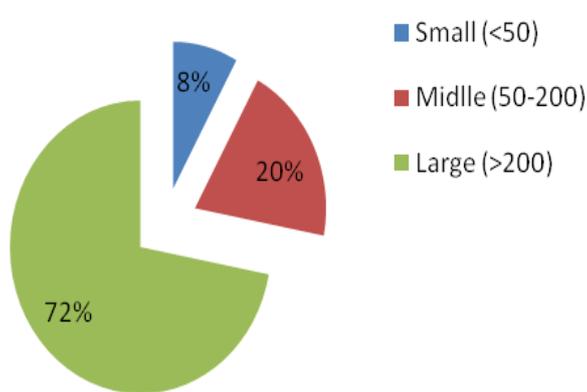
Based on interviews results, type of developers in affordable housing projects is largest coming from private developers (44%) and smallest from cooperative, partnership and self-built on land rent (4%). Others are informal land subdivision (20%) and public, squatter and informal rental housing (8%), as seen *Graph 6.5*.



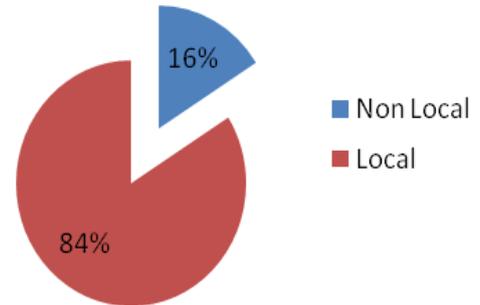
**Graph 6.5.** Type of Developers in the Projects Area  
**Source:** Interviews results (2010)

Developers have been in Bali an average of 19.84 years, completed mostly large projects in average between 1 and 37 projects. The main target groups are primarily local people and others are domestic and international dwellers.

As shown on the *Graph 6.6*, the number of projects size is in average between 20 and 4800 units, the biggest number is 72% large project (>200), 20% middle projects (50-200 units) and the smallest is 8% small (<50 units). The main target groups of project are 84% local and 16% non-local (see on *Graph 6.7*).



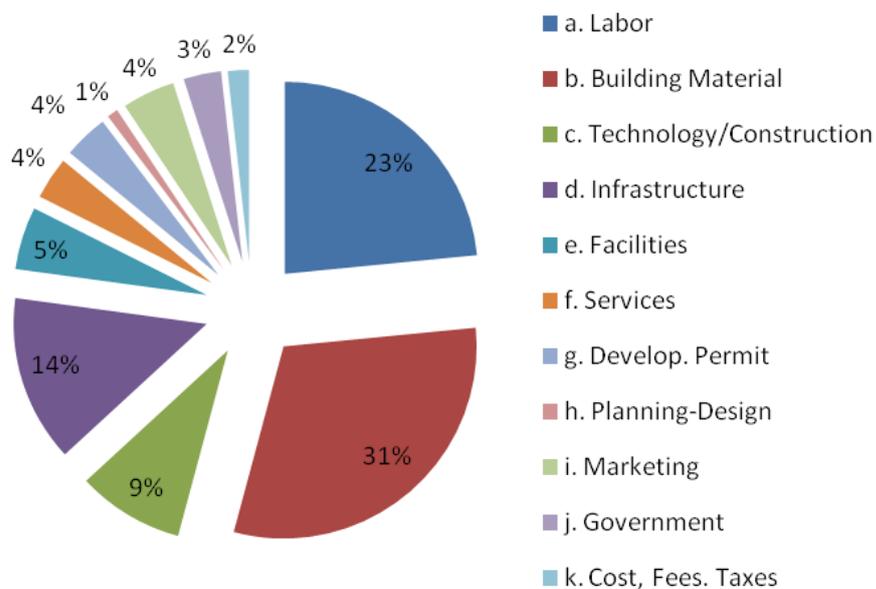
**Graph 6.6. Size of Projects**  
**Source:** Interviews results (2010)



**Graph 6.7. Main Target of Projects**  
**Source:** Interviews results (2010)

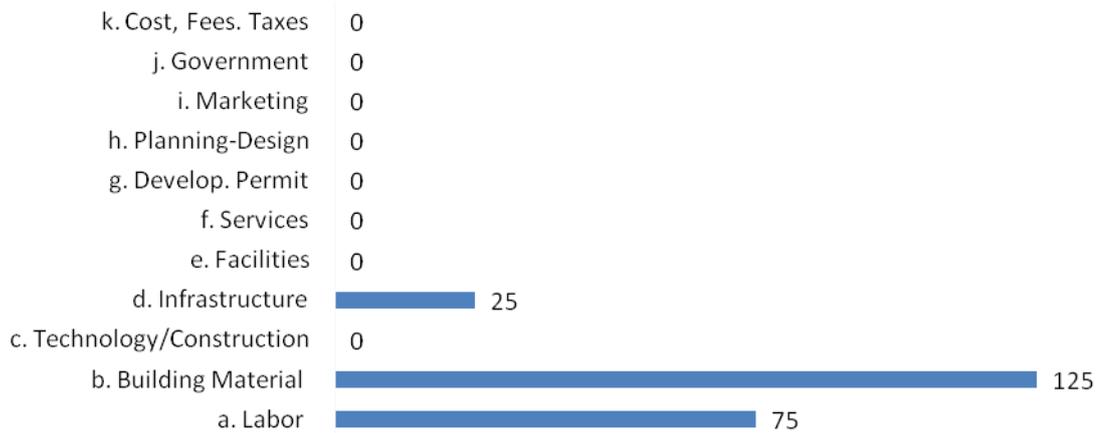
### 6.3.2. Costs and Expenditure of Housing Projects

Breakdown of costs and expenditure for the selected project which given developers during interviews, the study shows that the top 3 biggest of project costs and expenditure is (1) building materials costs (31%), (2) labor (23%) and (3) Infrastructure costs (14%). Whereas the 3 top smallest is (1) planning design fee (1%), (2) other costs, fees, tax (2%) and (3) government tax (3%) (see on *Graph 6.8*).



**Graph 6.8. Costs and Expenditures of Projects**  
**Source:** Interviews results (2010)

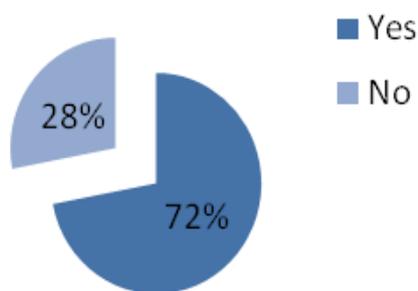
In addition, the top 3 items as most important which would become the main obstacle/constraints in term of costs in providing better quality and culturally acceptable housing is: (1) building materials, (2) labor, and (3) infrastructure, as seen in *Graph 6.9*.



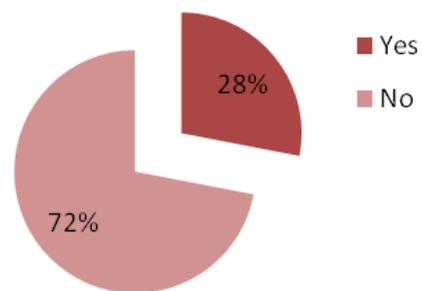
**Graph 6.9.** The 3 Most Important in Providing Better Culturally Acceptable Housing  
**Source:** Interviews results (2010)

### 6.3.3. Government Support

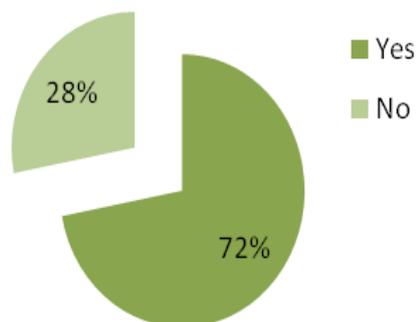
In affordable housing provision projects, local government in Bali evenly provides support for developers who are eligible to obtain it such as: incentives, subsidies, soft loans and other supports. As interviews result, 72% developers mentioned that they receive incentive and soft loan, while only 28% developers accepting subsidies and 8% getting other support (see on *Graph 6.10, 6.11, 6.12 and 6.13*). The criteria which have been set to obtain the government support is (1) developers have to build the large project development and (2) the target group of number house built have to use ratio scheme 1 : 3 : 6 (1 high income : 3 middle income : 6 low income groups).



**Graph 6.10.** Incentive from Government for Developers  
**Source:** Interviews results (2010)

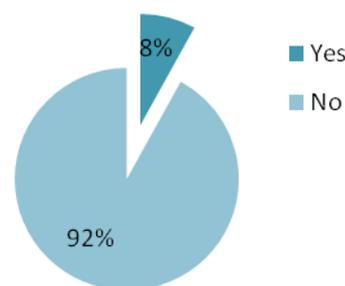


**Graph 6.11.** Subsidies from Government for Developers  
**Source:** Interviews results (2010)



**Graph 6.12.** Soft loans from Government for Developers

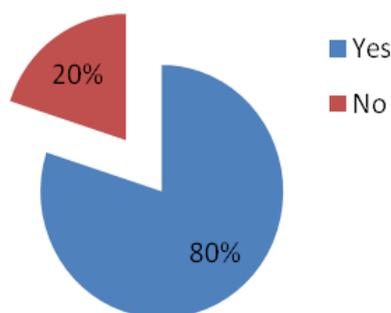
**Source:** Interviews results (2010)



**Graph 6.13.** Other Supports from Government for Developers

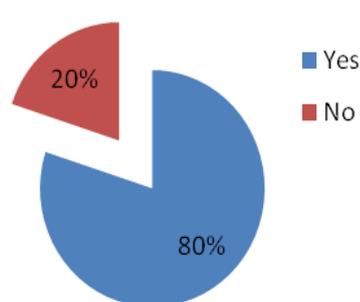
**Source:** Interviews results (2010)

Furthermore, 80% developers appealed that they got constraints to obtain government supports such as: too complicated procedures and issue of nepotism (see on *Graph 6.14*). 80% developers also mentioned that better position will get better support from government, due to political and financial reason (see on *Graph 6.15*). For those developers who have more power politically, will give more change to receive the government support i.e. public and partnership developer have more access than others.



**Graph 6.14.** Constraint to Obtain Government Support

**Source:** Interviews results (2010)



**Graph 6.15.** Better Position Better Support from Government

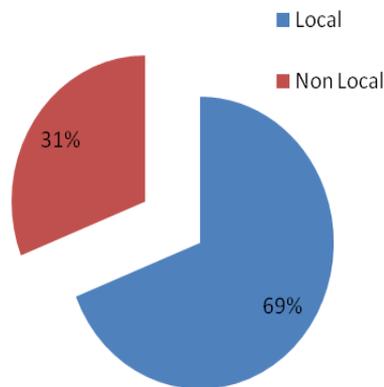
**Source:** Interviews results (2010)

### 6.3.4. Capability of Human resources

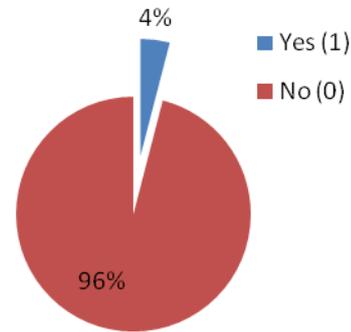
Regarding to capability of human resources, the findings explore about origin of staff, training and skill experience and degree of familiarity of the Balinese culture. In design team staff, developers have employee in average of 69% local people and 31% non-local people (see on *Graph 6.16*). Yet, they mostly have studied out of Bali and no skill and knowledge of the Balinese culture.

In term of training skill, only 4% developers have provided training skill of Balinese culture for their staffs (see on *Graph 6.17*). To understand Balinese culture, they just

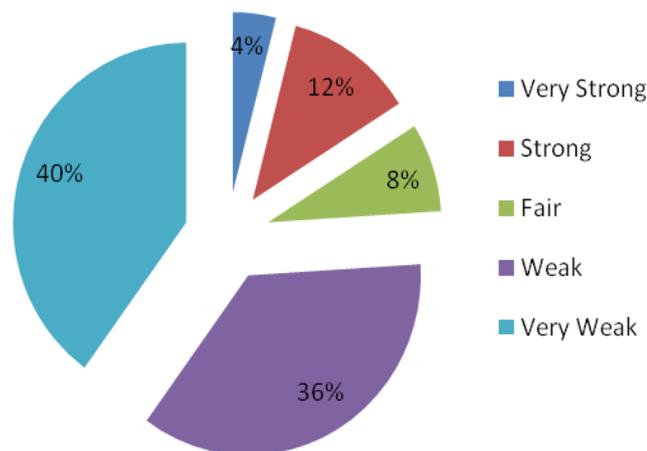
read from the regulation and standard that have been launched by government in news paper or government website. In addition, the study also shows that the familiarity of staff to Balinese culture consider low with 40% very weak, 36% weak and 8% fair, 12% strong and 4% very strong (see on *Graph 6.18*). The reason is that they are more interested and focused on western/modern style rather than Balinese traditional.



**Graph 6.16.** Design Team Staff  
**Source:** Interviews results (2010)



**Graph 6.17.** Training for Staff about Balinese Culture  
**Source:** Interviews results (2010)



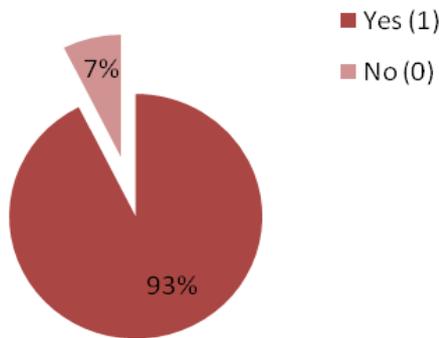
**Graph 6.18.** Familiarity of Staff to Balinese Culture  
**Source:** Interviews results (2010)

### 6.3.5. Culture Value Implementation

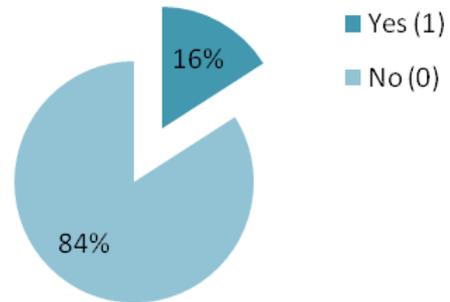
This part will analyze the findings of culture value implementation, to show the interview results referring to the view of developers of Balinese house concept, how developers incorporated and implemented the Balinese concept, the barrier to implement it, and their opinion about culturally more suitable design related to increasing demand of housing product.

As study shown, 93% developers mentioned that Balinese house concept is different to that in the rest of Indonesia, intern of zoning of living spaces, building materials,

ornament, façade, orientation, circulation and structure construction (see on *Graph 6.19*). But, 84% of developers said that they have not been incorporated the Balinese concept to their projects in elements of building materials and Balinese ornament and color (see on *Graph 6.20*).

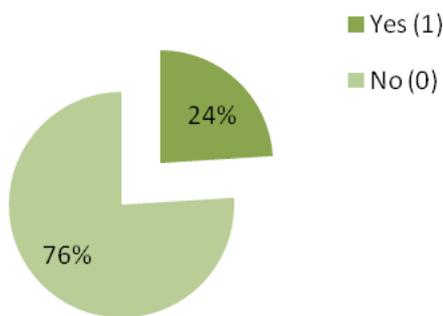


**Graph 6.19.** Balinese House has Different Concept to Rest in Indonesia  
**Source:** Interviews results (2010)

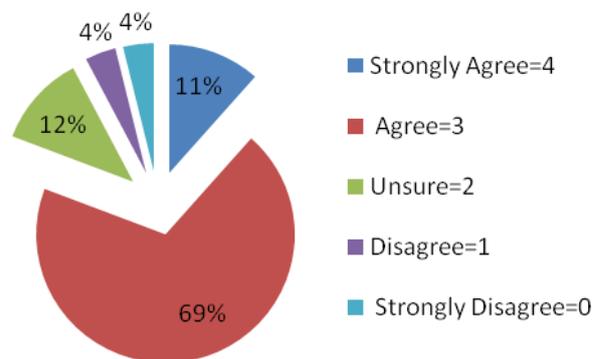


**Graph 6.20.** Incorporate Concept in the Projects  
**Source:** Interviews results (2010)

Moreover, 76% of developers also said that they have not implemented Balinese concept to their other types of projects (see on *Graph 6.21*). They have got barrier on building materials and labor costs s to implement Balinese concept. Besides, 69% developers agreed that a culturally more suitable design will improve the demand of housing product (see on *Graph 6.22*).



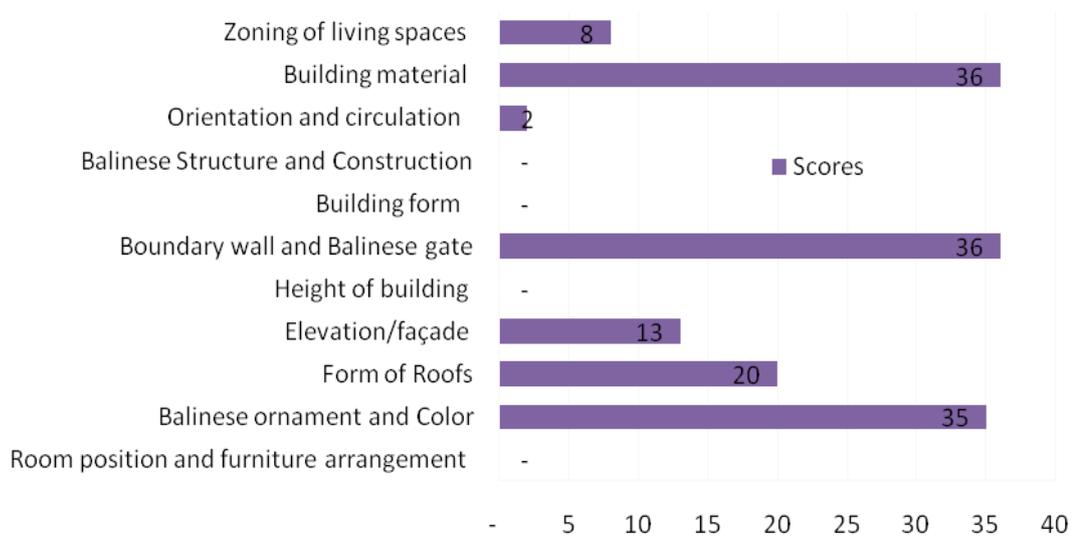
**Graph 6.21.** Implemented Balinese Culture to Other Types of Project  
**Source:** Interviews results (2010)



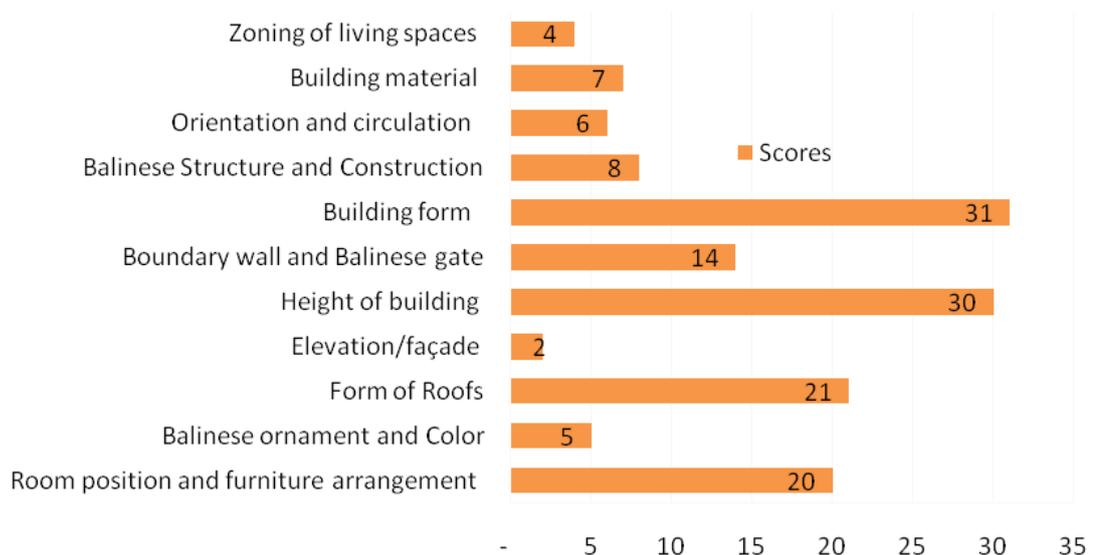
**Graph 6.22.** More Culturally Design Improve Demand of Product  
**Source:** Interviews results (2010)

Based on elements of Balinese culture design, developers mentioned that the 3 most important in creating house design that is culturally suited to Bali are: (1) building materials, (2) boundary walls and Balinese gate, (3) Balinese ornament and color (see on *Graph 6.23*).

While, the 3 least important in creating house design that is culturally suited to Bali are: (1) building form, (2) form or roof, (3) room position and arrangement (see on *Graph 6.24*).

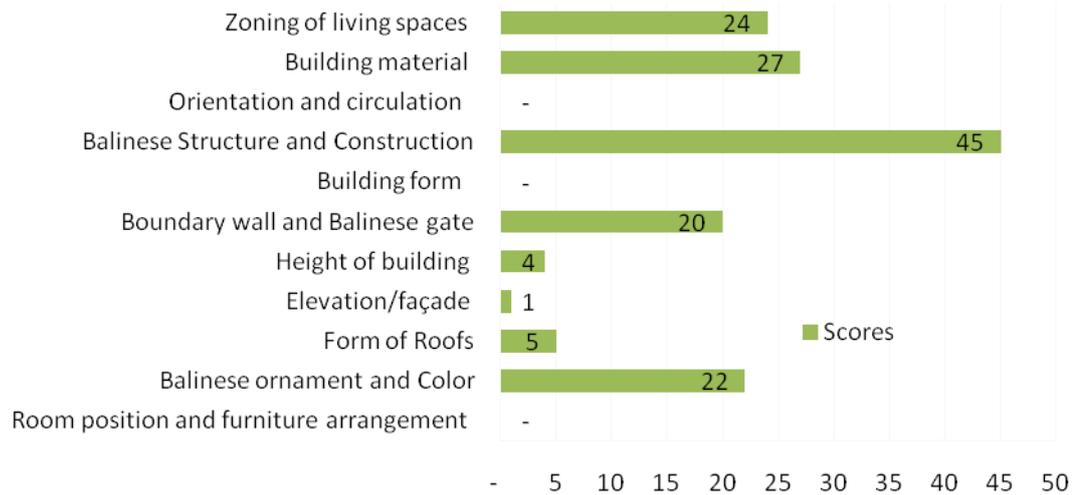


**Graph 6.23.** 3 Most Important Creating Culturally House Design  
**Source:** Interviews results (2010)

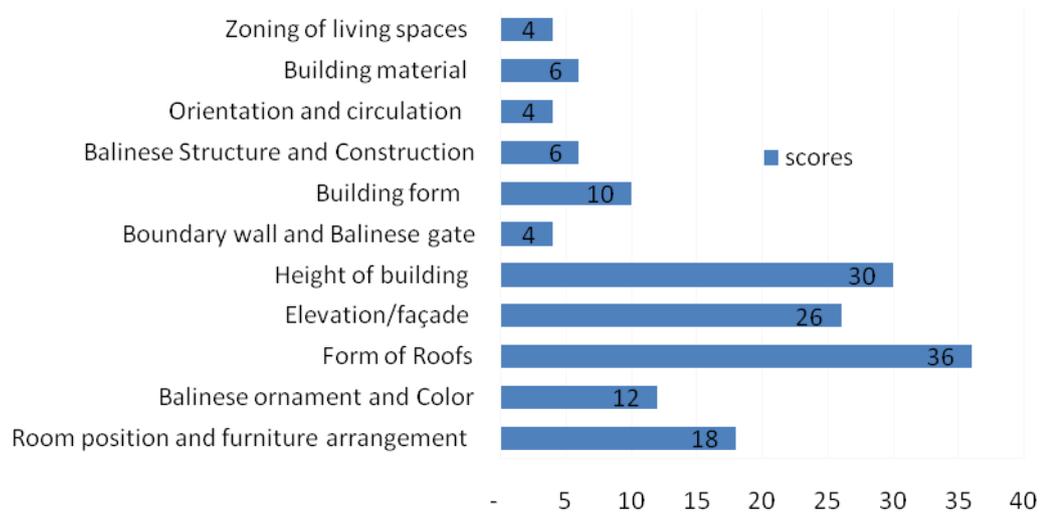


**Graph 6.24.** 3 Least Important Creating Culturally House Design  
**Source:** Interviews results (2010)

Furthermore, developers stated that the 3 biggest barriers in creating house design that is culturally suited to Bali are: (1) Balinese structure and construction, (2) zoning of living spaces, (3) building materials (*Graph 6.25*). Whereas, they also revealed that the 3 smallest barriers in creating house design that is culturally suited to Bali: (1) form of roof, (2) height of building, (3) façade/elevation (*Graph 6.26*).

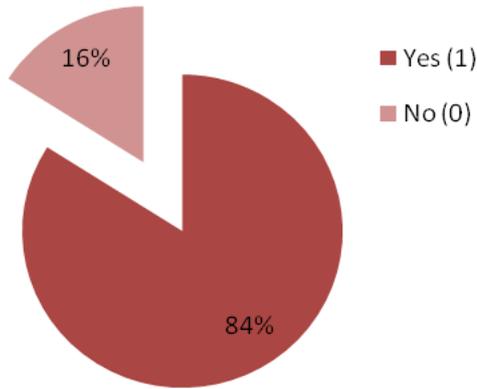


**Graph 6.25.** 3 Biggest Barriers Creating Culturally House Design  
**Source:** Interviews results (2010)

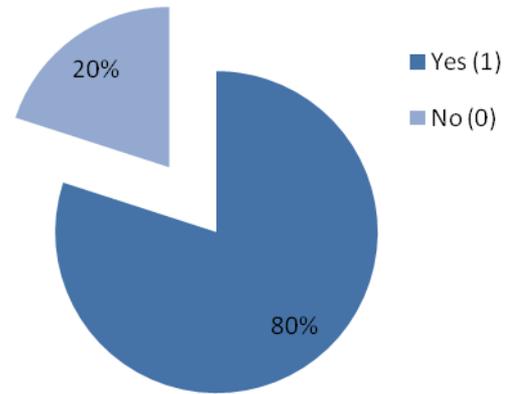


**Graph 6.26.** 3 Smallest Barriers Creating Culturally House Design  
**Source:** Interviews results (2010)

Additionally, 84% Developers believed that by adding cultural motifs will increase demand of housing and 80% Developers mentioned that they have allocated funds for advertising product (see on *Graph 6.27* and *6.28*).

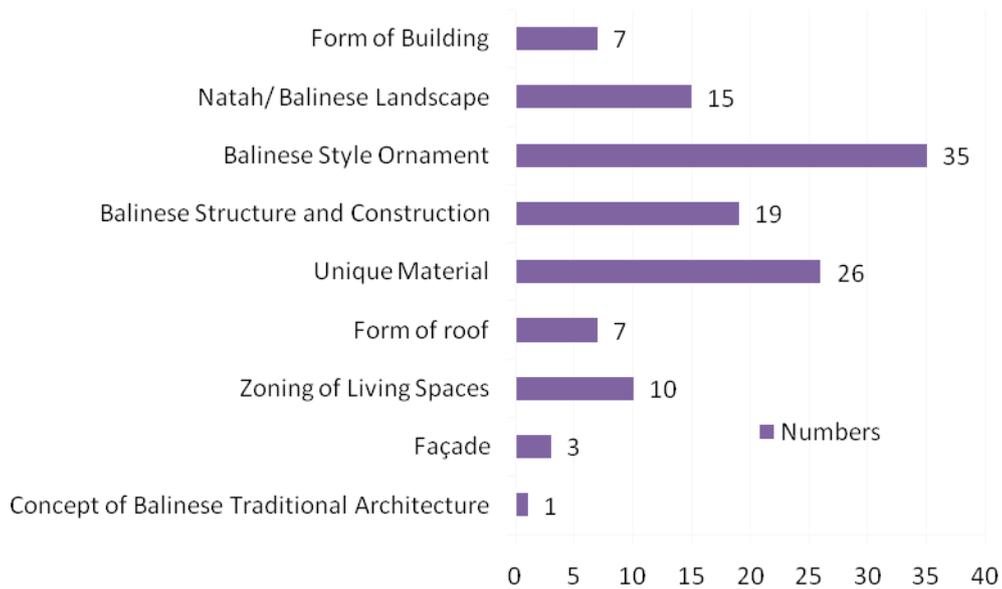


**Graph 6.27.** Adding Cultural Motifs will Increase Demand  
**Source:** Interviews results (2010)



**Graph 6.28.** Allocate Funds for Advertising Product?  
**Source:** Interviews results (2010)

Based on the comments of developers during interviews, regarding to the best pictures that represented Balinese architecture are the 3 top comments of pictures in creating house design that is culturally suited in Bali: (1) Balinese style ornaments, (2) the building materials, (3) Balinese structure and construction (see on *Graph 6.29*).

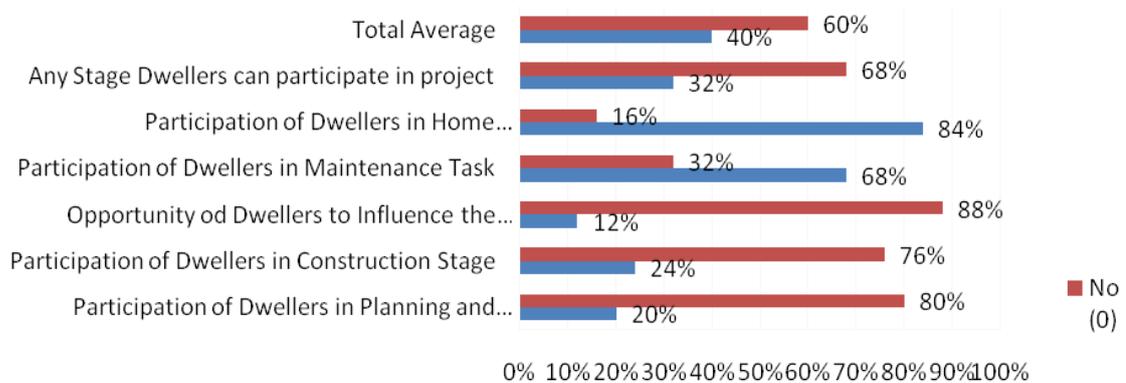


**Graph 6.29.** Comments of Pictures  
**Source:** Interviews results (2010)

### 6.3.6. Dwellers Involvement

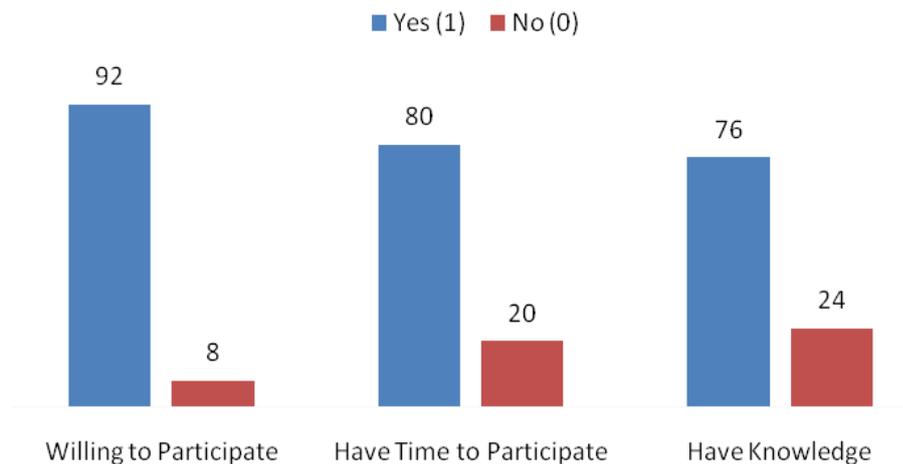
The findings of dwellers role in the projects is really important to examine in this part, to explore the involvement of dwellers from early stage till end of projects, from planning and design, construction, maintenance tasks, until home improvement development of the projects.

Developers mentioned that dwellers' participation in various stages of the projects has been low. The study shows that in general, 60% dwellers have no involve or participated in the projects. Only 20% dwellers participated in the planning stage and 24% in the construction stage. Merely 12% dwellers felt that they had opportunity to influence the project, 16% participation of dwellers in home improvement. However, 32% dwellers participated in maintenance task and 32% any stages dwellers can participate in project (see on *Graph 6.30*).



**Graph 6.30.** Dwellers Involvement in Project  
**Source:** Interviews results (2010)

Regarding to the willingness and ability of dwellers to participate, the findings importantly noted that 92% dwellers are willing to participate, 80% dwellers have time to participate, and 76% dwellers have knowledge to contribute meaningfully as seen on *Graph 6.31*.

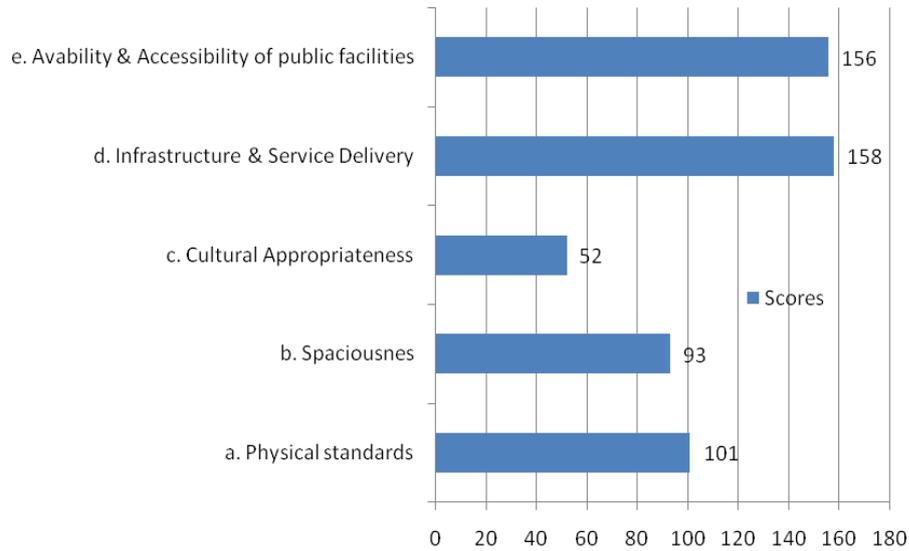


**Graph 6.31.** Dwellers Participation  
**Source:** Interviews results (2010)

### 6.3.7. Perception of Affordable Housing Product

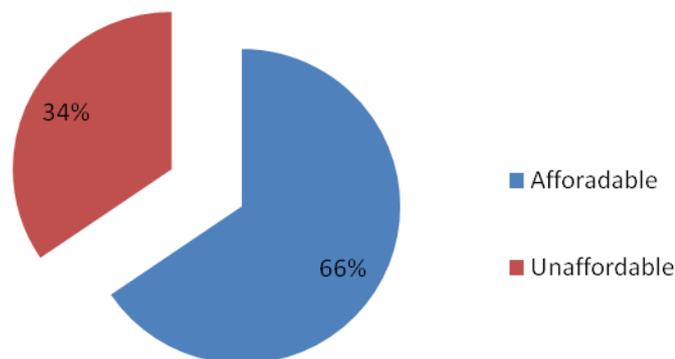
Developers perceived the quality of the current product of affordable housing projects, compared to housing targeted to middle income groups, by rating from the highest to the lowest scores is (1) infrastructure and service delivery, (2) availability and accessibility of

public facilities, (3) physical standards, (4) spaciousness and (5) cultural appropriateness. It shows that the lowest scores of the current affordable housing projects is the cultural appropriateness.



**Graph 6.32. Perception of Housing Product**  
**Source:** Interviews results (2010)

In addition, developers also mentioned that the current product of affordable housing projects is 66% affordable for poor people and only 34% unaffordable. The proportion of poor people can afford this unit in average is 35.60%, as seen on *Graph 6.33*.



**Graph 6.33. Affordability of Product**  
**Source:** Interviews results (2010)

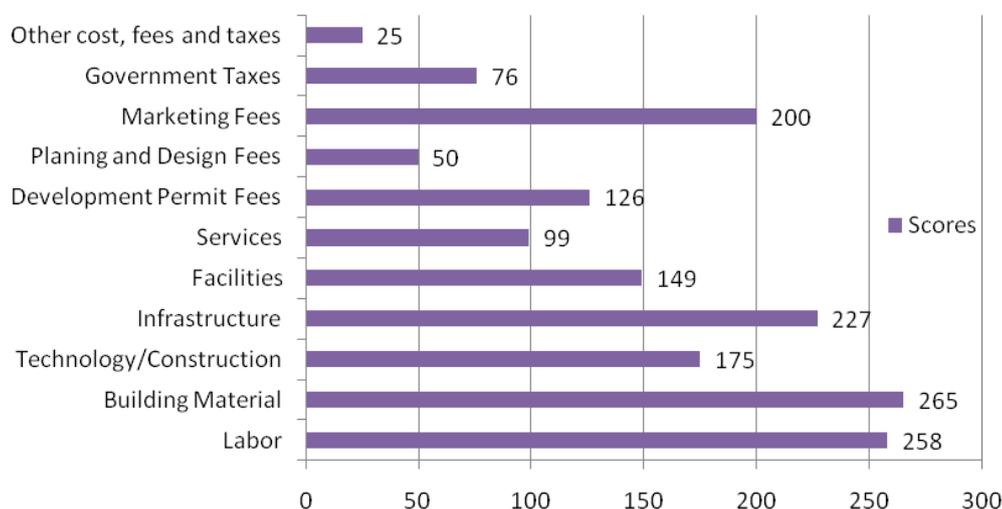
### 6.3.8. Developers Constraints

The findings of developers constraints in affordable housing project provision is significant to examine in this part to get understandings the major and minor constraints and how developers perception to overcome those constraints.

Based on interview results, developers mentioned that in term of costs and expenditures, the major constraints in providing culturally acceptable affordable housing

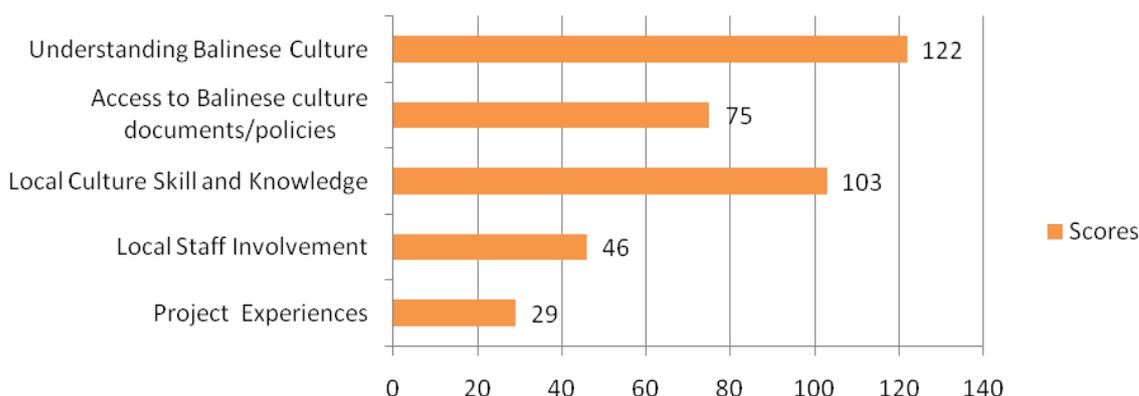
by ranking 1 against the biggest constraint, 2 for the next constraint, and so on is (1) building materials, (2) labor, (3) infrastructure, etc. as seen on *Graph 6.34*.

While, in term capability of human resources and design team, developers appealed that the major constraints in providing culturally acceptable affordable housing by ranking 1 against the biggest constraint, 2 for the next constraint, and so on is (1) understanding Balinese culture, (2) local culture skill and knowledge, (3) access to Balinese culture document/policies, (4) local staff involvement, etc. as seen on *Graph 6.35*.



**Graph 6.34.** Major Constraints in Providing Culturally Acceptable Housing in term of Costs and Expenditures

**Source:** Interviews results (2010)

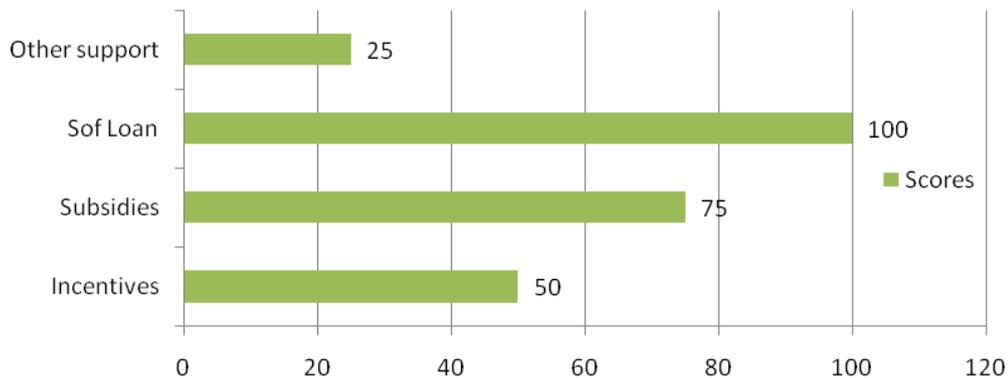


**Graph 6.35.** Major Constraints in Providing Culturally Acceptable Housing in term of Capability of Human Resources and Design Team

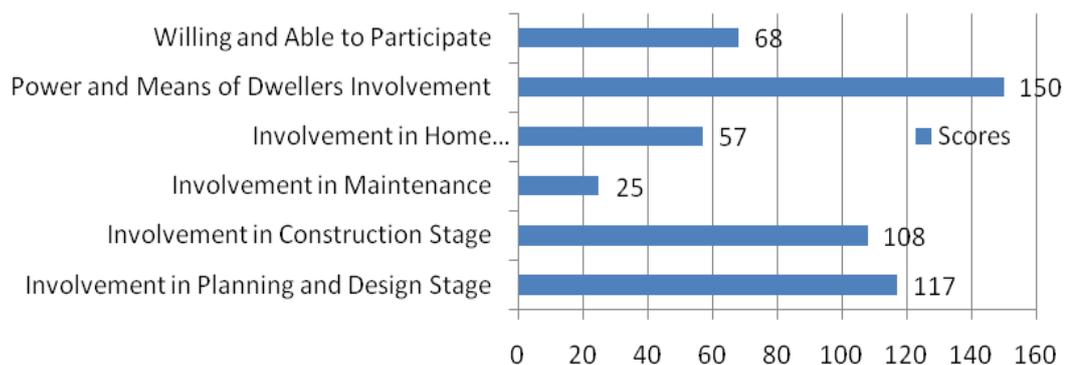
**Source:** Interviews results (2010)

Furthermore, developers mentioned that to overcome the constraints in providing culturally acceptable affordable housing in term of government support by ranking number from 1 as the most measure, 2 for next measure, and so on is (1) soft loan, (2) subsidies, (3) incentives and (4) other support (see on *Graph 6.36*).

In term of dweller involvement, developers appealed that to overcome the constraints in providing culturally acceptable affordable housing by ranking among measure to overcome constraints by ranking number from 1 as the most measure, 2 for next measure, and so on is (1) power and means of dwellers involvement, (2) involvement in planning and design stage, (3) involvement in construction stage, (4) willing and ability to participate, etc. (see on *Graph 6.37*).



**Graph 6.36.** To Overcome Constraints in Providing Culturally Acceptable Housing by Government Support  
**Source:** Interviews results (2010)



**Graph 6.37.** To Overcome Constraints in Providing Culturally Acceptable Housing by Dwellers Involvement  
**Source:** Interviews results (2010)

#### 6.4. Dwellers' Perspective

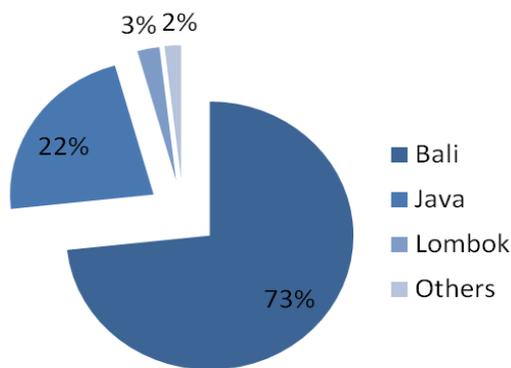
To investigate the dwellers perspective, the study used the questionnaire which consists of closed and open-ended questions using multiple choices, a checklist and rating scale. The study used probability sampling, in particular stratified random sampling, to classify the proportional numbers of dwellers from among heterogeneous projects and populations.

The number of dwellers as survey targets is 166 respondents which 91 respondents come from formal and 75 respondents from informal housing projects. All respondents are belonging to the selected projects. This represents 10% of the total population (1660 households) (910 formal and 750 informal housing projects) of the selected projects.

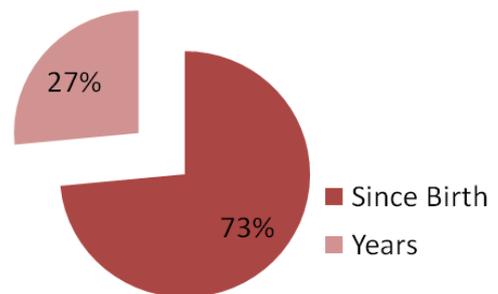
The key indicators focused on during the questionnaire survey include such as: (1) dwellers demographic characteristic, (2) process to access the house, (3) dwellers perception to house culture value, (4) dwellers involvement and (5) dwellers perception in need of projects improvement.

#### 6.4.1. Dwellers Demographic Characteristics

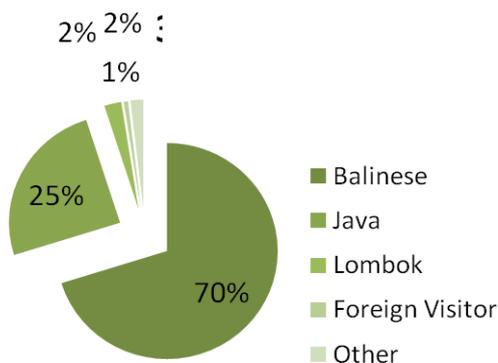
In term of dwellers demographic, the study shows that dwellers are mostly coming from partnership projects (21%) and only 4% from Informal land subdivision projects. Dwellers mentioned that 73% they were born in Bali with living since birth (see on *Graph 6.38 and 6.39*). Additionally, 70% dwellers are Balinese with 68% Hindu religion (see on *Graph 6.40 and 6.41*).



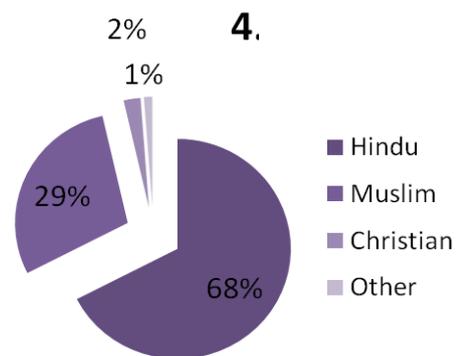
**Graph 6.38.** Place of Birth  
*Source:* Questionnaire results (2010)



**Graph 6.39.** Length of Living in Bali  
*Source:* Questionnaire results (2010)

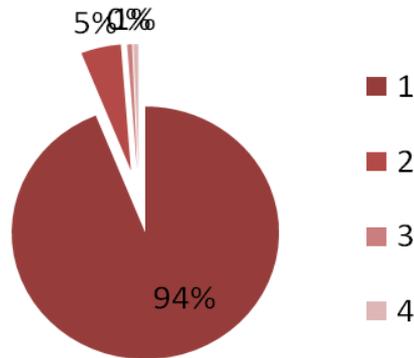


**Graph 6.40.** Ethnicity  
*Source:* Questionnaire results (2010)

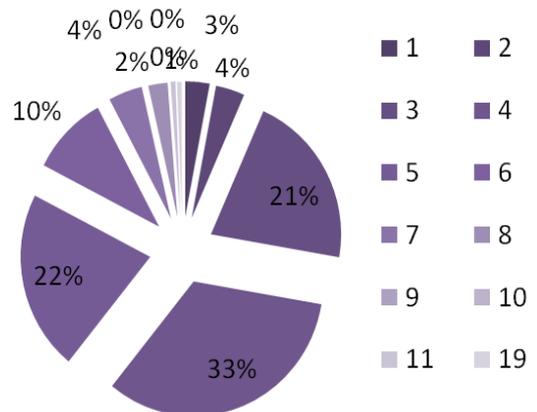


**Graph 6.41.** Religion  
*Source:* Questionnaire results (2010)

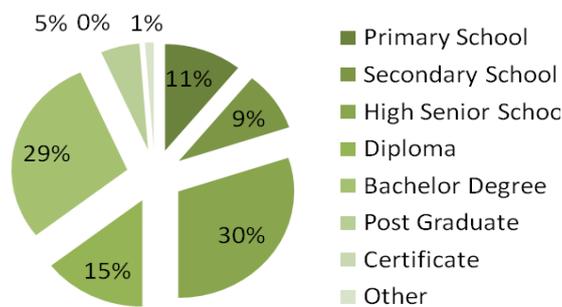
In addition, 94% dwellers comprise of single household. 33% dweller's household comprise of 4 members (see on *Graph 6.42 and 6.43*). Highest level of education of the main bread-earner is 30% High Senior School (see on *Graph 6.44*). While, the type of work of the main bread-earner is 32% self-employed, as shown on *Graph 6.45*.



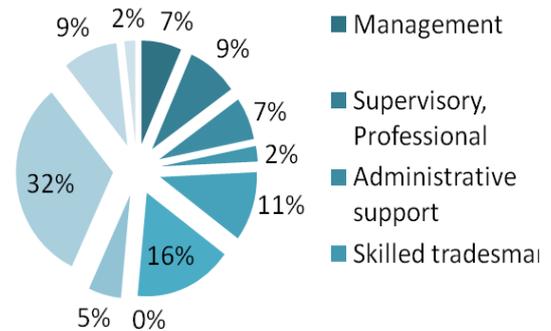
**Graph 6.42.** Household Sharing (Interact Daily)  
**Source:** Questionnaire results (2010)



**Graph 6.43.** Size of Household (Person)  
**Source:** Questionnaire results (2010)



**Graph 6.44.** Highest Level of Education of the Main Bread-Earner  
**Source:** Questionnaire results (2010)

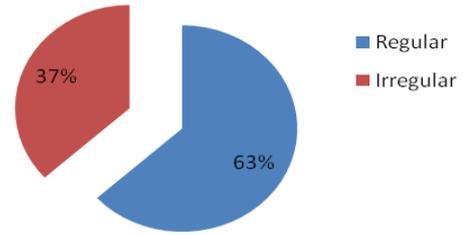


**Graph 6.45.** Type of Work of the Main Bread-Earner  
**Source:** Questionnaire results (2010)

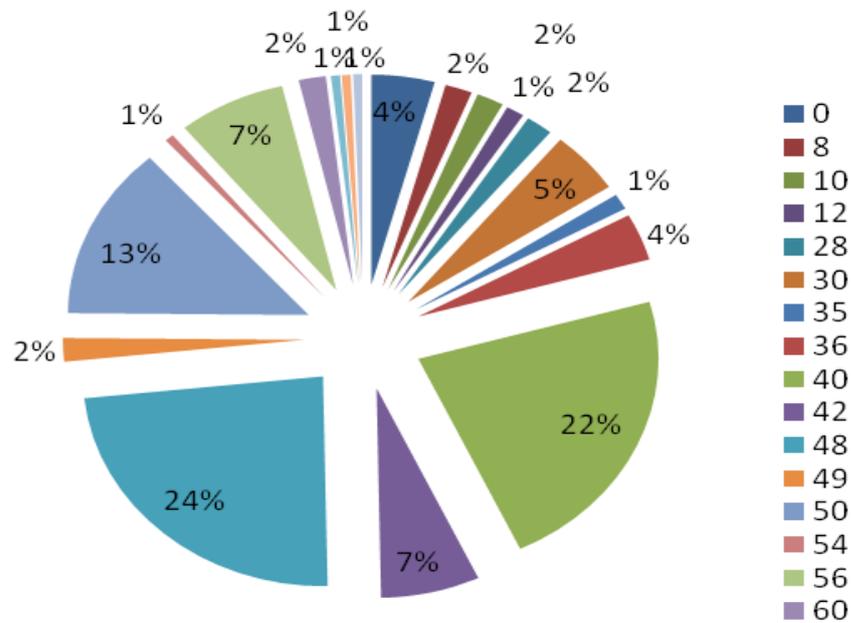
Additionally, dwellers mentioned that the average income of the main bread-earner per month is 47% Rp 1,5 – 3 million (USD 150-300). The type of work of the main bread-earner per week is 63% regular and only 37% irregular with mostly spending per week 48 hours (24%) and some dwellers can spend for 60 hours (1%) (see on *Graph 6.46, 6.47 and 6.48*).



**Graph 6.46.** Average Income of the Main Bread-Earner  
**Source:** Questionnaire results (2010)



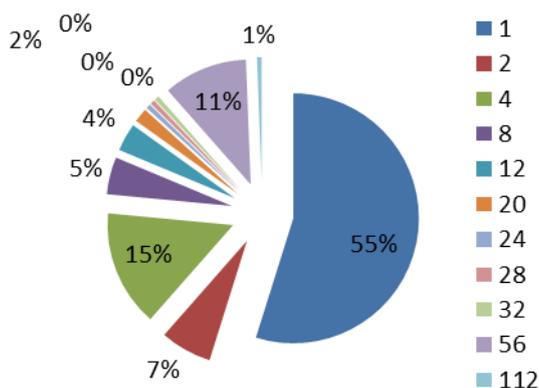
**Graph 6.47.** Type of work per Week of the Main Bread-Earner  
**Source:** Questionnaire results (2010)



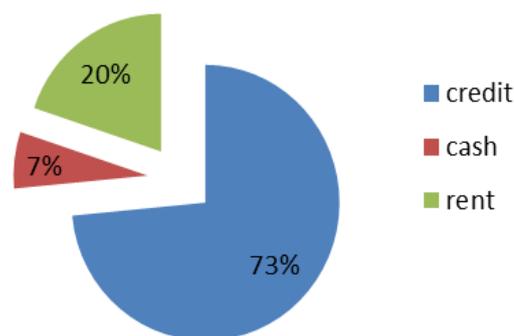
**Graph 6.48.** Average Work per a Week of the Main Bread-Earner (Hours)  
**Source:** Questionnaire results (2010)

### 6.4.2. Process to Access the House

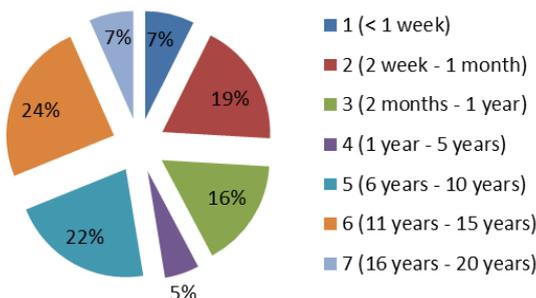
With regard to processing of purchasing house, the study shows that 63% dwellers get information about housing from friends and none through CBO. They also appealed that the process of acquiring the house took 1 week in making decision (55%), taking 6-10 years legalizing land (22%), 2 months till 1 year entering and moving to the house (28%) and 73% dwellers pay house by credit in organizing finance (see on *Graph 6.49, 6.50, 6.51, and 6.52*).



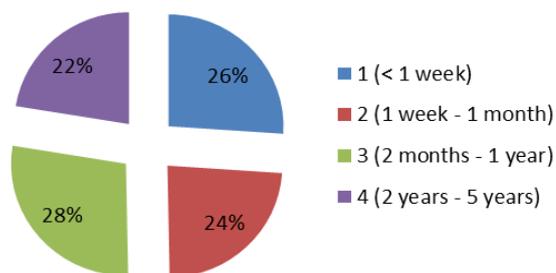
**Graph 6.49.** Makin Decision in Process of Purchasing House (in Week)  
**Source:** Questionnaire results (2010)



**Graph 6.50.** Organizing Finance in Process of Purchasing House  
**Source:** Questionnaire results (2010)



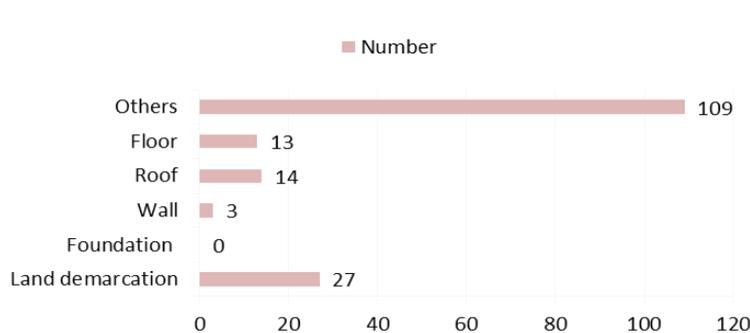
**Graph 6.51.** Legalizing Land in Process of Purchasing House  
**Source:** Questionnaire results (2010)



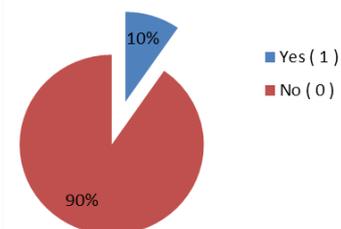
**Graph 6.52.** Entering and Moving in Process of Purchasing House  
**Source:** Questionnaire results (2010)

In addition, dwellers mentioned that they mostly saw the first time the house at the stage of construction was in land demarcation and in contrast, 90% dwellers said that they have no access to the house (see on *Graph 6.53* and *6.54*).

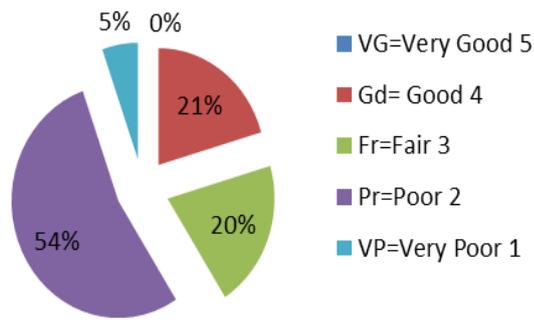
Dwellers perceived with the quality and culturally adequacy when first time saw the house is 54% poor (see on *Graph 6.55*). Significantly it remarks that 72% dwellers said that the product did not match their expectation (see on *Graph 6.56*).



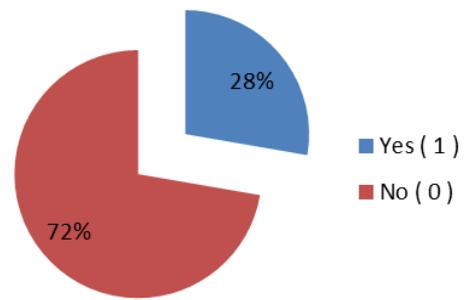
**Graph 6.53.** Stage of Construction When First Time to See House  
**Source:** Questionnaire results (2010)



**Graph 6.54.** Have Access to House When Constructed  
**Source:** Questionnaire results (2010)



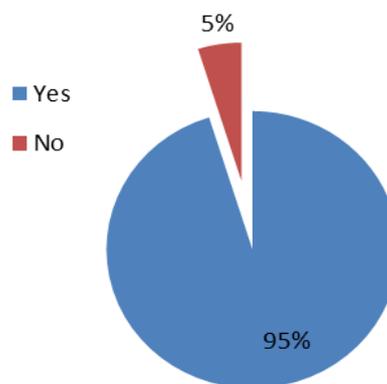
**Graph 6.55.** Perception of Cultural Adequacy When First Time Saw the House  
**Source:** Questionnaire results (2010)



**Graph 6.56.** Did Product Match Expectation  
**Source:** Questionnaire results (2010)

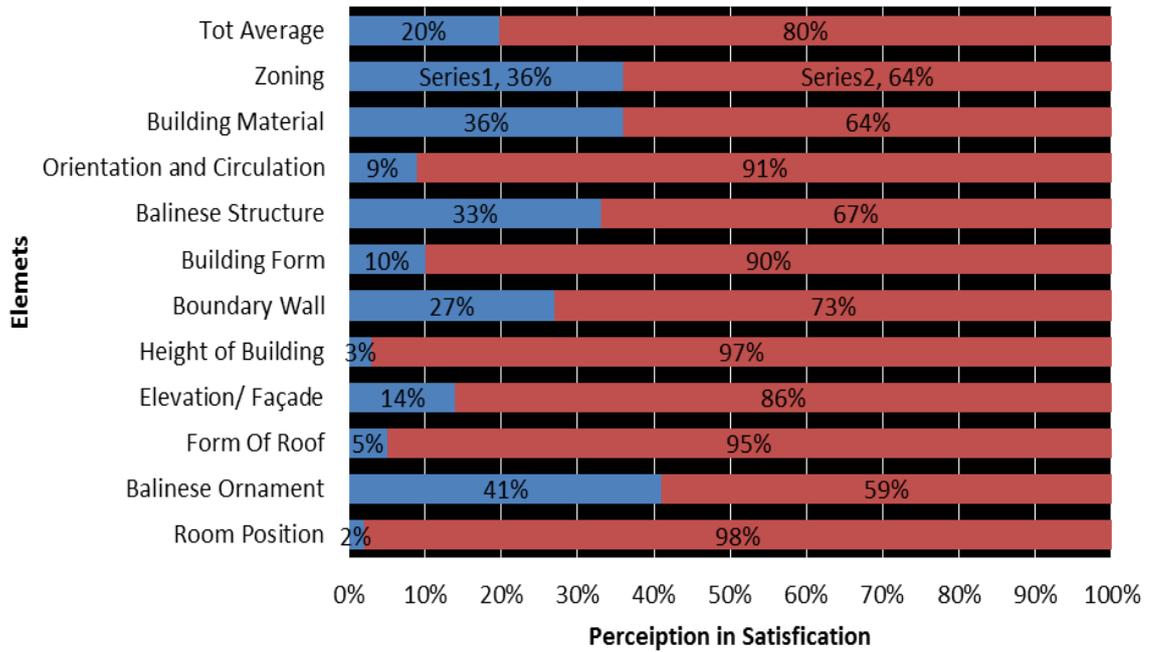
### 6.4.3. Dwellers Perception to House Culture Value

From dwellers point of view regarding to Balinese house, 95% dwellers mentioned that Balinese house concept is different to that in the rest of Indonesia, as see on *Graph 6.57*.



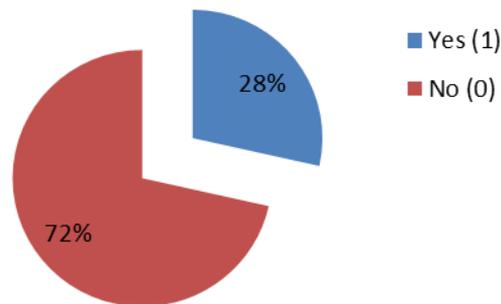
**Graph 6.57.** Balinese House has Different Concept to Rest in Indonesia  
**Source:** Questionnaire results (2010)

However, based on dwellers perception to the affordable housing projects in Bali, overall 80% dwellers think the projects that sell affordable housing in Bali, is not offering culturally suitable housing in all aspect elements, in particular element of room position (98%), height of building (97%), form of roof (95%) and oreintation and circulation (91%) (see on *Graph 6.58*).

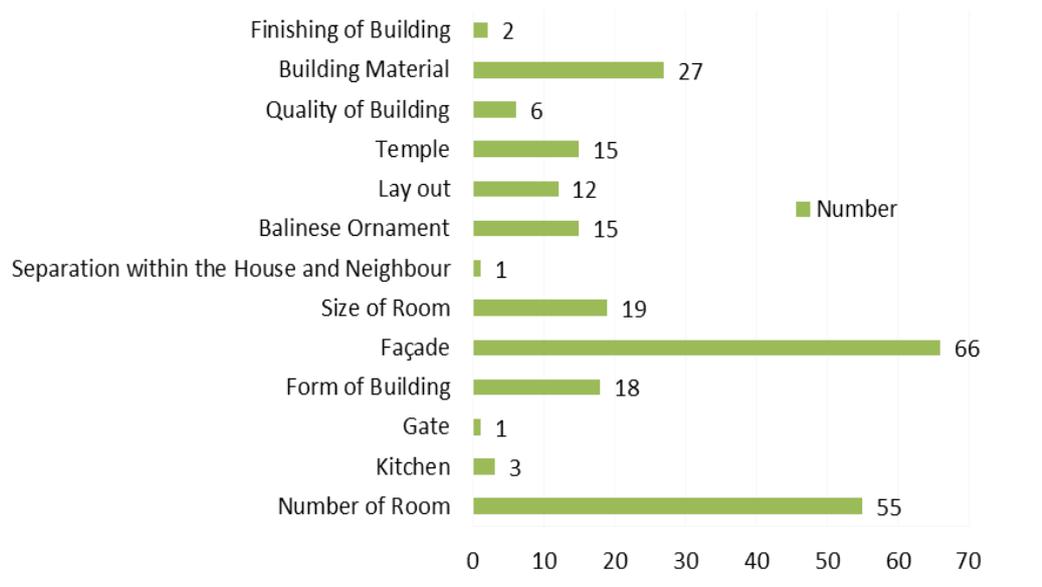


**Graph 6.58.** Project Culturally Suitable Housing  
**Source:** Questionnaire results (2010)

Moreover, 72% dwellers think the house that they bought, have not offers culturally suitable housing (see on *Graph 6.59*).. The most problem that the houses are creating not culturally suitable is (1) facade, (2) number of room, and (3) building materials (see on *Graph 6.60*).

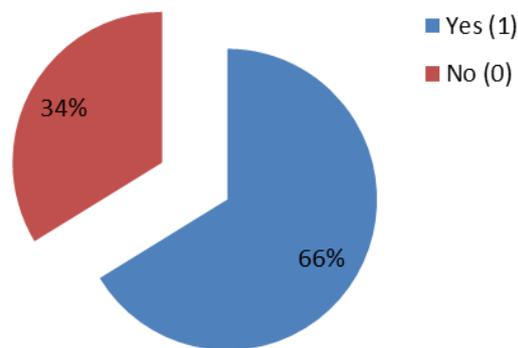


**Graph 6.59.** Project Culturally Suitable Housing  
**Source:** Questionnaire results (2010)



**Graph 6.60.** Explain the Problems  
**Source:** Questionnaire results (2010)

Based on the problems facing, 66% of dwellers mentioned that they took measures to resolve the problems (see on *Graph 6.61*). The most 3 actions that they took to resolve the problems on culture are: (1) changing internal wall, (2) installing/replacing the gate, and (3) changing the boundary wall/adding temple (see on *Figure 6.26*, *6.27*, *6.28* and *Graph 6.62*). In addition, the significant finding shows that 63% of dwellers stated that they have time to spare for home improvement work (see on *Graph 6.63* and *Figure 6.29*).



**Graph 6.61.** Problem Resolved  
**Source:** Questionnaire results (2010)



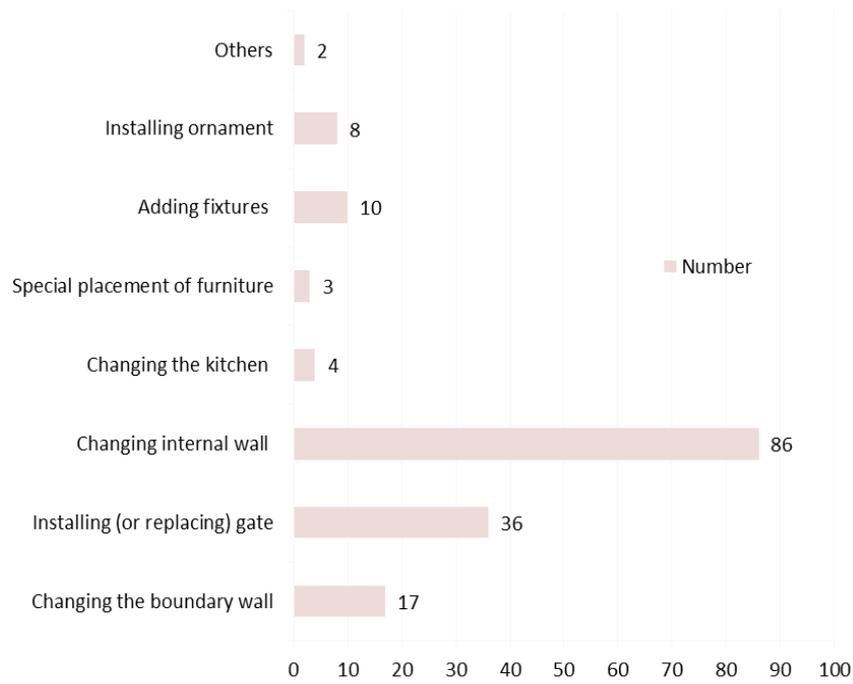
**Figures 6.26.** Action to Resolve the Problem  
*Source:* Fieldwork Survey, 2010



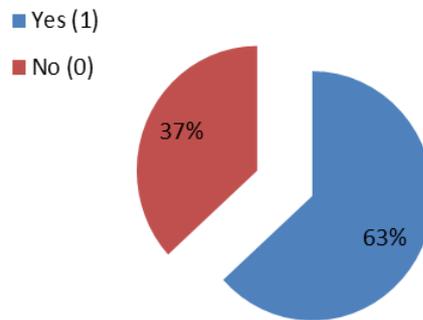
**Figures 6.27.** Adding Temple Vertically at Second Floor  
*Source:* Fieldwork Survey, 2010



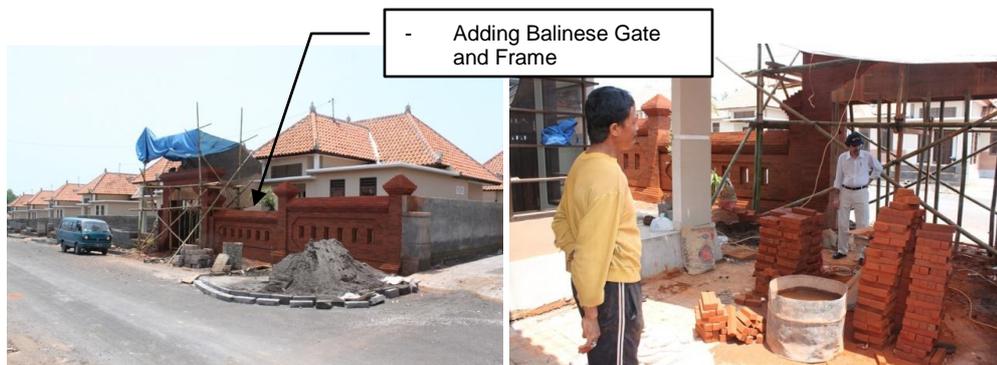
**Figures 6.28.** Adding Temple in Tiny Plot  
*Source:* Fieldwork Survey, 2010



**Graph 6.62.** Action to Resolve the Problem  
**Source:** Questionnaire results (2010)

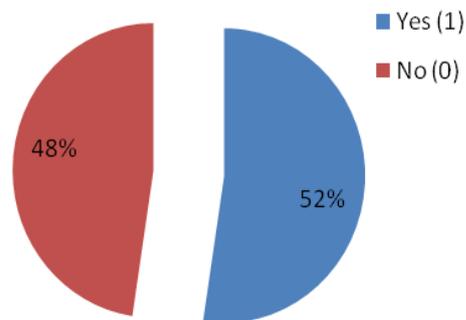


**Graph 6.63.** Time to Spare for Improvement  
**Source:** Questionnaire results (2010)

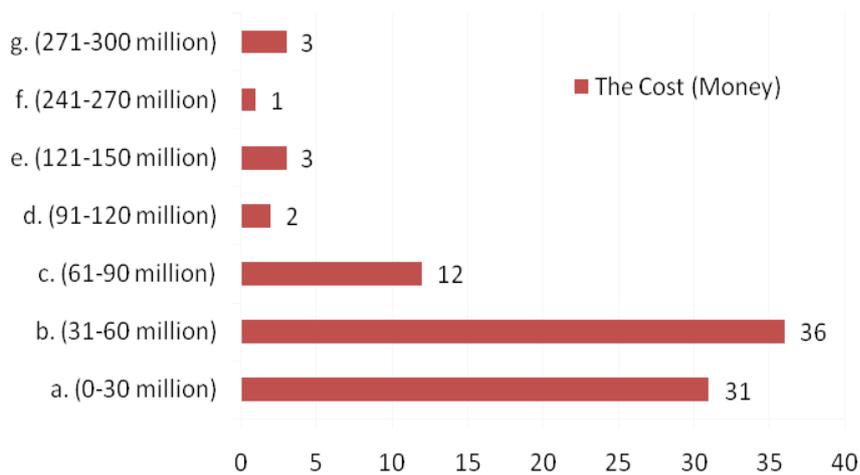


**Figures 6.29.** Time to Spare for Improvement  
**Source:** Fieldwork Survey, 2010

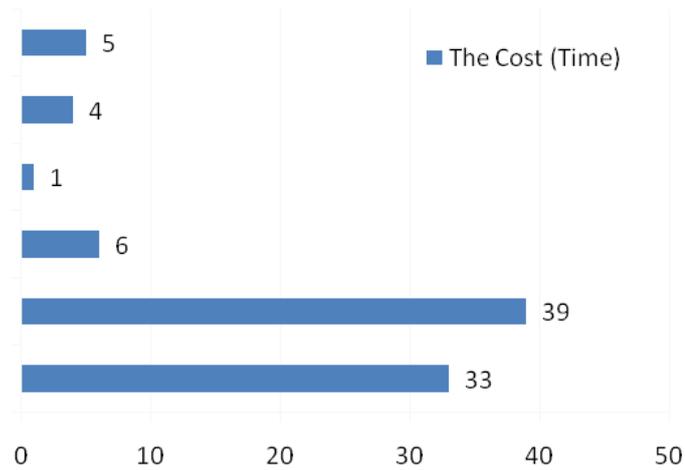
Dwellers mentioned that they resolve the problems with the change costs of money and time. 52% dwellers appealed that the change has improved the value of house (see on *Graph 6.64*). To resolve the problem, dwellers spent costs of money is mostly Rp 31-60 million (USD 3100-6000), as seen on *Graph 6.65*. While dwellers spent costs of time is mostly between 30 to 40 weeks (see on *Graph 6.66*). Significant finding shows that 90% dwellers mentioned that they get helps from friends/neighbors for home improvements in order to minimise costs of labour (see on *Graph 6.67*).



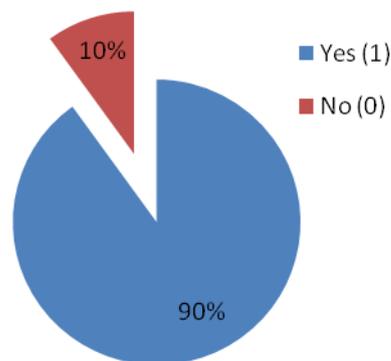
**Graph 6.64.** Improved the Value of Change  
**Source:** Questionnaire results (2010)



**Graph 6.65.** The Change Costs (Money)  
**Source:** Questionnaire results (2010)

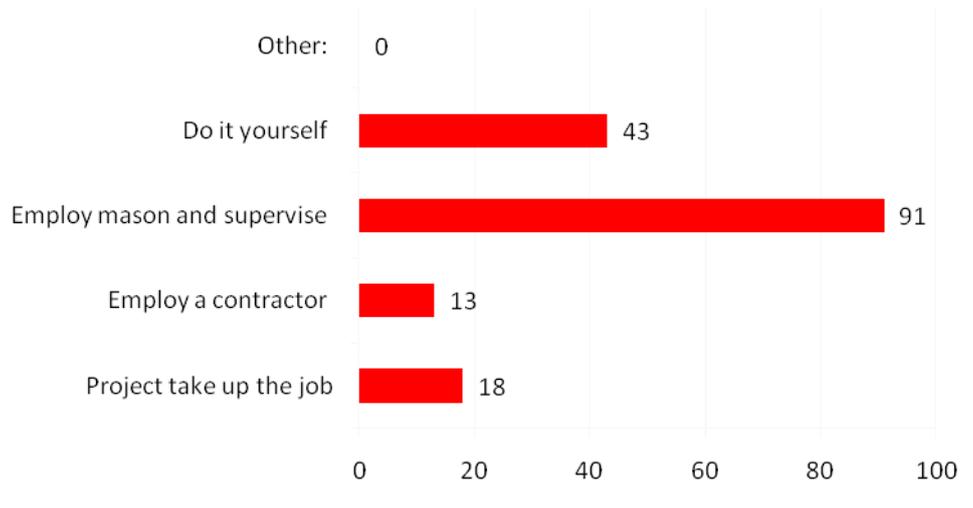


**Graph 6.66.** The Change Costs (Time)  
**Source:** Questionnaire results (2010)

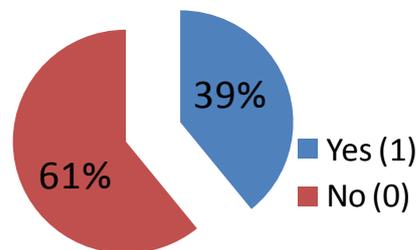


**Graph 6.67.** Helps from Friends/Neighbors for Home Improvements  
**Source:** Questionnaire results (2010)

Furthermore, dwellers mentioned that the most option they would prefer for home improvement through is: (1) employ mason and supervise the work yourself and (2) do it yourself with help from friends/neighbours (see on *Graph 6.68*). It is only 39% dwellers would be willing to put time and labour for home improvement under developer supervision (see on *Graph 6.69*).

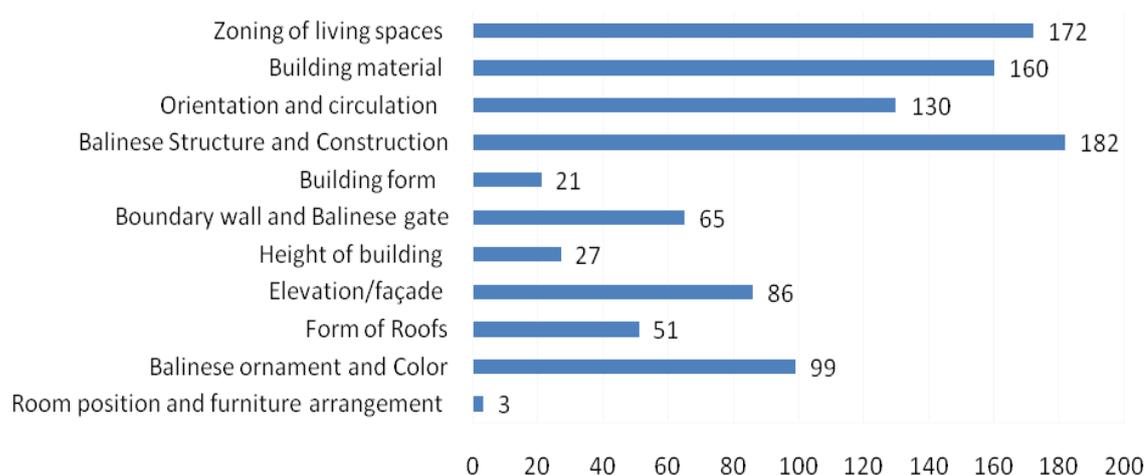


**Graph 6.68.** Option for Home Improvements  
**Source:** Questionnaire results (2010)

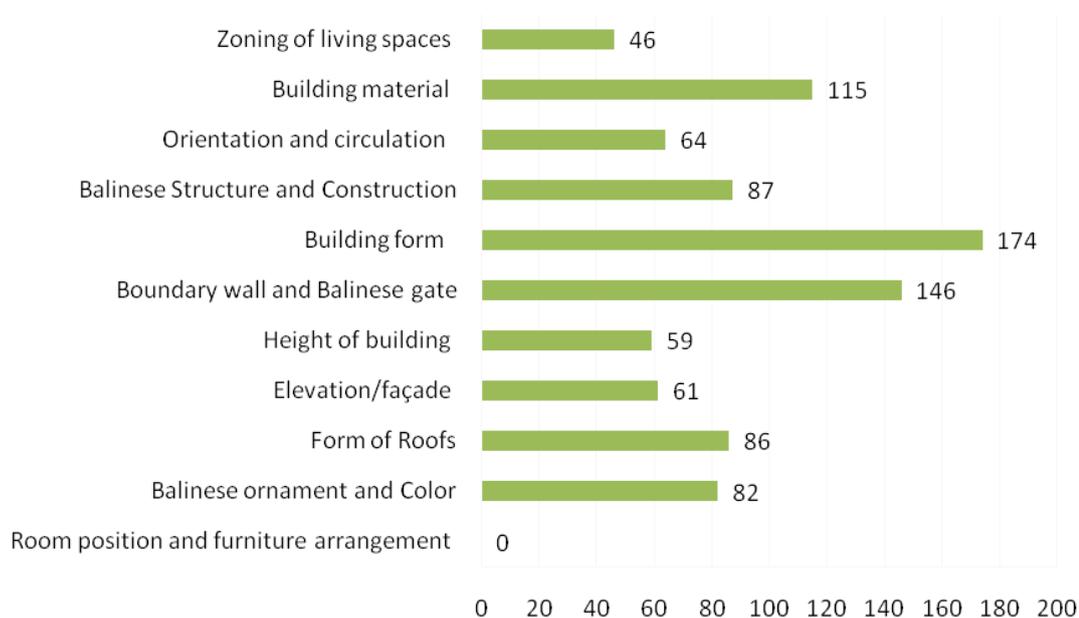


**Graph 6.69.** Time and Labour for Home Improvement under Developer Supervision  
**Source:** Questionnaire results (2010)

Additionally, dwellers stated that the 3 most important in creating house design which is culturally suited to Bali is (1) Balinese structure and construction, (2) zoning of living spaces, (3) orientation and circulation (see on *Graph 6.70*). Oppositely, the 3 least important in creating house design that is culturally suited to Bali is (1) building form, (2) boundary walls and Balinese gate and (3) building materials (see on *Graph 6.71*).

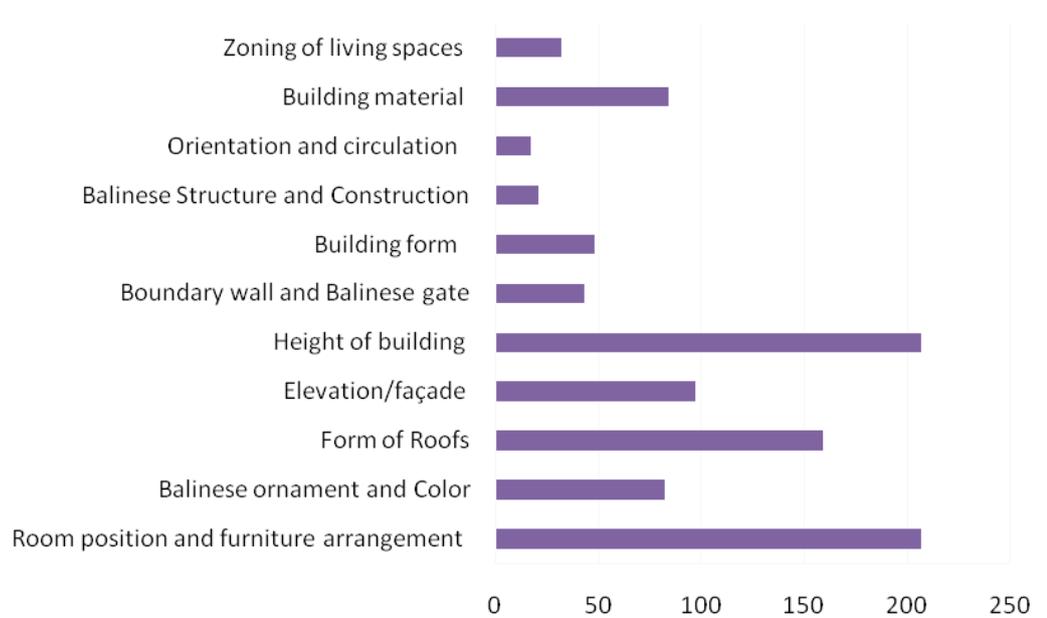


**Graph 6.70.** 3 Most Important Creating Culturally House Design Suited to Bali  
**Source:** Questionnaire results (2010)



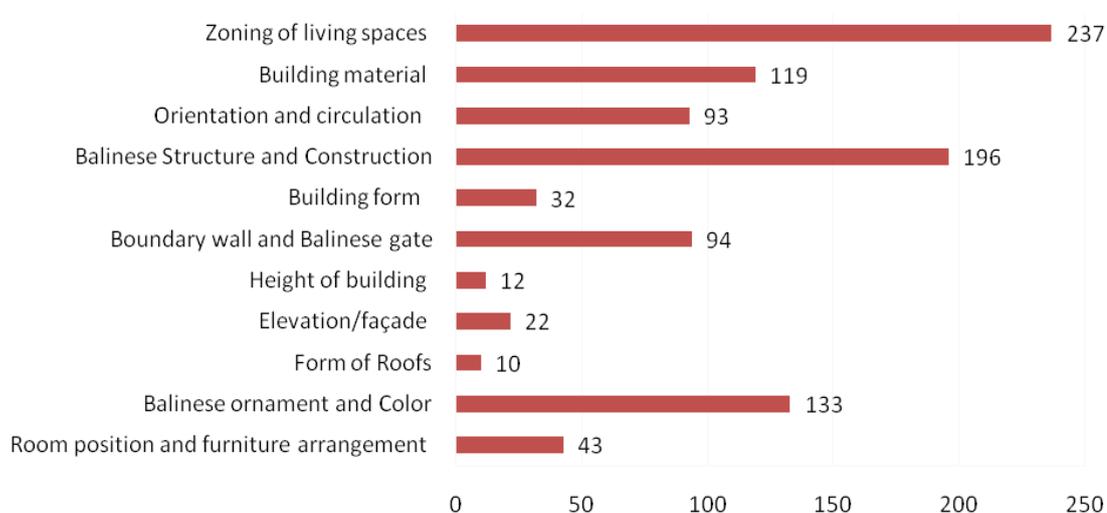
**Graph 6.71.** 3 Least Important Creating Culturally House Design Suited to Bali  
**Source:** Questionnaire results (2010)

Moreover, dwellers appealed that the 3 biggest barriers in creating house design that is culturally suited to Bali is (1) zoning of living spaces, (2) Balinese structure and construction and (3) Balinese ornament and colour (see on *Graph 6.72*). In contrasts, the 3 smallest barriers in creating house design that is culturally suited to Bali is (1) height of building, (2) furniture arrangement and (3) form of roofs (see on *Graph 6.73*).



**Graph 6.72.** 3 Smallest Barriers Creating Culturally House Design

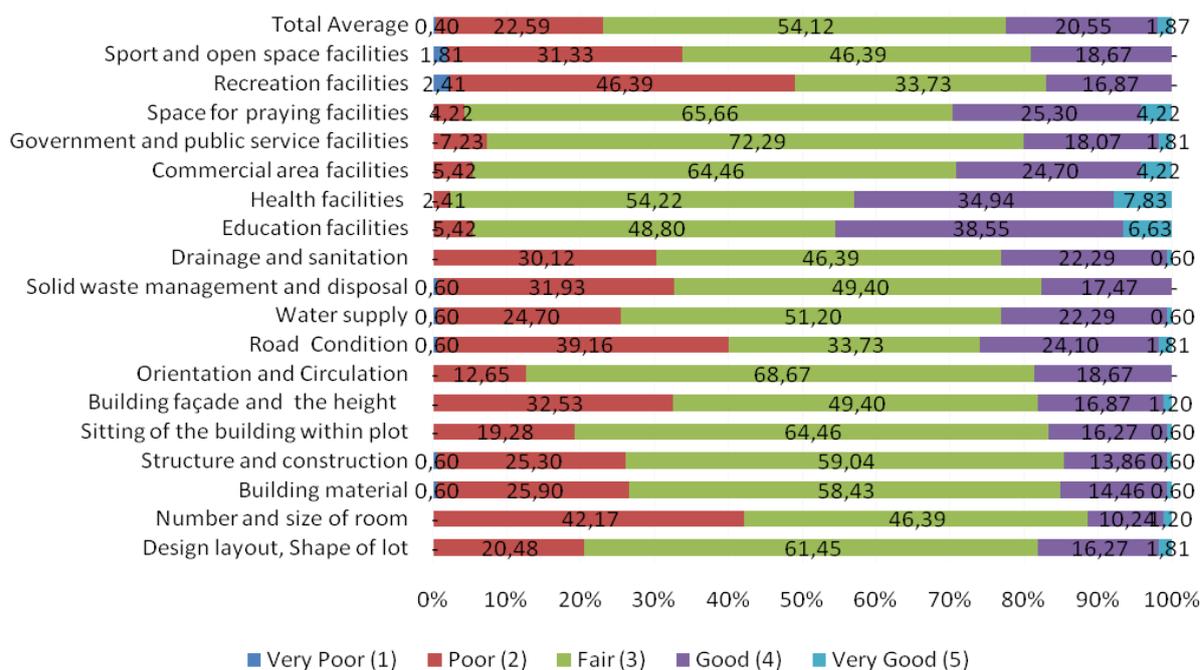
**Source:** Questionnaire results (2010)



**Graph 6.73.** 3 Biggest Barriers Creating Culturally House Design

**Source:** Questionnaire results (2010)

Dwellers perceived that the quality of affordable housing projects in average is 0.4% very poor, 22.59% poor, 54.12% fair, 20.55% good and 1.87% very good (see on *Graph 6.74*). The graph shows that the poor quality of housing is referring to the number and size of room, building facade and building materials. In term of infrastructure and service delivery, the projects have low quality of road, width, materials and construction, solid waste management and disposal, drainage and sanitation. While, in term of public facilities accessibility, the projects have low quality of recreation facilities, sport and open space area.



**Graph 6.74.** Dwellers Perception on Housing Quality

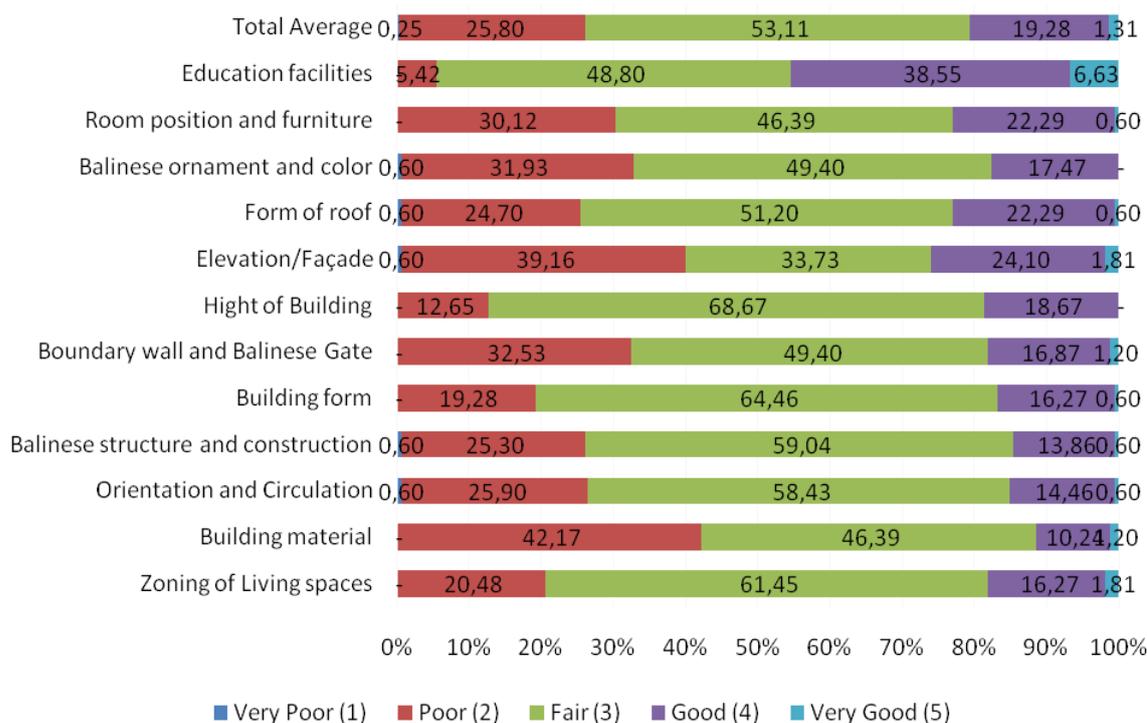
**Source:** Questionnaire results (2010)

With regards to issues related specifically to Balinese cultural traditions, dwellers also raised some other issues that related to the quality of their housing. These generally included complaints and expressions of dissatisfaction generally related to poor building standards, building materials and room size.

Due to infrastructure delivery, most dwellers also complained about garbage collection and road conditions. They were concerned especially about the rainy season when they feared serious flooding, while they believed the rainwater drainage system in place was not reliable. The residents generally were able to access groundwater of sufficient quality by means of their private wells. There was concern that if the overall environment was allowed to deteriorate, their access to useable ground water may be affected.

Regarding to the availability and accessibility of facilities, frequent concerns were raised about the fact that public facilities had not been completed despite the occupation of houses in the project for some time. These related to the inadequacy of facilities like praying area, education and health facilities, parking area, public service and playgrounds. While the residents pointed to the planned public facilities that were not yet built, there were also instances reported where certain areas designated as praying place, open space and playground area were, in effect, turned into parking areas for the adjacent housing units.

Dwellers perceived that the cultural elements of projects in average is 0.25% very poor, 25.80% poor, 53.11% fair, 19.28% good and 1.31% very good (see on Graph 6.75).



**Graph 6.75.** Dwellers Perception on Cultural Elements

**Source:** Questionnaire results (2010)

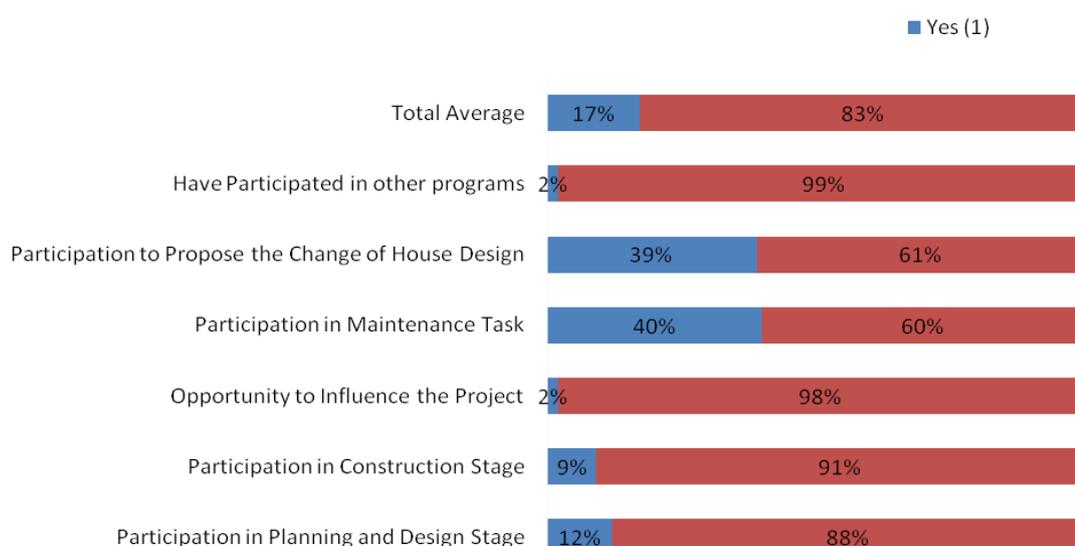
Moreover, dwellers of affordable housing projects that took part in the survey were asked to assess the quality of their houses. A full list of comments and complaints relating to the cultural sensitivity indicator checklist are summarized below:

1. Area for praying – either they were not provided for or else their location was problematic (zoned within the profane area)
2. Ornamentation and decoration – they were either found to be inappropriate or missing
3. Elevation/ Façade – the breakdown of façade into “foot, body and head” was unclear
4. Inner courtyard – either the size was too small or it was located in the wrong zone
5. Orientation of bedroom – it was found not conducive to a furniture layout that allowed beds to be placed in the culturally correct orientation – i.e. pointing to the sunrise or the mountain
6. Main door was not in proximity to kitchen
7. Gate of house did not conform to Balinese culture

With regards to observations relating to Balinese cultural, a number of violations Balinese cultural values in the physical design and layout were noted. The most frequent ones related to (1) Absence of Balinese ornamentation and decoration and (2) Undistinguishable “head, body and foot” segments of the façade.

#### 6.4.4. Dwellers Involvement

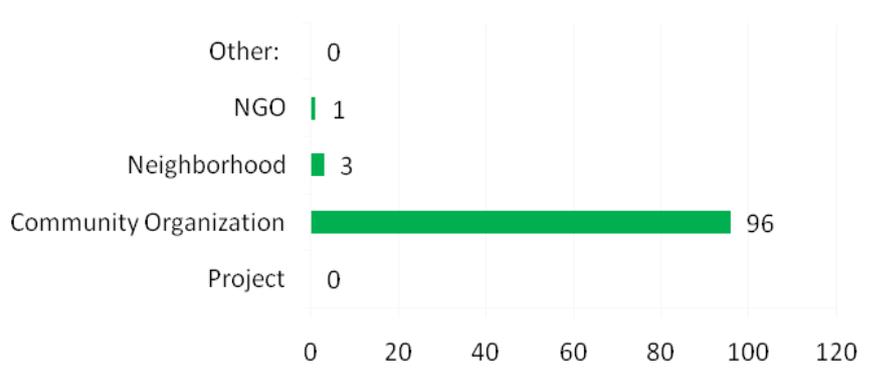
The study significantly noted that dweller's participation in various stages of the projects has been very low. In general, 83% dwellers have no involve or participated in the projects. Only 12% dwellers participated in the planning stage and 9% in the construction stage. Only 2% dwellers felt that they had opportunity to influence the project, and 1% dwellers have been participatated in other projects. Yet, study shows interestingly that 40% dwellers participated in maintenance task and 39% participation to propose the change of house design (see on on *Graph 6.76*). When asked, most dwellers of affordable housing said they were not aware of any mechanisms or forum to lodge complaints or engage otherwise to influence the quality or cultural value of the house in various stages of the project.



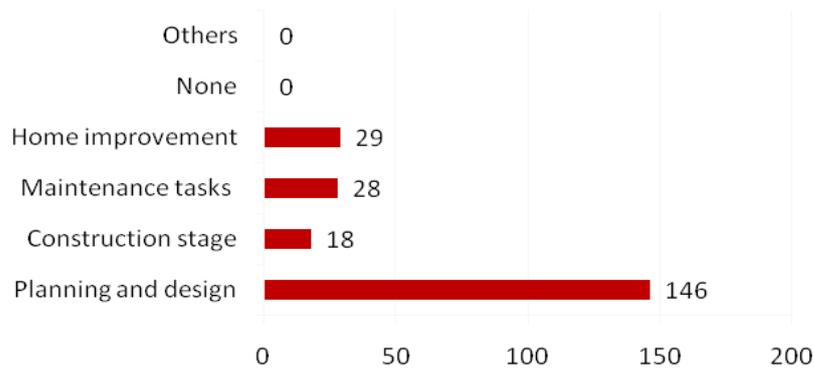
**Graph 6.76.** Dwellers Involvement in Projects

**Source:** Questionnaire results (2010)

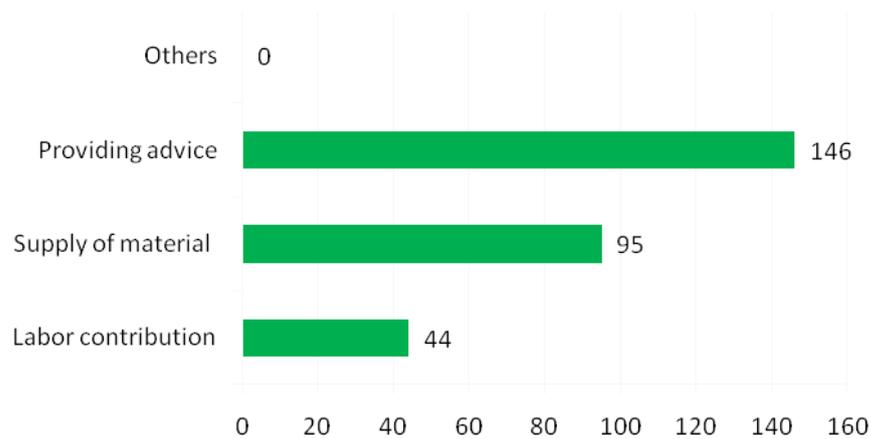
Dwellers mostly stated that they are willing to participate in maintenance task if it is organised by Community based Organisation/CBO which has already exist in Bali as culture heritage (see on *Graph 6.77*). Furthermore, dwellers mostly mentioned that If dwellers were to buy house, ideally they would like to be involved in stage of planning in design and others are in stage of home improvement, maintenance task and construction (see on *Graph 6.78*). Additionally, the kind of contribution they would like to make if they would involved: (1) providing advice (2) materials supply, and (3) labour contribution (see on *Graph 6.79*).



**Graph 6.77. Participate in Maintenance Tasks**  
**Source:** Questionnaire results (2010)



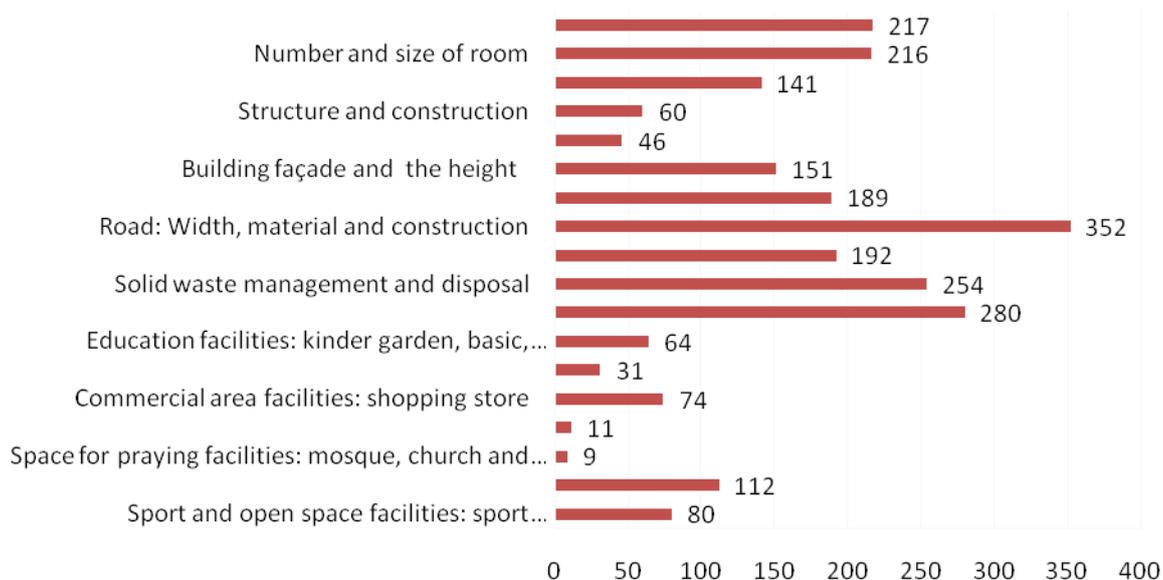
**Graph 6.78. Ideally Stages to be Involved**  
**Source:** Interviews results (2010)



**Graph 6.79. Kind of Contribution**  
**Source:** Questionnaire results (2010)

#### 6.4.5. Dwellers Perception in Need of Projects Improvement

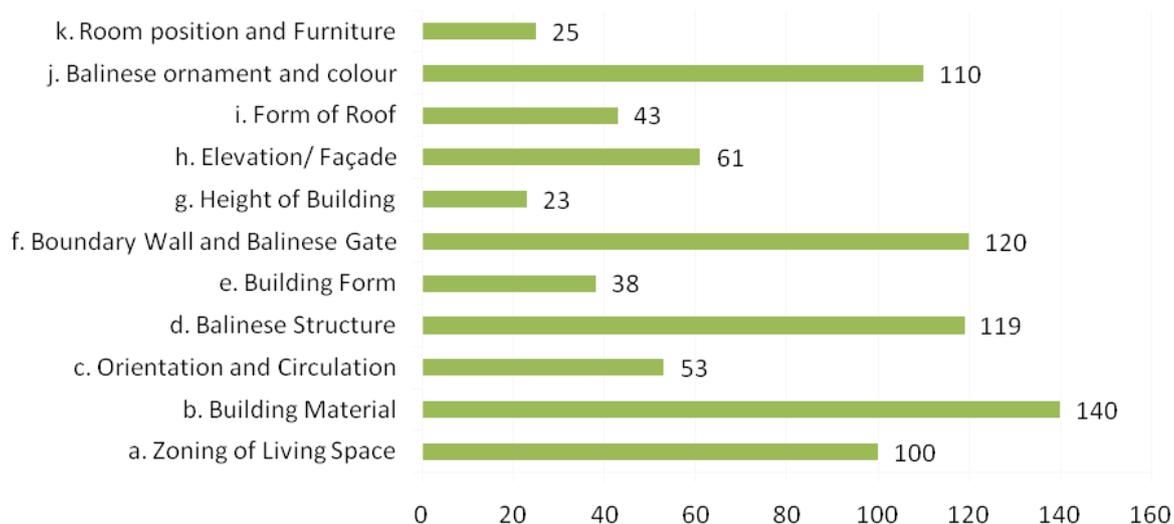
Regarding to need of improvement, study shown that the top 5 the aspect of areas need improvement in housing quality before dwellers comfortably move into the projects are (1) road condition, (2) drainage and sanitation, (3) solid waste management and disposal, (4) design layout and shape of lot, and (5) Number and size of rooms (see on *Graph 6.80*).



**Graph 6.80.** Housing Quality (Indicate Top 5 the Areas Needing Improvement)

**Source:** Interviews results (2010)

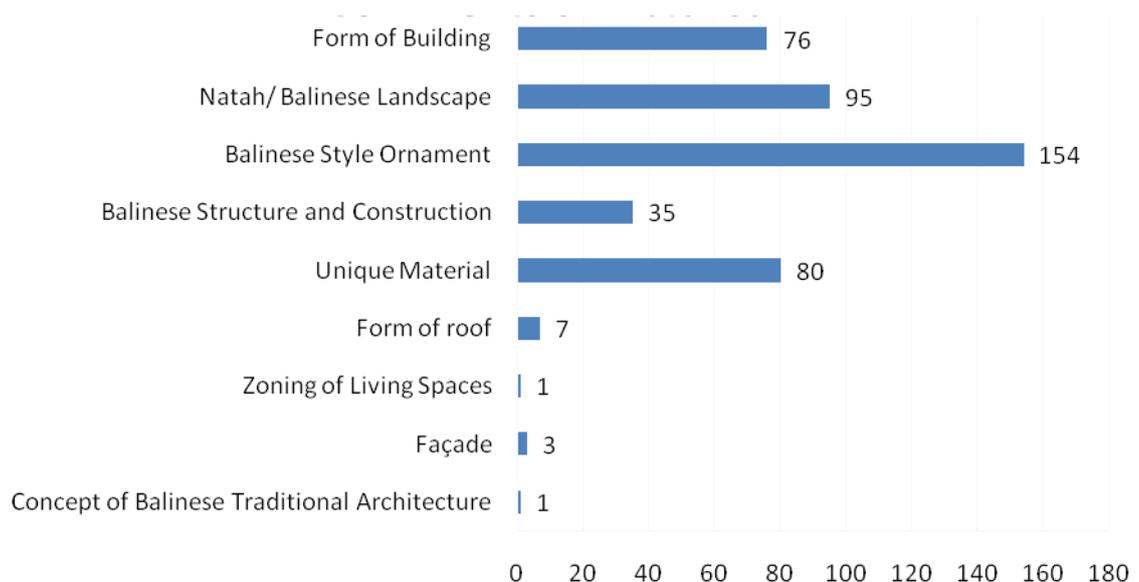
In addition, the study showed that the top 5 the aspect of areas need improvement in cultural elements before dwellers comfortably move into the projects: (1) building materials, (2) boundary walls and Balinese gate, (3) Balinese structure, (4) Balinese ornament and colour, and (5) Zoning of living spaces (see on *Graph 6.81*).



**Graph 6.81.** Cultural Element (Indicate Top 5 the Areas Needing Improvement)

**Source:** Interviews results (2010)

Based on the comments of dwellers, regarding to the best pictures represented Balinese architecture, the 3 top comments of pictures in creating house design that is culturally suited in Bali: (1) Balinese style ornaments, (2) Balinese landscape, and (3) unique materials (see on *Graph 6.82*).



**Graph 6.82.** Comments of Pictures  
**Source:** Interviews results (2010)

## 6.5. Summary

The growth of affordable housing development is going along by the growth of developers in Sarbagita Metropolitan Bali. Developers largely come from private developers and others from public, cooperative, partnership, self-built on land rent, informal land subdivision, squatter upgrading and informal rental housing. They have mostly been in Bali in average for 20 years and accomplished ordinary large projects with target groups of local people, domestic and international dwellers.

While dwellers are mostly coming from partnership projects and the smallest coming from informal land subdivision projects. They were ordinary born in Bali since birth and Balinese with majority of Hindu religion. They generally comprise of single household with 4 members. Highest level of education of dwellers is most of High Senior School with the type of their work is mostly self-employed. The average income of dwellers is in average of USD 150-300, mostly regular worker with spending per week 48 hours and even till 60 hours .

### 1. *Costs and Expenditure*

Developers have spent costs and expenditure in providing housing to be affordable for low income or poor people. For the most part, they spent in term of building materials, labour, and infrastructure costs and less part spending in planning design fee, other costs and government tax. They appealed that the most significant which become the main barriers in providing better quality and culturally acceptable housing is building materials, labour, and infrastructure.

## 2. *Government Support*

Local government in Bali regularly offers support for developers in affordable housing provision project as incentives, subsidies, soft loans and other supports. Developers mostly obtain incentive and soft loans and less receiving subsidies and other supports. To get the government support, developers have to build the large project development and the target group of number house built have using scheme 1:3:6 (1 high income : 3 middle income : 6 low income groups). The constraints to obtain government supports is due to political and financial reason as nepotism and complicated procedure, better position better support and more power more change i.e. public and partnership developer have more access than others.

## 3. *Capability of Human Resources of Design Team*

Developers have employee mostly local people and less in non-local people. They mostly have studied out of Bali and no skill and knowledge of the Balinese culture. In contrast, developers have weak in providing training skill of Balinese culture for their staffs and just relying on reading from the regulation of Balinese on website. With the result that the familiarity of staff to Balinese culture is very weak and they more interested on western/modern style rather than Balinese traditional.

## 4. *Process accessing the House*

Dwellers mostly find out information first time about housing from friends and the process of acquiring the house generally took 1 week in making decision, taking 6-10 years in legalizing land, 2 till 12 months entering and moving to the house. Most dwellers pay house by credit in organizing finance. They mostly saw the first time the house at the stage of construction, but they have no access to the house. Dwellers perceived with the quality and culturally adequacy when first time saw the house is poor and did not match their expectation.

## 5. *Culture Value Implementation or Dwellers Perception to House Culture Value*

Developers, Government and dwellers stated that Balinese house concept is different to that in the rest of Indonesia, intern of zoning of living spaces, building materials, ornament, façade, orientation and circulation and structure construction. However, developers have not incorporated Balinese concept to their projects, specially in elements of building materials and Balinese ornament and color. They believed that by adding cultural motifs will increase demand of housing. Though, developers agreed that a culturally more suitable design will improve the demand of housing, but they appealed that they have got barrier on building materials and labor costs to implement Balinese concept.

Developers appealed that *the most important* in creating house design that is culturally suited to Bali is building materials, boundary wall, Balinese gate, Balinese ornament and

color. While, *the least important* is building form, form or roof, and room position arrangement. *The biggest barriers* in creating house design that is culturally suited to Bali is Balinese structure and construction, zoning of living spaces, and building materials. Whereas, *the smallest barriers* is form of roof, height of building, and façade/elevation.

In addition, dwellers mentioned that *the most important* in creating house design that is culturally suited to Bali is Balinese structure and construction, zoning of living spaces, orientation, and circulation. Dwellers also mentioned that the most elements in creating house design that is culturally suited in Bali are Balinese style ornaments, Balinese landscape, and unique materials. While, *the least important* is building form, boundary wall, Balinese gate and building materials. *The biggest barriers* in creating house design that is culturally suited to Bali is zoning of living spaces, Balinese structure and construction and Balinese ornament and colour. While, *the Smallest barriers* are height of building, furniture arrangement and form of roofs.

Furthermore, dwellers perceived that the projects that sell affordable housing in Bali is not offering culturally suitable housing in all aspect elements, in particular element of room position, height of building, form of roof and orientation and circulation. *The most problem* that the house is not culturally suitable is facade, number of room, and building materials. As results, they have to spare time for home improvement work. They took measures to resolve the problems. The most *actions to resolve the problems* on culture is changing internal wall, installing/replacing the gate, and changing the boundary wall. They have to spend costs of time and money to resolve the problems and they get helps from friends/neighbors for home improvements. Finally, they felt that the change has improved the value of house and more culturally suitable to leave.

Furthermore, dwellers stated that the most option they would prefer for *home improvement* through is employ mason and supervise the work yourself and do it yourself with help from friends/neighbours. Dwellers would be willing to put time and labour for home improvement under developer supervision.

Dwellers perceived that that the cultural elements and quality of affordable housing projects generally is quite poor. The poor *quality of housing* is referring to the number and size of room, building facade and building materials. In term of *infrastructure and service delivery*, the projects have low quality of road, width, materials and construction, solid waste management and disposal, drainage and sanitation. While, in term of *public facilities accessibility*, the projects have low quality of recreation facilities, sport and open space area.

### 6. *Dwellers Involvement*

It is really important to provide space for dwellers to involve from early stage till end of projects from planning and design, construction, maintenance tasks, until home improvement development of the projects. The study shows that dweller's participation in various stages of the projects has been low. For the most part, dwellers have no involve or participated in the projects, in particular at the planning and the construction stage and also had opportunity to influence the project. However, they have more power to participate in home improvement and in maintenance task and if it is organised by CBO.

Due to *the willingness and ability of dwellers* to participate, the study noted that dwellers mostly are willing to participate and have time to participate and knowledge to contribute meaningfully. The kind of contribution they would like to make as providing advice, materials supply, and labour.

### 7. *Perception of Affordable Housing Projects*

Developers stated that the current product of affordable housing projects is mostly affordable for poor people, and generally the poor people can afford this unit. The study shows that the quality of the current product of affordable housing projects, compared to housing targeted to middle income groups, from the highest to the lowest quality is infrastructure and service delivery, availability and accessibility of public facilities, physical standards, spaciousness and the cultural appropriateness.

### 8. *Perception in Need of Projects Improvement*

The study shows that the most aspect of areas needing improvement in *housing quality* before dwellers comfortably move into the projects are road condition, drainage and sanitation, solid waste management and disposal, design layout and shape of lot, and number and size of rooms. While, in term of *cultural elements*, the most aspect of areas needing improvement are building materials, boundary walls and Balinese gate, Balinese structure, Balinese ornament and colour, and zoning of living spaces.

### 9. *Developers Constraints*

The findings noticed that in term of *costs and expenditures*, the major constraints in providing culturally acceptable affordable housing by ranking 1 against the biggest constraint, 2 for the next constraint, and so on is (1) building materials, (2) labor, (3) infrastructure, etc. While, in term *capability of human resources and design* team, the major constraints in providing culturally acceptable affordable housing by ranking 1 against the biggest constraint, 2 for the next constraint, and so on is (1) understanding Balinese culture, (2) local culture skill and knowledge, (3) access to Balinese culture document/policies, (4) local staff involvement, etc.

Furthermore, the study noted that to overcome the constraints in providing culturally acceptable affordable housing in term of *government support* by ranking number from 1 as the most measure, 2 for next measure, and so on is (1) soft loan, (2) subsidies, (3) incentives and (4) other support. In term of *dweller involvement*, to overcome the constraints in providing culturally acceptable affordable housing by ranking among measure to overcome constraints by ranking number from 1 as the most measure, 2 for next measure, and so on is (1) power and means of dwellers involvement, (2) involvement in planning and design stage, (3) involvement in construction stage, (4) willing and ability to participate, etc.

## **Chapter 7**

### **FOCUS GROUP DISCUSSION FINDINGS**

This chapter reports and discusses on findings specific to the focus group of key actors that was convened to obtain a pragmatic assessment of potential solutions of the cultural inappropriateness of affordable housing in Bali. Findings from the fieldwork survey were summarised and presented before hand to the all focus group participants. Specific issues relating to the delivery of culturally acceptable housing were then discussed at the focus group session. Based on the findings of the focus group session, two delivery options were developed by the author. These options were presented for comment to each focus group participant individually through interviews.

#### **7.1. Findings Analysis of Focus Group Discussion**

The focus group discussion was undertaken as part of the research methodology in order to bring all representatives of stakeholders in the delivery of affordable housing were involved in this study. The focus group session provided an opportunity for deliberation on identifying options to solve the problem of the cultural inappropriateness of affordable housing in Bali. Stakeholders could sit together in one room to discuss the implications of preliminary findings of the study. From previous dealings with some of stakeholder representatives, the absence of such forums for discussion and deliberation among various stakeholders is quite evident.

There were twelve discussants representing the stakeholders: Local Government (3 representatives), Developers (3 representatives), Dwellers/CBO/NGO (3 representatives) and University (3 representatives). The aim of focus group discussion was to get input, comments and suggestions on preliminary findings and then to focus on specific issues that emerge.

In order to direct the focus group discussion, the guiding agenda was set up using these four open questions:

- (1) Are affordable housing projects culturally acceptable?
- (2) What are the developer constraints in providing better quality and culturally appropriate housing?
- (3) What do you think about housing transformation/adjustment by dwellers?
- (4) What is the dweller's role in cultural appropriateness? How can the involvement of dwellers in affordable and culturally appropriate housing projects best be achieved?

Before gathering for the focus group session, the guideline questions along with a brief summary of initial findings of this study's fieldwork were sent to all stakeholders for their

comments, input and any suggestions. They were given two weeks to complete a written response and send it to the Udayana University. However, due to the busy schedule of local government, the feedback was received with a delay of one month.

All input and comments were summarized into a document and the information was put up as presentation slides at the sessions. All documents were sent to the stakeholders when they were invited to join the focus group discussion. The focus group was held on Wednesday, 21 December 2011 at Udayana University, Bali. The meeting started with a presentation of feedback summary, followed by discussion that encouraged each participant to propose comments, and idea for recommendations. The summary results of the focus group discussion will be explored in the next section.

### **7.1.1. Are Affordable Housing Projects Culturally Acceptable?**

The first topic is about affordable housing projects and their cultural acceptability. Findings for the survey of questionnaires (see chapter 6) have shown around 80% of the dwellers believe that affordable housing projects in Bali are not culturally suitable in all aspects. Those aspects that were specifically identified through the fieldwork surveys include: zoning, building materials, orientation and circulation, structure, building form, boundary wall, facade, form of room, ornamentation, room position and building height. Also, around 95% of the dwellers mentioned that the Balinese house concept is different to that in the rest of Indonesia.

The three biggest issues regarding the cultural acceptability of housing projects were identified as: (1) Zoning of living spaces, (2) Baliense structure and construction, and (3) Balinese ornamentation and color. The five most important aspects of the house that needed to be improved before dwellers could comfortably more in were identified as: (1) Building materials, (2) Boundary walls and Balinese gate, (3) Balinese structure and construction, (4) Balinese ornamentation and colour, and (5) Zoning of living spaces.

According to the dwellers, the three most important visual elements that characterise culturally acceptable houses in Bali are: (1) Balinese style ornaments, (2) Balinese landscape and zoning of livings, and (3) The building materials. The focus group discussants were asked:

*Would you like to comment basis on these findings, what actions should we take to create the affordable housing projects in Bali that are more culturally acceptable? What obstacles do you see in implementing such recommendations?*

The discussants noted that the living culture of Bali is an important issue; it is well established and needs to be conserved and protected as heritage. The right of the Balinese to express their culture must be respected and it also makes good economic sense in terms of ensuring that tourism potential is maintained.

The Balinese attach great significance to ensuring cultural appropriateness of housing. This is seen in the extensive symbolism that houses carry within the cultural context even today. They have the significant cultural sensitivity as elements of Balinese House, such as the concept of distinguishing between sacred and profane areas within the house and Balinese traditional architecture and built form.

The concept of “sacred” and “profane” areas concern (1) zoning of living spaces – allocating praying place within sacred area, while inner courtyard and kitchen allocated within profane area, (2) room position and furniture arrangement (sacred – profane), and (3) orientation and circulation - room position/furniture arrangement in conformity with the rule that facing/ pointing towards the sunrise and mountain is considered sacred while facing the sunset and beach is considered profane.

While the respect for Balinese traditional architecture and built form consist of (1) height of building (should remain under the height of a coconut tree, i.e. less than 15 meters), (2) boundary walls and Balinese gate, (3) building layout (seen as square or combination of squares), (4) building form (square or combination square), (5) Balinese structure and construction (using Balinese structure), (6) building materials (use of local materials), (7) elevation/facade (should be readily identifiable as comprising three parts: head, body and foot, in line with the Tri Angga concept), and (8) Balinese ornamentation and colour (presence and compatibility of ornamental elements and colour within the house and the gate).

Representative of developers said:

*“Balinese house concept is different to that in the rest of Indonesia, even in Asia. I believe that adding cultural elements will increase demand for such housing. But, the high cost of building material, labor and infrastructure are barriers to build the house to be affordable and culturally acceptable...”*

Representative of NGOs and Universities suggested that:

*“...to create affordable housing projects in Bali that are more culturally acceptable, we need to: (1) involve the local Balinese staff in design team of affordable housing projects who have professional experience and strong familiarity in Balinese culture housing design, and (2) incorporate and implement the concept of Balinese culture in the affordable housing projects by reducing the barrier or constraints hampering the process...”*

Representative of developers also mentioned that:

*“... to create affordable housing projects in Bali that are more culturally acceptable, local government should: (1) provide example as prototype of quality and culture appropriateness in housing development projects for us as*

*developers... and (2) provide easy access to the policies/regulations of Balinese culture or other standards, norms of Balinese housing design through regular training sessions, exhibition and campaign”.*

Representatives of CBOs and Dwellers stated:

*“...to create affordable housing projects in Bali that are more culturally acceptable, projects should offer space for residents to participate in all the stages of projects from the planning and design, construction, maintenance tasks, until home improvement.”*

All actors involved in the focus group discussion mentioned that “...to implement such actions, it requires the controlling and monitoring by independent supervision teams who come from among stakeholders, such as CBO, NGO, universities, developers and local government, in order to uphold the quality and culture appropriateness in affordable housing development projects. This supervision needs clearly defined procedures and mechanisms, without in enhancing its amenities.

### **7.1.2. What are the Developer Constraints in Providing Better Quality and Culturally Appropriate Housing?**

The second topic is about developer constraints in providing better quality and culturally appropriate housing. The concept of sweat equity in the projects is commonly used through: (1) increasing the worth of a project created by the unpaid physical hard work of the owner/occupant, or (2) increasing the value of a property created by the hard work of the owner/occupant in enhancing its amenities (Angel, 2001).

Findings for the survey of questionnaires (see chapter 6) show that the most critical constraints faced by developers in providing better quality and culturally appropriate housing are cost of building materials (31%) and labor (24%). The study also shows that 15% of dwellers are willing to contribute labor; theoretically, the concept of “sweat equity” could be applied to lower the cost of housing in order to spend more on making housing more culturally suitable. The focus group discussants were asked:

*Do you think the concept of sweat equity could be applied in order to improve the quality and cultural acceptability of affordable housing projects in Bali? How could this concept be applied? What are the possible opportunities/barriers in doing so?*

The discussants generally noted that this concept is possible to apply in Bali as the concept is part of Balinese culture. It conforms to ancient traditions passed from the generation to generation called “*gotong royong*”, or sharing a load by helping each other, and the concept of “*Tri Hita Karana*”.

Representative of CBOs/Dwellers mentioned that:

*“Traditionally, we used to help each other in all activities as part of our culture specially in building the house by providing free labour and even building material...that is commonly called ‘gotong royong’...”*

Representatives of Universities and Government stated that:

*“The concept of sweat equity is apparently close to concept of Balinese local genius “Tri Hita Karana”, which means harmony with God, harmony with humans and harmony with environment. As harmony among humans, Balinese people help neighbours by providing unpaid labour or building material for constructing a new house or other development”*

A representative of developers noted that:

*“Labour cost does represent a barrier to providing more culturally acceptable and affordable housing. The concept of sweat equity can be a significant solution to overcome the barriers”.*

To apply this concept and also to overcome developer constraints in providing better quality and culturally appropriate housing projects, the general group discussion at the meeting offered some strategies such as:

- *Developers should provide space and flexibility for dwellers to be involved from early stage till end of projects - from planning and design, construction, maintenance tasks, until home improvement development of the projects. Especially in the stage of construction where the sweat equity can be applied.*
- *The local government needs to strongly support developers and dwellers involvement through incentives, subsidies, soft loans and other supports.*
- *The local government needs to formulate clearly defined mechanisms of the concept “sweat equity” among stakeholders - developers, governments and dwellers - so that each can benefit from the concept.*
- *The local government should have a responsibility in projects’ up keep after developers complete the affordable housing projects, in terms of infrastructure, service delivery and facilities. For this reason, local government should set up clearly defined criteria and procedures, and apply a penalty for developers who have not fulfilled the criteria and procedures, or who have neglected the project.*

Some discussants, however, pointed out the possible barriers to applying ‘sweat equity’ strategies. They maintained that removing labour cost from the cost of construction would mean developers’ margins of profit are reduced. Developers may also be concerned about loss of power and control over quality and the timelines in completing the projects.

As representatives of the dwellers/CBOs stated:

*“Developers should share the power by providing us the means to engage in the projects, in particular at construction stage. We have great willingness and ability to contribute with time and labour”*

### **7.1.3. What Do You Think about Housing Transformation/Adjustment by Dwellers?**

The third topic covered housing transformation/adjustment by dwellers. Findings for the survey of questionnaires (see chapter 6) showed that 66% of dwellers took measures to make their houses more culturally suitable. The three most common actions that new home buyers moving into their new homes took were: (1) changing internal walls, (2) installing/replacing the gate, and (3) changing the boundary wall. Sixty three percent of dwellers mentioned that they have time to spare for home improvement work. The findings for the survey of questionnaires also shows that dwellers have to spend more money, time and labor to consolidate the house to make it more culturally acceptable. Ninety percent of dwellers reported that they get help from friends/neighbors for home improvements. While dwellers feel their housing becomes more culturally acceptable after home improvements, only 52% dwellers feel that the home improvement raises the value of the house.

The findings of the survey implies that the dwellers transform their house in order to adjust it to their culture. The decision to transform or improve the house is not just a matter of changes to family size, socio-economic factors or simply a function of the housing market; but is also related to the meaning of the house for the dwellers, especially in a culture where religious attachment to the house is very strong, as in Bali. The focus group discussants were asked:

*How would you comment on the findings? How could we capitalise on the concern for cultural appropriateness of housing that is reflected in home improvements by dwellers?*

The discussants noted that housing transformations or adjustments in Bali show the strength of influence of Balinese culture on life style. Life style is not only shaped by socio-economic and demographic factors. Cultural traditions that have survived to this day are those reflected in the daily lifestyles of the Balinese people and the identity of Bali. Housing, or the home of the activities associated with the living culture or lifestyle, should facilitate and promote those traditions. It is important, therefore, that design elements reflect the traditions, or at least be sympathetic and respectful to those.

In addition, the discussants suggested some strategies to capitalise on the concern for cultural appropriateness of housing that is reflected in home improvements by dwellers:

- *The local government should provide incentives, subsidies, soft loans and other supports for developers and dwellers to ensure that affordable housing projects are cultural appropriate.*
- *Developers should employ local Balinese staff in design teams of affordable housing projects who have professional experience and strong familiarity with Balinese culture specific housing design.*
- *The local government should provide examples as prototypes of quality and cultural appropriateness in housing development projects so that it is easy for developers to understand.*

Representatives of CBOs/Dwellers, NGOs and universities gave some critical comments to local government and developers related to housing adjustment/transformation as follow:

- *The local government should recognise the dwellers' need to transform their house in order to make it conform to their culture. It should provide support to offset the high cost of material, labour, and time that dwellers have to spend to complete changes.*
- *The local government and developers should give options and consultancy for dwellers in housing adjustment or home improvement. There were some options that dwellers can take for home changes, such as: let the project take up the job, employ a contractor to provide the furnished product, employ a mason and supervise the work yourself, and some dwellers do it by themselves with help from friends/neighbours.*

#### **7.1.4. What is the Dweller's Role in Cultural Appropriateness? How can the Involvement of Dwellers in Affordable and Culturally Appropriate Housing Projects Best be Achieved?**

The fourth topic is about the involvement of dwellers in projects. Tunner (1976, pp. 77-101) coined the phrases "*housing as a verb*", "*housing as process*", and "*housing as an activity*" in housing development. There is more room for collaboration in housing provision, where housing is seen not merely as a product, but as an extended process. By engaging the community in "housing as a process" and ensuring effective collaboration, the extended exposure and involvement of the community will allow more expression of the community's culture into shaping their housing. Therefore, it is assumed that the dwellers can express their cultural values which could shape the housing product.

Findings for the survey of questionnaires (see chapter 6) noted that dwellers' participation in various stages of the projects has been low. Only 12% of dwellers

participated in the planning stage and 9% in the construction stage. Only 2% of dwellers felt that they had the opportunity to influence the project. However, 40% of dwellers participated in maintenance tasks and 39% participated in proposing changes to the house design. This study implies that there is a lack of dweller involvement and no appropriate system and mechanism to involve dwellers in projects. The focus group discussants were asked:

*How could we improve the system to increase the effective involvement of the dwellers/community in the delivery of affordable housing in Bali? What mechanisms would need to be put in place? Are there any barriers that may be faced (e.g. legislation, increased cost of construction, labor cost, etc.)? Could these be overcome?*

The discussants noted that, to improve the system to increase the effective involvement of the dwellers/community in the delivery of affordable housing in Bali, the involvement of dwellers is needed in all stages of projects, such as: planning in design, construction, maintenance task after completed, and home improvement/incremental development of the project. Dwellers mentioned that

*“we need room to participate in this project in particular at planning and design stage where we would give our idea of Balinese culture suitable for us...”*

Representatives of NGOs and Universities noted that mechanisms or strategies would need to be put in for effective dwellers involvement:

- *It needs training skill and knowledge for community/dwellers to involve and contribute profoundly their skill and knowledge in the project. Dwellers also have to be willing to spend time to participate in stage of projects.*
- *It should allow dwellers to offer their kind of contribution such as: providing advice, material supply, and labour contribution.*
- *Developers should provide dwellers the opportunity to influence the project, and participate in any stage of projects, with the condition that dwellers should be willing to contribute time to participate and have the knowledge to contribute meaningfully.*

The discussants also noted that barriers may be faced in implementing those strategies or mechanisms if there is a lack of control and monitoring by local government or supervision teams in order to evaluate the quality and cultural appropriateness of affordable housing development projects. Moreover, transparency and accountability in procedures and mechanisms are needed to implement this so that it will not be complicated and become a barrier for developers and dwellers.

## 7.2. Findings from Interviews Following Focus Group Discussion

This interviews were conducted in order to get feed back from representatives of stakeholder based on focus group discussion results. The stakeholders interviewed were Local Government, Developers, CBO/NGO and the University. The aim of the interview was to get more implication inputs, comments and suggestions based on specific issues that have emerged in focus group discussion results. Based on the findings of the study and results of focus group discussion, two models of house production were presented to stakeholders: (1) a variant type offering dwellers a range of culturally affordable house design, and (2) involving sweat equity to reduce costs of construction. These two models were presented for comments in term of their practically to the stakeholders during interviews following the focus group.

### 7.2.1. Factors Leading to Cultural Inappropriate Affordable Housing Projects

Through the brief of surveys finding and focus group discussion results that have been given to stakeholders, it was noted that since dwellers moved in and entered the house, they felt that affordable housing projects in Bali were not culturally suitable. The dwellers try to adjust and transform their house to be more culturally acceptable by taking various measures. In addition, they have to spend money, time and labour in order to adjust their house to be more culturally acceptable.

*What are the barriers that may be faced in providing culturally acceptable and affordable housing in Bali? How do we overcome these?*

In general, all stakeholders mentioned that Balinese tradition and culture is a tradition of myth and symbol. The organization of a cosmic territory's elements and configuration as a result of cosmo-religious beliefs evolves from the translation of phenomena into a symbol system. The symbol system expresses these beliefs by abstracting and translating them into principles of organisation. All stakeholder representatives interviewed seemed to agree that it was important for an individual to arrange his life in perfect harmony with cosmic order. The Balinese create their indigenous dwellings according to a centuries-old tradition generated by their idea of cosmic harmony.

The developer's representative mentioned that:

- *We are a business; we have to account the profit in housing provision projects. While we have been bonded by building contracts of government, we have to build as written in legal contract. Yet, the requirement of Balinese cultural elements was not included in sections of the contract.*
- *The standard price of a house determined by the Government is a minimum standard of affordable house. It does not provide additional cost of installing*

*the Balinese cultural elements, either in house design or quantity bill of housing project.*

- *There is still not clear technical guidance for affordable housing which is culturally acceptable, in particular on ornaments and building materials. This lead to lack of understanding of staff to apply Balinese cultural design in affordable housing projects.*

The government's representative noticed that:

- *We should maintain Balinese cultural values in affordable housing projects in Bali to keep the unique culture as basic capital of tourism development. Local government provides regulations and guidance of Balinese culture in housing development projects and supports this by soft loans, subsidies, incentives and other support in providing culturally acceptable affordable housing.*
- *The local government already issued the Bali Regional Regulation Number 3 of 1974 concerning Balinese Culture. It is stronger hegemony caused cultural capital to be used as the basis for building, environment and tourism development in Bali province.*
- *The local government will provide a prototype of cultural appropriateness in housing development projects and encourage the developers to create a culturally more suitable design by adding cultural motifs in affordable housing projects. In addition, the government will facilitate the dwellers to be involved at early stages till the end of projects from planning and design, construction, maintenance tasks, until home improvement development of the projects.*

### **7.2.2. Model 1 – Variant Type of Offering Dwellers a Range of Culturally Affordable House Design**

In this model, developers build affordable houses as part of the government's binding contract document and policy. The house design is predetermined or prescribed by government with tight deadlines. When the house construction is completed, developers provide a completion certificate and dwellers can move in to the house.

Currently, our study confirms that while the house is affordable it is generally not culturally acceptable. The model offers the dwellers with a range of types of houses through a catalogue with different price tags, so dwellers can choose their preferences. Some of the options might not be affordable, but are certainly culturally appropriate. For those dwellers willing to pay more, this model could be applicable.

*Do you think that the model could be applied in order to improve cultural acceptability of affordable housing projects in Bali? What are the possible opportunities/barriers to apply it?*

The stakeholders noted that dwellers have options to choose their preferences. The design catalogues should be representative of Balinese culture and should be affordable for dwellers. References to Bali are strong and distinctive cultural identities that provide a context where the issue of product quality and cultural appropriateness in affordable housing provision is highly significant. Moreover, the Balinese lifestyle is affected by the strong influences of religion, customs, norms and behaviors.

The design catalogues should result from design exhibition in order to be more appropriate with dwellers' preferences and the price of house types are still affordable for dwellers and good quality. In cases where it is not affordable but certainly culturally appropriate, this model would be applicable for those dwellers willing to pay more..

Developers asserted that:

*.... providing a range of type of houses through catalogue 1,2,3, etc with different costs will be an obstacle; the reason is one type of house will be easier and cheaper in design and building construction as well. We look for the simple to build and get more profit for each house.*

However, developers also mentioned that they can provide a range of housing types through catalogue 1,2,3, etc., with different costs, as long as the government clearly includes this in document contracts and includes more fees too.

Developers also appealed that some types of houses might be unaffordable for low income people. It might be affordable and culturally acceptable when there are less variant houses types, i.e. 5 samples, but those fulfill minimum standards of quality and cultural appropriateness.

The Government responded by stating that:

*...we support this model which is offering the dwellers with a range of type of houses through catalogue 1,2,3, etc with different costs, so dwellers can choose as their preferences. These might not be affordable but certainly culturally appropriateness. For those dwellers are willing to pay more, this model could be applicable...*

*.... we will review the contract document of affordable housing projects and issue new document contracts that provide variant types of houses with different costs. However, they cannot guarantee the price of some types of houses that are not affordable for low income people...*

The Government also clearly asserted that Balinese culture has significant culturally sensitive housing elements. The Government as the enabler will invite all stakeholders, especially design expert partners and students of architecture, to conduct design

competition of Balinese cultural houses types and the five best will be a catalogue of variant types of houses.

Dwellers affirmed that:

*...by providing types of houses through catalogue 1,2,3, etc with different costs, they will have options to choose houses that are culturally acceptable and affordable for them. The design catalogues should be appropriate with their preferences and the price of houses types still affordable and good quality. In cases where it is not affordable but it is certainly culturally appropriate, they are willing to pay more because these models would be applicable and acceptable for them...*

Dwellers also mentioned that a range of type of houses should result from a design exhibition accomodating the most genereal preferences of Balinese dwellers in order to be more appropriate and affordable.

### **7.2.3. Model 2 - Involving 'Sweat Equity' to Reduce Costs of Construction**

The sweat equity model follows the concept as promoted by Angel (2001). In this model, end users can provide their own labour to reduce the cost of construction, thereby making housing more affordable. Sweat equity is compatible with the Balinese tradition of 'gotong royong'.

Findings for the survey of questionnaires (see chapter 6) noted that after dwellers move into the house, they destroy it in order to make it more culturally acceptable. They are willing to contribute labour and spend the cost for more than 10% of the house price. Balinese residents also have a strong communy bond in form of a traditional community forum (*banjar*). This implies that the concept of "sweat equity" could be applied to lowering the cost of housing in order to spend more on making housing more culturally suitable.

However, this needs policy arrangement with developers where the community can be involved and appropriate mechanism processes due to greater costs for quality control and risk potential of projects delaying and taking more time.

*How can the concept of sweat equity be applied in order to improve the cultural acceptability of affordable housing projects in Bali? What are the possible opportunities/barriers to applying it?*

The developer contended that:

*...the possible barriers to apply those strategies is the constraints of developers related to the less benefit that might be attained by developers due to the loss of labour benefit and also loss of power in completing the projects...*

The developer also mentioned that this model will decrease their profit due to no profit from labor cost. By allowing dwellers to take over the labor, this means that developers have no chance to profit from labor cost.

In addition, the developer also asserted that:

*...if this model would like to apply, they intend to handle project supervision of dwellers labor in order to control the quality and schedule of projects...*

The Government mentioned that:

*...dwellers as labor should have good skill and knowledge in house construction to keep the quality of affordable housing projects...*

*...we will the policy arrangement to developers where community can be involved and how the mechanism process due to concerning more cost for quality control and risk for possibility of projects delaying and taking more time...*

The government also asserted that they will formulate clear mechanisms for the concept “sweat equity” among the stakeholders - developers, governments and dwellers - so that each can get benefits from the projects.

Dwellers fully agreed with the concept of sweat equity due to the high cost of labor and more culturally suitable outcomes. They also claimed that:

*... in the early stage of the administration process, they have to pay 3% of administration fees, such as: fee of provision, notary, life and property insurance, and also the 3.5% of sale and buy tax.*

Moreover, dwellers argued that:

*.... they should have good cooperation and relations with developers as teamwork to complete the affordable housing projects. The concept of sweat equity will be one significant solution to overcome our barriers.*

Dwellers also asserted that developers should provide power to dwellers in labor of projects. They should provide space for dwellers to involve from early stage till end of projects, especially in the stage of construction where ‘the sweat equity’ can be applied.

### **7.2.3. The Proposed New Model – Variant Type of Offering Dwellers a Range of Culturally Affordable House Design and Involving ‘Sweat Equity’ to Reduce Costs of Construction**

By assessing the two models proposed, the stakeholders, in particular from government, dwellers, NGOs and CBOs, suggested that the proper model might be more applicable and acceptable for dwellers, by combining model 1 and model 2.

However, developers mentioned that:

*...both model 1 and 2 has possible barriers for developers, in particular applying 'sweat equity' that eliminates the labour cost from the cost of construction. This would reduce the profit margins of developers. They also mentioned that there may be loss of power and control over quality and timelines in completing the projects...*

Representatives of government, NGOs, CBOs and dwellers pointed out that:

*....this new model is providing the dwellers both preferences and involvement. First, dwellers are able to choose their preferences with a range of type of houses through catalogues with different costs. Second, dwellers are able to contribute their labor through the concept of "sweat equity" to reduce the cost of construction...*

This model could be relevant to lower the house project costs enabling them more to spend on creating housing that is affordable and culturally appropriate. This model also requires the policy agreement of dwellers' involvement and mechanisms and processes related to the risk of quality control and project schedule.

### **7.3. Summary**

This chapter summaries the input, comments and suggestions of the stakeholders as recommendations ensuring greater efficiency in the future, in order to deliver better quality and more culturally appropriate affordable housing in Sarbagita Metropolitan. The summary concerns recommendations for developer's constraints in housing provision mechanisms, empowering the role of dwellers, and developing cultural appropriateness of housing provision.

#### *1. Government Support*

The local government should provide support for developers, specifically for affordable housing projects, to encourage them to provide housing that is more culturally acceptable and of better quality. The government support could include incentives, subsidies, soft loans and other support with transparency and fair criteria and procedures.

#### *2. Capability of Human Resources Development of Design Team*

Developers need to involve the local Balinese staff in design teams on affordable housing projects who have professional experience and strong familiarity with Balinese cultural housing design. Since we know that the Balinese house concept is different to that of the rest of Indonesia, developers also should regularly access and understand the government policies/regulations and have to arrange training/education on Balinese

culture for their staff. Such efforts will improve the capability of staff in Balinese housing design. Local government should provide easy access to assist developers with policies/regulations that support Balinese culture or other standards, and the norms of Balinese housing design through regular training, exhibitions and campaigns.

Moreover, developers need to incorporate and implemented the concept of Balinese culture into affordable housing projects by reducing the barriers and constraints hampering the existing process. Developers making affordable housing projects more Balinese culture friendly and better quality.

### *3. Culture Value Implementation*

Balinese dwellers' strong concerns for the concept of "sacred-profane" and respect for traditional architecture and built form is a key reason developers need to offer culturally suitable housing as part of affordable housing projects in Bali.

Referring to the concept of "sacred and "profane" areas, developers should have an understanding of critical elements in spiritually appropriate housing design: (1) zoning of living spaces – allocating praying places within the sacred area, while the inner courtyard and kitchen are allocated to the profane area; (2) room position and furniture arrangement (sacred – profane); and (3) orientation and circulation - room position/furniture arrangement in conformity with the rule that facing towards the sunrise and mountain is considered sacred while facing the sunset and beach is considered profane.

Developers also need to respect ongoing traditions of Balinese architecture and built form, including: (1) height of building – should remain under the height of a coconut tree, i.e. less than 15 meters; (2) boundary walls and Balinese gates; (3) building layout – seen as a square or combination of squares; (4) building form (square or combination square); (5) Balinese structure and construction - use of Balinese structure; (6) building materials (use of local material); (7) elevation/facade – should be readily identifiable as comprising three parts: head, body and foot (in line with the Tri Angga concept); and (8) Balinese ornamentation an colours – presence and compatibility of ornamental elements and colours within the house and the gate.

The local government should provide regulations and guidance on Balinese culture in housing development projects for developers. They should have examples as prototypes of quality and cultural appropriateness for developers. Both government and developers should create and sell a more culturally suitable design by adding cultural motifs and allocating funds for advertising these products. If such efforts are made, this would improve the demand for such products in comparison to existing available housing products.

#### *4. Developers Constraints*

There are, of course, some barriers and constraints hampering the provision of culturally acceptable affordable housing - primarily cost and expenditure, but also the capabilities of human resources design teams. The issue of costs and expenditure consists of labor, building materials, technology/construction, infrastructure, facilities, services, development permit fees, planning and design fees, marketing fees, government taxes, and other costs, fees and taxes. The issue of human resource teams' capabilities relates to project experience, local staff involvement, local cultural skill and knowledge, access to Balinese culture documents/policies, and understanding of Balinese culture.

To overcome the constraints in providing culturally acceptable affordable housing, there is an urgent need for local government support for developers and for dweller involvement. Local government support for developers is through incentives, subsidies, soft loans and other forms of support. This also involves empowering dwellers to participate at all stage of planning and design, construction, maintenance, home improvement.

#### *5. Dwellers Involvement*

This study's results clearly demonstrate that dwellers perceive the low quality of the current product of affordable housing projects to be the physical standards, spaciousness, cultural appropriateness, infrastructure and service delivery, and availability and accessibility of public facilities. Developers have to create space for dwellers to be involved and to participate in all stages, including: planning and design, construction, and maintenance tasks once they take up home improvement/incremental development of the projects.

Furthermore, developers should provide dwellers with the opportunity to influence the project, with power in the project design, and to participate in any stage of projects. Under such conditions, dwellers would be willing to spend time to participate and contribute their knowledge in a meaningful way.

#### *6. Housing Adjustment*

Owing to the developers' failure to incorporate cultural appropriateness into housing provision, this study has shown that dwellers have taken action to resolve their problems. Some actions undertaken by dwellers to adjust their houses have included the following: adding temples, changing the boundary wall, installing the gate, changing internal walls (adding/removing/shifting), changing the kitchen's position by changing/modifying the plumbing, special placement of furniture, adding fixtures or fixed furniture, and installing ornaments. Dwellers have to spend money for such materials

and labour costs and also spend time completing these changes. Some dwellers also get help from friends/neighbours for home improvements. This has improved the value of the dwellers' houses.

To adjust their houses, dwellers have to use their spare time for home improvement work to make the house more suitable to their needs and to increase the value of the house. Some of the options dwellers took for home changes have included: letting the project take up the job, employing a contractor to provide the furnished product, employing a mason and supervising the work themselves, or doing the work by themselves with the help of friends. The study also shows that some dwellers would be willing to put in time and labor for home improvement under developer supervision.

The local government should support and encourage the dwellers in transforming their houses in order to adjust them to their culture, since this transformation is related to the meaning of the house for the dwellers, especially in a culture where religious attachment to the house is very strong, as in Bali.

#### *7. Government Control and Responsibility in Project Development Mechanism Constraints*

The local government should conduct control and monitoring of the quality and cultural appropriateness of affordable housing development projects with independent supervision teams and clear procedures and mechanisms. The team should come from among stakeholders - CBOs, NGOs, universities, developers and the local government.

The local government also should have a responsibility in project up-keep and, after developers complete the affordable housing projects, in terms of infrastructure, service delivery and facilities. For this reason, the local government should set up clear criteria and procedures and apply penalties for developers who have not fulfilled the criteria and procedures or who have neglected their projects.

#### *8. The Proposed New Model – Variant Type of Offering Dwellers a Range of Culturally Affordable House Design and Involving 'Sweat Equity' to Reduce Costs of Construction*

This model can provide preferences for dwellers to choose for a variety of house types through catalogues with different costs. In addition, they should have the choice to contribute their labor through the concept of "sweat equity". This model could be applied to lower the cost of house projects in order to make housing both more affordable and culturally acceptable. This model also needs policy agreement and dweller involvement, along with the necessary processes related to such risks as quality control and project schedule.

## Chapter 8

### DISCUSSIONS OF FINDINGS

Chapter 6 presented empirical evidence of dweller's perceptions, developer's constraints, and government's perspective to provide better quality and culturally acceptable affordable housing. Chapter 7 provided a response to these findings by conducting focus groups comprised of representatives of key stakeholders involved in the provision of affordable housing in Bali. It also invited comments on the feasibility of two proposed models for the delivery of culturally acceptable and affordable housing. This chapter provides a discussion of findings the previous chapters. A holistic discussion of various concepts and factors that are significant in the search for culturally acceptable and affordable housing is presented. It also discusses the cultural appropriateness of housing, developer constraints in housing mechanism, dweller involvement, how dwellers transform their houses to adjust them to their cultural values, and the merits of the proposed models introduced in chapter 7. A mixture of qualitative and quantitative data will be discussed.

#### **8.1. Affordable Housing Projects in Bali: Could They be Culturally Acceptable**

As mentioned in the previous chapter, to gain an understanding of the extent to which houses provided by developers are culturally acceptable for Balinese dwellers, a checklist of design elements was developed that could promote the cultural traditions of the Balinese people and Balinese traditions of housing design. The information was collected through visual observation of the physical conditions and by soliciting verbal responses from dwellers to a structured questionnaire. While the former served to record the description of the physical structure of the house, it also took note of how dwellers may have adjusted the original house to suit their lifestyles. The latter served to assess the satisfaction levels of end users (dwellers) with the product (house), and assess their level of involvement in all stages of affordable housing projects. The findings of the fieldwork and survey are then incorporated with the findings of focus group discussion and examined in detail in the following sections.

##### **8.1.1. How Importance of Balinese Culture in Affordable House Design**

In general, Balinese is a minority race in Indonesia; however, the biggest population in Bali is Balinese and Hindu. As the findings of questionnaires have shown, 73% of dwellers were born in Bali, living there since birth; 70% of dwellers are Balinese with 68% being Hindu. As a metropolitan region, Sarbagita is also experiencing rapid

urbanization, where dwellers migrate from rural areas, other cities and foreign countries. As the findings of questionnaires have shown, dwellers of affordable housing projects come from either cities in Indonesia (25%) or foreign countries (2%).

The findings of focus group discussion reveal that most dwellers and developers argued that the Balinese house concept is different to that in the rest of Indonesia, in terms of zoning of living spaces, building materials, ornamentation, façade, orientation, room circulation and structure. This indicated that Balinese culture is a meaningful feature of everyday activities that relates to the nature of the spaces required to carry out daily activities. Houses have great value for the Balinese, as observation have shown that each household has its own house and temple. The Balinese are concerned about their houses as part of their lifestyle in terms of layout, plot size, orientation, style, materials, construction, etc. This infers that the Balinese people have a very intense cultural identity that has been already incorporated into the housing provision. Balinese culture is very culturally sensitive as seen in elements of Balinese house design, in particular the concept of sacred and profane areas, and Balinese traditional architecture and built form.

The findings of focus group discussion also noted that dwellers are concerned with the concept of sacred and profane areas such as: room position and furniture arrangement, orientation and circulation, and zoning of living spaces (allocating praying place within sacred areas, while kitchens are allocated to profane areas). Dwellers also have respect for Balinese traditional architecture and built form, such as: boundary walls and Balinese gates, ornamentation, height of buildings (less than 15 meters), structure and construction, building materials and façade (comprising three parts: head, body and foot, in line with the Tri Angga concept).

Clearly, this demonstrates the importance of Balinese culture, such as religion, customs, norms and behaviors, in affordable housing design. This indicates that the subject of product cultural appropriateness is highly significant in affordable housing projects for dwellers, so it needs to be conserved for the sustainability of the economy and for tourism development in Bali.

### **8.1.2. House Quality and Cultural Value of Product**

#### *Quality and Cultural Value of Affordable Housing Projects: Formal and Informal Projects*

Do the products of various modes of affordable housing projects meet the minimum quality standards and requirements of cultural appropriateness? As shown in the findings from observation, the quality and cultural value of projects, both formal and informal housing projects, is considered poor quality referring to *the number and size of*

*rooms, building facade and building materials.* For instance, the ideal size of a room is 9 m<sup>2</sup> (as seen on Standards of Public Work, 1980), while the room size of houses in the projects is mostly 6.25 m<sup>2</sup>.

In terms of infrastructure and service delivery, the findings from observation suggested that the affordable housing projects in general have good quality *commercial facilities and water supply provision.* However, the projects have *low quality road, solid waste management and disposal, drainage; and low quality recreation facilities, sport, and open space areas.* In addition, related to the cultural points, the projects are unsatisfactory in terms of availability and maintenance of public facilities, in particular *inadequate communal praying places.* It can be concluded that, in the main the affordable housing projects in Sarbagita Bali, do not meet the quality standards of housing infrastructure and requirements of cultural appropriateness. This suggests that affordable housing provision should consider the satisfaction of dwellers and ensure building with good building materials, completion of better infrastructure and facilities, and incorporating cultural suitability through accommodating their way of life and cultural values into their houses.

The findings of observation and questionnaires pointed out that formal sector developers provided better infrastructure and service delivery in *road conditions, water supply, drainage and sanitation,* but that the level of *garbage disposal management* was poor. Meanwhile, the informal projects provided lower infrastructure provisions as apparent in *poor road conditions, and low levels of water supply provision,* but some informal sector projects tended to have better drainage and solid waste management. This implies that most formal projects in have higher quality infrastructure and service delivery than informal projects due to finance, legalizing processes, and government support (as discussed on chapter 6).

In addition, informal sector housing projects tended to offer *larger plot sizes* compared to formal sector projects. Informal projects also made provision for relatively more *adequate praying communal areas* which rely on the *service delivery by the community after projects are accomplished.* This means that in informal projects, dwellers have stronger commitment to maintenance tasks compared to the formal sector after projects are completed. They have a more significant role in managing housing, infrastructure and service maintenance compared to formal projects.

The findings from observation and questionnaires also noted that most dwellers also complained about garbage collection, road conditions, and drainage. They were concerned especially about the rainy season, fearing serious flooding, while they believed the rainwater drainage system in place was not reliable. In terms of water supply provision, the residents generally were able to access groundwater of sufficient

quality by means of their private wells. There was concern that if the overall environment was allowed to deteriorate, their access to useable ground water may be affected.

However, as noted in findings from the interviews, developers mentioned that the current product of affordable housing projects is mostly affordable for poor people and, generally, the poor people can afford their units. The quality of the current product of affordable housing projects, compared to housing targeted at middle income groups, has fallen in terms of infrastructure and service delivery, availability and accessibility of public facilities, physical standards, spaciousness and cultural appropriateness.

Regarding to the availability and accessibility of facilities, frequent concerns were raised about the fact that public facilities had not been completed despite the occupation of houses in the project for some time. These related to the inadequacy of facilities, like praying areas, education and health facilities, and playgrounds. While the dwellers pointed to the planned public facilities that were not yet built, there were also instances reported where certain areas designated as praying place, open space and playground area were, in effect, turned into commercial and parking areas for adjacent housing units.

The study indicated that the sources of complaints from dwellers were a combination of both cultural inappropriateness of the product design and general deficiencies in delivery of services. Dwellers of the affordable housing projects were well aware of the elements and features of Balinese culture value in housing provision and showed great empathy towards them. The quality and cultural appropriateness of the housing product were seen by some as deficient, but this should be expected if affordable housing is essentially concerned with lowering costs.

#### *Perception of Culture Value of Affordable Housing Projects*

As findings of both interviews and questionnaires noted that almost 90% of developers and dwellers mentioned that the Balinese house concept in housing design is distinctive to that in the rest of Indonesia. Developers appealed that a culturally more suitable design will improve the demand of housing product. Nevertheless, they have not incorporated in Balinese concept into their other projects due to the barriers of building materials and labor costs.

As shown from the findings of questionnaires, dwellers perceive that the affordable housing projects are not culturally acceptable. According to the dwellers, there are *three most important visual elements* that characterise culturally acceptable houses in Bali: (1) Balinese style ornamentation, (2) Balinese landscape and zoning of livings, and (3) the building materials. *The 3 most important elements* in creating a house design which is culturally suited to Bali are: (1) Balinese structure and construction, (2) zoning of living

spaces, and (3) orientation and circulation. In contrast, *the 3 least important elements* in creating a house design that is culturally suited to Bali are: (1) building form, (2) boundary walls and Balinese gates, and (3) building materials. Additionally, dwellers indicated that *the 3 biggest barriers* to creating a house design that is culturally suited to Bali are: (1) zoning of living spaces, (2) Balinese structure and construction, and (3) Balinese ornamentation and color. In contrast, the *3 smallest barriers* to creating a house design that is culturally suited to Bali are: (1) height of building, (2) furniture arrangements and (3) form of roofing.

In addition, with regards to the findings of observations relating to Balinese culture, a number of violations of Balinese cultural values in the physical design and layout were noted. The most frequent ones related to (1) absence of Balinese ornamentation and decoration and (2) indistinguishable “head, body, and foot” segments of the façade. The housing projects generally have an inadequate area for social interaction such as a praying place, and other social facilities. The housing projects are missing Balinese cultural elements such as: modern ornamentation and decoration, unclear division of facade, inadequate inner courtyard, wrong orientation of bed for sleeping, garage not close to kitchen, gate of house not Balinese style, and inadequate temple in the sacred area.

The study concluded that culturally, housing for people has become a means of social interaction, a means of more authentic cultural appreciation, a means of preserving the local culture, and at the same time, a means of constructing the cultural identity of its residents. As the focus group discussion suggested, the linkage between cultural values and economic interests in housing projects should be created by positive corporation between local government, community/dwellers, and NGOs.

In addition, this obviously confirms that Balinese concept is distinct from other regions in Indonesia due to the unique physical properties of the houses traditional ornamentation, and the rich meaning, symbolism and beliefs. Balinese people have intense cultural perceptions and cultural distinctiveness that needs to be included into housing projects. As stated, this includes household having boundary walls with Balinese gates, ornamentation, colors, and predominant use of local building materials. Each house should have its own temple in the north east as the sacred area in the zoning of living spaces. It also seems that the Balinese are concerned about their houses as part of their lifestyle in terms of zoning and layout; structure and construction; ornamentation and style; plot size; orientation; and building materials, etc.

### **8.1.3. How to be More Culturally Affordable Housing Provision**

As the findings of observations, questionnaires and interviews pointed out, the five primary areas needing improvement in cultural elements are: (1) building materials, (2) boundary walls and Balinese gates, (3) Balinese structure, (4) Balinese ornamentation and colour, and (5) zoning of living spaces. The five primary areas needing improvement in housing quality are: (1) road condition, (2) drainage and sanitation, (3) solid waste management and disposal, (4) design layout and shape of lot, and (5) number and size of rooms.

Furthermore, the findings of focus group discussions recommended that some actions need to be taken in order to create more culturally acceptable affordable housing projects in Bali: (1) to involve the local Balinese staff in design teams for affordable housing projects, people who have professional experience and strong familiarity with Balinese cultural housing design; and (2) to incorporate and implement the concept of Balinese culture in affordable housing projects by reducing the barriers and constraints hampering the mechanism process of affordable housing provision.

In addition, the findings of focus group discussions also suggested that local government should: (1) provide examples as prototypes of quality and cultural appropriateness in housing development projects for developers, (2) offer easy access for the policies/regulations of Balinese culture or other standards/norms of Balinese housing design through regular training, exhibitions and campaigns, and (3) establish control and monitoring by an independent supervision team coming from stakeholders such as CBOs, NGOs, universities, developers and local government, in order to maintain the quality and cultural appropriateness of affordable housing development projects.

It can be concluded that, to understand how dwellers adjust their houses for quality and cultural appropriateness, what kind of improvements the dwellers need requires examination. The improvements made for cultural preservation should carefully define the original philosophical values of cultural housing so this does not disappear or remain vague. The local government, NGOs, CBOs, and universities have a significant role in linking and matching developers and dwellers in the project improvement and housing adjustment process.

## **8.2. Developer's Constraints: Filling the Gap between Affordable and Culturally Appropriate Housing Provision**

The findings from interviews reveal that developers employee mostly local people, but the staff have mostly studied out of Bali without the skills and knowledge required for

Balinese culture. Developers also provide little training on Balinese culture for their staff and just rely on Balinese regulations on websites. As a result, the familiarity of staff with Balinese culture is very weak and they are more interested in western/modern styles rather than Balinese cultural styles. This shows how important the need is for citizen obligations to conserve unique Balinese culture by respecting, understanding and implementing it. Appreciation of Balinese cultural values is required to strengthen significant of cultural identity itself.

The findings of interviews and focus group discussions noted that, in terms of ornamentation, zoning, building materials, and structure construction, the Balinese house concept is more diverse than other cultures in Indonesia. In fact, developers have not incorporated Balinese concepts into their projects, especially in elements of building materials and Balinese ornamentation. Developers agreed that culturally more suitable designs will improve the demand for housing; however, they claimed that they face barriers in implementing the Balinese concept.

In addition, as shown in the findings from interviews, developers mentioned the *3 most important elements* in creating a house design that is culturally suited to Bali as: (1) building materials, (2) boundary walls and Balinese gates, and (3) Balinese ornamentation and color. The *3 least important elements* in creating a house design that is culturally suited to Bali are: (1) building form, (2) form or roof, and (3) room position and arrangement. However, developers stated that the *3 biggest barriers* in creating a house design that is culturally suited to Bali are: (1) Balinese structure and construction, (2) zoning of living spaces, and (3) building materials. And the *3 smallest barriers* in a creating house design that is culturally suited to Bali are: (1) form of roof, (2) height of building, and (3) façade/elevation.

This confirms that the design elements of Balinese houses are unique ornamentation with local materials and construction. Balinese cultural houses have many symbolic aspects implemented as elements of design and cultural motifs, such as: ornamentation, motif, color, orientation, etc. All this may seem to be complicated to implement, in particular for those developers who come from outside of Bali and have no familiarity with Balinese design.

So, what are the critical constraints faced by developers in providing better quality and culturally appropriate housing? The findings of interviews and questionnaires noted that the most critical constraints faced by developers in providing better quality and culturally appropriate housing are costs of building materials and labor, and a lack of understanding about Balinese culture.

Moreover, as the findings of interviews noted, in term of *costs and expenditures*, the major constraints in providing culturally acceptable affordable housing by ranking 1

against the biggest constraint, 2 for the next constraint, and so on are: (1) building materials, (2) labor, and (3) infrastructure, etc. While, in terms of *capability of human resources and design* team, the major constraints in providing culturally acceptable affordable housing are: (1) understanding Balinese culture, (2) local culture skill and knowledge, (3) access to Balinese culture document/policies, and (4) local staff involvement, etc. The study concluded that developers, in the main, struggle in financing projects in terms of building materials, labor and infrastructure, less spending on planning design fees, and government taxes. As Landeta (1994) noted, some developing countries, the administration fees are emerging the second barrier after building materials.

The findings of interviews also noted that, to overcome the constraints in providing culturally acceptable affordable housing in terms of *government support*, the major requirements identified are: (1) soft loans, (2) subsidies, (3) incentives, and (4) other support. In terms of *dweller involvement*, to overcome the constraints in providing culturally acceptable affordable housing are: (1) power and means of dwellers involvement, (2) involvement in planning and design stage, (3) involvement in construction stage, and (4) willing and ability to participate, etc.

It can be concluded that local government as the enabler, and policy makers, should support both the builders and dwellers in affordable housing provision in order to create housing close to the people. The local government should give regular the support for developers for affordable housing provision projects in the form of incentives, subsidies, soft loans and other supports. This also requires review of the policies and mechanism process of housing development, in particular for poor people.

### **8.3. Housing Transformation: Developing Balinese Cultural**

How do dwellers perceive the quality and cultural appropriateness of their house when the first time they move in? The findings of the study noted that most dwellers argued that the houses are not culturally acceptable. Developers build affordable houses required by government with contract documents and policies addressing house design and tight deadlines. When the house is finished, developers have completed the contract and dwellers can move in to the house. However, dwellers do consider the houses to be affordable, but not culturally acceptable. Dwellers take measures to resolve the problems through housing transformation/adjustment. The most *actions to resolve the problems* related to culture involve changing internal walls, installing/replacing gates, changing the boundary walls, and adding motifs or ornamentation. Dwellers have to spend time and money, about USD 3100 to 6000, to adjust their houses to solve these problems, and they get help from friends/neighbors for such home improvements. They

feel that the changes improve the value of the houses and they are more culturally suitable to inhabit. The most common option they would prefer for *home improvement* is through employing masons and to supervise the work themselves with help from friends/neighbours. They are be willing to put time and labour (39%) into home improvement under developer supervision. Theoretically, the concept of “sweat equity” (see Angel 2001) could be applied to lower the costs of housing in order to spend more on making the housing more culturally suitable.

The findings of observations also indicate that the Balinese belief system is also a very important motivation for the Balinese, who are mostly Hindu. In every house, there is a household temple that should be located at the most sacred part of the plot. Nevertheless, physical and spatial conditions prevent people from meeting the ideal and they must put the household temple wherever space is available. The ‘*kaja-kangin*’ (North-East) location is ideal, however some people have to be more realistic. Some dwellers build vertically and put their household temple at the top.

In addition, findings from observations and interviews noted that four socio-cultural factors can be identified as important for housing transformation, i.e. religious belief, customary status, the use and symbolic functions of the house, and the meaning of land. Most Hindu Balinese need at least a household shrine as a place for devotion to their gods and ancestors, which is not provided in most affordable housing provision in Bali. Without this, the Balinese would not live in these houses. Therefore, most dwellers see building a household temple as their first priority to transform or adjust their house. Some dwellers believe that since they have owned and occupied their house, they have enjoyed good fortune. This encourages them to make transformation even though they occupy a house on a very tiny plot.

As discussed in chapter four, the Balinese believe that a house is an animate entity which consists of physical and spiritual or soul elements, and this implies that a house is a process rather than a product. The symbolic and latent functions of Balinese house are predominant. The house exists in the cultural category rather than being solely a physical entity, and is regarded as sacred space within which God and ancestors reside together with the people, and as a centre of a ritual site.

The study also inferred that the house is not just for human beings, but for the spiritual powers that save and supervise their lives (their God and their ancestors). Religious beliefs and ideas about the most appropriate location for the household shrine may dictate the whole form of the extension. ‘*Kaja-kangin*’, or north-east from southern Bali, is the ideal location for the household shrine, as it is the most holy direction. This is as a result of the two sacred orientations, i.e. sunrise and mountain direction. Because of the nature of the plot, some dwellers are forced to make upward extensions and put their

shrine on the top level. This implies that housing transformation is a social construct, a way for the society to adjust or seek a new way of living when they first enter affordable housing that is culturally inappropriate.

The study concluded that the dwellers transform their houses in order to adjust them to their culture. The decision to transform or improve the house is not just a matter of changes to family size, socio-economic factors or simply a function of the housing market; transformation are also related to the meaning of the house for the dwellers, especially in a culture where religious attachment to the house is very strong, as in Bali. Housing transformations or adjustments in Bali show how strong their cultural belief are, and not just because of demographic factors. Cultural traditions that, have survived to this day and are reflected in the daily lifestyles of the Balinese people and the identity of Bali. This implies that housing, or the home of the activities associated with the living culture or lifestyle, should facilitate and promote those traditions. It is important, therefore, that design elements reflect the traditions or at least be sympathetic and respectful to them. In fact, the findings from interviews and questionnaires noted that capitalising on the concern for the cultural appropriateness of housing is reflected in home improvements made by dwellers.

Referring to the findings of focus group discussions, it is suggested that, far the housing transformation process, the local government should offer support by giving incentives to encourage the dwellers who are willing to transform their house in order to adjust their culture due to the high costs of materials, labour and time that dwellers have to spend it to complete the changes. The local government and developers should also give options and consultancy advice to dwellers for housing adjustments or home improvements.

#### **8.4. Dwellers Involvement: Need Room for Community Engagement**

Can dwellers influence housing provision to increase the socio-cultural adequacy of projects? The findings from questionnaires noted that there is a lack of dweller involvement and a lack of appropriate mechanisms to involve the dwellers in projects. Dweller participation in various stages of the projects has been low. For the most part, dwellers have no involvement or participation in the projects, in particular, at the planning (12%) and the construction stage (9%). However, they have more power to participate in home improvements and in maintenance tasks (40%) that are organised by CBO. Dwellers (92%) are mostly willing to participate and have time to contribute meaningfully by providing advice, materials supply, and labour (76%).

The findings from questionnaires and interviews also recorded that there were different views among dwellers and developers regarding the status and role of community

engagement. The community didn't seem to be aware of community engagement opportunities in the initial stages of project inception, design, and even implementation. The developers seemed to believe that there was a lack of interest on the part of dwellers to engage in the earlier phases of project design and implementation. In fact, dwellers do get involved in the maintenance and home improvement phases, that is, once they have moved in and occupied the housing.

The study concluded that a dweller's role in the projects is really important to examine at the early stages and till the end of projects, from planning and design, construction, maintenance tasks, until home improvement development of the projects. Dwellers have the right to freely participate and express their cultural life. The willingness and ability of community involvement has significant role in the success of affordable housing provision for dwellers.

The findings of focus group discussion suggested that dwellers need room for participation in the projects where they could express their idea of Balinese culture to educate developers (see Innes 1994 and Healy 2006). Participation and involvement is a social learning process of mutual understanding and consensus through communication and dialogue among stakeholders. To improve the system to increase the effective involvement of dwellers/community in the delivery of affordable housing in Bali, the involvement of dwellers is needed at all stages of projects through collaboration and engagement. This requires good capacity building and developing the institutional capacity to support the policy mechanisms and arrangements for community involvement.

In addition, the study recommended that the local government, as the policy maker, should develop institutional capacity and capacity building to ensure that affordable housing projects are cultural appropriate. The government and developers should provide dwellers with the opportunity to influence a project, and the power or means in project design to participate in at any stages of projects. The government, as the enabler, should provide space for the role of community and empower them in affordable housing provision projects. In addition, transparency and accountability is required in procedures and mechanisms of involvement and control from government or supervision team in order to evaluate the quality and culture appropriateness in affordable housing development projects.

## **8.5. Proposed Model for Delivery of Cultural Acceptable and Affordable Housing Provision**

The findings of focus group discussions and interviews following the focus groups noted that the two models have been launched and have got comments from stakeholders related to the possibility for delivery of cultural appropriateness in affordable housing projects. The new proposed model has been offered to improve the quality and the cultural acceptability of affordable housing provision.

The findings of focus group discussions noted that this first model has strong cultural preferences for dwellers as customers by offering them with a range of house types through catalogues with different costs. This model might be less affordable due to the additional costs associated with providing these choices.

The second model involves 'sweat equity' to reduce the costs of construction (Angel 2001). The findings of focus group discussions suggest that this concept is appropriate in Bali due to the strong Balinese community ethos called "*gotong royong*" and "*Tri Hita Karana*". Balinese people are used to helping each other in the neighborhood by providing unpaid labour or building materials to develop the new houses or for other developments.

Furthermore, the findings of interviews following the focus group discussion noted that local government, dwellers, NGO/CBO proposed the new model that is a combination of a variety of types offering dwellers a range of culturally affordable house designs and 'sweat equity' to reduce the costs of construction. This combined model offers the dwellers both preferences and involvement.

However, the findings of interviews following the focus group discussion also pointed out that developers claimed these models may result in a loss of labour benefits and loss of power and control over the quality and time in less in completing the projects. The first may mean dwellings are not simple built and less profitable. The second model may eliminate the labour costs from the construction costs, it possibly also lead to reduced profit margins for developers.

The findings of the study suggest that the new proposed model is strongly oriented to maintaining Balinese culture for tourism and as an economic asset, plus is accepted by the dwellers. The government, as policy the maker, has the right to promote this model, which would be a culturally acceptable and affordable strategy assisting the community/dwellers and still bring of economic benefit for developers.

Finally, the findings suggest that as to the new proposed model requires the policy agreement of developers and dwellers mechanisms process related to the risk of quality control and project schedules. The government should support incentives and subsidies

for those developers who are going to implement the model in order to ameliorate lost profits. Moreover, the government should also formulate clear policy arrangements for this model where by the community can be involved and a mechanisms process dealing with costs to ensure quality control and risks of possible project delays. Good corporation and positive relations among stakeholders in projects is needed to ensure affordable housing projects are culturally acceptable.

## **8.6. Summary**

The Balinese create their indigenous houses according to a centuries-old tradition generated by the idea of cosmic harmony, which is rich in myth and symbolism. Since the Balinese are becoming socially more integrated with the outside world, Balinese housing has been slowly changing. Despite these cultural changes due to globalization, the symbolism of Balinese houses is still strongly maintained. The trend is the erosion of some elements of Balinese culture, but this is still less than that of other cultures within Indonesia. Balinese culture remains rich in religious beliefs and symbolism as social capital and development potential for tourism and the economy in Indonesia.

The growth of affordable housing provision for the urban poor in Bali, Indonesia, has not assured the delivery of better quality housing supply, nor culturally acceptable dwellings for people. Most housing projects focus on the physical value of housing as a comfortable shelter, but overlook the need for socio-cultural appropriateness. Hence, low-quality affordable housing provision is often unsuitable for dwellers because of developer constraints, a lack of power of dwellers to direct or participate in the inception or delivery of the projects, and the neglect of cultural values.

As this study has shown, when dwellers move into their houses, they feel affordable housing projects are not culturally acceptable. Dwellers destroy their houses in order to adjust them and make them more culturally acceptable. The study also suggests Balinese dwellers' efforts to transform or improve their houses are not just a matter of changes to family size, socio-economic factors or simply a function of the housing market, but are also related to the meaning of the house and expression of their life styles and culture.

To resolve the issue and improve the quality and cultural appropriateness of affordable housing provision, a superior model has been identified as being more applicable and acceptable to dwellers. This model involves providing both preferences and involvement, so dwellers can choose their preferences from a variety of house types and still contribute their labor through the concept of sweat equity.

Housing provision should not be seen simply as a product, but as a broader development - housing as a verb - a process and an activity in housing development. This requires further scope for collaboration by involving and engaging the community in housing development. There is a place for the community to express their cultural values and to shape their housing product. Effective collaborative planning by exploring the possibilities of the involvement of the broader community in the development process relies on community engagement and community buy-in. This is a critical requirement to improve quality and culturally appropriate in affordable housing provision in Bali, Indonesia.

## Chapter 9

# CONCLUSIONS AND RECOMMENDATIONS

The local government of Bali Province has made a significant effort to provide affordable housing in the Sarbagita Metropolitan Region. It has increased affordable housing provision projects, including formal and informal housing projects that are provided by public, co-operative, private developers, and individual owners to addressing the housing needs of low-income groups. Substantial progress has been completed in terms of an increase in affordable housing numbers, however, it appears that most housing projects ignore the fact that a house means more than a comfortable shelter with physical value, and that the most important value is its socio-cultural appropriateness.

Balinese culture has rich tradition of religion, beliefs, and symbolism that are well established and need to be protected, and conserved. This is not only makes sense in terms of heritage conservation, and the right of the Balinese to express their culture, but also in terms of social capital, and the development potential of tourism and the economy in Indonesia. As the Balinese are becoming socially more integrated with the outside world due to globalization, however, Balinese culture has been slowly changing. The trend is for increasing erosion of some part or elements of Balinese culture, but this is still less than for others cultures within Indonesia.

The national government is actively engaged in seeking to house its urban poor. In the case of Bali, it is crucial to ensure that the housing provided is also culturally appropriate. This is underscored by the extensive symbolism that a house carries within the cultural context of Bali, both historical as well as in the current day and age.

Based on the previous chapters, the affordable housing projects in Sarbagita Metropolitan have been analysed through the following: assessing product quality; developer's constraints in housing provision mechanisms; the role and perceptions of dwellers; and the cultural appropriateness of housing provision. This chapter concludes by responding to the four research questions outlined in the first chapter, and by formulating recommendations to improve the quality and cultural appropriateness of affordable housing projects to stimulate urban housing development, in particular for poor people.

### 9.1. Conclusions

The findings of this study have confirmed that Balinese people have a very strong cultural perspective, and cultural identities that need to be integrated into housing planning, and provision in terms of cultural appropriateness. Balinese communal culture is a significant aspect of everyday activities, and relates to the nature of the spaces

required to carry out daily activities. As observed on site, many houses have great value in Balinese culture in that each household has its own house and temple. The findings of the questionnaire noted that the Balinese are concerned about their houses as part of their lifestyle in terms of layout, plot size, orientation, style, materials, construction, etc. Bali has strong and distinctive cultural identities, which are being exposed to various forces resulting from the rapid urbanization in developing Asian nations. Bali provides a context where the issue of product quality, and cultural appropriateness in affordable housing provision is highly significant, as the Balinese lifestyle is affected by the strong influences of religion, customs, norms, and behaviors.

Affordable housing projects in Bali have been developed largely by providers, formal and informal, in order to help poor people to either access or upgrade their housing. However, the study indicated that the projects do not guarantee the delivery of culturally acceptable housing that meets the needs of people. Balinese dwellers' local knowledge, and strong cultural values, especially in relation to housing, has not been incorporated into the projects. They have not been actively involved during the development processes, and as a result, the affordable housing projects as a product do not meet poor people's needs.

The findings of the study are listed here according to the research questions formulated during the research proposal, as follows:

- The first research question was: do the products of various modes of affordable housing projects meet the minimum quality standards, and requirements of cultural appropriateness? The study concluded that, when asked about this issue in the survey questionnaire, most dwellers argued that the housing available to them is not culturally acceptable. The housing violations numerous Balinese cultural values in affordable housing projects. These include the absence of Balinese ornamentation and decoration; undistinguishable segments of the façade; inadequate inner courtyards; wrong orientation of room in respect to sleeping position; absence of Balinese gate and a proper location for 'temple' within the 'sacred zone', i.e. the north-east corner of the plot.
- The second research question was: what are the critical constraints faced by developers in providing better quality and culturally appropriate housing? The study concluded that, while developers realize that the Balinese house concept is distinct to other cultures in Indonesia, they have not been incorporated into the projects due to the critical constraints of cost of building materials and labor, and a lack of understanding about Balinese culture.
- The third research question was: can dwellers influence housing provision to increase the socio-cultural adequacy of projects? The study noted dweller participation in the various stages of the projects has been low. There is a lack of an

appropriate system or mechanisms to involve the dwellers in the project. Dwellers have been involved in the maintenance, and home improvement phases after projects are completed. They are willing, and have time to contribute significantly by supplying materials and labour.

- The fourth research question was: how do dwellers perceive their houses when they first move in? The study found that, after the houses have been completed, and dwellers moved in to the house, they perceived that the house was culturally unacceptable. They felt pressured to adjust their houses to be more culturally acceptable through housing transformation. The decision to transform or improve the house is not simply a subject of changes to demographic factors or economic values, but is associated to the cultural values of the houses for the dwellers. The most apparent examples are alterations to the boundary walls, installation of Balinese gates and the construction of a temple at the north-east corner of the plot.

In short, where the government is actively engaged in supporting and promoting the provision of large numbers of affordable housing in Bali, the products seem to fall short in terms of appropriate quality and cultural appropriateness. Of course, the quality and cultural value of products always suffers where quantity increases while funds are limited. However, from the findings reported in this paper, it is clear that there is room for community engagement, and hence reason for optimism for better delivery of culturally acceptable and affordable housing provision in Bali, Indonesia.

## **9.2. Recommendations**

The study has identified specific areas of improvement in the design and delivery of affordable housing to ensure its cultural acceptability. The main actors in the delivery of affordable housing need to revise their roles in a mutually agreed manner to ensure that the product is culturally acceptable. Findings from the focus group discussion clearly suggest a willingness among the actors to assume greater responsibility towards this goal. Specific recommendations may be unrealistic due to the many factors involved, and the ever changing relationships among the actors.

### **9.2.1. Proposed Model for Delivery of Cultural Acceptable, and Affordable Housing**

The study proposes a new model for delivery of cultural appropriateness and affordable housing. The model is a combination between variant types of offering dwellers a range of culturally affordable house design, and involving 'sweat equity' to reduce costs of construction, which offers the dwellers both preferences and involvement. The model is

strongly oriented to maintaining Balinese culture for tourism and as an economic asset accepted by the dwellers.

Due to the model having consequence to reducing the profit margins of developers, the study suggested that the government, as policy maker and as enabler, should support incentives, and subsidies for those developers who are going to implement the model in order to compensate for the loss of their profits. It also requires policy agreement about the dweller's/community's involvement in the mechanisms process as if could be extended, increasing the need for supervision of the process, and introducing of the risk of quality control and the possibility of projects being delayed/taking more time. Good cooperation is needed, in relations among stakeholders of projects as teamwork is crucial to completing the affordable housing projects culturally in an acceptable way.

### **9.2.2. Monitoring and Evaluation of Project: Developing Institutional Framework**

To improve the quality and cultural appropriateness of affordable housing projects in the future, it is more likely necessary to establish effective monitoring and evaluation mechanisms of projects to institutionalize the recording of successes and failures of the proposed model over time. This means that the projects have to be demonstrating or testing standards so that things can be learned from previous projects and incorporated into mainstream practices and policies as appropriate. The projects can be used as a means of providing feedback for the local government as an enabler and facilitator role in the development of urban housing and policies.

There is a need to develop an institutional framework that could effectively guide the development of affordable housing projects, bringing together all actors involved, like local government, developers, NGOs, CBOs, universities, and dwellers. There needs to be organizational units that are responsible to monitor and track the projects through all their stages.

As the findings of the focus groups suggested, the role of local government should control, and monitor the quality and cultural appropriateness of affordable housing provision projects, with an independent supervision in team coming from all stakeholders - CBOs, NGOs, universities, developers, and the local government. They also should have a responsibility in project up keep, and after developers complete the affordable housing projects, in terms of infrastructure, service delivery, and facilities. For this reason, they should set up clear criteria and procedures, and apply penalties for developers who have not fulfilled the criteria and procedures for those who have neglected projects.

The strengthening of capacity building within all actors involved is very important to improving the institutions in controlling and monitoring affordable housing projects. This should be directed in an effective way, e.g. collaborative approach, deliberative technique, and working in partnership, etc.

### **9.2.3. Roles of Government in Delivery of Cultural Acceptable, and Affordable Housing**

The effort of the local government in Sarbagita Metropolitan to enhance the quality and cultural appropriateness of affordable housing projects, is not only about improving the physical product, but also cultural awareness by carrying out capacity within developers, CBOs, NGOs, and other stakeholders involved. This should include assisting them to develop an attitude and mentality to increase awareness of Balinese cultural rules in affordable housing provision projects.

The authority of local government to be involved in the private sector, and other actors has often very restricted by central government. However, since the laws of decentralization (Law No. 22/1999 and Law No. 25/1999) issued in 1999, the power now may exist for local government in Sarbagita Metropolitan to be more responsible in affordable housing development for the poor.

The findings of focus group discussions suggested that the local government should reform all aspects, particularly in local administration, by increasing training skills, and technical capacity of staff, and the capability to work together with all stakeholders to encourage the capacity building in delivery of culturally acceptable and affordable housing provision. The local government should ensure more policy transparency in all processes, to anticipate trust from dwellers, and developers. It is hoped that the local government, as enabler, facilitator, and also the policy development itself, is not just reviewed as being cumbersome, but is more likely to be directly useful to the needs of the poor.

In addition, it is also recommended that local government should seek advice from community representatives and villages and religious leadership to meet the appropriate mechanisms for strengthening local organizations, and to ensure that the projects address the needs of poor people. CBOs, NGOs, and universities should be encouraged to act as linkages between the poor and the formal sector in the development of community structures, and the distribution of resources to achieve adequate and culturally acceptable affordable housing provision.

#### **9.2.4. Defining and Enforcing Balinese Cultural Standards and Regulations**

Ideally, it is supposed that laws, norms, standards, and regulations appear as manifestations of social responsibility, especially for poor peoples. Yet, current norms, standards, regulations, and procedures sound like nice ideals rather than implemented realities.

The findings of focus group discussions recommended that, due to the local government already issuing the Bali Regional Regulation Number 3 of 1974 concerning Balinese culture, the local government should provide easy access to assist developers with policies/regulations that support Balinese culture or other standards, and the norms of Balinese housing design through regular training, exhibitions, and campaigns. They should have example as prototypes of quality and cultural appropriateness in housing development projects for developers. Both government and developers should create and sell a more culturally suitable design by adding cultural motifs, and allocating funds for advertising the product. The findings of the focus group discussions also suggested that developers should employ local Balinese staff in design teams for affordable housing projects, including people who have professional experience, and strong familiarity with Balinese culture-specific housing design. These efforts would improve the demand for the product in comparison with existing available housing products.

However these norms, standards and regulations of Balinese culture and the actors involved, in particular the builders need to obey the standards and regulations. This is difficult because they are still looking for profit rather than being socially oriented. As long as the law enforcement is not working properly, without strong penalties to force the actors who are off the track from the rules little will change. More responsibility by developers to not only think of profits, but also the political will to incorporate and implemented the concept of Balinese culture into affordable housing projects, is urgently needed.

The study found that the local government should seek advice from a board of community representatives, such as village leadership and religious leader, to set up the norms, standards and regulations of Balinese culture, and strict compliance regulations must be supported by those communities themselves. The findings of the focus group discussions also suggested that it is important to ensure a strongly independent board coming from community representatives, and other actors, who have a significant role to control and monitor the affordable housing projects to be more culturally acceptable from planning, implementation and till the post construction stage.

Moreover, the local government should provide information and motivation to the dwellers/community, so that they are aware of the affordable housing development

process. To actualize this approach, it is suggested that the local government should establish an affordable housing information center in order to make space for community and developers to access information about the norms and standards of affordable housing to gain a better understanding of Balinese cultural and the mechanisms of affordable housing development. Hopefully, the community/dwellers will be willing to participate in the housing development process and have a sense of belonging in the development outcomes.

### **9.2.5. Support for Developers in Providing Affordable Housing and Culturally Acceptable**

It recognized that some barriers and constraints hamper developers in providing culturally acceptable affordable housing. This includes the issue of costs and expenditure, and the capability of human resources design teams. Focus group discussions pointed out that, by applying the new proposed model above, this would lead to removing labour cost from the cost of construction, and mean that developers' margins of profit would decrease.

As developers are concerned about loss of power and control over the quality and the timelines in completing projects, as the focus group discussion suggested, local government support it is needed through incentives, subsidies, and other support for developers who are willing to apply the proposed model to overcome the barriers in providing culturally acceptable affordable housing. In addition, the local government should determine the standard price of an affordable house and provide for the additional cost of installing Balinese cultural elements into contracts with developers.

Moreover, the local government should use the support incentives it controls to ensure that the housing products are designed with due regard to cultural appropriateness. There should be a requirement for developers to train their employees, especially those staff of the design teams that are not Balinese. Simultaneously, the government needs to develop appropriate and effective training programs – perhaps with the collaboration of local educational institutions and professional institutes. Such efforts will directly impact on the capability of staff in Balinese housing design.

The local government should stimulate the developers who develop the largest affordable housing projects by adequate and flexible administrative processes such as: simple legal permit fees, and certificate fees of land acquisition. Greater transparency and accountability in administrative procedures are needed in order to encourage the developers addressing more culturally acceptable of affordable housing projects.

In addition, the challenge for local government in the future is how to concentrate on sharing the power with private developers in housing developments. This means that the

local government is not involved as a direct producer (as public developers) in the housing sector, but more as a facilitator to work together with the private sector. It is then the task of local government to create strategic approaches through public private-partnerships or other techniques to support affordable housing development that is more culturally acceptable for poor people.

### **9.2.6. Support for Dwellers: Room for Collaborative Planning and Community Engagement**

The findings of focus group discussions suggested that, to create affordable housing projects in Bali that are more culturally acceptable, projects should offer space for residents to participate in all stages of projects, especially in the stage of planning and construction where the proposed new model (of offering variant types of houses, and the sweat equity) can be applied. The local government needs to formulate clearly defined mechanisms of the proposed model among the stakeholders - developers, governments, and dwellers - so that all can benefit from the model. This model also needs to offer skills training, and knowledge for community/dwellers, and needs the policy agreement of dwellers involvement in the mechanisms process related to the risk of quality control and project schedule.

The local government and developers should give options, and consultancy for dwellers in housing adjustment or home improvement. There are some options that dwellers can take to make changes homes, such as letting the project take up the job; employing a contractor to provide the furnished product; employing a mason, and supervising the work yourself; and some dwellers do this by themselves with the help of friends/neighbours. The local government should support and encourage the dwellers to transform their houses in order to adjust their culture's meanings for the houses of the dwellers.

In addition, the government should encourage people to house themselves. This means that the local government, in an urban management context, has responsibility to encourage all potential sources in order to stimulate affordable housing provision, in particular for poor people. The local government also has to shift from a direct producer to facilitator of affordable housing development by providing the elements of housing itself that residents cannot provide or organize for themselves, such as affordable land, infrastructure, and public facilities. It is suggested that local government should provide easier access to housing loans for poor people with lower interest rates to upgrade and adjust their houses.

Local government should consider and be responsible for initiatives to stimulate housing development in the future. To encourage the self-financing of community in affordable

housing development, the local government should use financial instruments as support. The approach suggested could involve community affiliations to housing finance institutions, creating healthy and competitive mortgage lending institutions, and fostering innovative arrangements for providing access to finance by the poor. This could be done through a local rotating credit scheme initiated by the community to avoid collateral requirements.

The willingness and ability of the dwellers to improve and adjust their houses to be more culturally acceptable has the potential to keeping the results of affordable housing development. Local government should encourage the dwellers to strengthen the self-financing of houses. Dwellers have to be involved, engaged, and to actively adjust their housing conditions. The involvement of dwellers is needed in terms of the development process, operation, and maintenance process, and this should stimulate them to see the results of development, and to build a sense of belonging.

Finally, the findings of this study suggest that housing provision is not noticed just as a product, but as a broader development-housing as a verb, a process, and an activity in housing development. This requires further space for community engagement and community buy-in by effective collaboration and a deliberative approach to improving the quality and cultural appropriateness of affordable housing provision projects in Bali, Indonesia.

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## **Legislative Texts of Indonesia Government**

- Decree of Housing Minister, No. 01/KPTS/BKP4N/1994 about Guidance of Task of Policy and Controlling Board in Housing and Settlement)
- Decree of Housing Minister, No. 03/KPTS/1992 about Housing and Settlement Provision with Housing Ownership Credit of KSB, RS, RSS.
- Decree of Housing Minister, No. 05/KPTS/1992 about The Change of Interest Rate of Housing Ownership T.21 from 15% to 12% per Year.
- Decree of Housing Minister, No. 06/KPTS/M/1999 about Housing and Settlement Provision with Housing Ownership Credit of KP-KSB, RS and RSS.
- Decree of Public Works Minister, No. 20/KPTS/1986 about Technique Guidance of Unleveled Simple Housing Development.
- Law No. 1/2011 about Housing and Settlement.
- Law No. 26/2007 about National Spatial Planning.
- Law No. 28/2002 about Building Development.

Law No. 29/1974, about National Housing Development Public Company

Law No. 4/1992, about Housing and Settlement.

Law No. 8/1999 about Customer Protection.

President Decree No. 36/2005 about Land Acquisition for Development of Public Purpose.

Rule of Domestic Affairs Minister, No. 1/1987 about The Delivery of Infrastructure, Public Utility and Social Facility of Housing to Local Government.

Rule of Public Works Minister, No. 54/PRT/1991 about Technique Guidance of Simple Housing Development.

## Conferences and Publications

Preliminary aspects of the findings of this research have been presented at several National and International conferences and published refereed proceedings and magazine as follows:

### **Conference Presentations:**

Dwijendra, Ngakan Ketut Acwin. 2009. *“Improving Quality of Affordable Housing Provision in Bali, Indonesia”*, presented on International Conference “Making Space for a Better Quality of Living” Held on 18 August 2009, at Hall K-1, Second Floor, Department of Architecture and Planning, Faculty of Engineering, Gadjah Mada University, Jl. Grafika no. 2, Sekip, Yogyakarta, Indonesia.

Dwijendra, Ngakan Ketut Acwin. 2009. *“Affordable Housing Provision in Bali, Indonesia: Improving Quality and Culturally Acceptable”*, presented on International Conference “Engineering, Environment, Economic, Safety & Health, held on 26-27 October 2009, Organized by Faculty of Engineering, University of Sam Ratulangi, Manado in Indonesia at the celebration of 45<sup>th</sup> Anniversary of Establishing the Faculty of Engineering, Manado-Indonesia.

Khan, Shahed and Dwijendra, Ngakan Ketut Acwin. 2010. *“Can we afford to neglect cultural appropriateness in providing affordable housing? A review of affordable housing provision in Bali, Indonesia”*, presented on International Conference “UI-KAAS International Conference on, Asia in the Midst of Global Transformation” held on 20-22 July, 2010 at AJB Bumiputera Hall, Building F, 2nd Floor, FISIP UI Depok Campus, Universitas Indonesia, Indonesia. Organised by Universitas Indonesia (UI) & The Korean Association of Asian Studies (KAAS) and The Korea Institute for Future Development & Policy (KIFDP).

Khan, Shahed and Dwijendra, Ngakan Ketut Acwin. 2010. *“Can we afford to neglect cultural appropriateness in providing affordable housing provision in Bali, Indonesia?”*, presented on The 1<sup>st</sup> International Conference on Sustainable Technology Development (ICSTD Bali 2010)“held on 7-8 October 2010 at Faculty of Engineering, Udayana University, Denpasar City Campus.

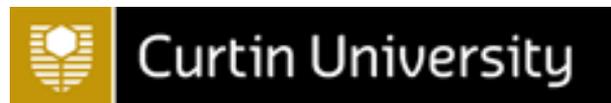
**Journal Publications:**

Dwijendra, Ngakan Ketut Acwin. 2010. Balinese Cultural in Housing and Settlement. *Permukiman Natak* 5 (1): 1-24. <http://ojs.unud.ac.id/index.php/natak/>

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Dwijendra, Ngakan Ketut Acwin. 2013. Quality and Cultural Appropriateness of Affordable Housing Projects in Bali, Indonesia: Public or Private Developers? *Geography and Regional Planning* 6 (3): 1-24. <http://www.academicjournals.org/>

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# **APPENDIXES A**

## **Affordable Housing Provision in Indonesia**



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## **Appendix A.1**

### *The Creation of a Policy by the Dutch Indies Colonial government concerned with the Regulation of Housing of Public Civil Servants*

In 1934, housing was provided for public servants by the Dutch Indies Colonial government. These houses called 'Country Houses' were provided for people working for the government. Differing classes of housing were designed based on the level of income and position. The level of rent was based on 9% - 15%, of a public servant's income (Yudohusodo et al. 1991, p.109). Other than housing provision for public servants, the 20<sup>th</sup> century colonial government of the Dutch Indies introduced a policy to promote housing health programs in some regions, called *Kampong Improvement* or *Kampong Verbetering* in order to overcome pest diseases or *pest bestrijding* (Yudohusodo et al.1991, p. 109). During the years following the independence of Indonesia, this program was known as the *Kampong Improvement Program* or KIP.

The Housing Development Company, known as *N.V. Volkshuisvesting* was established in 1926. This company was responsible for providing and leasing housing for populations in the areas of Jakarta, Bogor, Sukabumi, Cirebon, Semarang, Madiun, Surabaya, Pasuruan, Mojokerto, Jember, Ujung Pandang and Manado (Yudohusodo et al. 1991, p.109).

## **Appendix A.2**

### *Housing Policies in the Early-Independence Period*

The first Housing Congress to tackle the problems of housing was held in Bandung on 25-30 August 1950 (Yudohusodo et al. 1991, p.109). This event represented the first milestone in the history of housing development in the new state of Indonesia. The Congress was attended by government representatives from 63 regions and municipalities. This included the heads of 4 provinces, Public Works representatives, Members of the Youth Organizational Fellowship; and the Farmers' Organization; and other civil figures.

At this time, the conclusions of the Housing Congress were modest, offering a basic model of housing development for Indonesia. Specifics of the Congress' decisions were documented as follows (Yudohusodo et al. 1991, p.111):

1. A proposal was made to the Government that a housing development company should be established at the provincial level, and support be given by the government to that company for any facilities required to implement its program.
2. To encourage the Government to proceed with formulating norms and conditions for housing, such as:
  - a. a standard minimum floor space of 36sqm for a house with a two bedroom design;
  - b. a standard minimum floor space of 17.5sqm for a side house design;
  - c. a standard minimum roof height of 2.75m;
  - d. the standards for window and ventilation size - that they are not to be less than 10% of the total floor space.

3. A proposal was made to the Government stating that it should immediately establish the housing development company, as well as supporting institutions, to take care of the housing development project, with guaranteed funds to be allocated from the governmental budget every year.

### **Appendix A.3**

#### *First Five-Year Development Plan Implementation (PELITA I :1969/70 – 1963/74)*

In this first five-year development plan of Indonesia, housing was considered central to the development of the country as a whole, against which background the housing sector become of crucial concern. Direct public sector intervention in urban housing grew in many Asian cities, directly out of widespread and growing disillusionment with initial patterns of national development in the region. Therefore, for most countries in the region during the 1960s and 1970s, this represented perhaps the single most important attempt by governments to make cities more equitable. The attempt made by the government for this comprised of provisions for public housing finance, land development, and the construction of dwellings for rent or sale. Government Ministries of housing and agencies were established for these expressed purposes. Indonesia, as one of these Asian countries, also attempt to demonstrate greater concern for housing development (United Nations Economic and Social Commission for Asia and the Pacific 1 November 1998).

In Indonesia, steps were taken by the Government to establish housing developments and policies. During this period (Pelita I), the second milestone in the history of housing development in Indonesia was taking place. A housing conference was held in Jakarta on 4 to 6 May 1972. In the conference speech made by the President of the Republic Indonesia, Soeharto clearly stated that housing development was not just the responsibility of the government. He stated that the people also had to make an effort, and that guidance would be given by the Government. The Government was to generate the conditions in which housing development would take place and encourage productive citizens to own a house (Yudohusodo et al. 1991, p. 115). The conference concluded that there were three main areas to consider in order to improve housing development in Indonesia: a housing financial scheme, an institutional housing policy and development program, and supporting institutions. These were followed up in the second five-year development plan, called Pelita II, in the period of 1974/75-1978/79.

The first five-year development plan of the national program was primarily a preparation stage (Yudohusodo et al. 1991, p.114-5). This included technical research and technology, pilot projects, counseling, and the establishment of a housing development company (the National Urban Development Corporation or Perum Perumnas) and supporting institutions such as the government body for National Housing and Policy (BKPN), and the National Savings Bank. Private housing developers as well a counseling centre for housing were also established. Over the course of this stage, housing development objectives were formulated with policies aimed at providing an adequate supply of housing. In particular, the houses were to be designed to meet minimum health requirements, and were to be well constructed and affordable for the people of Indonesia.

A Presidential Decree (No. 18/1969) was issued for the constitution of a housing team, chaired by the Minister of Public Works and Power. The Government was aiming to generate “favorable” conditions for housing development in both urban and rural areas. One of these favorable conditions was the mutual agreement between Foreign Housing Investment and Internal Housing Investment, issued on 2 June 1973. The agreement contained requirements for low-cost housing as follows (Yudohusodo et al. 1991, p.114):

1. Housing development with amenities.
2. The minimum floor space requirement for a two bedroom house is 45sqm.
3. The lease will be a maximum of Rp 6,000.00 (Indonesian Rupiah) per month.

In addition, a “mixed community” concept was also adopted, based on the Internal Housing Investment Law No. 28/1974, which described that luxury houses, medium-income houses and low-cost houses were to be built in the ratio of 1:3:6. The standard determined for the minimum floor space of a low-cost house was 70sqm. Housing developers were also obliged to include necessary amenities and infrastructure in housing developments. In addition, after a certain period of time, these developments were to be handed over to the provincial government to manage (Yudohusodo et al. 1991, p.114).

## **Appendix A.4**

### *Second Five-Year Development Plan Implementation (PELITA II : 1974/75-1978/79)*

In the second five-year development plan, the Government pursued the points highlighted in the Housing Conference in 1972. These are as follows (Yudohusodo et al. 1991, p.118) :

1. To establish a Government Body for National Housing and Policy (BKPN), in line with the Decision of the President No. 35/1974.
2. To establish a Public Company known as the National Urban Development Corporation (*Perum Perumnas*), in line with the Governmental Regulation No. 29/1974.
3. To establish a National Savings Bank (BTN) as a bank functioning to deliver housing loans to families on a credit basis – with the aim of home ownership (KPR). This was particularly for low-income housing built by the National Urban Development Corporation (*Perum Perumnas*) and private housing developers.
4. To encourage private housing developers to build more housing, through a strengthened private housing developer organization, known as Real Estate Indonesia (REI).
5. To establish the Information Centre for Techniques of Housing Development (PITB or *Pusat Informasi Teknik Pembangunan*) as a counseling centre for housing and building development at the provincial level.

In the second five-year development plan more attention was given by the government to the housing sector, particularly for housing development in city areas in Indonesia which were aimed at catering for population growth (Yudohusodo et al. 1991, p.117). Marthur (1993, p.15) suggests that such planning is required to keep up with growing urban housing requirements. That is, physical planning should provide adequate high-density living in low-rise housing developments in which a vast majority of low-income earners in urban population must live. In addition, the physical characteristics that cities share outcome of their density and complexity – give rise to essentially similar economic, social, and environmental problems. Nonetheless, these require solutions that are adapted to local conditions (Brooks 1992, p.4).

#### *Kampung Improvement Programmes (KIP)*

In this second five-year development plan of Indonesia, the Government genuinely catered for low-income people through programs that concentrated on the provision of land for low-income housing developments. The government also gave the opportunity for people to improve the quality of urban areas, through such programs as the “Kampung Improvement Program”, and other urban rejuvenation and urban renewal projects (Yudohusodo et al. 1991, p.117). The goal of KIP was to alleviate poverty by supporting efforts to improve housing services and basic infrastructure in low-income areas known as *Kampungs* (World Bank Group 1995). The KIP programs had three phases. The first two concentrated on physical improvements, and the third phase added a social/economic dimension by devoting 12% of funding to economic development (Surjadi 1998, p.3). A single multi-disciplinary agency called the KIP Unit was then formed and assigned by the Governor to implement improvements on at least 1000 ha of *Kampungs*, for a population of more than 400,000 people annually. The KIP Unit comprised those from each sub-district agency, with sub-district chiefs as site managers. These community-based KIP units were well supported by the communities and the housing agency, and therefore they were able to set up *Kampung* services and generate economic activities (Surjadi 1998, p.3).

At first, the Kampong Improvement Program, which was initially and practically established in 1969, was restricted to upgrading the physical conditions of housing and its associated infrastructure by a limited budget (Purwantiasning 2003, p.25). In a later phase the KIP emphasized not only physical development but also social and economic development through a small-scale credit scheme and the development of multipurpose small shops (Surjadi 1998, p.3). The KIP component of the urban projects produced housing and environmental improvement for low-income households at a low level of investment, ranging from US\$118 per person in Jakarta to US\$23 in smaller cities (1993 US dollars values); (World Bank Group 1995). It focused on infrastructure development and construction, including the provision of quality drainage, garbage facilities, public toilets, primary schools and public health service (Purwantiasning 2003, p.25)

The KIP Projects had an immediate and very positive impact on the *Kampungs* that were targeted. The World Bank's Program Evaluations indicated that the most positive impact of the KIP was the improvement in the quality of life for *Kampung* residents brought about by improved footpaths, lighting, education and health facilities, superior living spaces and reduced housing density. Further, it was found that there was much wider access to clean and safe water (World Bank Group 1995). From the perspective of the residents, it was found that the majority of respondents (two-thirds) suggested that the overall environmental condition in their neighbourhood were better than they were before the KIP was implemented. However, another third suggested that they were not completely satisfied. Garbage collection, both its frequency and quality, for example, was cited as a particular problem (World Bank Group 1995).

In spite of the success of the KIP program in bringing about improved physical development, the success of the social development component was limited. This was because of a lack of funds for skills training and because the target beneficiaries were mainly employed in the informal sector and therefore had difficulties attending the training sessions (Surjadi 1998, p.3).

Also as part of the second five-year development plan, the government launched the Integrated City Housing Development Program. This program provided infrastructure, sanitation facilities and public facilities. Throughout the second five-year development plan, the government strongly encouraged development using cheap construction material and design standards for housing as well as construction systems.

In quantitative terms, the housing implementation program during the second period did not succeed. The government was keen to improve its development of town housing by looking at the various income levels throughout Indonesian society.

## **Appendix A.5**

### *Third Five-Year Development Plan Implementation (PELITA III: 1979/80-1983/84)*

For the third five-year development plan, the Government put greater effort into increasing housing development, built equally throughout all areas of Indonesia as a means to meet rising demand. Priority was, however, still devoted to housing for low-income earners. In order to meet these housing demands, the concept of Mass Housing Development was adopted. To solve the problem of land constraints in city areas, the concept of Mass Housing Development was directed towards the concept of vertically-built design and construction methods. Following this, vertical-built housing development was intensively introduced and adopted in many city areas across Indonesia (Yudohusodo et al. 1991, p.119). The early vertical housing units, known as flats, were for Ministry of Foreign Affairs staff in Jakarta, with further similar developments taking place in other large cities like Surabaya, Bandung, Medan and Palembang (Yudohusodo et al. 1991, p.345).

## **Appendix A.6**

### *Fourth Five-Year Development Plan Implementation* (PELITA IV: 1984/85-1988/89)

For the fourth five-year development plan, housing development was continuously implemented with a particular focus on the following points:

#### 1. Affordability concept

Housing prices in Indonesia had increased sharply, whilst at the same time, income had not kept pace. With reference to increases in income for government officials, such groups on real terms would not have been able to afford to buy a house. In other words, only those with higher levels of income were able to afford domestic property (Yudohusodo et al. 1991, p.93).

One of example of the implementation of the affordability concept was the way housing policy was based on the location of the low-income earners. The success of low-income housing development was related to requirements such as proximity to the city centre and representative workplace being within walking distance from public transport and correspondence with surrounding land use and developments (Yudohusodo et al. 1991, p. 348).

The affordability concept was also applied to housing design policy, to the extent that 70% of all small housing developments targeted by the government were centered on 36sqm units (Yudohusodo et al. 1991, p.4).

#### 2. Guidance for well-integrated housing development

This concept was shaped with regard to appropriate population distribution and land use, the creation of more job opportunities, social facilities and local amenities, environmental acceptability (including health), the use of cheap local building materials and adaptable housing design within the local area (Yudohusodo et al. 1991, p.120).

In 1989, the United Nations Centre for Human Settlements (UNCHS) emphasized the importance of healthy housing for the family (Shelter, Health and the Family). Healthy housing is an issue for low-income societies with homes in both urban and rural areas. The Kampong Improvement Project known as the *Muhammad Husni Thamrin Project* (MHT Project) was one response to this need.

Three requirements were considered: physical, biological and social conditions. Physical conditions included having appropriate infrastructure, water, and drainage facilities, as well as disposal treatment. Biological conditions referred to the need to be free from harmful insects, and social conditions referred to the creation of an improved quality of life for individuals. All three requirements needed to be met to demonstrate the healthy housing settlements (Komarudin 1997, p.291-9). The American Housing Survey of 1993 found the children living in urban areas were 4.4 times more likely to have cockroach allergen in their bedrooms than children from suburban areas, and that poor children were 4.2 times more likely to be exposed to cockroaches at homes than the non-poor (Joshua & Megan 1998, p.14).

## **Appendix A.7**

### *Fifth Five-Year Development Plan Implementation* (PELITA V: 1989/90-1993/94)

During the fifth five-year development plan, housing development was to remain a priority, along with the affordability concept, particularly for low-income earners. The concept of affordability was employed in conjunction with feasibility, health, security and environmental friendliness.

### *Community-based Housing Development Program*

The Community-based Housing Development Program was implemented over this period. This program took a bottom-up development approach, with more community involvement or participation in the process of development; its ideal concept was to work with the community instead of working for the community. The architect here was not only a building designer, but was also concerned with other related factors to meet the needs of the community, especially those from low-income levels. The goals of the Community-based Housing Development Program was for the community to be more educated through its implementation programs, increasing the sense of belonging for the community through their involvement in the process. This program was further strengthened in the subsequent development plans of Indonesia (Purwantiasning 2003, p.32, 51).

Other than the implementation of the Community-based Housing Development Program, the Government defined long-term expectations for housing the population. This long-term plan was to provide homes for the citizens (Yudohusodo et al. 1991, p.124) and concerned the following:

1. Development of residential areas was gradually directed to achieve the standard of one housing units for each family;
2. Residential areas were generated gradually along with amenities and facilities, the type and number of which were to be adjusted according to local needs and applicable standards;
3. Housing development construction would have a positive impact on the future and would open job opportunities for many people.

The direction of the state was to outline a long-term National Housing Strategy as follows:

1. Enforcement of an Integrated Housing development with national development, through the so-called "Enabling Strategy". The Enabling Strategy can be described as people being responsible for housing, whilst the government would be responsible for generating the conditions by which the housing development sector would grow and encourage productive citizens to own a house.
2. Housing development with concern for equitable, affordable, environmentally sustainable and locally and culturally acceptable housing.
3. The Government's intention was to develop various policies in order to support an intensive development for housing and settlement. The policies covered several aspects (Yudohusodo et al. 1991, p.125), as follows :
  - a) Structure and pattern of spatial use for integrated housing and settlement development for the city and rural settlements: equitable land use approach for urban and rural development.
  - b) Well-guided land use and land provision: land provision for people through land consolidation, well-controlled land acquisition, with principles of equity and fair distribution.
  - c) Infrastructure and provision of social facilities: responsibility given to the local government and private sector to provide good infrastructure and social facilities through integrated city planning.
  - d) Financial scheme: an integrated housing financial scheme, achieved through optimizing internal and foreign sources, provision of housing loans for families with socio-economic levels, and a government policy to reduce interest rates.
  - e) Construction technology development, including the development of industry for building materials: use of new technology and building materials which aim to reduce the cost of housing construction and execution (valued as more efficient for the mass-housing development concept).
  - f) Institution/company establishment for state enterprises, private enterprises, corporate sectors and the community: strengthening the function of supporting institutions with certain duties and responsibilities prescribed for each institution.
  - g) Human resource development: skills development for people and increased community participation.
  - h) Research development: research concern expands and more intensive research encourage.
  - i) Regulation: constitutions of regulation which stipulate the fundamental role of the law for any implementation program executed.

In conjunction with the concern for housing development in Indonesia, monetary resource of the Government for housing and related developments have increased throughout the period of the five-year development plans, as described in the table bellows (Yudohusodo et al. 1991, p.140).

Table A.7  
Monetary Resource of Government for Housing in Five Development Plans

Periods of Dev. Plans	Type of Funds Allocation	Amount Allocation (Ind. Rupiah)
<i>PELITA I</i> (1969/70-1973/74)	<ul style="list-style-type: none"> <li>• Public housing</li> <li>• Urban development</li> <li>• Drinking water</li> </ul>	Rp 11.48 billion
<i>PELITA II</i> (1974/75-1978/79)	<ul style="list-style-type: none"> <li>• Public housing</li> <li>• Drinking water</li> </ul>	Rp 101.00 billion
<i>PELITA III</i> (1979/80-1983/84)	<ul style="list-style-type: none"> <li>• Public housing</li> <li>• Settlement</li> </ul>	Rp 531.98 billion
<i>PELITA IV</i> (1984/85-1988/89)	<ul style="list-style-type: none"> <li>• Public housing</li> <li>• Settlement</li> </ul>	Rp 2,980.56 billion
<i>PELITA V</i> (1989/90-1993/94)	<ul style="list-style-type: none"> <li>• Public housing</li> <li>• Settlement</li> </ul>	Rp 6,537.2 billion

Source: Yudohusodo, 1991.

## Appendix A.8

### Sixth Five-Year Development Plan Implementation (PELITA VI : 1994/95 forward)

In the sixth five-year development plan, the development of housing and human settlement was directed toward basic infrastructure for low-income populations and environmental health achieved through efficient and effective management and sustained development in housing and human settlement. This would be achieved with participatory strategies, cooperatives, and the participation of business for financial assistance; and enhancing employment opportunities and business in the supporting industries through property development.

The Government policy in housing and human settlements in *Pelita VI* included the establishment of 'reasonably' price houses within reach of the community which were suitable to the environment; participation of the community; a funding system to help low-income communities, an integrated housing and human settlement management plan; and supporting regulations (*Housing and Human Settlement 2004*).

#### *New Housing Developments*

To implement the policy, targets for building new housing construction were established. The target was for 500,000 houses, including very simple houses (RSS) and simple houses (RS); the improvement of 21,250 ha in 125 densely populated urban slums; rejuvenation of 750 ha of slums; and the renovation of housing and human settlement in 20,000 less-development villages (*Housing and Human Settlement 2004*).

Luxurious houses / simple houses (RS) / very simple houses (RSS) were built at ratio of 1:3:6, with housing credit facilities known as KPR at subsidised interests for the 21sqm and 36sqm types. The interest rate for RSS was set at 8.5%, for RS type 21 it was 11% and RSS type 36 it was 14%. The Government gave priority to the infrastructure of simple houses (RS) / very simple houses (RSS) built by the National Urban Development Corporation (*Perum Perumnas*) and Cooperatives, and to the housing regulation (Home Affairs Instruction No. 12 of 1996) on low-cost Building Licenses (IMB) and other costs of RS and RSS. Until the fourth year of *Pelita VI*, 616,557 RS and RSS houses had been built – more than the target of 500,000 units. These consisted of 172,684 units built by *Perumnas*, and 381,391 units built by cooperatives (*The Provision of Housing and Human Settlement 2004*).

It has also been recently recommended by Ira, as mentioned in *Kompas* (2001), that the long-term housing development plan should recommend vertically built houses, in order to respond to the needs of housing and land constraints in urban areas with high population

densities like Jakarta. The current policy, which has led housing developments like Bogor-Tangerang-Bekasi (Botabek) to spread across the fringes of Jakarta City, is inefficient. The reason for this is that it has overburdened the capacity of the government to build new infrastructure and transportation systems. Next to this, it has created new problems related to existing transport, worsening traffic conditions which were already stressed. What encourages the Government to build vertical housing (*Rumah Susun*), was the promise of less investment for infrastructure, to the extent that people usually were expected to work nearby and therefore reduce the problem of transport and traffic. Moreover, as a result, the government did not need to construct new road networks or other infrastructure projects and thus could save on the overall funding for new housing and infrastructure (Ira 2001).

#### *Strengthening the Kampung Improvement Program (KIP)*

The Kampong Improvement Program for housing improvement and human settlement had taken place since the early stages of Indonesia's housing development (the second five-year development plan of Indonesia) and still persists. This program is aimed at improving the welfare of individuals, and the management and restoration of infrastructure of the housing environment. The program implemented was through *Tribina* (the guidance of the people, the environment and business), and involved the renovation, restoration and rejuvenation of urban human settlements in cities and villages. The improvement of housing and human settlements also covered road rehabilitation, drainage and garbage dumps; washing and toilet facilities, clean water and refuse. In densely populated towns such as Jakarta, Semarang, and Surabaya, the rehabilitation of residential areas was carried out in 801 cities, covering 24,436 ha, for the benefit of 3,857,900 people. Until the fourth year of *Pelita VI*, 139,789 houses in 11,596 villages had been renovated (*Improvement of Housing and Human Settlements* 2004).

Environmental health was a priority during this period of housing development. An increasing amount of literature suggested that health problems resulted from a lack of sanitation facilities, especially among the urban poor living in overcrowded informal settlements. Invariably, it was the poor who suffered the most from the absence of safe water and sanitation; because they lacked not only the means of provide such facilities but also information how to minimize the ill-effects of the unsanitary conditions in which they lived. The environmental health program was therefore implemented, involving improvement in the quality of the environment and community health in urban and rural areas through the management of drainage, waste and sewers (*Healthy Environment* 2004).

In the villages, the development of housing and human settlement was aimed at helping and supporting individuals to repair their houses and environment to meet technical and health requirements. This development was integrated into the development of center for selected village (KTP2D) to stimulate the growth of village economies, housing and human settlement facilities, such as clean water, garbage and sanitation services. The particular targets of this program were tourist villages, agricultural industry, agricultural business, and growth centers of local services. Until the fourth year of *Pelita VI*, 794 KTP2D areas had been developed (*The Provision of Housing and Human Settlement* 2004).

#### *Community-based Initiatives for Housing and Local Development*

Although Indonesia has a credible and even enviable record in housing lower-income families, including well-known programs such as Kampung Improvement Program (KIP), affordable housing is only available to meet the needs of some 20% of Indonesia's living in urban areas (Mumtaz 2001, June-a). in response to this, in the year 2000, the Government further strengthened a program called "Community-based Initiatives for Housing and Local Development" (CoBILD), which had been introduced as the "Community-Based Housing Development" program in 1989. These projects were funded by the Dutch Government and managed by the United Nations Centre for Human Settlements (UNCHS).

Mumtaz (2001, June-a) describes CoBILD as a project which was intended to help establish city-based institutions to provide assistance to low-income households to improve their housing and living conditions. He also reported that :

*The primary mechanism employed was to be the provision of sequential loans for incremental development of housing through community-based groups. CoBILD responds to request cities for assistance to set up a city-level revolving fund. Eligible*

community groups apply for housing improvement loans. Upon successful repayment of the loan (an average of about Rp 2.5 million or \$250, over a 2-year period), the household is guaranteed a series of up to three subsequent loans. The loan repayments are used by the city institution to advance loans to other community members, and subsequently to other community groups. The loans use a market-rate interest to provide short (up to 2 years) loans to households to purchase land and build new or improve existing houses in either their present or new locations. The lending process is supported by the establishment of city and local level non-governmental organizations. These organizations not only provide support to the borrowing communities but also ensure that the selection and location of assisted communities integrates with overall urban development plans. Essentially, the typical disadvantaged people will be enabled to improve their housing quicker and at a lower cost, with greater assurance as the informal processes are mainstreamed and supported by the CoBILD process. The loans rely on community and individual incentives rather than penalties and legal actions for their success and sustainability.

#### One-million Low-cost Housing Development

The most recent National Program for housing development in Indonesia aimed at providing low-cost houses from 2004. Such an agreement was part of a national program to provide housing for people, the so-called 'One million low-cost housing development', launched by the President of Indonesia in commemoration of World Habitat Day in Bali on October 9, 2004. This program intended to build vertically almost 3000 low-income units (called *Rumah Susun*), spreading across all of Indonesia (Silas 2004, p.6). In particular, the program was to provide low-cost housing nationwide in 2004, for families with a monthly income of less than Rp 1.5 million (US\$176.47). The government was to allocate some funds from the state budget to subsidise housing loans, with an average interest rate not far from the current rate of 15% (Mariani 2003). The program was to include new housing development for low-cost houses and low-cost apartments, renovation of houses, particularly in slum areas, and the improvement of the environment of established low-cost housing areas. For the program, the government, in cooperation with regional administrations, private and state-owned developers and banks, was scheduled to conduct the following programs :

Table A.8  
New Low-cost Housing Development, Renovation and Improvement

Government Programs	Parties		
	Banking Sector (Indonesian Rupiah)	State Budget (Indonesian Rupiah)	Regional Administration
Constructing 200,000 new low-cost houses	10.5 trillion	540 billion	Provide vacant lands
Constructing 3,000 units of low-cost apartments	74 billion	148 billion	Provide vacant lands
Renovation of 600,000 houses	1.75 trillion	202 billion	36 billion
Renovation of 200,000 houses in slum areas	-	540 billion	-
Improvement of the environment of low-cost housing areas	-	850 billion	500 billion

**Source :** Ministry of Settlements and Regional Infrastructure, 2004.

It is clearly shown that the Government was (and is) serious about housing in respect to what was referred to as the 'One million housing development program'. The lesser amount of state budget allocated for the construction of 3,000 units of low-cost apartments (called *Rumah Susun*) is presumably because such housing development (low-cost horizontal-built housing) is considered to be peripheral (non-city areas), with the aim of achieving population distribution equity in the country. This construction of 3,000 units of low-cost apartments was presumably dedicated for the city areas in which land constraints would be an issue.

## **Appendix A.9**

### *The National Urban Development Corporation (Perum Perumnas)*

The National Urban Development Corporation was established to conduct certain housing programs (Yudohusodo et al. 1991, p. 152-3):

1. To execute certain policies defined by the Government for the provision of housing for Indonesia including supporting infrastructure. This will enable the Government to perform well-integrated housing development as a part of development of the country as a whole.
2. To provide services for the common benefit, once advantages have been pursued based on the principles of company management.

#### *History of Perum Perumnas executing its tasks*

*Perum Perumnas* initially focused on building costly units reserved mainly for public servants and military in the periphery of the region. But it has now started to focus on building small plots with affordable houses, that is, housing constructed through 4-8 storey blocks of flats for low-income groups (*Data Perumnas 2002b*).

*Perum Perumnas*, which was established in 1974, has built 24,000 units annually in the urban areas of Indonesia (ADB, 1984). Even more, during the period of 1974-1993, *Perumnas* built about 300,000 houses (16,000 per year) and in 1993-1998 it planned on building 300,000 housing units (60,000 units per year), meaning 5 times more than previously achieved (*Data Perumnas 2002a*).

Table A.9  
Housing Development by National Urban Development Corporation and Private Developers in the five periods of five-year development plans

Development Plan Periods	Housing Provision by National Urban Development Corporation (Perum Perumnas)						Housing Provision by Private Developers (REI)		Total Target of the Government	Total Achievement (Perumnas + REI)
	Government targets	Total Actual Provision	Actual Provision by housing types				Government targets	Total Actual Provision		
			Simple house	Core House	Mansion Unit	Developed Land				
1 <sup>st</sup> Five Development Plans (PELITA I) 1969/1970-1973/1974)	-	-	-	-	-	-	-	-	-	
2 <sup>nd</sup> Five Development Plans (PELITA II) 1974/1975-1978/1979)	73,000	50,670	30,572	20,098	-	-	-	2,742	-	
3 <sup>rd</sup> Five Development Plans (PELITA III) 1979/1980-1983/1984)	120,000	103,654	31,194	64,484	7,976	-	30,000	104,557	150,000	224,557 Over targeted
4 <sup>th</sup> Five Development Plans (PELITA IV) 1984/1985-1988/1989)	140,000	69,581	19,626	44,635	5,320	-	160,000	255,052	300,000	334,633 Over targeted
5 <sup>th</sup> Five Development Plans (PELITA V) 1989/1990-1993/1994)	120,000	8,256	4,038	3,653	-	565	330,000	69,349	450,000	77,605

Source: Yudohusodo, 1991.

## **Appendix A.10**

### *National Savings Bank (BTN)*

The *Bank Tabungan Negara*, or National Savings Bank, is a state-owned bank and was established according to Government Regulation No. 20 on 19 December 1968. However, it originally existed in 1937 as the so-called *Postspaarbank* in period of the Dutch colonial government, and was further replaced, becoming *Tyokin Kyoku* in year 1942 under the Governance of Japan.

After independence in 1945, this particular bank transformed into the *Kantor Tabungan Pos* or "Post Savings Office" until 1948. Around the middle of 1949 it took on the new name of *Kantor Tabungan Pos Republik Indonesia* or "Post Savings Office of The Republic Indonesia", until the end of 1949, when its title was changed, again to "Post Savings Bank". This was finally closed down in 1964, with the establishment of the *Bank Tabungan Negara*, or National Savings Bank. Once this was wholly taken over by the state of Indonesia, it was merged into a single state bank, the *Bank Negara Indonesia* or Indonesian State Bank; of which the National Savings Bank comprised a part. However, under the Government of the New Order, the National Savings Bank was reinforced as a independent entity through Government Regulation No. 20/1968 (Yudohusodo et al. 1991, p. 160-3).

## **Appendix A.11**

### *PT. Papan Sejahtera*

The stakeholders of this company consisted of state and several private enterprises, such as the Bank of Indonesia (20%), PT. Private Development Finance Company of Indonesia (PDFCI) (15%), Bumiputera Life Insurance (12,5%), Jiwasraya Life Insurance (12,5%), PT. Asuransi Jasa Indonesia (5%), PT. Rei Sewindu (5%), Friesch-Groningsche Hypotheekbank NV (15%) and International Financial Corporation (IFC) (15%).

## **Appendix A.12**

### *Housing Financial Schemes*

The National Savings Bank is essentially a housing finance organization and it has taken on the most significant aspect of this role in the country. In 1976 the National Savings Bank was assigned by the Government to the task of assisting low and medium-income earners to obtain housing loans at a preferential, subsidized rate of interest. This program was called *Kredit Pemilikan Rumah* (KPR), or the credit financing program for home ownership. Most beneficiaries of public housing built by *Perum Perumnas* (The National Urban Development Corporation) relied on mortgage loans from the National Savings Bank (BTN). At the same time, the number of preferential subsidized interest rates and maximum credit for housing loans has increased yearly (Yudohusodo et al. 1991, p. 182).

## **Appendix A.13**

### *Source of Housing Loan in Indonesia*

In urban Indonesia, obtaining a loan to purchase a home has been emerging as a common situation. Table A.13 shows the distribution of the sources of housing loans for those households, which obtained a loan for purchasing their home.

Table A.13 gives information on the terms for loans from four sources: loans from co-operatives and employers and loans from BTN and commercial banks. The data for co-operatives indicate that they are charging interest rates that are competitive with commercial banks.

Table A.13  
Terms of Loans from Alternative Source

Source of Loan	Interest Rate (%)	Loan Term (Years)
Co-operatives	33.5	15
Employer	17.5	7
BTN		
A. < 21 sq.m	9.0	20
B. 21 – 35 sq.m	12.0	20
C. > 36 sq.m	15	20
Commercial Bank	23 - 29	1 - 15

Source: Bisnis Properti, 1994.

One of the most important objectives of the BTN KPR (Home Ownership Credit) is to increase the supply of housing finance to low and middle income households. Specifically, the programme target's household with monthly incomes in the Rp. 80,000.00 – 300,000.00 a range that approximately corresponds to interval between the 20th and 80th percentile of the income distribution for urban household in Indonesia. In addition, the program in BTN KPR is restricted to first time homeowners and priority is given to families rather than individuals.

Figure A.13 shows the organization of housing finance for PERUMNAS, BTN and private developers. It also shows how the three parties work in the provision of the low-income housing provision in Indonesia.

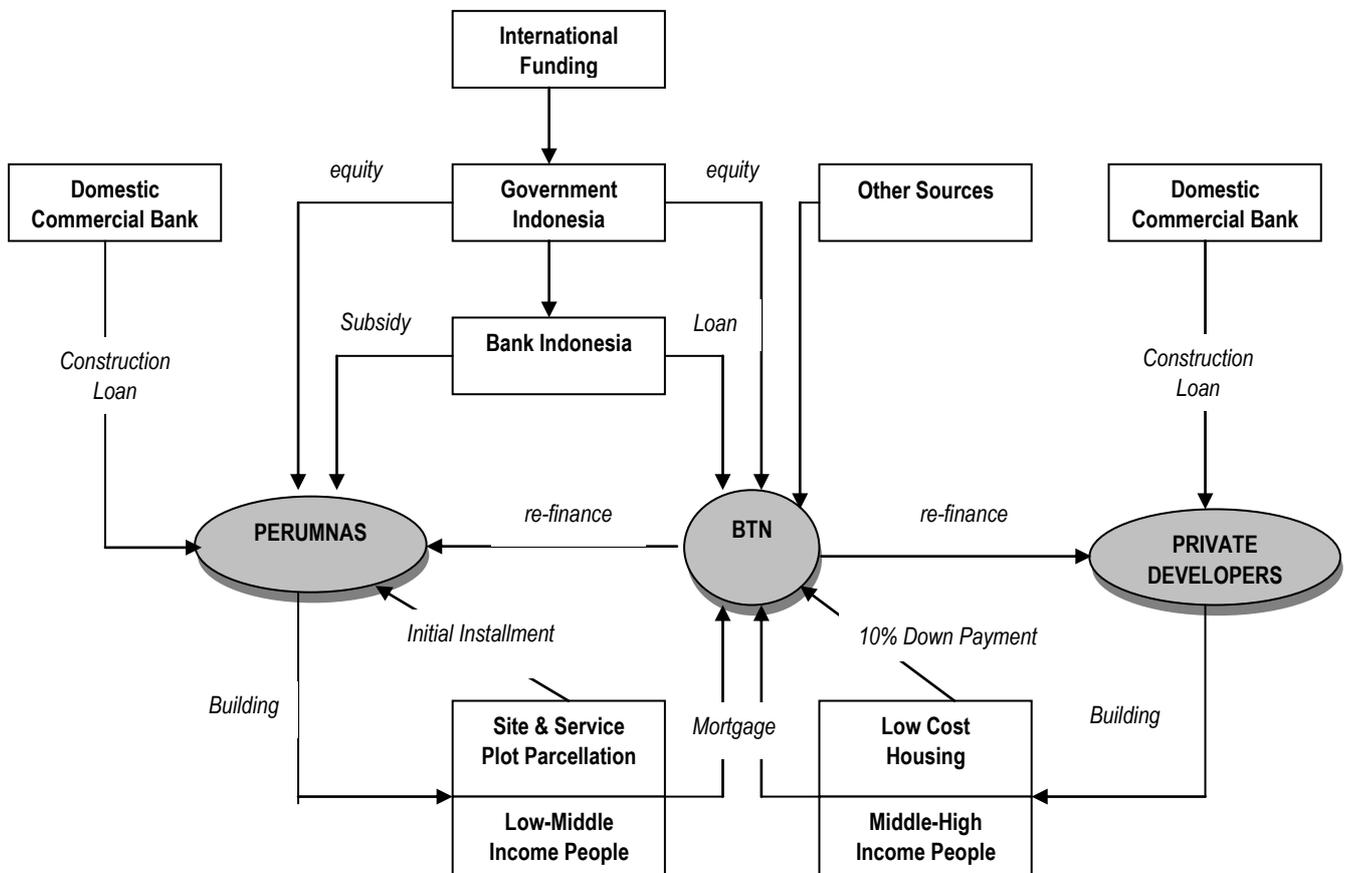


Figure A.13. Organization of Housing Finance for PERUMNAS and Private Developers

Source: Yudohusodo, 1991.



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## **APPENDIXES B**

### **Research Instruments and Results**



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## Appendix B.1 Interview Guides/Questionnaire Of Developers

Research Title:  
**Affordable Housing Provision Projects in Bali, Indonesia:  
Improving Quality and Cultural Acceptability**

Supervisor:  
**Associate Professor Shahed Khan**

PhD Student:  
**Ngakan Ketut Acwin Dwijendra**  
Student Number: 13754895  
Department of Urban and Regional Planning  
Faculty of Built and Environment, School of Humanities, Curtin University

*A total of 13 representative developers in Sarbagita Metropolitan Bali including 8 formal sector developers and 5 informal sector developers, will be conducted. Interview guides are developed in the form of questionnaire that will be administered in a face-to-face meeting. Respondents will be provided a copy of the questionnaire before hand. During the interview, the interviewer will enter the responses of the interviewee. The filled in questionnaire will be shown to the interviewee and any changes/modifications requested by the interviewee will be made then and there.*

### Part 1 Developer Identification

Name of Company :  
Office Addresses :  
Phone and Fax number :  
Email :  
Main Type of Developer :

*(Please tick one  the main type of your developer !)*

- |   |  |
|---|--|
| <input type="checkbox"/> Formal Developer | <input type="checkbox"/> Informal Developer      |
| <input type="checkbox"/> Public           | <input type="checkbox"/> Squatter Upgrading      |
| <input type="checkbox"/> Private          | <input type="checkbox"/> Informal Land Sub       |
| <input type="checkbox"/> Cooperative      | <input type="checkbox"/> Informal Rental Housing |
| <input type="checkbox"/> Partnership      | <input type="checkbox"/> Self-built on land rent |
| <input type="checkbox"/> Other:           | .....  |

**Part 2**  
**Company Profile and Project Selection**

1. How long has your company been operating in Bali? \_\_\_\_\_ years
2. How many affordable housing projects in Bali have you completed? \_\_\_\_\_ projects
3. What size of affordable housing projects, do you usually undertake?  
 small (<50 units)  middle (50 – 200 units)  large (>200 units)
4. Who is mainly the target group of your project?  
 local \_\_\_\_\_%  non local \_\_\_\_\_ % (from the rest of Bali or foreigners)

**Part 3**  
**Cost and Expenditure**

5. Please select one large size affordable housing provision project to discuss in detail :  
  - a. Project's Name : \_\_\_\_\_
  - b. Size of Project : \_\_\_\_\_ Ha
  - c. Number of House : \_\_\_\_\_ Units
  - d. Main Target Group :  local  non local
6. Please provide a breakdown of cost for the selected project.

No.	Items	Cost and Expenditure
		%
a.	Labor cost	
b.	Building Material cost	
c.	Technology/construction cost	
d.	Infrastructure cost	
e.	Facilities cost	
f.	Services cost	
g.	Development Permit fees	
h.	Planning and Design fees	
i.	Marketing fees	
j.	Government Taxes	
k.	Other cost, fees and taxes	

7. If you were asked to provide better quality and culturally more acceptable housing – which of the above items would become the main obstacle/constraints in term of costs? Could you please indicate the top three items (1<sup>st</sup>; 2<sup>nd</sup> & 3<sup>rd</sup> most important) \_\_\_\_\_

**Part 4**  
**Government Support**

8. Are you eligible to receive the following support from government specifically for affordable housing provision?  
  1. Incentives  Yes  No  
 If yes, please explain the kind of incentives you receive.

- 
2. Subsidies  Yes  No  
If yes, please explain the kind of subsidies you receive.

- 
3. Soft loan  Yes  No  
If yes, please explain the kind of soft loan you receive.

- 
4. Other support  Yes  No  
If yes, please explain the kind of other support you receive.

- 
9. What is criteria and procedure to obtain government support?

- 
10. Are there any constraints in obtaining government support?

- 
11. Are some developers in a better position to receive government support than others?  
 Yes  No If yes, please explain how and why?

**Part 5**  
**Capability of Human Resources of Design Team**

12. Roughly how many of your design team staff are local \_\_\_\_\_ and non local \_\_\_\_\_  
Do you have any policy regarding employing local staff?  Yes  No  
How long do non-local staff stay employed in Bali on average? \_\_\_\_\_ months

13. Please list any government policies/ regulations that you have to follow while working in Bali that you refer to? 1 \_\_\_\_\_, 2 \_\_\_\_\_, 3 \_\_\_\_\_, etc.  
Are these documents/ policies easy to access and understand?

---

Do such Balinese regulations affect your design?

---

14. On average, what is the degree of familiarity of the Balinese culture among staff?  
 very strong  strong  fair  weak  very weak

15. Do you arrange for training / education of your staff about Balinese culture and its effect on Balinese housing design and architecture to your staff?  Yes  No.

If yes, how often are they conducted? \_\_\_\_\_

How effective of the training?

very effective  effective  fair  ineffective  very ineffective

Are there other equally or more effective means of acquiring useful knowledge about the Balinese culture?

---

**Part 6**  
**Culture Value Implementation**

16. In your view, is the Balinese house concept different to that in rest of Indonesia?  Yes  No.  
If yes, how would you define Balinese house concept?  
\_\_\_\_\_
17. Do you incorporate this concept in your projects?  Yes  No.  
If yes, please explain what specific features/elements/principles do you apply?  
\_\_\_\_\_
18. Have you implemented Balinese culture in you're the other types (not affordable housing projects)?  Yes  No,  
If yes, have you got barrier to implement it?  
\_\_\_\_\_
19. How could you ideally make your product (affordable housing project) more Balinese culture friendly?  
\_\_\_\_\_
20. How do you visualize a culturally appropriate design?  
\_\_\_\_\_  
Could you refer to an example?  
\_\_\_\_\_
21. To what extent would you agree with the following statement:  
***“A culturally more suitable design will improve the demand for the product in comparison to the existing available housing product”***  
 strongly agree  agree  unsure  disagree  strongly disagree

**Please refer to the chart below for Questions 22 to 25:**

22. Referring to the table below, what cultural features are the most important in creating a house design that is culturally suited to Bali? Please indicate the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> most important features
23. Referring to the table below, what cultural features are the least important in creating a house design that is culturally suited to Bali? Please indicate the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> least important features.
24. Among the cultural elements listed in the table, please indicate 3 biggest barriers (that are most difficult to accommodate) in affordable housing projects? Please indicate the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> most difficult ones.
25. Among the cultural elements listed in the table, please indicate 3 smallest barriers (that are the easiest to accommodate) in affordable housing projects? Please indicate the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> easiest ones.

No	House Balinese Culture Elements	Question 22	Question 23	Question 24	Question 25
		3 Most important	3 Least important	3 biggest barriers	3 smallest barriers
a.	Zoning of living spaces (separation of sacred – profane areas within the house)				

No	House Balinese Culture Elements	Question 22	Question 23	Question 24	Question 25
		3 Most important	3 Least important	3 biggest barriers	3 smallest barriers
b.	Building material (use of local material)				
c.	Orientation and circulation (sun rise and mountain as sacred and sun set and beach as profane)				
d.	Balinese structure and construction				
e.	Building form (square or combination square)				
f.	Height of building (less than 15 meters)				
g.	Elevation/façade (three parts: head, body, foot)				
h.	Balinese ornament				
i.	Room position and furniture arrangement (sacred – profane)				

Please write 1; 2; or 3 – to indicate the 1<sup>st</sup>; 2<sup>nd</sup> and 3<sup>rd</sup> entries

26.

		
a	b	c
		
d	e	f



Please see the pictures above, what are the elements that best represent Balinese architecture, please give briefly comments?

Picture No. ( a to l)	Brief comments

### Part 7 Demand and Supply for Affordable Housing

27. What trend of demand for affordable housing project?

---

28. How is trend and severity of the competition among developers of affordable housing project?

---

29. What is the trend of house prices in affordable housing project??

---

30. Do you believe adding cultural motifs will increase demand?  Yes  No  
 What factors prevent you to include Balinese cultural motifs?  
 \_\_\_\_\_

31. Do you allocate funds for advertising your product?  Yes  No  
 If yes, how much (% of project cost)?  
 \_\_\_\_\_

**Part 8  
 Dwellers Involvement**

32. Do intended clients participate in planning and design stage of your project?  Yes  No  
 If yes, please explain the extent of their involvement and nature of input  
 \_\_\_\_\_

Do dwellers participate in construction stage of your project?  Yes  No  
 If yes, please explain the kind of input and the value of their involvement  
 \_\_\_\_\_

33. Do dwellers participate in maintenance tasks once the project is completed?  Yes  No  
 If yes, please explain the kind of input and the value of their involvement  
 \_\_\_\_\_

34. Do dwellers take up home improvement/incremental development of your project?  Yes  No  
 If yes, At what stage do they start improvement? Please explain the kind of input and the value of their involvement  
 \_\_\_\_\_

35. Do dwellers have any opportunity to influence your project design?  Yes  No  
 If yes, please explain what kind of power and means they have to influence it?  
 \_\_\_\_\_

36. Is there any stage that dwellers can participate in the project?  Yes  No  
 If yes, in what manner?  
 \_\_\_\_\_  
 In what aspect?  
 \_\_\_\_\_

37. Do you think that dwellers are willing and able to participate?  
 \_\_\_\_\_  
 Do dwellers have time? Do Dwellers have the knowledge t contribute meaningfully?  
 \_\_\_\_\_

### Part 9

#### Perception of Housing Product (Affordable Housing Projects)

38. How do you perceive the quality of your current product of affordable housing projects, compared to housing targeted to middle income groups? If the housing targeted at the middle income market scores 10 out of 10, how would you rate the current affordable housing product? *Please indicate by ticking  $\surd$  one of the scores below (1 = lowest; 10 = highest). Please assume that the middle income housing product scores 10:*

No	Quality of Product	1	2	3	4	5	6	7	8	9	10
a.	Physical standards										
b.	Spaciousness										
c.	Cultural appropriateness										
d.	Infrastructure and service delivery										
e.	Availability and accessibility of public facilities										

Perceived Quality of Affordable Housing compared to Middle Income Housing

39. In reality, do you think the product is affordable?

What proportion of poor people can afford this unit \_\_\_\_\_ %

### Part 10

#### Developers Constraints

40. What are the major constraints in providing culturally acceptable affordable housing? Please rank the elements by writing down their rank number (Please write 1 against the biggest constraint, 2 for the next constraint, and so on)

	Constraints	Ranking
<b>1</b>	<b>Cost and Expenditure</b>	
	a. Labor	
	b. Building Material	
	c. Technology/construction	
	d. Infrastructure	
	e. Facilities	
	f. Services	
	g. Development Permit fees	
	h. Planning and Design fees	
	i. Marketing fees	
	j. Government Taxes	
	k. Other cost, fees and taxes	
<b>2</b>	<b>Capability of Human resources-Design Team</b>	
	a. Project Experiences	
	b. Local staff Involvement	
	c. Local Cultural Skill and knowledge	
	d. Access to Balinese culture documents/ policies	
	e. Understanding Balinese culture	

41. What can be done to overcome the constraints in providing culturally acceptable affordable housing? *Please rank among measure to overcome constraints by write down their rank number from 1 as the most measure, 2 for next measure, and so on.*

No.	Measures to Overcome Constraints	Ranking
<b>1</b>	<b>Government Support</b>	
	a. Incentives	
	b. Subsidies	
	c. Soft Loan	
	d. Other supports	
<b>2</b>	<b>Dwellers Involvement</b>	
	a. Involvement in Planning and Design Stage	
	b. Involvement in Construction Stage	
	c. Involvement in Maintenance	
	d. Involvement in Home Improvement/Incremental	
	e. Power and means of Involvement	
	f. Willing and able to participate	



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**Appendix B.2**  
**Interview Guides/Questionnaire**  
**of Local Government**

Research Title:  
**Affordable Housing Provision Projects in Bali, Indonesia:  
Improving Quality and Cultural Acceptability**

Supervisor:  
**Associate Professor Shahed Khan**

PhD Student:  
**Ngakan Ketut Acwin Dwijendra**  
Student Number: 13754895  
Department of Urban and Regional Planning  
Faculty of Built and Environment, School of Humanities, Curtin University

*The interviews will conduct to 4 representatives local government such as Local Development Planning Board (Bappeda), Public Works Department (Dinas PU), Urban Management Department (Dinas Tata Kota), Housing and Settlement Department (Cipta Karya). The interview Guides consist of parts as reflection of research variables and each part consists of questions as guidance to ask to Local Government.*

*This guide is set up as series of underlines, tables and check boxes. Please write down answer on lines and tables, and tick one  for option questions.*

**Part 1**  
**Institution Identification**

Name of Institution :  
Office Addresses :  
Phone and Fax number :  
Email :

**Part 2**  
**Fees and Taxes**

1. Please explain, the fees and taxes developers have to pay to develop affordable housing projects? \_\_\_\_\_

Do you think that those are creating constraints for developers?  Yes  No

If yes, why?  
\_\_\_\_\_

### Part 3 Government Support

2. Does the local government give the following support for developers?
1. Incentives  Yes  No  
If yes, please explain the kind of incentives developers receive.  
\_\_\_\_\_
  2. Subsidies  Yes  No  
If yes, please explain the kind of subsidies developers receive.  
\_\_\_\_\_
  3. Soft loan  Yes  No  
If yes, please explain the kind of soft loan developers receive.  
\_\_\_\_\_
  4. Other support  Yes  No  
If yes, please explain the kind of other support developers receive.  
\_\_\_\_\_
3. Do government supports encourage the developers to build better quality and culturally acceptable of the affordable housing projects?  
\_\_\_\_\_
4. What is criteria and procedure to obtain the government support?  
\_\_\_\_\_
5. What are constraints to get it?  
\_\_\_\_\_
6. Are some developers in a better position to receive government support than others?  
 Yes  No  
If yes, please explain how and why?  
\_\_\_\_\_

### Part 4 Capability of Human resources Development of Design Team

7. Does the local government provide trainings of quality and culture approach in housing development projects for developers in order to develop the skill and knowledge of the developer's staff?  Yes  No  
Do those trainings have a specific topic on Balinese culture?  
\_\_\_\_\_  
And do those trainings give a proper skill and knowledge for developers to provide better quality and culturally acceptable of the affordable housing projects?  
\_\_\_\_\_
8. Please list any government policies/ regulations that developers have to follow while working in Bali that they refer to? 1. \_\_\_\_\_, 2. \_\_\_\_\_, 3. \_\_\_\_\_  
Are these documents/ policies easy to access and understand for them?  
\_\_\_\_\_  
Do such Balinese regulations affect developers' design?  
\_\_\_\_\_

9. On average, what do you think regard to the degree of familiarity of the Balinese culture among staff of developers?  
 very strong  strong  fair  weak  very weak
10. Does local government arrange for training / education to staff of developers about Balinese culture and its effect on Balinese housing design and architecture to their staff?  
 Yes  No.
- If yes, how often are do you conduct? \_\_\_\_\_  
 How do you inform them? \_\_\_\_\_ Do they come? \_\_\_\_\_  
 How effective of the training?  
 very effective  effective  fair  ineffective  very ineffective
- Are there other equally or more effective means of acquiring useful knowledge about the Balinese culture?  
 \_\_\_\_\_

### Part 5 Culture Value Implementation

11. Does the local government provide regulations and guidance of Balinese culture in housing development projects for developers?  Yes  No  
 If yes, please explains, in what form of that guidance?  
 \_\_\_\_\_  
 do regulations support developers to provide better quality and culturally acceptable of the affordable housing projects?  Yes  No  
 If no, why  
 \_\_\_\_\_
12. Does the local government have example as prototype of quality and culture appropriateness in housing development projects for developers?  Yes  No  
 If No,  
 Why? \_\_\_\_\_
13. In your view, is the Balinese house concept different to that in rest of Indonesia?  Yes  No.  
 If yes, how would you define Balinese house concept?  
 \_\_\_\_\_
14. Do developers incorporate this concept in their projects?  Yes  No.  
 If yes, please explain what specific features/elements/principles do they apply?  
 \_\_\_\_\_
15. Have developers implemented Balinese culture in their unaffordable housing projects?  
 Yes  No,  
 If yes, have they got barrier to implement it?  
 \_\_\_\_\_
16. How could developers ideally make their product (affordable housing project) more Balinese culture friendly?  
 \_\_\_\_\_
17. How does local government visualize a culturally appropriate design?  
 \_\_\_\_\_  
 Could you refer to an example?  
 \_\_\_\_\_

18. To what extent would you agree with the following statement:  
*“A culturally more suitable design will improve the demand for the product in comparison to the existing available housing product”*

strongly agree  agree  unsure  disagree  strongly disagree

**Please refer to the chart below for Questions 19 to 22:**

19. Referring to the table below, what cultural features are the most important in creating a house design that is culturally suited to Bali? Please indicate the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> most important features

20. Referring to the table below, what cultural features are the least important in creating a house design that is culturally suited to Bali? Please indicate the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> least important features.

21. Among the cultural elements listed in the table, please indicate 3 biggest barriers (that are most difficult to accommodate) in affordable housing projects? Please indicate the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> most difficult ones.

22. Among the cultural elements listed in the table, please indicate 3 smallest barriers (that are the easiest to accommodate) in affordable housing projects? Please indicate the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> easiest ones.

No	House Balinese Culture Elements	Question 19	Question 20	Question 21	Question 22
		3 Most important	3 Least important	3 biggest barriers	3 smallest barriers
a.	Zoning of living spaces (separation of sacred – profane areas within the house)				
b.	Building material (use of local material)				
c.	Orientation and circulation (sun rise and mountain as sacred and sun set and beach as profane)				
d.	Balinese structure and construction				
e.	Building form (square or combination square)				
f.	Height of building (less than 15 meters)				
g.	Elevation/façade (three parts: head, body, foot)				
h.	Balinese ornament				
i.	Room position and furniture arrangement (sacred – profane)				

Please write 1; 2; or 3 – to indicate the 1<sup>st</sup>; 2<sup>nd</sup> and 3<sup>rd</sup> entries

23.

		
<p>a</p>	<p>b</p>	<p>c</p>
		
<p>d</p>	<p>e</p>	<p>f</p>
		
<p>g</p>	<p>h</p>	<p>i</p>
		
<p>j</p>	<p>k</p>	<p>l</p>

Please see the pictures above, what are the elements that best represent Balinese architecture, please give briefly comments?

Picture No. ( a to l)	Brief comments

**Part 6  
Demand and Supply for Affordable Housing**

24. How is trend and severity of the competition among developers of affordable housing project?  
\_\_\_\_\_
25. What is the trend of house prices in affordable housing project??  
\_\_\_\_\_
26. Do you believe adding cultural motifs will increase demand?  Yes  No  
What factors prevent you to include Balinese cultural motifs?  
\_\_\_\_\_
27. Do you allocate funds for advertising your product?  Yes  No  
If yes, how much (% of project cost)?  
\_\_\_\_\_

**Part 7  
Dwellers Involvement**

28. Does the local government provide means/regulation for dwellers in order to participate influencing the quality and culture appropriateness in affordable housing development projects?  
 Yes  No  
If yes, please explains, in what kind of means they could participate?  
\_\_\_\_\_ and how far the dwellers can use their right properly?  
\_\_\_\_\_
29. Do intended clients participate in planning and design stage of the project?  Yes  No  
If yes, please explain the extent of their involvement and nature of input  
\_\_\_\_\_
30. Do dwellers participate in construction stage of the project?  Yes  No  
If yes, please explain the kind of input and the value of their involvement  
\_\_\_\_\_
31. Do dwellers participate in maintenance tasks once the project is completed?  Yes  No  
If yes, please explain the kind of input and the value of their involvement  
\_\_\_\_\_

32. Do dwellers take up home improvement/incremental development of your project?

Yes  No If yes, At what stage do they start improvement? Please explain the kind of input and the value of their involvement \_\_\_\_\_

33. Do dwellers have any opportunity to influence in project design?  Yes  No  
If yes, please explain what kind of power and means they have to influence it?  
\_\_\_\_\_

34. Is there any stage that dwellers can participate in the project?  Yes  No  
If yes, in what manner?  
\_\_\_\_\_

In what aspect?  
\_\_\_\_\_

Do you think that dwellers are willing and able to participate?  
\_\_\_\_\_

Do dwellers have time? Do Dwellers have the knowledge to contribute meaningfully?  
\_\_\_\_\_

**Part 8**  
**Perception of Product (Affordable Housing Projects)**

35. How do you perceive the quality of the current product of affordable housing projects, compared to housing targeted to middle income groups? If the housing targeted at the middle income market scores 10 out of 10, how would you rate the current affordable housing product?

*Please indicate by ticking √ one of the scores below (1 = lowest; 10 = highest). Please assume that the middle income housing product scores 10:*

No	Quality of Product	1	2	3	4	5	6	7	8	9	10
a.	Physical standards										
b.	Spaciousness										
c.	Cultural appropriateness										
d.	Infrastructure and service delivery										
e.	Availability and accessibility of public facilities										

Perceived Quality of Affordable Housing compared to Middle Income Housing

36. In reality, do you think the product is affordable?

\_\_\_\_\_ What proportion of poor people can afford this unit \_\_\_\_\_ %

**Part 9**  
**Government Control and Responsibility**

37. Does the local government conduct control and monitoring on the quality and culture appropriateness in affordable housing development projects?  Yes  No  
If yes, please explain who actors involve in supervision team? To what extent, how the supervision mechanism is going?

---

---

38. Does the local government conduct control and monitoring on the quality and culture appropriateness in unaffordable housing development projects?  Yes  No  
If yes, please explain who actors involve in supervision team? To what extent, how the supervision mechanism is going?

---

---

39. Does the local government have a responsibility in project up keep and after developers completing the affordable housing projects?  Yes  No  
If yes, please explain what kind of responsibility should government complete it in terms of infrastructure, service delivery and facilities? How it is the criteria and procedure? What is the problem occurring? What penalty if developers have not fulfilled the criteria and procedure? Who are responsible for the project neglected?

---

---

**Part 10**  
**Project Development Mechanism Constraints**

40. Please explain, how is mechanisms of project development control? What kind of constraints is occurring on development process mechanism to provide better quality and culturally acceptable in affordable housing projects? \_\_\_\_\_

---

To what extent which one it has more or less constraint in influencing the quality and cultural appropriateness in projects?

---

Please explain what are the causes of those constraints?

---

---



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Appendix B.3

# Questionnaire of Dwellers

Research Title:

**Affordable Housing Provision Projects in Bali, Indonesia:  
Improving Quality and Cultural Acceptability**

Supervisor:

**Associate Professor Shahed Khan**

PhD Student:

**Ngakan Ketut Acwin Dwijendra**

Student Number: 13754895

Department of Urban and Regional Planning

Faculty of Built and Environment, School of Humanities, Curtin University of Technology

*This questionnaire is designed by PhD Student in Curtin University of Technology, Perth-Western Australia to investigate the perception, satisfaction and role of dwellers as end users of the affordable housing provision projects in Sarbagita Metropolitan, Bali. This questionnaire is strictly confidential; please try to answer the questions as honestly as possible We encourage you to add any other information that you might be useful for this research.*

*This questionnaire is set up as series of underlines, tables and check boxes. Please write down answer on lines and tables, and tick one  for option questions.*

### Part 1

#### Respondents Identification

Name of respondent :  
Home Address :  
Phone/Fax number :  
Email :  
Type of Domicile Project :

*(Please tick one  the type of your domicile housing project)*

- |                                      |  |
|--------------------------------------|--|
| Formal Projects                      | Informal Projects                                |
| <input type="checkbox"/> Public      | <input type="checkbox"/> Squatter Upgrading      |
| <input type="checkbox"/> Private     | <input type="checkbox"/> Informal Land Sub       |
| <input type="checkbox"/> Cooperative | <input type="checkbox"/> Informal Rental Housing |
| <input type="checkbox"/> Partnership | <input type="checkbox"/> Self-built on land rent |
| <input type="checkbox"/> Other :     | .....  |

## Part 2 Dwellers Demographic Characteristics

Please tick one  and write down the answer for the questions below

1. Where were you born?
    - Bali
    - Java
    - Lombok
    - Other: \_\_\_\_\_
  2. How long have you lived in Bali?
    - Since birth \_\_\_\_\_, or
    - \_\_\_\_\_ Years
  3. What is your ethnicity?
    - Balinese
    - Java
    - Lombok
    - Foreign Visitor
    - Other: \_\_\_\_\_
  4. What is your religion?
    - Hindu
    - Muslim
    - Christian
    - Other: \_\_\_\_\_
  5. How many households share this house?  
\_\_\_\_\_
- How ore often the other households related to you?
- Extended family
  - Same home town
  - Friends from before coming to this house
  - Unrelated
  - Others: \_\_\_\_\_
- How often do you interact?
- Daily
  - Weekly
  - Monthly
  - Others: \_\_\_\_\_
6. What is the size your household?  
\_\_\_\_\_
  7. Are you the head of the household?  Yes  No
  8. What is the highest level of education of the main bread-earner in this household?
    - Primary School
    - Secondary School
    - High Senior School
    - Diploma
    - Bachelor Degree
    - Post Graduate
    - Certificate
    - Other: \_\_\_\_\_
  9. What type of work does the main bread-earner do?
    - Management,

- Supervisory, Professional
- Administrative support
- Skilled tradesman
- Manual worker
- Public Servant
- Student
- Retired
- Self employed
- Unemployed
- Other: \_\_\_\_\_

10. What is your average household income per month?
- Rp 1.500.000 or more
  - Rp 1.500.000 – Rp 3.000.000
  - 3.000.000 – Rp 5.000.000
  - Rp 5.000.0000 or less
11. How often does the main bread-earner work per week?
- Regular : \_\_\_\_\_ per week
  - Irregular
12. How many hours on average does the main bread-earner work per a week?  
\_\_\_\_\_ hour

### Part 3 Process to Access the House

13. How did you get information about the availability of this house?
- Newspaper
  - Radio
  - Television
  - Estate Agent
  - Community Organization
  - Neighbors
  - Friends
  - Others \_\_\_\_\_
14. How long did the process of acquiring this house take?.
- a. Getting Information about the house and making decision to purchase \_\_\_\_\_
  - b. Organizing Finance \_\_\_\_\_
  - c. Legalizing land title (paper work) \_\_\_\_\_
  - d. Entering House taking possession and moving in \_\_\_\_\_
15. When you saw this house for the first time, what phase/stage of construction was it in?
- Land demarcation
  - Foundation
  - Wall
  - Roof
  - Floor
  - Others: \_\_\_\_\_
- Do you have access to your house when it was being constructed?  Yes  No
16. How did you perceive with the quality and cultural adequacy of the house when you first saw it? \_\_\_\_\_ (Please rate as appropriate VG=Very Good 5, Gd= Good 4, Fr=Fair 3, Pr=Poor 2 and Very Poor=VP 1)
- Did the final product match your expectation?  Yes  No

**Part 4**  
**Dwellers Perception to House Culture Value**

17. In your view, is the Balinese house concept different to that in rest of Indonesia?  
 Yes  No.
18. Do you think projects that sell affordable housing in Bali offer culturally suitable housing?  
 Yes  No.

If No, what elements are not properly treated/provided?

- Zoning of living spaces (separation of sacred – profane areas within the house)
- Building material (use of local material)
- Orientation and circulation (sun rise-mountain as sacred and sun set-beach as profane)
- Balinese structure and construction
- Building form (square or combination square)
- Boundary wall and Balinese gate
- Height of building (less than 15 meters)
- Elevation/façade (three parts: head, body, foot)
- Form of roof
- Balinese ornament and Color
- Room position and furniture arrangement (sacred – profane)
- others \_\_\_\_\_

19. Do you think the house you bought offers culturally suitable housing?  
 Yes  No.

If No, please explain the problem? \_\_\_\_\_

- Overtime, has the problem been resolved ?  Yes  No  
What measures did you take to resolve the problem?

---

Please describe the measure

- Adding temple
- Changing the boundary wall
- Installing (or replacing) gate
- Changing internal wall (adding/removing/shifting)
- Changing the kitchen position by changing/modifying plumbing, etc.
- Special placement of furniture
- Adding fixtures or fixed furniture (e.g. wall-mounted/racks/shelf, etc.)
- Installing ornament
- Others \_\_\_\_\_

How much did the change cost?

- Money (material and labor cost) \_\_\_\_\_
- Time (time taken to complete changes) \_\_\_\_\_
- Other \_\_\_\_\_

- Has it improved the value of your house  Yes  No

If Yes, By how much? \_\_\_\_\_

- Did you get help from friends/neighbors for home improvements?  Yes  No

If Yes, what form of help?  
\_\_\_\_\_

20. Do you have time to spare for home improvement work?

Yes  No.

21. If there was an option for home improvement (changes) to make your house more suitable to your needs, what would you prefer:

- Let the project take up the job  
 You employ a contractor to provide the furnished product  
 You employ mason and supervise the work yourself  
 Do it yourself – with help from friends/neighbors  
 Other: \_\_\_\_\_

22. Would you (or others in your community) be willing to put in time and labor for home improvement under developer (project) supervision?  Yes  No

23. If No, why? \_\_\_\_\_

**Please refer to the chart below for Questions 26 to 29** (Please enter 1; 2; or 3 – to indicate the 1<sup>st</sup>; 2<sup>nd</sup> and 3<sup>rd</sup> )

24. Referring to the table below, what cultural features are the most important in creating a house design that is culturally suited to Bali? Please indicate the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> most important features

25. Referring to the table below, what cultural features are the least important in creating a house design that is culturally suited to Bali? Please indicate the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> least important features.

26. Among the cultural elements listed in the table, please indicate which ones developers may find most difficult to accommodate in affordable housing projects? Please indicate the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> most difficult ones.

27. Among the cultural elements listed in the table, please indicate which ones developers may find the easiest to accommodate in affordable housing projects? Please indicate the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> easiest ones.

No	Balinese Housing - Cultural Elements	Question 24	Question 25	Question 26	Question 27
		3 Most important	3 Least important	3 biggest barriers	3 smallest barriers
j.	Zoning of living spaces (separation of sacred – profane areas within the house)				
k.	Building material (use of local material)				
l.	Orientation and circulation (sun rise and mountain as sacred and sun set and beach as profane)				
m.	Balinese structure and construction				
n.	Building form (square or combination square)				
o.	Boundary wall and Balinese gate				
p.	Height of building (less than 15 meters)				
q.	Elevation/façade (three parts: head, body, foot)				
r.	Form of Roofs				

No	Balinese Housing - Cultural Elements	Question 24	Question 25	Question 26	Question 27
		3 Most important	3 Least important	3 biggest barriers	3 smallest barriers
s.	Balinese ornament and Color				
t.	Room position and furniture arrangement (sacred – profane)				

28. How do you rate the quality and cultural adequacy of this project (where you live)?

*Please tick ✓ as appropriate VG=Very Good 5, Gd= Good 4, Fr=Fair 3, Pr=Poor 2 and Very Poor=VP 1*

#### A.Housing Quality

No.	Variables	Indicators	Quality				
			VG=5	Gd=4	Fr=3	Pr=2	VP=1
1	House Quality	a. Design layout, Shape of lot b. Number and size of room c. Building material d. Structure and construction e. Sitting of the building within plot f. Building façade and the height g. Orientation and Circulation					
2	Infrastructure and Service delivery	a. Road: Width, material and construction b. Water supply c. Solid waste management and disposal d. Drainage and sanitation					
3	Public Facilities Accessibility	a. Education facilities: kinder garden, basic, secondary and senior high school b. Health facilities: health centre, drug store, etc. c. Commercial area facilities: shopping store d. Government and public service facilities: security, community centre, public parking, public toilet and police station e. Space for praying facilities: mosque, church and temple f. Recreation facilities: playground area g. Sport and open space facilities: sport centre and park					

**B. Cultural Elements**

No.	Variables	Indicators	Cultural Adequacy				
			VG=5	Gd=4	Fr=3	Pr=2	VP=1
4	Cultural Elements	a. Zoning of living spaces (separation of sacred – profane areas within the house) b. Building material (use of local material) c. Orientation and circulation (sun rise and mountain as sacred and sun set and beach as profane) d. Balinese structure and construction e. Building form (square or combination square) f. Boundary wall and Balinese gate g. Height of building (less than 15 meters) h. Elevation/façade (three parts: head, body, foot) i. Form of roof j. Balinese ornament and color k. Room position and furniture arrangement (sacred – profane)					

**Part 5  
Dwellers Involvement**

29. Did you participate in planning and design stage of the house?

Yes  No

If yes, please explain the extent of your involvement and nature of input

---

30. Did you participate in construction stage of the house?

Yes  No

If yes, please explain the kind of input and the value of your involvement

---

31. Did you have any opportunity to influence the project design?

Yes  No

If yes, how did you influence the project? \_\_\_\_\_

32. Do you participate in maintenance tasks related to the project area/neighborhood?

Yes  No

If yes, who organize these activities?

- Project  
 Community Organization  
 Neighborhood  
 NGO  
 Other: \_\_\_\_\_

Please explain the kind of input and the value of your involvement

---

33. Did you try to propose changes to the designing of the house?

Yes  No

If yes, what type of changes? \_\_\_\_\_

Who did you approach? And what was the response?

Stakeholder	What was their response?
<input type="checkbox"/> YLKI/Customer Board	
<input type="checkbox"/> BTN (National Saving Bank)	
<input type="checkbox"/> Developers	
<input type="checkbox"/> Government	
<input type="checkbox"/> CBO	
<input type="checkbox"/> Others: _____	

*You can tick more than one*

34. If you were to buy a house again, ideally, what stage would you like to be involved in?
- Planning and design stage of the project
  - Construction stage of the project
  - Maintenance tasks once the project is completed
  - Home improvement/incremental development of the project
  - None
  - Others: \_\_\_\_\_

What kind of contribution would you like to make?

- Labor contribution
- Supply of material
- Providing advice
- Others: \_\_\_\_\_

35. Have you participated in other projects or program?

Yes  No

If yes, please briefly explains the project and describes the outcome?

---

### Part 6 Dwellers Perception in Need of Projects Improvement

36. When you first bought the house, which aspects of the house needed to be improved before you could comfortably move in? *Please indicate top 5 the areas needing improvement (1<sup>st</sup>, 2<sup>nd</sup>, ....5<sup>th</sup> most need improvement)*

**A. Housing Quality**

No.	Variables	Indicators	5 Most Need Improvement
1	House Quality	a. Design layout, Shape of lot b. Number and size of room c. Building material d. Structure and construction e. Sitting of the building within plot f. Building façade and the height g. Orientation and Circulation	
2	Infrastructure and Service delivery	h. Road: Width, material and construction i. Water supply j. Solid waste management and disposal k. Drainage and sanitation	
3	Public Facilities Accessibility	l. Education facilities: kinder garden, basic, secondary and senior high school m. Health facilities: health centre, drug store, etc. n. Commercial area facilities: shopping store o. Government and public service facilities: security, community centre, public parking, public toilet and police station p. Space for praying facilities: mosque, church and temple q. Recreation facilities: playground area r. Sport and open space facilities: sport centre and park	

**B. Cultural Elements**

No.	Variables	Indicators	5 Most Need Improvement
4	Cultural Elements	a. Zoning of living spaces (separation of sacred – profane areas within the house) b. Building material (use of local material) c. Orientation and circulation (sun rise and mountain as sacred and sun set and beach as profane) d. Balinese structure and construction e. Building form (square or combination square) f. Boundary wall and Balinese gate g. Height of building (less than 15 meters) h. Elevation/façade (three parts: head, body, foot) i. Form of roof j. Balinese ornament and color k. Room position and furniture arrangement (sacred – profane)	

Themes of pictures:

- a. Zoning of living spaces (separation of sacred – profane areas within the house)
- b. Building material (use of local material)
- c. Orientation and circulation (sun rise and mountain as sacred and sun set and beach as profane)
- d. Balinese structure and construction
- e. Building form (square or combination square)
- f. Boundary wall and Balinese gate
- g. Height of building (less than 15 meters)
- h. Elevation/façade (three parts: head, body, foot)
- i. Form of roof
- j. Balinese ornament and Color
- k. Room position and furniture arrangement (sacred – profane)

Please see the pictures above, what are the elements that best represent Balinese architecture, please give briefly comments?

Picture No. ( a to l)	Brief comments

		
<p><b>a</b></p>	<p><b>b</b></p>	<p><b>c</b></p>
		
<p><b>d</b></p>	<p><b>e</b></p>	<p><b>f</b></p>
		
<p><b>g</b></p>	<p><b>h</b></p>	<p><b>i</b></p>
		
<p><b>j</b></p>	<p><b>k</b></p>	<p><b>l</b></p>



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## Appendix B.4

# Observation of Researcher

Research Title:  
**Affordable Housing Provision Projects in Bali, Indonesia:  
Improving Quality and Cultural Acceptability**

Supervisor:  
**Associate Professor Shahed Khan**

PhD Student:  
**Ngakan Ketut Acwin Dwijendra**  
Student Number: 13754895  
Department of Urban and Regional Planning  
Faculty of Built and Environment, School of Humanities, Curtin University of Technology

*These checklists are designed by PhD Student in Curtin University of Technology, Perth-Western Australia, will be used by Researcher to observe the quality and cultural appropriateness of the affordable housing provision projects in Sarbagita Metropolitan, Bali.*

*These checklists are set up as series of tables and check boxes. Please tick one  for option questions and write down answer on tables.*

### Part 1 Project Identification

Name of respondent :  
Project Address :  
Phone/Fax number :  
Type of Domicile Project :

*(Please tick one  the type of your domicile housing project)*

- |                                      |  |
|--------------------------------------|--|
| Formal Projects                      | Informal Projects                                |
| <input type="checkbox"/> Public      | <input type="checkbox"/> Squatter Upgrading      |
| <input type="checkbox"/> Private     | <input type="checkbox"/> Informal Land Sub       |
| <input type="checkbox"/> Cooperative | <input type="checkbox"/> Informal Rental Housing |
| <input type="checkbox"/> Partnership | <input type="checkbox"/> Self-built on land rent |
| <input type="checkbox"/> Other :     | .....  |

## Part 2

### The Quality and Cultural Adequacy of Project

Please tick  $\surd$  as appropriate *VG=Very Good 5, Gd= Good 4, Fr=Fair 3, Pr=Poor 2 and Very Poor=VP*, to rate the quality and cultural adequacy of this project

#### A. Housing Quality

No.	Variables	Indicators	Quality				
			VG=5	Gd=4	Fr=3	Pr=2	VP=1
1	House Quality	<ul style="list-style-type: none"> <li>• Design layout, Shape of lot</li> <li>• Number and size of room</li> <li>• Building material</li> <li>• Structure and construction</li> <li>• Sitting of the building within plot</li> <li>• Building façade and the height</li> <li>• Orientation and Circulation</li> </ul>					
2	Infrastructure and Service delivery	<ul style="list-style-type: none"> <li>• Road: Width, material and construction</li> <li>• Water supply</li> <li>• Solid waste management and disposal</li> <li>• Drainage and sanitation</li> </ul>					
3	Public Facilities Accessibility	<ul style="list-style-type: none"> <li>• Education facilities: kinder garden, basic, secondary and senior high school</li> <li>• Health facilities: health centre, drug store, etc.</li> <li>• Commercial area facilities: shopping store</li> <li>• Government and public service facilities: security, community centre, public parking, public toilet and police station</li> <li>• Space for praying facilities: mosque, church and temple</li> <li>• Recreation facilities: playground area</li> <li>• Sport and open space facilities: sport centre and park</li> </ul>					

#### C. Cultural Elements

No.	Variables	Indicators	Cultural Adequacy				
			VG=5	Gd=4	Fr=3	Pr=2	VP=1
4	Cultural Elements	<ul style="list-style-type: none"> <li>• Zoning of living spaces (separation of sacred – profane areas within the house)</li> <li>• Building material (use of local material)</li> <li>• Orientation and circulation (sun rise and mountain as sacred and sun set and beach as profane)</li> <li>• Balinese structure and construction</li> </ul>					

No.	Variables	Indicators	Cultural Adequacy				
			VG=5	Gd=4	Fr=3	Pr=2	VP=1
		<ul style="list-style-type: none"> <li>• Building form (square or combination square)</li> <li>• Boundary wall and Balinese gate</li> <li>• Height of building (less than 15 meters)</li> <li>• Elevation/façade (three parts: head, body, foot)</li> <li>• Form of roof</li> <li>• Balinese ornament and color</li> <li>• Room position and furniture arrangement (sacred – profane)</li> </ul>					

### Part 3 Need of Projects Improvement

Please indicate top 5 the areas needing improvement (1<sup>st</sup>, 2<sup>nd</sup>, ...5<sup>th</sup> most need improvement)

#### C. Housing Quality

No.	Variables	Indicators	5 Most Need Improvement
1	House Quality	<ul style="list-style-type: none"> <li>• Design layout, Shape of lot</li> <li>• Number and size of room</li> <li>• Building material</li> <li>• Structure and construction</li> <li>• Sitting of the building within plot</li> <li>• Building façade and the height</li> <li>• Orientation and Circulation</li> </ul>	
2	Infrastructure and Service delivery	<ul style="list-style-type: none"> <li>• Road: Width, material and construction</li> <li>• Water supply</li> <li>• Solid waste management and disposal</li> <li>• Drainage and sanitation</li> </ul>	
3	Public Facilities Accessibility	<ul style="list-style-type: none"> <li>• Education facilities: kinder garden, basic, secondary and senior high school</li> <li>• Health facilities: health centre, drug store, etc.</li> <li>• Commercial area facilities: shopping store</li> <li>• Government and public service facilities: security, community centre, public parking, public toilet and police station</li> <li>• Space for praying facilities: mosque, church and temple</li> <li>• Recreation facilities: playground area</li> <li>• Sport and open space facilities: sport centre and park</li> </ul>	

**D. Cultural Elements**

No.	Variables	Indicators	5 Most Need Improvement
4	Cultural Elements	<ul style="list-style-type: none"> <li>• Zoning of living spaces (separation of sacred – profane areas within the house)</li> <li>• Building material (use of local material)</li> <li>• Orientation and circulation (sun rise and mountain as sacred and sun set and beach as profane)</li> <li>• Balinese structure and construction</li> <li>• Building form (square or combination square)</li> <li>• Boundary wall and Balinese gate</li> <li>• Height of building (less than 15 meters)</li> <li>• Elevation/façade (three parts: head, body, foot)</li> <li>• Form of roof</li> <li>• Balinese ornament and color</li> <li>• Room position and furniture arrangement (sacred – profane)</li> </ul>	



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## Appendix B.5

### Consent Form for Interview Subjects

**Study Title:** Affordable Housing Provision Projects in Bali, Indonesia: Improving Quality and Culturally Acceptability

**Study Researcher:** \_\_\_\_\_

This study will form the major component of a 4<sup>th</sup> year/postgraduate dissertation for Ngakan Ketut Acwin Dwijendra from Curtin University, Department of Urban and Regional Planning. He can be contacted by phone on Phone No. +62-8123979500 or +61-431710294, or email: [acwindwijendra@yahoo.com](mailto:acwindwijendra@yahoo.com) and [n.dwijendra@postgrad.curtin.edu.au](mailto:n.dwijendra@postgrad.curtin.edu.au)

The supervisor for this study is Associate Professor Shahed Khan of the Curtin University of Technology who can be contacted by phone on +61-8-92663276 or email [s.khan@curtin.edu.au](mailto:s.khan@curtin.edu.au)

#### Consent

I \_\_\_\_\_ of \_\_\_\_\_

consent to participate in this study.

I have read the Information Sheet and understand the procedure that will be carried out, that is an interview conducted for the students research work.

I have been advised of the benefits/risks associated with participation.

I have had an opportunity to ask questions.

I understand that as a participant, my privacy will be maintained and that the information obtained in this research will be used in a manner to maintain absolute anonymity (unless I indicate otherwise in this form - below), guaranteed confidentiality, respect and personal rights.

I give permission for the results from this study to be used in reports or research papers or thesis (*be specific*).

I understand that I may withdraw from the study at any time without prejudice.

I consent / do not consent (*strike out one*) to my interview information being identified in the dissertation/research report as mine, on the basis that I have read and approved a transcript of that interview.

Signed :

Date :



GBO Box U1987 Perth, Western Australia 6845

## Appendix B.6 Participant Information Sheet

### **Title of Ph.D. Project:**

Affordable Housing Provision Projects in Bali, Indonesia: Improving Quality and Culturally Acceptability

### **Description of Information and Time Required of Participants**

The researcher needs information about: (1) Developers constraints in providing better quality and culture appropriateness of affordable provision housing projects; (2) Dwellers perception about quality and culture appropriateness of affordable housing provision projects; and. (3) Dwellers roles in affordable housing provision projects. It will take about 60 minutes to conduct interview or answer the questionnaire.

### **Confidential and Secure Information**

Only the researcher and supervisor are able to access the research data. Any information, which might potentially identify participants, will not be used in published material and will be kept in a locked cabinet for five years, before it is destroyed.

### **Advices Participation**

Participants involve entirely voluntary and they have a right to withdraw from the interview at any time without prejudice.

### **Any Risk /Benefits to Participants**

In this research there is no a critical question and it will have minimal risk for participants. All information in interview will be completely confidential. All participants will be de-identified. All participants will be full informed about the project before they give the consent for interview.

### **Contact Details of the Investigator**

Name of investigator : Ngakan Ketut Acwin Dwijendra  
Student ID : 13754895  
School : Humanities  
Faculty : Built Environment – Urban and Regional Planning  
University : Curtin University

Should participants have any problems regarding this matter please do not hesitate to ask investigator, Ngakan Ketut Acwin Dwijendra: mobile phone +62-8123979500 or +61-431710294 or email: [acwindwijendra@yahoo.com](mailto:acwindwijendra@yahoo.com), [n.dwijendra@postgrad.curtin.edu.au](mailto:n.dwijendra@postgrad.curtin.edu.au) ; or my supervisor, Associate Professor Shahed Khan: phone: +61-8-92663276 or email: [s.khan@curtin.edu.au](mailto:s.khan@curtin.edu.au) ; or Human Research Ethics Committee, Curtin University of Technology: phone +61-8-9266 2784 or email: [hrec@curtin.edu.au](mailto:hrec@curtin.edu.au)

### **Confirmation of the Project**

This projects has been approved by the Curtin University Human Research Ethics Committee with the approval number: \_\_\_\_\_

## Appendix B.7

### List of Affordable Housing Projects Selected

NO	PROJECTS	DEVELOPERS	HOUSING AREA	HOUSING UNITS	HOUSEHOLDS	INHABITANTS	LOW	MIDLE	HIGH
							60%	30%	10%
<b>A</b>	<b>Formal Housing Projects</b>								
1	Monang-Maning	Perumnas/Public Developer	45.15	375	374	1496	225	113	38
2	Taman Griya	PT Bali Karisma Pratama	37.24	235	234	936	141	71	24
3	Bukit Sanggulan Indah	Perumnas-PT Multi Aditama	27.16	225	224	896	135	68	23
4	Kori Nuansa Jimbaran	PT Nuansa Bali Utama	16.90	185	184	736	111	56	19
5	Bumi Dalung Permai	PT Kusemas Citra Mandiri	72.50	485	484	1936	291	146	49
6	Green Lot Sem bada	PT Multi Aditama	43.00	275	274	1096	165	83	28
7	Puri Gading	PT Mitra Surya Cemerlang	35.30	260	259	1036	156	78	26
8	Taman Buduk Lestari	PT Cipta Kosala Dewata	25.00	225	224	896	135	68	23
9	Griya Nuansa Utama	PT Bali Karisma Pratama	28.00	255	254	1016	153	77	26
10	Blna Mumbul Permai	PT Melkrita Bangun Nusa	35.23	310	309	1236	186	93	31
11	Griya Asli Penyalin	PT Suryanadi	40.00	365	364	1456	219	110	37
		<b>Total 1</b>		<b>3195</b>	<b>3184</b>	<b>12736</b>	<b>1917</b>	<b>959</b>	<b>320</b>
<b>B</b>	<b>Informal Housing Projects</b>								
12	Tukad Badung	PT Trimas Karya	25.00	175	174	696	105	53	18
13	Ubung Kaja	PT Bina Budaya	20.50	125	124	496	75	38	13
14	Batubulan	PT Taman Puteri	41.35	275	274	1096	165	83	28
15	Kediri	PT Bukit Lumbung	37.60	160	159	636	96	48	16
16	Siulan	PT Baliva Graha	28.75	115	114	456	69	35	12
17	Panjer	PT Satya Dana Dewata	17.80	175	174	696	105	53	18
18	Sesetan	PT Marga Mahagotra	23.65	125	124	496	75	38	13
19	Pemogan	PT Arisandi Bangun Persada	27.50	225	224	896	135	68	23
20	Ketewel	PT Gajah Wahana	25.25	115	114	456	69	35	12
		<b>Total 2</b>		<b>1.490</b>	<b>1.481</b>	<b>5.924</b>	<b>894</b>	<b>447</b>	<b>149</b>
		<b>Total 1 + 2</b>		<b>4.685</b>	<b>4.665</b>	<b>18.660</b>	<b>2.811</b>	<b>1.406</b>	<b>469</b>

Source: REI Bali, 2009.

## Appendix B.8. List of Developers in Affordable Housing Projects

NO	NAME OF DEVELOPERS	DIRECTOOR	OFFICE ADDRESS	ID NO.	NUMBER	
					Telp	Fax
1	PT. GEMA INDAH ABADI	Kompyang Wisastra Pande	Jl. Tukad Unda No. 10 Renon Denpasar	13.00002	228667	238325
2	PT. BALI KERSA TAWA	Ir. Tony Mintara	Jl. By Pass Ngurah Rai No. 144 Padang Galak Sanur	13.00005	289575	289575
3	PT. BHUMI CHANDRA ASRI	Julisar Subianto	Jl. Kenededes, Kom. Pertokoan Kenededes No.8 Kuta	13.00007	703689	-
4	PT. BALI GALERIA	I Made Sukadana	Jl. WR. Supratman No. 309 Denpasar	13.00023	462195	-
5	PT. SWANDEWI	Ir. AA Ketut Wijaya	Jl. By Pass Ngurah Rai No. 25 Padang Galak Sanur	13.00029	289241	289241
6	PT. GAJAH WAHANA	I Made Wiartana	Pondok Alit Bungalow. Jl. Batu Belig No. 9 Denpasar	13.00032	730096	730096
7	PT. DARSNALA	Ir. Iwan Pangestu	Jl. Cokroaminoto No. 77 Denpasar	13.00033	420150	420150
8	PT. ARTEKARAYA DEVELOPMENT	Ir. Roby Irwan Halim	Jl. Raya Puputan No. 90 Renon Denpasar	13.00034	236953	236953
9	PT. KUSEMAS CITRAMANDIRI	Ir. AAM. Sukhadana Wedha	Jl. Diponegoro No. 150 Blok B-18 Denpasar	13.00035	221831	221831
10	PT. KORI BALI UTAMA	Putu Agus Suradnyana	Jl. Pulau Kawe No. 5X Denpasar	13.00038	221859	221859
11	PT. BALI CIPTA GRAHA	Drs. I Wayan Sunasdyana, AK	Jl. Pura Demak I Gg Buntu No.89 Teuku Umar Brt Dps	13.00039	7422329	238722
12	PT. KARYA PRIMA DEWATA	Drs. I Putu Parwata MK, MM	Jl. Teuku Umar No. 201 Blok 9 Denpasar	13.00041	243869	243872
13	PT. PURI DARMA SEJATI	Ni Luh Aryati, MRE	Jl. Tukad Yeh Aya No. 35 XX Denpasar	13.00043	236234	236548
14	PT. MULTI ADIPTAMA	Ir. Wayan Sutarna	Jl. Gatot Subroto IA No.18 Denpasar	13.00049	424774	424774
15	PT. GRIYA KARYA MANDALA	I Nengah Mertha, SE	Jl. Moh Yamin No.9 Denpasar	13.00052	234808	234808
16	PT. HARUMJAYA INDAH	Nyoman Yudhiawan	Jl. Ciung Wenara No.28. Giayanr	13.00055	943088	943286
17	PT. PULAU TAMAN	Ir. Wayan Suwindra	Jl. Puduk No. 2 Real Estat Taman Mumbul Nusa Dua	13.00057	771618	771611
18	PT. KRISNA WIDYATARA	I Wayan Widnyana	Jl. Pulau Blitung No. 4 Sebelah Kantor Lurah Pedungan Dps	13.00059	8423170	-
19	PT. GEMAMAS PURI SEMBADA	I Nyoman Catri	Jl. PB Sudirman No. 2B Denpasar	13.00060	243380	-
20	PT. CIPAREKSA BHUANA	Ir. Juniada Pagehgin	Jl. Tunjung Tutur No. 16 Gatsu Timur Dps	13.00071	464110	462991
21	PT. KARYA PRIMA GRAHA TERANG	I Ketut Gunarta	Jl. Teuku Umar No. 201 Blok 9 Denpasar	13.00073	243869	243872
22	PT. CALISTARAYA ABADI	I Ketut Budiana	Jl. Maluku A3 Denpasar	13.00082	223012	229892
23	PT. NUSA NOVA JAYA	Ni Made Ayu Nuratni	Jl. Kesumadewa I No. 16 Denpasar	13.00085	412230	-
24	PT. GUNUNG BERLIAN MURNI	Ir. Hendrik Pardede	Pertokoan Niaga Dewa Ruci B No. 5 Jl. Sunset Road, Kuta	13.00095	757300	-
25	PT. ADI MURTI	Ir. I Made Palayuta	Jl. Plawa No. 37 Denpasar	13.00098	224109	235860
26	PT. PARAMITHA LOKA JAYA	Ni Putu Suryani, SE	Jl. By Pass Ngrh Rai No.15 Sanur Denpasar	13.00099	282747	282748
27	PT. PULAU MAS UTAMA	Ir. Hari Budiarto	Jl. Raya Hayam Wuruk No. 177 Denpasar	13.00101	236004	237255
28	PT. SERANGAN WANA VIEW	Drs. I Wayan Winata	Jl. By Pass Ngurah Rai No. 52 XX Sanur Dps - Bali	13.00102	288556	288556
29	PT. LEMBAH BATUKARU	I Gd Ketut Suryanadhi	Jl. Gunung Sangyang No. 226 B Denpasar	13.00105	-	-
30	PT. MITRASURYA CEMERLANG	Koesmara Wangsadjidjaja, SE	Jl. Raya Uluwatu Perum. Puri Gading II Blok B1-19 Jimbaran	00.01089	702562	702560
31	PT. GRIYA SANGLAH INDAH	Jusuf Kiesworo	Perum. Teras Ayung Gatot Subroto Timur Dps	13.00110	463111	463941
32	PT. NUANSA BALI UTAMA	Ir. I Wayan Suantera	Jl. Gatot Subroto No. 249 Denpasar	13.00119	241993	241993
33	PT. TRIMAS KARYA	Ir. I Gst Ngrh Mayun Carma, MBA	Jl. Teuku Umar No. 123 Blok 3-4C Denpasar	13.00122	238952	-
34	PT. MISORI UTAMA	Ir. G Fandi Sendiarta	Jl. PB - Sudirman Agung Kompl. Ruko Blok C1-2 Dps	00.00150	262888	226859
35	PT. CIPTA GRIYA WISESA	I Wayan djayantara, SE	Jl. Soka No. 7 Denpasar	13.00128	463184	462414
36	PT. KATYA PRIMA MANDIRI	Ir. Gde Wijaya	Jl. Maluku II Gang I No. IA Denpasar	13.00131	226156	831310
37	PT. ASTINAPURI MANDIRI	Ir. I.G.A.N Susrama Putra	Jl. Muding Permai No.6 Denpasar	13.00132	420654	-
38	PT. BANGUN BALI UTAMA	Ir. I Gd. Arya Suyata	Jl. Pulau Kawe No. 5X Denpasar	13.00134	241978	241979
39	PT. GAPURA PRAMA MULYA	Drs. I Gd. Suratma	Jl. Kartini No.146 Denpasar	13.00135	222698	-
40	PT. PALUNGAN MASARI	Ir. Roby Irwan Halim	Jl. Raya By Pass Ngrh Rai No.144 Padang Galak Sanur - Dps	13.00136	283172	289575
41	PT. SAMPANDHA WAHANA DEV.	Felik Hariyanto Nyoto Saputra	Jl. Teuku Umar Agung No. 88 X Denpasar Bali	13.00138	490470	490490
42	PT. CIPTA DEWATA AGUNG ABADI	Hali Tirta Kusumowidjojo	Jl. Gunung Agung No. 176 Denpasar	13.00141	419259	419261
43	PT. BINA BUDAYA	I Ketut Sutarjana	Jl. Kesatria No. 8 Gianyar	13.00142	932420	-
44	PT. TEA KIRANA	Ir. I Putu Geria Astawa, MBA, MM	Jl. Saigading No. 81 Denpasar	13.00146	221932	263326
45	PT. MARGA MAHAGOTRA	Drs. I Ketut Sugita	Jl. Kemuda No. 1 Nangka Utara Denpasar	13.00152	414104	418421
46	PT. ARSANDI BANGUN PERSADA	Ricky Teguhutama Argawa	Jl. Belimbing No. 60 Denpasar	13.00156	244262	249958
47	PT. GEMA KARYA DEWATA	Made Maja Artini, SE	Jl. Gatot Subroto No. 100 XX Denpasar	13.00159	463665	463042
48	PT. GRIYA LESTARI CITRAASRI	Ni Made Oka Yuniawati	Jl. By Pass Ngrh Rai Perum. Kerta Lestari Blok V1 Dps	13.00163	728511	728511
49	PT. LIVA CITRA PERKASA	Ni Nengah Sadriyati, STP	Jl. Tukad Pakerisan No. 99 L Denpasar	13.00164	259930	259935
50	PT. MELKRITA BANGUN NUSA	I Nyoman Alit Puspadma	Jl. Diponegoro No. 98 Kertha Wijaya Blok A-16 Denpasar	13.00165	246902	-
51	PT. PENTA ARTA UPAYA	Tonny Alamsyah	Jl. Raya By Pass Ngrh Rai No. C-126 Sanur Denpasar	13.00167	289739	287739
52	PT. BALI CITRA PERKASA	Ir. I Made Martina Putra	Jl. Tukad Balian No. 888 Denpasar Selatan	13.00168	726124	-
53	PT. PRISKILA DIAN PERSADA	I Wayan Sudina, SH	Jl. Persada No.3 Teuku Umar Barat Denpasar	13.00169	7471691	734507
54	PT. SATRIAGRAHA ABDIBUANA	Drs. I Made Mindradjaja	Jl. Gatot subroto II No.5 Denpasar	13.00470	430127	430127
55	PT. GEKA REALTY	I Gde Wiratha	Jl. Nakula No.9 Seminyak, Kuta Bali	13.00172	730912	733377
56	PT. WAHYU GRAHA PERSADA	Ir. Ketut Subrata	Jl. Gatot Subroto I No. 17 Denpasar	13.00175	7422622	-
57	PT. BINTANG ARTHAWUJAYA	I.B. Gd. Ananta Putra Wijaya	Jl. By Pass Ngrh Rai No. 50XX Sanur	13.00176	286371	287122
58	PT. CIPTA KOSALA DEWATA	I Nengah Sutarna, SPd	Jl. Gunung Tangkuban Perahu No.69 Denpasar	13.00180	420836	420836
59	PT. DUTA CIPTA GRYA	Ir. Ketut Sudarmada	Jl. Pulau Buton No. 15 Denpasar	13.00181	239486	232673
60	PT. BALE KONSEP BALI	Made Bayu Adisastra	Jl. Durian No. 16 Denpasar	13.00182	238224	249244
61	PT. AGUNG YUDA PARSADA	Drs. A dewa N. Parinata, MBA	Jl. Pulau Semosir No. 14 Singaraja	13.00184	21990	21990
62	PT. BUANA BALI GRAHATAMA	Ir. I Wayan Parta	Jl. Gunung Talang III No. 2 Denpasar	13.00185	481440	-
63	PT. SEPA KARYA BUANA	Drs. Dewa Putu Selawa	Jl. Gotot Subroto Barat No. 123 X Denpasar	13.00187	280800	418730
64	PT. TIGA INTI SEMESTA	Harris Arthur Hedar	Jl. Gn. Atena II Blok B No. 1 Padang Sumbu Kelod Dps	13.00188	732554	-
65	PT. TATA NUNGRAHAMAS	Ir. A.A. M. Sukadhana Wendha	Jl. Ngurah Rai No.9 Padang Galak Sanur	13.00190	289575	-
66	PT. GRIYA WIRA KARTIKA	I Ketut Suyadnya	Jl. By Pass Ngrh Rai No.806 Suwung Kauh Dps	13.00191	720389	728235
67	PT. SANTIKA DARMA MERTA	I Made Sarna	Br. Panglan, Kel. Kapal, Kec. Mengwi, badung	13.00193	-	-
68	PT. SLIPI RAYA UTAMA	Ir. I Nyoman Suwarjana	Jl. Kartini No 83 Blok C-7 Denpasar	13.00194	419252	419252
69	PT. BALI UNICORN	Lena Chandra	Discovery Shopping Mall, Jl. Kartika Plaza Kuta - Bali	13.00195	755522	767300
70	PT. TUMPUNG SUDI KARYA	I Putu Sudiarsa, ST, MT	Jl. Tukad Balian No. 68 Renon Denpasar	13.00197	242162	-
71	PT. BALIVA GRAHA	Eddie Soesanto	Jl. Subur No. 21 Perumnas Monang Maning Denpasar	13.00198	488427	-
72	PT. PENGEMBANG JAYA	Mulyono	Jl. WR. Supratman No. 309 Denpasar	13.00200	462195	-
73	PT. GAPURA GIRI AGUNG	I Wayan Kusamawan, SE, MM, MBA	Jl. Cargo Permai No. 171 B Denpasar	13.00201	418311	424133
74	PT. TIRTA KENCANA LUHUR UTAMA	Ir. Roediono Soecepto Hadi	Jl. Kiecuung Br. Umalas Kauh Kerobokan Kuta Dps	13.00202	735652	732414
75	PT. BALI PILARMAS GEMILANG	Job Rusli	Jl. Tukad Banyusari No. 1 Denpasar	13.00204	245062	-
76	PT. CITRADARMA SWAGRYA	I Nyoman Sukadarma	Jl. Palapa No. 32 Denpasar	13.00205	721721	-
77	PT. DADHI GRAHA JAYA UTAMA	Ir. Igst Ketut Widiana	Jl. By Pass Kediri- Pesiapan No.9 Tabanan	13.00206	813961	813961
78	PT. CAHYA PARTA KARYA	Drs. I Made Suparta, MM	Jl. Akhmad Yani No. 466 Denpasar	13.00207	7428918	423573
79	PT. BALIKARYA DANAMANDIRI	Ni Made Parini, SE	Jl. Gunung Agung No. 204 Denpasar	13.00208	421722	421722
80	PT. ARKUTA PURI SARANA	Ir. I Nyoman Surestana	Jl. Perumahan Yani Permai No. 6 B Denpasar	13.00209	7452625	-
81	PT. SATYA DANA DEWATA	I Made Muryadana	Jl. Raya Muding Kelod No. 81 Denpasar	13.00210	425560	-
82	PT. ANUGRAH KORI AGUNG	Komang Parsen, SH	Jl. Muding Indah No. 202 X Denpasar	13.00211	7424125	437160
83	PT. RINJAYA CAGAR SAKTI	Endang Kadariningsih	Jl. Hang Tuah No. 15 B Sanur Denpasar	00.02067	288320	-
84	PT. PANCA KARYA MANDIRI	I Made Rai Adnyana. SH	Jl. Tunjung Mekar No. 27 Br. Padang Kerobokan Kuta- Badung	13.00212	426339	-
85	PT. GRALIA PROPERTINDO INTERNASIONAL	Ketut Sugiarta, SH	Jl. Cargo Permai No. 99E Denpasar	13.00213	410703	410703

Affordable Housing Provision Projects in Bali, Indonesia: Improving Quality and Cultural Acceptability

NO	NAME OF DEVELOPERS	DIRECTOOR	OFFICE ADDRESS	ID NO.	NUMBER	
					Teip	Fax
86	PT. MAHESA DANUKARYA UTAMA	I Made Kamisarsa	Jl. Tukad Banyusari Gg II/5 Denpasar	13.00214	225580	232817
87	PT. PASTI INDAH INDONESIA BARU	I Made Sudhana Yasa	Jl. Pasti Indah Br. Sema, Melinggih Payangan Gianyar	13.00215	977794	977794
88	PT. GANA REKSA BHUANA	Ir. Putu Eka Gajarty	Jl. Noja I No. 17 X Denpasar	13.00216	143007	243007
89	PT. TUNJUNG MAS DEWATA	I Nyoman Timur Jaya Ambara, SH	Jl. Kemuning No. 3 Denpasar	13.00217	224626	224626
90	PT. TURUS LUMBUNG LESTARI	I Gusti Ngurah Nadika, ST	Jl. Gn. Kalimutu 14 Perumnas Monang Maning Dps	13.00218	482509	490221
91	PT. GRIYA PANJI ASRI	Hadi Wijaya	Jl. Dewi Sartika No. 49 Singaraja	13.00219	22963	26377
92	PT. DARMA DUTA MANGGALA	Eddy Layanto	Jl. Raya Sesetan No. 214 Denpasar	13.00220	721953	-
93	PT. BALI KARISMA PRATAMA	Yurnal Asmar Isa	Jl. Danau Batur Raya No. 29 A Perumahan Taman Griya Nusa Dua	13.00221	772844	702544
94	PT. BUKIT BALI CEMERLANG	Lenny Tjiptadi	Jl. Raya Ngurah Rai Tuban Badung, Ruko Graha Niaga No.2 Kuta	13.00222	767482	-
95	PT. KRISNA GENTA WINANGUN	Ir. I Made Wardana	Jl. Bedahuku X no 8 Denpasar	13.00223	424896	424896
96	PT. MARGA GIRI KENCANA	Petrus Chandra	Jl. Raya Uluwatu Unggasan Kuta Badung - Bali	13.00224	704844	704842
97	PT. NUSA JAYA KERTI	Ni Made Kerthi	Jl. Trijata I No. 18 Denpasar	13.00225	225800	223772
98	PT. BALI MAYA DITA	Putu Ayata Kusuma	Jl. Perum Kosala Muding Kelod No. A-4 Kerobokan Kuta	13.00226	704822	-
99	PT. ABDI NUSA SEMESTA	Drs. I Made Geria. M.Si	Jl. Tunggal Ametung IV A No. 12 Dharmasanthi Ubung Kaja Denpasar	13.00227	424507	424507
100	PT. BINTANG SURYA	Gunawan Halim	Jl. Surapati No. 35 Singaraja	13.00228	21739	22460
101	PT. ARTHAMEGA UTAMA	Ir.PMG Jiwa Duarsa. MM	Jl. Angsoka Kargo I No. 11 Denpasar	13.00229	8092700	417084
102	PT. SRI GALIH UTAMA	I Wayan Arya Wardana	Jl. Trengguli No. 98 Denpasar	13.00230	461853	461853
103	PT. SARI TRI DATHU	I Gusti Agung Putu Wirata	Jl. Raya Yen Gangga No. 104 Tabanan	13.00231	812066	813325
104	PT. SURYA KEMBAR PERKASA	Frankel. SE	Jl. By Pass Ngrh Rai No.536 Sanur	13.00232	281749	-
105	PT. AKWILA CAHAYA PERSADA	I Nyoman Adi Sudarma	Jl. Gunung Salak No. 33 Denpasar	13.00233	413983	-
106	PT. SARWANADI UTAMA	I Made Suwitera	Jl. Batukaru No. 69 Tabanan Bali	13.00235	812010	812010
107	PT. TRIDUTA DEWATA	Drs. Ketut Adi Wijaya Giri	Jl. Tukad Petanu Gg. Rajawali No. 2 Denpasar	13.00236	728973	728973
108	PT. KUTA GALERI GEMILANG	Adrianto Mulia	Jl. Raya Kuta No. 68 Kuta Bali	13.00239	758165	758166
109	PT. ADI JAYA ABADI	Komang Sumantri	Jl. Buluh Indah No. 51 B Denpasar	13.00240	418924	418924
110	PT. BALI GRIYA MITRA UTAMA	Natalia Prih Samudreni	Jl. Gurita I Gang I No.45 Denpasar	13.00241	724827	-
111	PT. TRI BAURA SAKTI	Made Adi Angada	Jl. Majapahit No. 8 Kuta-Bali	13.00242	761928	-
112	PT. BALI NUSA PROPERTY	Ir. I Wayan Andiarsa	Jl. Bung Tomo IB No. 1 Gatoto Subroto Barat Dps	13.00243	411226	411226
113	PT. BALI TANAH MAS	I Wayan Sulastra	Jl. Tukad Yeh Aya No. 101 Blok E Denpasar	13.00244	248551	-
114	PT. SAKA ABI YUDA	Ir. H Maman Supratman	Jl. Tunggal Ametung III No. 15 Denpasar	13.00245	421524	421649
115	PT. OSO BALI CEMERLANG	Siriso Lukito Dirastro	Jl. Raya Pantai Kuta-Bali	13.00246	752308	757309
116	PT. GRAHA BALI MAXIMA	Joni Suriyanto	Jl. Gatot Subroto No. 357 Denpasar	13.00247	415985	415985
117	PT. PESONA ALAM PROPERTY	Drs. Legowo, SH	Jl. Diponegoro V/1 Denpasar	13.00248	222241	-
118	PT. SRI SEDANA	I Wayan Budiana, Bsc	Jl. Pertokoan Bali Maxima Blok L. Jl. Gatot Subroto No. 357 Denpasar	13.00249	416406	416406
119	PT. GRIYA ASRI UTAMA LESTARI	I Wayan Artadana, SE	Jl. Pidada VII/16 Denpasar	13.00250	414198	223856
120	PT. GUNA PRIMA MANDIRI	Ir. I Nyoman Kasniana	Jl. Puri Gading No.69 X Jimbaran-Bali	13.00251	254967	254967
121	PT. KARTIKA SARI CIPTA UTAMA	I Made Budi Setiawan Sari, SE	Jl. Ahmad Yani No. 9 Amlapura-Bali	13.00252	21226	21872
122	PT. ADIPURA KENCANA BALI	Dr. Ir. Gede Ngurah Widadana. M.Agr	Jl. Komodo 38X Denpasar	13.00253	224917	223152
123	PT. BALI LESTARI	I Nyoman Sukarna	Jl. Komp. Duta Wijaya Unit 7. Jl. Raya Puputan Renon Denpasar	13.00254	265527	264867
124	PT. KERTHA SENTOSA	I Ketut Wirawan	Jl. BPU No.27 Sakah Pemogan Denpasar	13.00255	710793	710793
125	PT. DWIKARYA MARGA RAHAYU	I Wayan Dira	Jl. Gunung Sanghyang No.5 C. Kerobokan Badung	13.00256	7426281	7451940
126	PT. KARYA NIRMALA	I Made Sujana. BAE	Jl. Uluwatu II No. 10 Jimbaran Kuta Selatan Badung	13.00257	702067	704208
127	PT. TIRTA BALI UTAMA	I Made Suwitra	Jl. Akasia I No. 34 Denpasar	13.00258	267597	261597
128	PT. ANUGRAH PRIMA TEKNIKA	Ir. A. Sultony	Jl. Pesona Utama No. 18 Pedungan Denpasar	13.00259	727070	729712
129	PT. SURYA NADI	Drs. I Dewa N. Parinata, MBA	Jl. Pulau Samsosir No. 14 Singaraja	13.00260	21990	21990
130	PT. DHARMA NGAE LESTARI	Gede Ary Priyambada	Jl. Seruni No.17 Denpasar	13.00261	225384	235182
131	PT. KUBU BUANA CEMERLANG	I Made Sukadana	Villa Kendal, Jl. Peti Tenget Kerobokan Badung-Bali	13.00262	735725	734555
132	PT. SASTRA MAS ESTETIKA	Ida Bagus Putra Arimbawa, ST	Jl. Mangga Sari No. 12 Kebo Iwa Selatan Denpasar	13.00263	8082094	410730
133	PT. WIRA MITRA UTAMA	Ir. I Putu Wijaya	Jl. Antasura Gang Teratai No 4 Denpasar	13.00264	414964	-
134	PT. BALI REGENCU TWENTYONE	Ida Bagus Gd. Ananta Putra Wijaya	Jl. Raya Ngurah Rai 50XX, Sanur Denpasar	13.00265	287711	287122
135	PT. SURYA PRADA PERSADA	I Nyoman Sujana	Jl. Gunung Lumut No. 30X Denpasar	13.00266	7471696	-
136	PT. SARI AMERTHA UTAMA	I Nyoman Sudiartana	Jl. Sanggalangit III No.4 Tembau, Gatsu Timur Dps	13.00267	461682	461682
137	PT. DWIPA KARYA	I Nengah Loka Wiranata	Jl. Pesagi Gg Mawar No.2 Amlapura	13.00268	944974	-
138	PT. PESONA DEWATA	Ir. I Wayan Suantra	Jl. Raya Puputan No. 188 Renon Denpasar	13.00269	262769	262791
139	PT. SUGIH HARTA PRATAMA	I Ketut Sugiarta	Jl. Raya Sempidi No. 2 Sempidi Badung	13.00270	7441290	-
140	PT. TAMAN PUTERI ESTAT	I Ketut Agung Ari Gunady	Jl. Warmadewa No.7 Timur SLTP 1 Balhbatuh Gianyar	13.00271	947812	947812
141	PT. BALI PECATU GRAHA	Ir. Made Gede Putrawan	Jl. Diponegoro 178 Blok A No.3 Denpasar	13.00272	257633	257614
142	PT. BASMASESA	I Gede Widadana	Jl. Tukad Irawadi, Galia Byun Gading III No. 11 Denpasar	13.00273	7430745	727212
143	PT. DELAPAN BELAS JAYA MAKMUR ABADI	I Gede Putu Setiawan	Boulevard Seloger Street Road No. 18 Simpang Dewa Ruci Kt	13.00274	766108	766118
144	PT. WIRASAHA TEGAR MANDIRI	I Nyoman Tegteq	Jl. Gelogor Carik Gg. Morneyt No. 9 Pemogan Dps	13.00275	7411503	710793
145	PT. DWIJAYA PERKASA	Gst. Wyn. Bayu Wedananta Alit Putra	Jl. Mohamad Yamin I/7 Renon Denpasar	13.00276	246112	247536
146	PT. GRIYA PUDAK NUSA DUA	Ichsan Soelistio	Komplek Pertokoan Kuta Poleng Blok C No.5, Jl Setiabudi Kuta	13.00277	750311	752709
147	PT. SEPAKAT BALI SEJAHTERA	I Made Kadiana, S.Sos	Jl. Raya Bali Cliff No. 70 Unggasan Kuta	13.00278	7422222	704444
148	PT. MULIA AGUNG SERASI	Ir. I Nyoman Suyana	Jl. Gunung Salak Utara No. 100X Denpasar	13.00279	7429451	416073
149	PT. SARI WAHYU KRISNA	Pande Wahyu Sudarmana	Jl. Gatot Subroto Barat No. 101 Denpasar- Bali	13.00280	7447877	410757
150	PT. PURI AMERTHA PHALA	Agus Putra Wiranata	Jl. Pertokoan Semer Kencana Indah No. 6 Jl. Br. Semer Kerobokan	13.00281	732248	733589
151	PT. KARUNIA WAHYU ANTARNUSA	Felik Hariyanto Nyoto Saputro	Jl. Teuku Umar Barat No. 88 X Denpasar	13.00282	490490	490490
152	PT. NIKI BANGUN SEJAHTERA	Ir. Veverry Andy Gigir	Jl. Buluh Indah No. 109 Denpasar	13.00283	428283	428283
153	PT. NIKI MULTI ASTATE	Ir. Wayan Sutarna	Jl. Tukad Yeh Empas Blok 33 /3 Sanggulan Tabanan	13.00284	813991	8133991
154	PT. JAYA KARYA IMPROVISASI	Ir. Sanny Broto, MM	Jl. Noja I No. 17 X Denpasar	13.00285	243007	243007
155	PT. ALAM BALI INTERNASIONAL	Made Bayu Adisastra, St.	Jl. Seruni No.19 Kel. Dangin Puri Kangin Dps.	13.00286	225384	235182
156	PT. BALI KONTRUKSI	Ir. I G. Ngrh. Putra Subakti	Jl. Wr. Supratman No. 150 AX Tohpati Dps.	13.00287	7417680	463310
157	PT. HARVESLAND INDONESIA	Ir. Anthony Haliwanto	Jl. By Pas Ngah Rai No. 8 Simpang Siur Kuta Bali	13.00288	750788	752599
158	PT. TRIO INFOSINAR BHUANA	I Nyoman Gandera, S.Pd	Jl. Raya Basangkasa No.151 A Denpasar	13.00289	733016	737345
159	PT. WIRA BALI UTAMA	Pande Putu Wirawan	Jl. Path Jelantik No.7X Gianyar(Gianyar Garmen)Bali	13.00290	7912596	-
160	PT. SAMBANDHA BALI DEVELOPER	I Gusti Made Aryawan, SE	Jl. Pulau Bitung No. 37 Denpasar	13.00292	8516644	723746
161	PT. MULTI REKA REALTY	Ni Putu Tirka Widanti, SS, MBA	Jl. By Pas Kediri Pesiapan Tabanan Bali	13.00293	7804846	814671
162	PT. SEKAR BINTANG BHUANA	I Ketut Boyke Samudra Putra	Ruko Dalung Permai Blok D No. 16 Denpasar	13.00294	439018	439018
163	PT. DWIYAN JAYA UTAMA	I wayan Muka,ST,MT	Komplek Ruko Segitiga Mas Kuta Blok 22 Bali Galeria Kuta	13.00295	7472838	770124
164	PT. ARYA NUSA JAYA	I Made Sari, SH	Jl. Tangkuban Perhu No. 54 Denpasar	13.00296	7471643	425536
165	PT. ANDIKAWIDI GRAHA LARAS	Ni Luh Parwati	Jl. Tukad Irawadi, Galia Byun Gading III No. 11 Denpasar	13.00297	255551	255551
166	PT. CUPUMANIK GRIYA PERSADA	I Gusti Ayu Rai Yusni. SE	Jl. Raya Uluwatu KM7 Pecatu Kuta Selatan-Bali	13.00298	8480699	8480699
167	PT. BUKIT LUMBUNG	I Komang Gde Suparta, ST	Jl. Tukad Gangga No.20 Denpasar-Bali	13.00299	239355	239355
168	PT. HARDYS PROPERTINDO	Ir. I Gede Agus Hardiawan	Jl. Tukad Pakerisan 100X Denpasar	13.00300	256990	256991
169	PT. DEWI DEVA DEVI	Ir. I Gusti Eka Nyoman Eka Bayu	Jl. Nuansa Hijau utama XVII/3 Ubung Kaja Denpasar	13.00301	7449142	415347
170	PT. KHARISMA PRIMA PERSADA	I Putu Gde Rama Wartika, ST	Jl. Ume Gunung No. 66 X Sempidi Mengwi-Badung	13.00302	7968866	-
171	PT. NIKKI PURI PROPRTI	Putu Surya Jaya	Jl. Gatoto Subroto IV No. 18 Denpasar	13.00303	412900	412806
172	PT. TARI UTAMA JAYA	Ida Bagus Tarmiana	Jl. Gadung No. 83 Denpasar	13.00304	237311	231311
173	PT. ANUGRAH GRAHA MANDIRI	Djatmiko, BA	Jl. Buana Kubu No. 30 Denpasar	13.00305	480712	480713

Source: REI Bali, 2009.

## Appendix B.9 List of Interviewers

### A. Government

1. Denpasar Municipality (KOTAMADYA)
2. Local Development Planning Board of Denpasar (BAPPEDA)
3. Urban Management Department (DINAS TATA KOTA)
4. Public Work Department (DINAS PU CIPTA KARYA)
5. Housing and Human Settlement (DINAS PERUMAHAN PERMUKIMAN)

### B. Developers

#### *Public Developer (PERUMNAS)*

1. Head of PERUMNAS (*Taman Griya and Monang-Maning Housing and Settlement*)
2. Technical Staff of PERUMNAS
3. Financial Staff of PERUMNAS

#### *Private Developers*

4. PT Nuansa Bali Utama (Kori Nuansa Jimbaran Housing and Settlement)
5. PT Kusemas Citra Mandiri (Bumi Dalung Permai Housing and Settlement)
6. PT Kori Bali Utama.
7. PT Wahyu Graha Persada.
8. PT Palungan Masari
9. PT Multi Aditama
10. PT Pulau Mas Utama
11. PT Adi Murti
12. PT Bali Pecatu Graha
13. PT Melangit
14. Budhiana, PT Bangun Bali Utama
15. PT Karya Prima Mandiri
16. PT Cipta Griya Wisesa
17. PT Genta Pesona Fajar
18. PT Indogriya Tata Buana

#### *REI (Real Estate Indonesia in Bali Representative)*

19. Head of REI Bali
20. Department of Affordable Housing Provision, REI Bali

## Appendix B.10

# Summary of Interviewers Results

### Government

- Government through State Ministry of Housing and Settlement has responsibility to regulate the development of housing and settlement through national housing policy, law and regulations and to guide the developers for implementing housing and settlement development policy through guideline development.
- Government through Public works (PU CIPTA KARYA) has responsibility to provide main infrastructures for supporting and to guide and regulate housing and settlement development on the basis of national standard housing development.
- Local Development Planning Board (BAPPEDA) in has responsibility to guide the allocation of housing and new settlement development in urban areas through RUTRK (Master Plan).
- BAPPEDA also encourages the development of housing and new settlement due to the rapid growth of tourism and industrial development in Bali.
- KOTAMADYA has responsibility to control and monitor the housing and settlement growth in urban areas through a team which is collaborate between KOTAMADYA, TATA KOTA, BAPPEDA, PU CIPTA KARYA and other institutions.
- National Saving Bank (BTN) as financial instrument for low-income groups has a team to verify the quality of project, which usually come from private consultant. At this moment, however, it is not working properly because lack of corporation actors involved and financial constraints.
- According Public Works Department (PU CIPTA KARYA), there are clearly rule that after finishing project and fulfilled all requirements of housing and settlement standards, developers have to submit to government so government will be responsible in project upkeep and maintenance.
- Developers have to involve the local Balinese staff in design team of affordable housing projects who have profesional experience and strong familiarity in Balinese culture housing design.
- Developers should regularly acceses and understand the government policies/regulations and have to arrange the training/education about Balinese culture for their staff.
- 

### Perumnas (Public Developer)

- Perumnas is able to provide the affordable houses for low-income people. In order to achieve the prices of house to be affordable, they realised that they provided slightly low quality and inadequate Balinese culture value of building material. They hoped that the community themselves will improve and upgrade their house later.
- Perumnas has a goal to implement the government policy to prioritise the development of low cost housing and settlement in order the low-income people could reach and access their demand in housing. Otherwise, the government can not control the cost of housing development, therefore the prices of houses that was determined by government would be difficult to achieve.
- Perumnas expressed that they received many kind subsidies from government particularly in land acquisition, accessing easily legal permit and main infrastructure provision. These incentives have fully helped Perumnas to provide affordable house for low-income groups but still unable to fulfilled the Balinese culture value because it will be more cost.
- They revealed that there was insufficiency a special control from local government in the projects, which they provided. The strictly control is only in approving project proposal and in post construction especially the delivering of responsibility in project upkeep and maintenance.
- They also recognised that they have sufficiency staffs to manage the projects, yet they are still lack of skills-knowledge of Balinese culture value and incapability to manage professionally particularly in project management.

- The local government should provide regulations and guidance of Balinese culture in housing development projects for developers.
- The local government should have example as prototype of quality and culture appropriateness in housing development projects for developers.

### **Private Developers and REI (Real Estate Indonesia)**

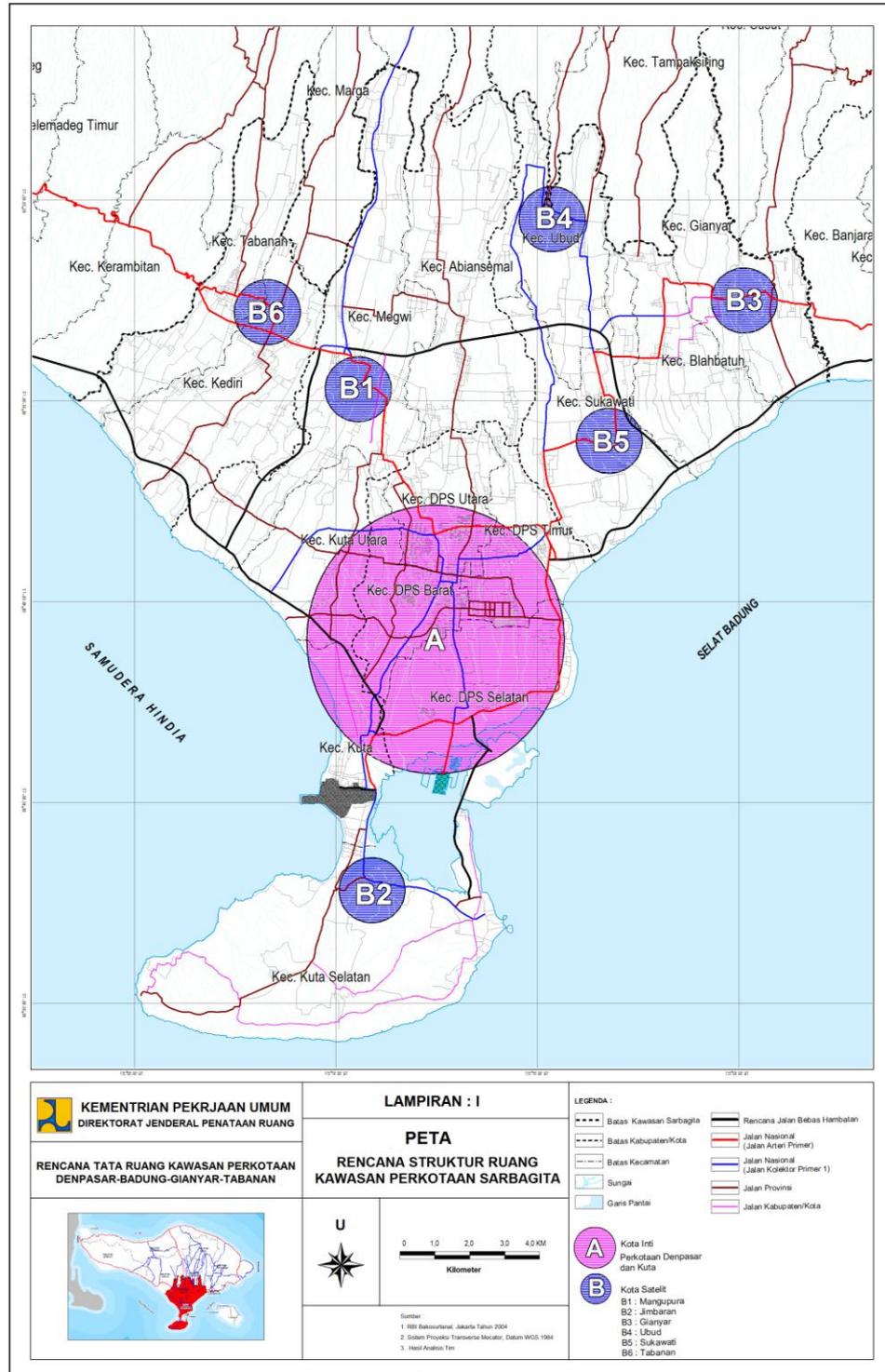
- REI revealed that private developers have been a dominant sector in low-income housing provision in Denpasar.
- When economic and global crises is hindering in Denpasar, most private developers suffered, collapsed and went bankrupt because they have not sufficient financial to continue housing development.
- Private developers are unable to provide affordable houses because they build houses without subsidies or incentives from government. The projects were constructed without strongly government intervention.
- The land prices and building materials cost are very high. It is considered as constraint for private developers to provide affordable houses, better quality and culturally acceptable of low-income housing and settlement.
- The location, which is closely to a city centre and tourism area, is leading to high price of land.
- They revealed that the legal permit and other administration are too complicated and take a long time. They have to pay some extra cost for legal permit in development process in order to shorten the bureaucratic procedures.
- Private developers have the strength to produce a mass of low-income housing and settlements. It is not released by the capability of private developers in professional management project and financial resources.
- Barriers and constraints of developers in providing culturally acceptable affordable housing is Issue of cost and expenditure consist and capability of human resources in design team.
- Local government should provide the support for developers specifically for affordable housing project to encourage them providing housing more culturally acceptable and better quality. The government support could be such as: incentives, subsidies, soft loan and other support with transparency and fairly criteria and procedure.
- Local government should provide easy access to developers for policies/regulations of Balinese culture or other standards, norm of Balinese housing design through regularly training, exhibition and campaign.

### **Dwellers**

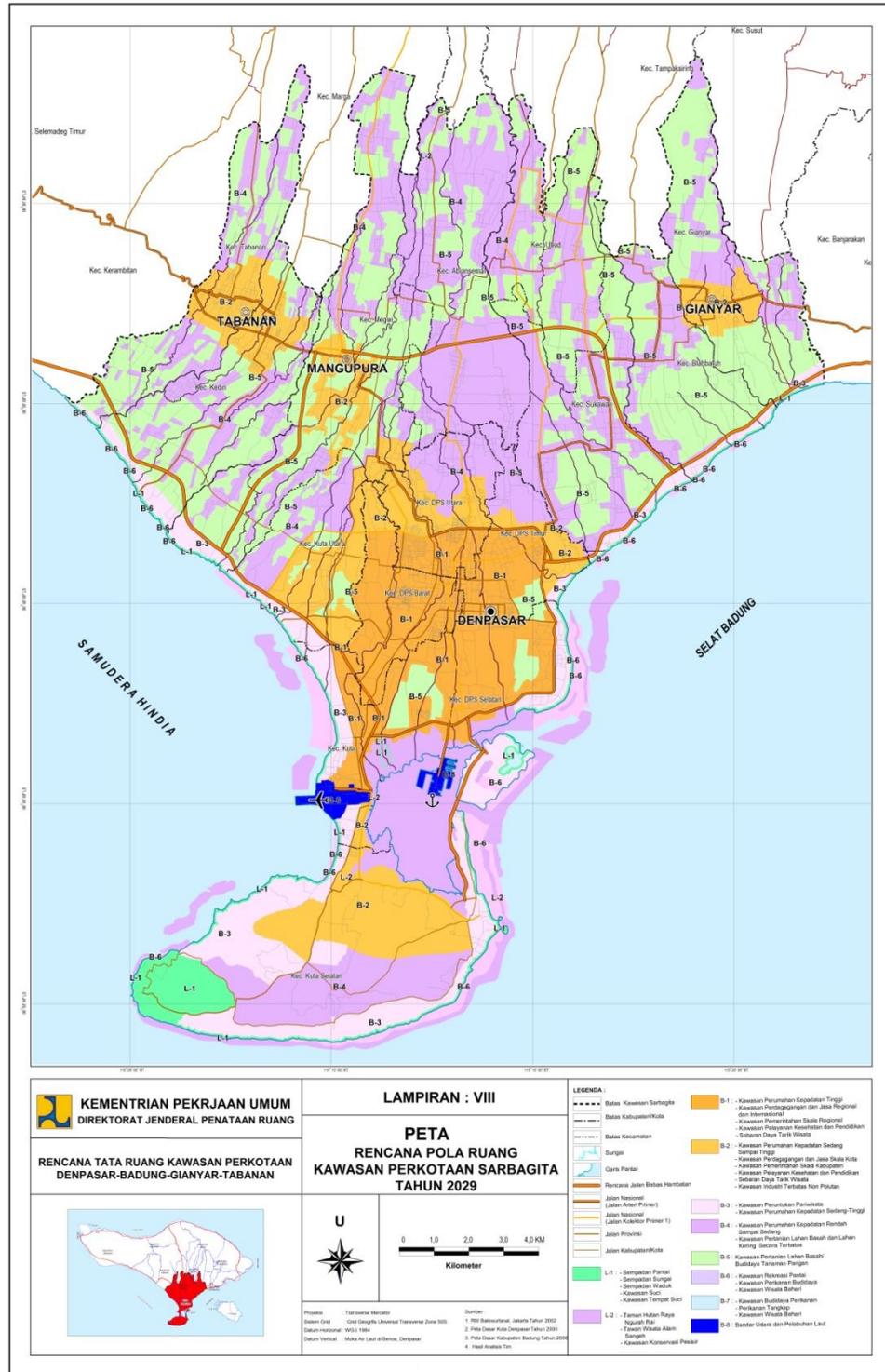
- They have no instruments or means to complain and fully involve in the quality and cultural value in all stage of project
- Dwellers especially low income people did not involve in planning and design, and construction stage, they just involved in maintenance stage of the project. The low income has no power and means to influence the projects.
- Lack of Balinese House concept, building standard and norm and culture value
- Low building standard of houses, infrastructure provision and public facilities
- They expressed that the building materials that developers used lack profoundly of quality and the uncomfortable of room size and inadequate some rooms really needed.
- Most residents desired greatly to improve the garbage collection and road conditions. Because especially in rainy season, this is allowing seriously flooding everywhere and damaging the health of residents whom lives there.
- They are anxiety particularly in rainy season because the drainage system is not adequately to contain the households and rainwater disposal.
- The residents perceived that they are able to utilise their private wells with sufficient quality of underground water. They desire to government urgently to undertake improvement in those areas, before in the future to be worse because of threatening their health condition.
- They want the completeness of public facilities because there is inadequacy of facilities like praying area, education, health, parking area, public service and playground area.
- Public facilities, which are provided by developers, are not fully functioned. Some facilities are low maintenance and are becoming neglected.

- Praying place, open space and playground area change function to parking area for households living close there. This is resulted insufficiency of parking facilities in that area.
- A lot of space, which is planned for public facilities is not yet built. It is not clear between the planning and realisation.
- Dwellers perceive the low quality of the current product of affordable housing projects intern of physical standards, spaciousness, cultural appropriateness, infrastructure and service delivery and availability and accessibility of public facilities. Developers have to give space for dwellers to involve and participate in all the stage such as: planning and design, construction, maintenance tasks once, take up home improvement/incremental development of the projects.
- Developer should provide for dwellers the opportunity to influence the project, power or means in the project design and participate in any stage of projects. With condition, dwellers should be willing to spend time to participate and have the knowledge to contribute meaningfully.
- The local government should conduct control and monitoring on the quality and culture appropriateness in affordable housing development projects with independent superviion team and clearly procedure and mechanism. The team should come from among stakeholders such as: CBO, NGO, universities, developers and local government.
- The local government also should have a responsibility in project up keep and after developers completing the affordable housing projects it in terms of infrastructure, service delivery and facilities. For this reason, local government should set up clearly criteria and procedure and apply penalty for developers who have not fulfilled the criteria and procedure or who have neglected the project.

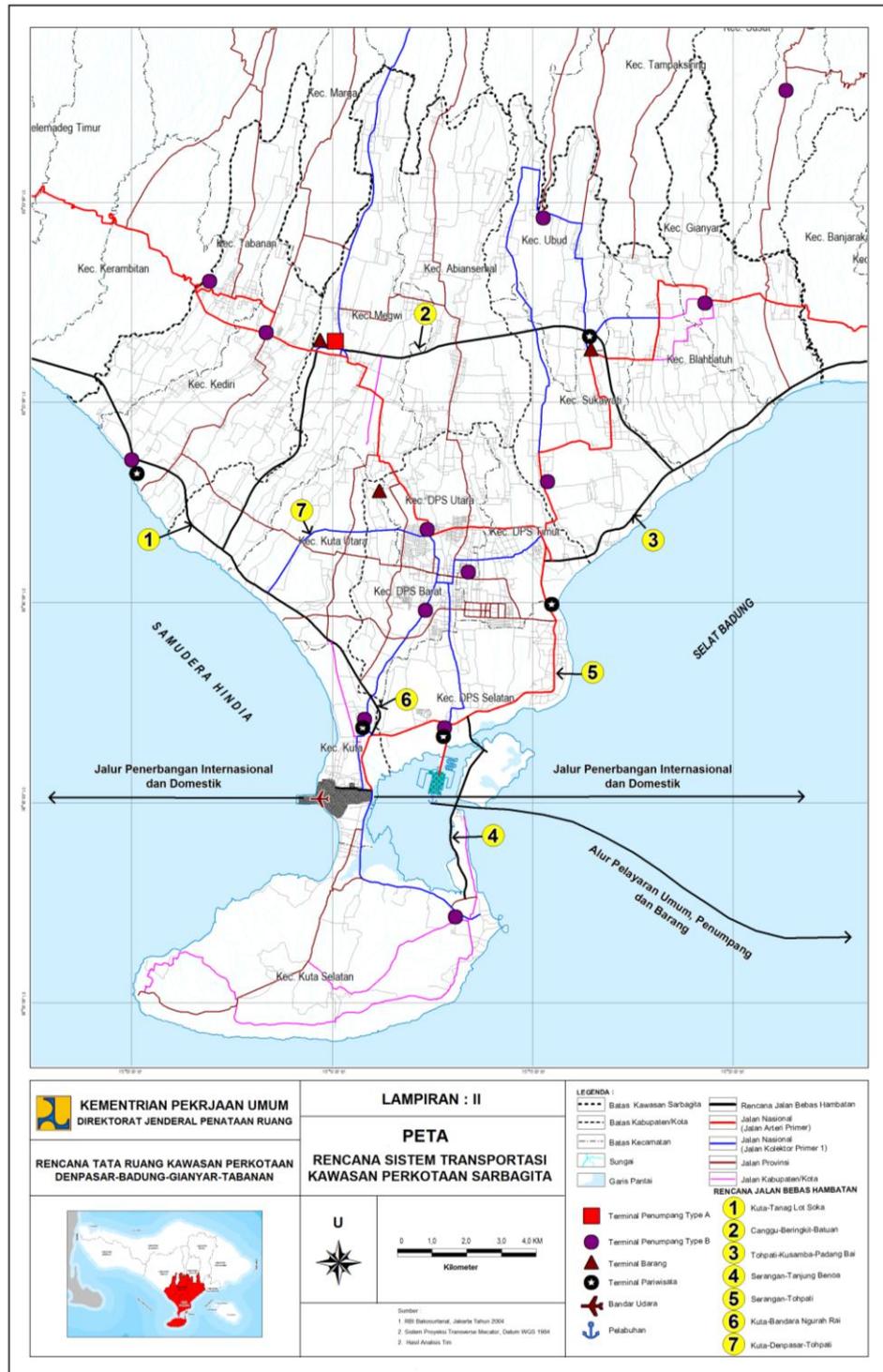
## Appendix B.11 Map of Sarbagita Metropolitan



**Map B.11.1. Structure Plan of Sarbagita Metropolitan Bali**  
Source: Bappeda Bali (2008), Master Plan of Sarbagita Metropolitan 2008-2013



**Map B.11.2. Master Plan of Sarbagita Metropolitan Bali**  
**Source:** Bappeda Bali (2008), Master Plan of Sarbagita Metropolitan 2008-2013



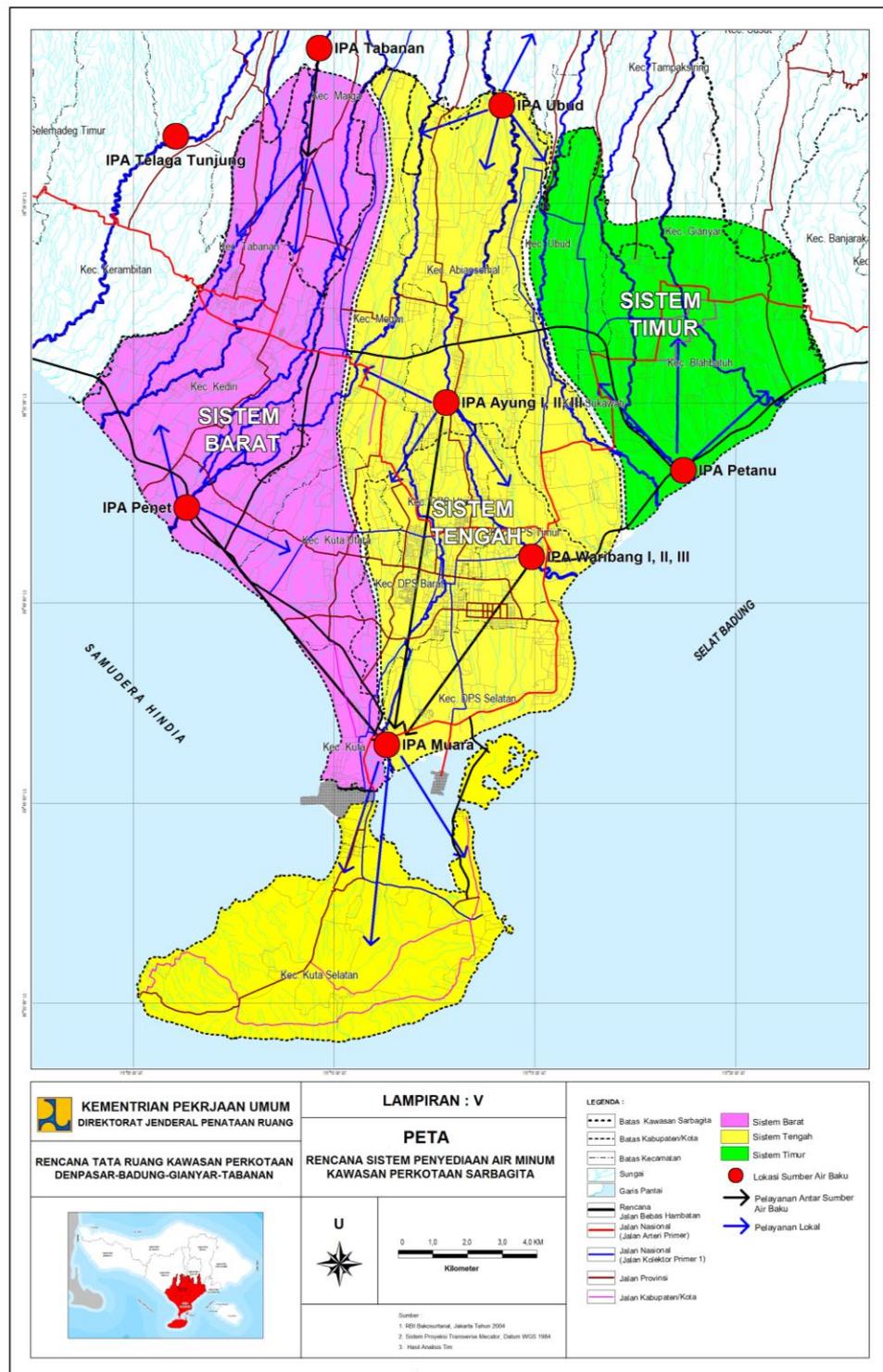
**Map B.11.3. Transport System Plan of Sarbagita Metropolitan Bali**  
 Source: Bappeda Bali (2008), Master Plan of Sarbagita Metropolitan 2008-2013



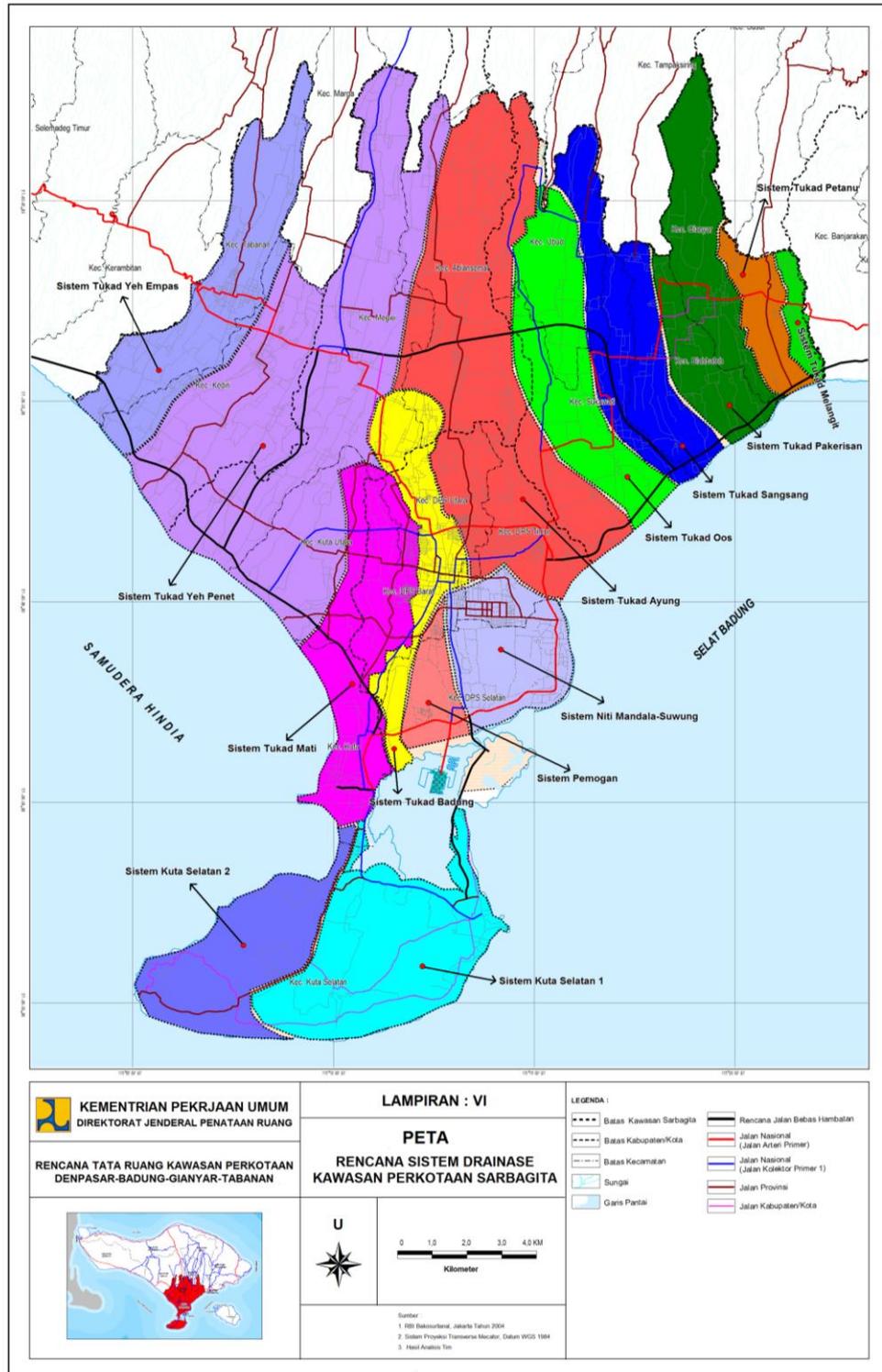
**Map B.11.4.** Electricity System Plan of Sarbagita Metropolitan Bali  
**Source:** Bappeda Bali (2008), Master Plan of Sarbagita Metropolitan 2008-2013



**Map B.11.5.** Telephone System Plan of Sarbagita Metropolitan Bali  
**Source:** Bapeda Bali (2008), Master Plan of Sarbagita Metropolitan 2008-2013



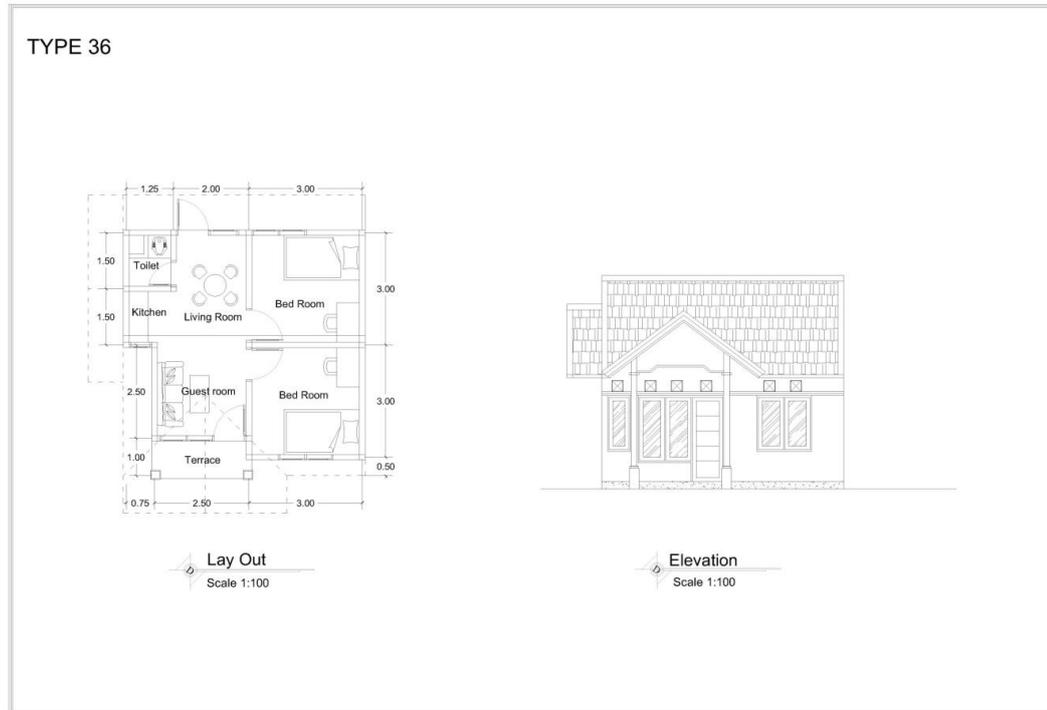
**Map B.11.6.** Air Supply System Plan of Sarbagita Metropolitan Bali  
**Source:** Bappeda Bali (2008), Master Plan of Sarbagita Metropolitan 2008-2013



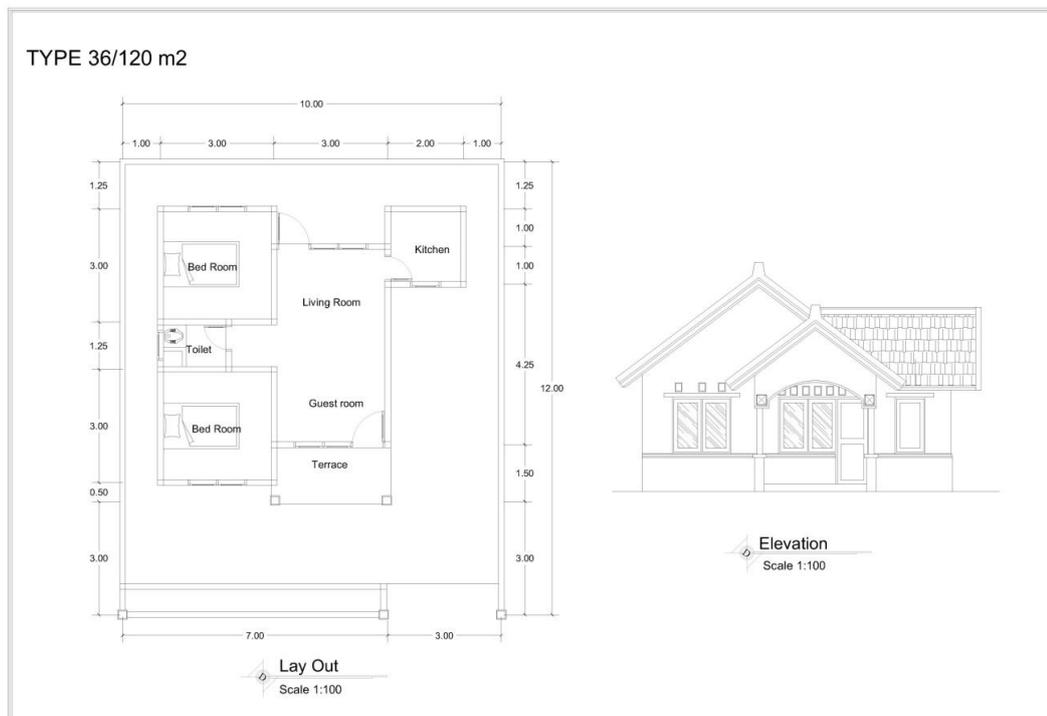
**Map B.11.7. Drainage System Plan of Sarbagita Metropolitan Bali**  
Source: Bapeda Bali (2008), Master Plan of Sarbagita Metropolitan 2008-2013



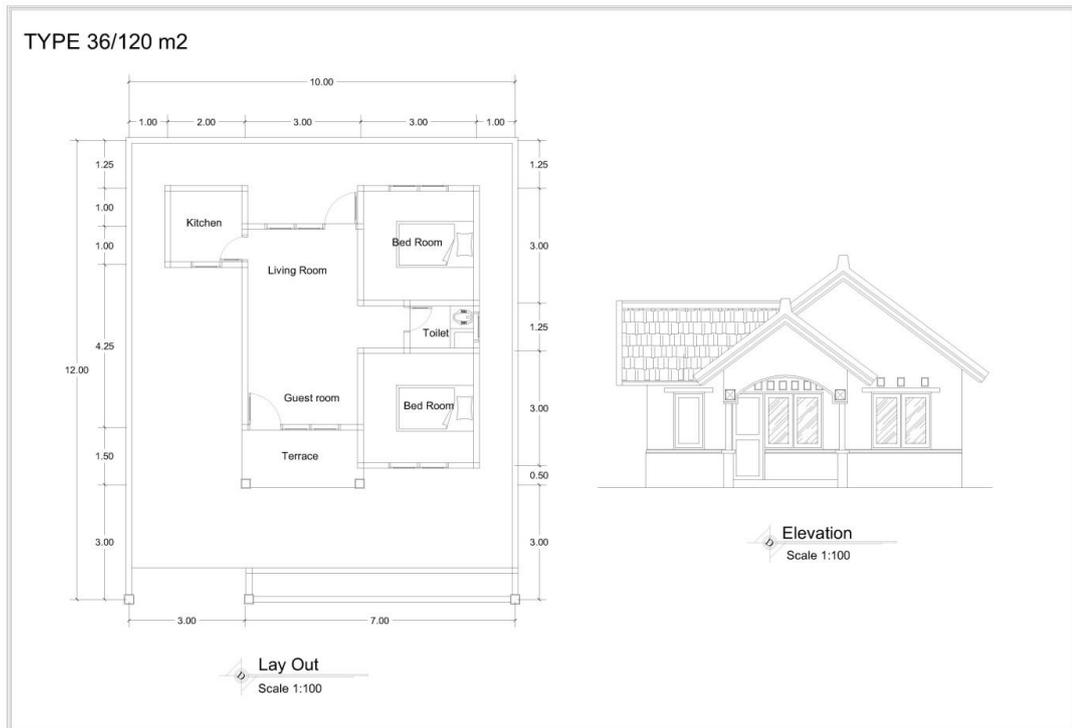
## Appendix B.12 Drawing Type of Houses in Projects



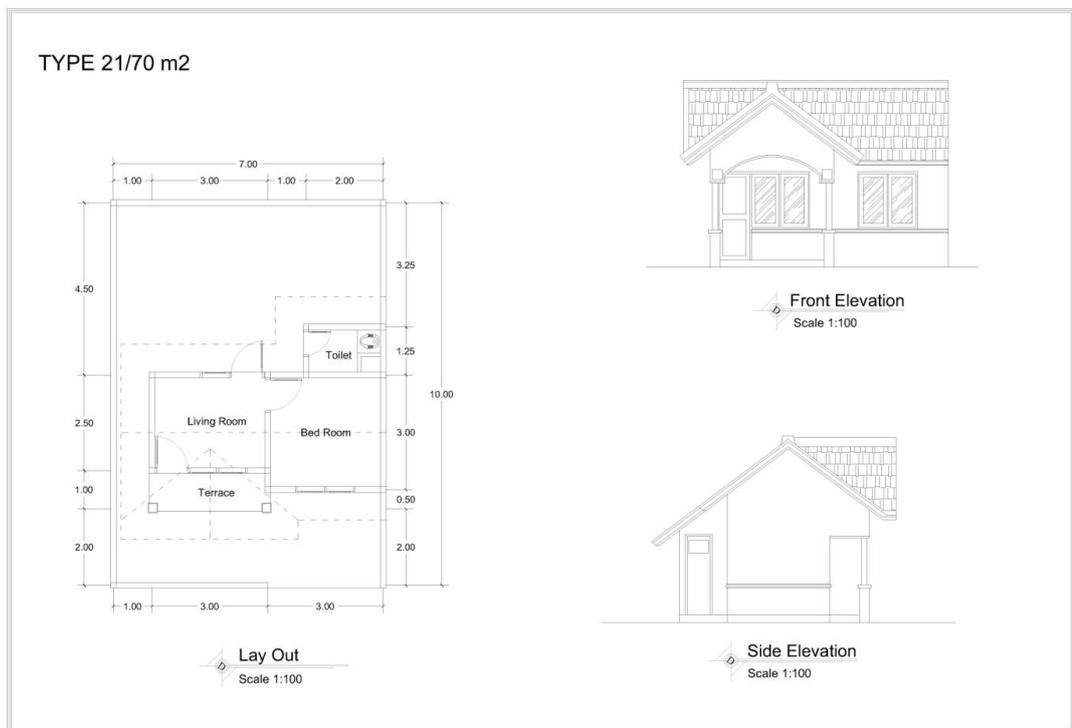
Source: REI Bali (2011), *Affordable Housing Projects in Bali*



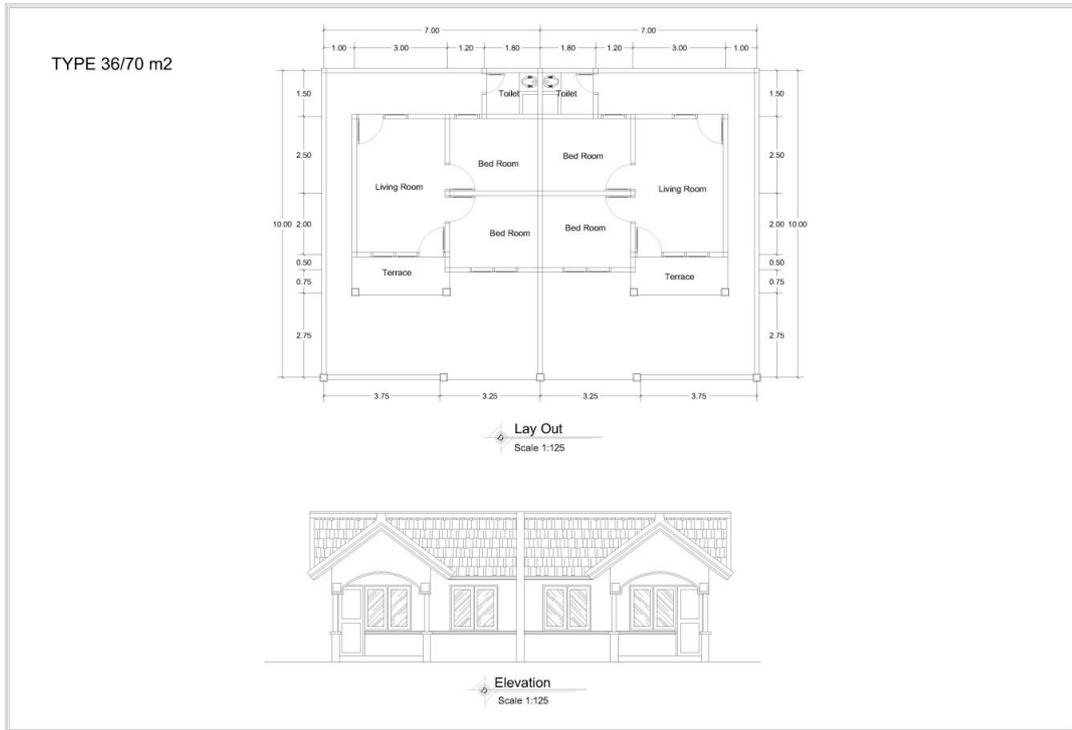
Source: REI Bali (2011), *Affordable Housing Projects in Bali*



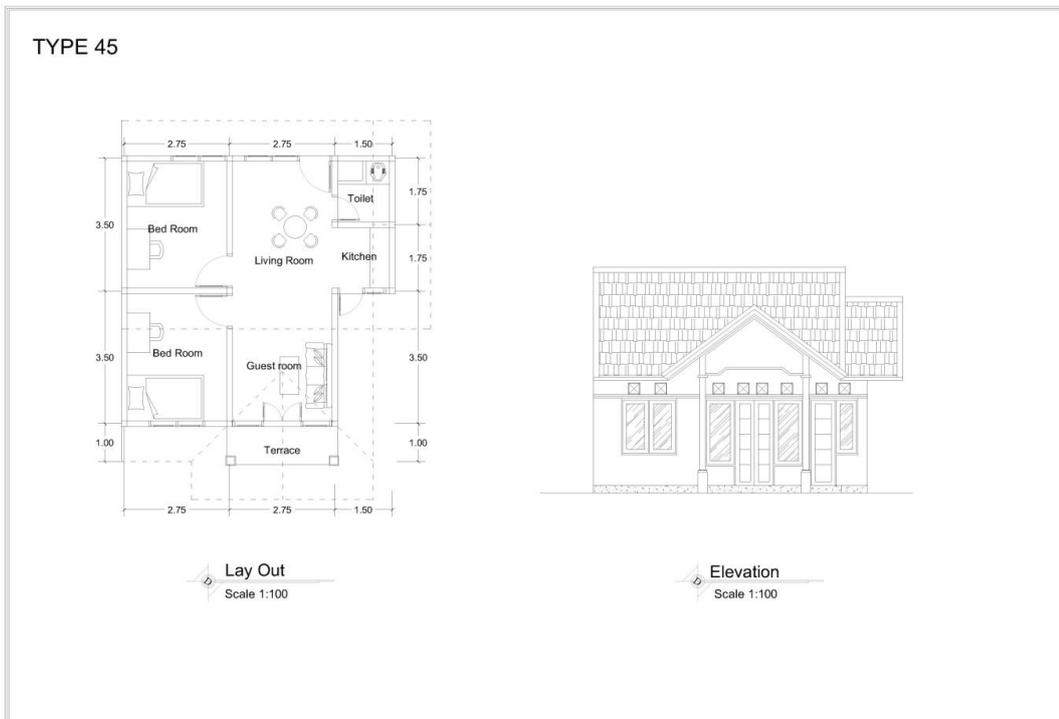
Source: REI Bali (2011), *Affordable Housing Projects in Bali*



Source: REI Bali (2011), *Affordable Housing Projects in Bali*



Source: REI Bali (2011), *Affordable Housing Projects in Bali*



Source: REI Bali (2011), *Affordable Housing Projects in Bali*

## Appendix B.13 Pictures of Projects



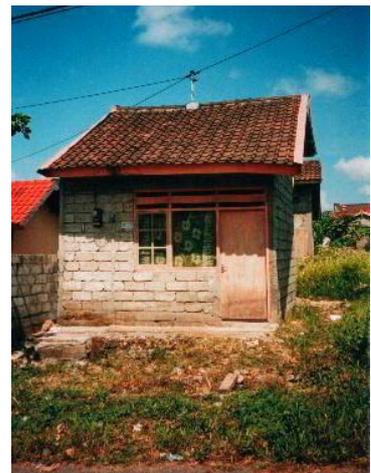
*House T.36  
in Bukit Sanggulan Indah Projects*



*House T.21  
in Bukit Sanggulan Indah Projects*



*Garbage Collection  
in Sanggulan Indah Projects*



*House T.21  
in Monang Maning Projects*

**Source:** Fieldwork Survey, 2010

*Sport facilities become neglected in Monang-Maning*



*House T.21 and T.36 in Kori Nuansa Jimbaran*



*Road Condition in Kori Nuansa Jimbaran*

**Source:** Fieldwork Survey, 2010



*House T.21 and T.36  
in Bumi Dalung Permai*



*Path way and community centre building  
in Bumi Dalung Permai*



**Source:** Fieldwork Survey, 2010



*Housing Transformation – cultural appropriateness by adding Balinese gate, building temple and changing boundary wall in Saba River Residence*

**Source:** Fieldwork Survey, 2010



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## **APPENDIXES C**

### **Focus Group Discussion and Results**



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## Appendix C.1

# Focus Group Discussion Guidelines

September 2011

Research Title:

### **Affordable Housing Provision Projects in Bali, Indonesia: Improving Quality and Cultural Acceptability**

Supervisor: **Associate Professor Shahed Khan** and Co-Supervisor: **Dr. Shane Greive**

PhD Student: **Ngakan Ketut Acwin Dwijendra**

Student Number: 13754895. Department of Urban and Regional Planning, Faculty of Built and Environment, School of Humanities, Curtin University of Technology

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## **A. OVERVIEW :**

*This focus group discussion is part of my research methodology in order to bring together representatives of stakeholder have been involved in this study to sit together in one room to discuss the implications of preliminary findings of study.*

*There are twelve discussants representing the stakeholders: Local Government (3 representatives), Developers (3 representatives), Dwellers/CBO/NGO (3 representatives) and University (3 representatives).*

*The aim of focus group discussion is to get inputs, comments, and suggestions based on preliminary findings and focus on specific issues that emerge. The following guideline set up as open questions will be used to direct the focus group discussion.*

## **B. QUESTIONS :**

*Please write down the answer on lines below:*

### **1. Affordable Housing Projects are not Culturally Acceptable**

Around 80% of dwellers believe that affordable housing projects in Bali are not culturally suitable in all aspects such as: zoning, building material, orientation and circulation, structure, building form, boundary wall, facade, and form of room, ornament, room position and building height. Also, around 95% dwellers mentioned that the Balinese house concept is different to that in the rest of Indonesia.

The three biggest issues regarding cultural acceptability of housing projects were identified as:

- (1) Zoning of living spaces
- (2) Balinese structure and construction
- (3) Balinese ornament and color.











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## Appendix C.2

# List of Stakeholders Representatives

21 December 2011

Research Title:

### **Affordable Housing Provision Projects in Bali, Indonesia: Improving Quality and Cultural Acceptability**

Supervisor: **Associate Professor Shahed Khan** and Co-Supervisor: **Dr. Shane Greive**

PhD Student: **Ngakan Ketut Acwin Dwijendra**

Student Number: 13754895. Department of Urban and Regional Planning, Faculty of Built and Environment, School of Humanities, Curtin University of Technology

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#### **Local Government (3 representatives)**

1. Planning Board of Bali Province
2. Public Work Department, Housing and Settlement
3. Urban Management Department

#### **Developers (3 representatives)**

4. PT Kusemas Mandiri
5. PT Kori Bali Utama
6. PT Multi Aditama

#### **Dwellers/CBO/NGO (3 representatives)**

7. Monang Maning Residence
8. Kori Nuansa Utama Residence
9. Dalung Permai Residence

#### **University (3 representatives)**

10. Udayana University
11. New Media College – Sekolah Tinggi Desain Bali (STD Bali)
12. Warmadewa University



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### Appendix C.3

# Documentation of Focus Group Discussion

21 December 2011

Research Title:

**Affordable Housing Provision Projects in Bali, Indonesia:  
Improving Quality and Cultural Acceptability**

Supervisor: **Associate Professor Shahed Khan** and Co-Supervisor: **Dr. Shane Greive**

PhD Student: **Ngakan Ketut Acwin Dwijendra**

Student Number: 13754895. Department of Urban and Regional Planning, Faculty of Built and Environment, School of Humanities, Curtin University of Technology

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*Focus Group Discussion at Udayana University Bali, 21 December 2011*

**Source:** FGD, 2011



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## Appendix C.4

# Results of Focus Group Discussion

21 December 2011

Research Title:

## **Affordable Housing Provision Projects in Bali, Indonesia: Improving Quality and Cultural Acceptability**

Supervisor: **Associate Professor Shahed Khan** and Co-Supervisor: **Dr. Shane Greive**

PhD Student: **Ngakan Ketut Acwin Dwijendra**

Student Number: 13754895. Department of Urban and Regional Planning, Faculty of Built and Environment, School of Humanities, Curtin University of Technology

---

### **1. Affordable Housing Projects are not Culturally Acceptable**

Around 80% of dwellers believe that affordable housing projects in Bali are not culturally suitable in all aspects such as: zoning, building material, orientation and circulation, structure, building form, boundary wall, facade, form of room, ornament, room position and building height. Also, around 95% dwellers mentioned that the Balinese house concept is different to that in the rest of Indonesia.

The **three biggest issues** regarding cultural acceptability of housing projects were identified as:

- (1) Zoning of living spaces
- (2) Balinese structure and construction
- (3) Balinese ornament and color.

The **five most important aspects** of the house that needed to be improved before dwellers could comfortably more in were:

- (1) Building material,
- (2) Boundary wall and Balinese gate
- (3) Balinese structure and construction
- (4) Balinese ornament and colour
- (5) Zoning of living spaces.

According to the dwellers, the **three most important visual elements** that characterise culturally acceptable houses in Bali are:

- (1) Balinese style ornaments
- (2) Balinese landscape and zoning of livings
- (3) The building materials.

*Would you like to comment on these findings Based on these findings, what actions should we take to create the affordable housing projects in Bali that are more culturally acceptable?*

*What obstacles do you see in implementing such recommendations?*

### Summary Results:

- The study shows that the affordable housing provision are not culturally suitable for Balinese dwellers. It is notable that the living culture of Bali is an important issue, well established and needs to be conserved and protected because the heritage must be conserved, the right of the Balinese to express their culture must be respected and it also makes good economic sense in terms of tourism potential. Balinese attach great significance to ensuring cultural appropriateness of housing: the extensive symbolism that a house carries within the cultural context even today.
- To create the affordable housing projects in Bali that are more culturally acceptable Dwellers:
  - To increase the role for effective community engagement in all stages of housing projects – from design to construction and post-occupancy.
  - To formulate the same perception about the regulation/policies and standard of Balinese culture and inform through training for developers in providing affordable housing projects.
  - To monitor, supervise and evaluate the affordable housing projects by involvement of CBO, NGO and universities.
  - To create and find out the building materials, construction and ornament which is low cost and sustainable.
- It seems that developers are uninterested in engagement of dwellers in the earlier (design and implementation) phases.

### 5. Developers Constraints in Providing better Quality and Culturally Appropriate Housing

“The concept of sweat equity in the projects is commonly used through (1) increasing the worth of a project created by the unpaid physical hard work of the owner/occupant, or (2) increasing the value of a property created by the hard work of the owner/occupant in enhancing its amenities (Larry Angel, 2001)”.

The study shows that the most critical constraints faced by developers in providing better quality and culturally appropriate housing are cost of building material (31%) and labor (24%). The study also shows that 15% dwellers are willing to contribute labor, theoretically the concept of “sweat equity” could be applied to lower the cost of housing in order to spend more on making housing more culturally suitable.

*Do you think the concept of sweat equity could be applied in order to improve the quality and cultural acceptability of affordable housing projects in Bali? How could this concept be applied? What are the possible opportunities/barriers in doing so?*

### Summary Results:

- This concept is possible to apply in Bali because it is part of Balinese culture as ancient heritage. It is close to the concept of Balinese local genius “Tri Hita Karana” harmony with God, Human and Environment.
- To be applied:
  - The developers should involve the dwellers from early stage.
  - It needs the mechanism among stakeholders: developers, governments

- and dwellers so that each get benefits. The trend of modernisation and globalisation become the barriers to apply the concept.
- It need clearly regulation and standard of Balinese culture. Among developers need to have the same perception and understanding of Balinese culture.
  - The barriers to apply is the constraints of developers related to building cost and lack of their understanding about Balinese culture.

## 6. Housing Transformation/Adjustment by Dwellers

The study shows that 66% dwellers took measures to make their houses more culturally suitable. The three most common actions that they took are: (1) changing internal wall, (2) installing/replacing the gate, and (3) changing the boundary wall. 63% dwellers mentioned that they have time to spare for home improvement work.

The study also shows that dwellers have to spend more money, time and labor to consolidate the house to make it more culturally acceptable. 90% dwellers reported that they get help from friends/neighbors for home improvements. While dwellers feel their housing becomes more culturally acceptable after home improvements, only 52% dwellers feel that the home improvement raise the value of house.

The study implies that the dwellers transform their house in order to adjust it to their culture. The decision to transform or improve the house is not just a matter of changes to family size, socio-economic factors or simply a function of the housing market; but is also related to the meaning of the house for the dwellers, especially in a culture where religious attachment to the house is very strong, as in Bali.

*How would you comment on the findings? How could we capitalise on the concern for cultural appropriateness of housing that is reflected in home improvements by dwellers?*

### Summary Results:

- Housing transformation or adjustment in Bali shows that how strong Balinese to their cultural and not just because of socio-economic and demographic factors. Cultural traditions that have survived to this day are those reflected in the daily lifestyles of the Balinese people and identity of Bali. Housing, or the home of the activities associated with the living culture or lifestyle, should facilitate and promote those traditions. It is important, therefore, that design elements reflect the traditions or at least be sympathetic and respectful to those.
- To capitalise on the concern for cultural appropriateness of housing that is reflected in home improvements by dwellers:
  - The local government should use support incentives to ensure due regard to cultural appropriateness of housing product.
  - Requirement for developers to train employees on their design teams, in Balinese traditional architecture
  - Develop appropriate and effective training programs – with the collaboration of local university and professional institutes,
  - To involve the dwellers in all stage of: planning in design, construction, maintenance task and home improvement/incremental development of the project.

## 7. The Involvement of Dwellers in Project

Tunner (1976, pp. 77-101) coined the phrases “*housing as a verb*”, “*housing as process*”, and “*housing as an activity*” in housing development. There is more room for collaboration in housing provision, when housing is seen not merely as a product, but as an extended process. By engaging the community in “housing as a process” and ensuring effective collaboration, the extended exposure and involvement of the community will allow more expression of the community’s culture into shaping their housing. Therefore, it is assumed that the dwellers can express their cultural values which could shape the housing product.

Dwellers participation in various stages of the projects has been low. Only 12% dwellers participated in the planning stage and 9% in the construction stage. Only 2% dwellers felt that they had opportunity to influence the project. However, 40% dwellers participated in maintenance task and 39% they participated to propose the change of house design.

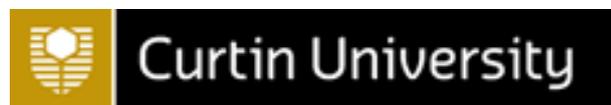
This study implies that there is lack of dwellers involvement and no appropriate system and mechanism to involve the dwellers in the project.

*How could we improve the system to increase the effective involvement of the dwellers/community in the delivery of affordable housing in Bali?*

*What mechanisms would need to be put in place? Are there any barriers that may be faced (e.g. legislation, increased cost of construction, labor cost, etc.)? Could these be overcome?*

### Summary Results:

- To improve the system to increase the effective involvement of the dwellers/community in the delivery of affordable housing in Bali, it needs involvement of dwellers in all stage of: planning in design, construction, maintenance task after completed and home improvement/incremental development of the project. It need training and skill for communitiy/dwellers to inovolve in the project.
- The mechanism would need to be put:
  - It allow dwllers to give the kind of contribution which they would like to make such as: providing advice, material supply, and labour contribution.
  - The local government should use support incentives to ensure due regard to cultural appropriateness of housing product.
  - It requires for developers to train employees on their design teams, in Balinese traditional architecture.
  - To develop appropriate and effective training programs – with the collaboration of local university and professional institutes.
  - To formulate the regulation of obligation for developers to involve the dwellers in housing provision.
  - Government have to give subsidy or incentives to developers who provide affordable housing culturally acceptable.



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## **APPENDIXES D**

### **Interviews Results of Following Focus Group Discussion**



GBO Box U1987 Perth, Western Australia 6845

## Appendix D.1

# Interviews Guidelines of Following Focus Group Discussion

Agustus-Desember 2012

Research Title:

### **Affordable Housing Provision Projects in Bali, Indonesia: Improving Quality and Cultural Acceptability**

Supervisor: **Associate Professor Shahed Khan** and Co-Supervisor: **Dr. Shane Greive**

PhD Student: **Ngakan Ketut Acwin Dwijendra**

Student Number: 13754895. Department of Urban and Regional Planning, Faculty of Built and Environment, School of Humanities, Curtin University of Technology

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*This interview is conducted in order to get feed back from representatives of stakeholder based on focus group discussion results. The stakeholders who will interviews: Local Government, Developers, CBO/NGO and University. The aim of interview is to get more implication inputs, comments and suggestions based on specific issues that have emerged on focus group discussion results.*

## **A. Overview**

Balinese is recognised as diversity and unique culture by world heritage organisation, government of Indonesia and tourists in all aspect of cultures elements including on houses which has strong concept, norm and architecture vernacular. It attaches great significance to ensuring cultural appropriateness of housing: the extensive symbolism and strongly traditional elements at house carries within the cultural context even today. Although the culture changes due to globalization, Balinese house symbolic is still strong maintenance. The trend is loss on some part or elements of Balinese culture but it is still less compared to others cultures within Indonesia. Balinese culture has still rich of religious, belief, symbolism as social capital and development potential of tourism and economy in Indonesia.

Balinese people have a very strong cultural perspective and cultural identities that need to be integrated into housing planning and provision. Balinese communal culture is a significant aspect of everyday activities and relates to the nature of the spaces required to carry out daily activities. Houses have great value in Balinese culture in that each household has its own house and temple. The Balinese are concerned about their houses as part of their lifestyle in terms of layout, plot size, orientation, style, material, construction, etc. They have the significant cultural sensitivity as elements of Balinese House such as the concept of sacred and profane areas and Balinese traditional architecture and built form.

The living culture of Bali is important issue, well established and needs to be conserved and protected because the heritage must be conserved, the right of the Balinese to

express their culture must be respected and it also makes good economic sense in terms of tourism potential.

### *Findings of Study and Focus Group Discussion*

In general, Balinese is minority compared to other race or religion in Indonesia. As study shown, 73% dwellers were born in Bali with living since birth and 70% dwellers are Balinese with 68% Hindu religion. As, big city, Sarbagita Metropolitan is also having dwellers who migrate from rural, other cities and foreign. As study shown, Dwellers in affordable housing projects in is coming from other cities in Indonesia (25%) and foreign (2%).

The study noted that 95% dwellers mentioned that the Balinese house concept is different to that in the rest of Indonesia. In fact, 80% dwellers believe that affordable housing projects in Bali are not culturally suitable in all aspects such as: zoning, building material, orientation and circulation, structure, building form, boundary wall, facade, form of room, ornament, room position and building height.

The *three biggest issues* regarding cultural acceptability of housing projects were identified as: (1) Zoning of living spaces, (2) Balinese structure and construction and (3) Balinese ornament and color. *The five most important* aspects of the house that needed to be improved before dwellers could comfortably more in were: (1) Building material, (2) Boundary wall and Balinese gate, (3) Balinese structure and construction, (4) Balinese ornament and colour and (5) Zoning of living spaces. According to the dwellers, *the three most important visual elements* that characterise culturally acceptable houses in Bali are: (1) Balinese style ornaments, (2) Balinese landscape and zoning of livings, (3) The building materials.

Refer to developers constraints, the most critical constraints in providing better quality and culturally appropriate housing are cost of building material (31%) and labor (24%). The study also shows that 15% dwellers are willing to contribute labor, theoretically the concept of "sweat equity" could be applied to lower the cost of housing in order to spend more on making housing more culturally suitable. As Larry Angel (2001) noted that the concept of sweat equity in the projects is commonly used through (1) increasing the worth of a project created by the unpaid physical hard work of the owner/occupant, or (2) increasing the value of a property created by the hard work of the owner/occupant in enhancing its amenities.

How do the dwellers adjust their house to be more culturally acceptable since they move in? The study shows that 66% dwellers took measures to make their houses more culturally suitable. The three most common actions that they took are: (1) changing internal wall, (2) installing/replacing the gate, and (3) changing the boundary wall. 63% dwellers mentioned that they have time to spare for home improvement work. Dwellers have to spend more money, time and labor to consolidate the house to make it more culturally acceptable. 90% dwellers reported that they get help from friends/neighbors for home improvements. While dwellers feel their housing becomes more culturally acceptable after home improvements, only 52% dwellers feel that the home improvement raise the value of house. The study implies that the dwellers transform their house in order to adjust it to their culture. The decision to transform or improve the house is not just a matter of changes to family size, socio-economic factors or simply a function of the housing market; but is also related to the meaning of the house for the dwellers, especially in a culture where religious attachment to the house is very strong, as in Bali.

Dwellers participation in various stages of the projects has been low. Only 12% dwellers participated in the planning stage and 9% in the construction stage. Only 2% dwellers felt that they had opportunity to influence the project. However, 40% dwellers participated in maintenance task and 39% they participated to propose the change of house design. This study implies that there is lack of dwellers involvement and no appropriate system and mechanism to involve the dwellers in the project. Tunner (1976, pp. 77-101) coined the phrases "housing as a verb", "housing as process", and "housing

as an activity” in housing development. There is more room for collaboration in housing provision, when housing is seen not merely as a product, but as an extended process. By engaging the community in “housing as a process” and ensuring effective collaboration, the extended exposure and involvement of the community will allow more expression of the community’s culture into shaping their housing. Therefore, it is assumed that the dwellers can express their cultural values which could shape the housing product.

*Proposal of Models*

Base on the finding of study and result of focus group discussion, I would like to propose two models below:

1. Model 1 – *Variant type of Culturally Affordable House*

Developers build the affordable houses binding by government with contract document and policy, with house design given and tight deadline. Since the house finish, developers have completed the contract and dwellers can move in to the house. However, the findings shows that the house is affordable but not culturally acceptable. This model is offering the dwellers with variant type of houses through catalogue 1,2,3, etc with different cost, so dwellers can choose as their preferences. These might not be affordable but certainly cultural appropriateness. For those dwellers are willing to pay more, this models could be applicable.

2. Model 2 - *Sweat Equity*

As study shown, since dwellers move into the house, they destroy the house in order to adjust to be more culturally acceptable. They are willing to contribute labour and spend the cost for more than 10% of house price. Balinese residents also have strong community bond in form of traditional community forum (*banjar*). This implies that the concept of “sweat equity” could be applied to lower the cost of housing in order to spend more on making housing more culturally suitable.

However, it needs the policy arrangement to developers where community can be involved and how the mechanism process due to concerning more cost for quality control and risk for possibility of projects delaying and taking more time.

**B. Questions**

*Based on overviews above, please write down the answer on lines below:*

1. *Why cannot this happens the issues in the affordable housing projects in Bali? What are the barriers that may be faced? How do we overcome?*

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### **C. Appendix: Summary and Recommendations of Focus Group Discussion**

In focus group discussion, all stakeholder formulate recommendations as housing policy and strategy to ensure greater efficiency in the future, in order to deliver affordable housing of a better quality that are more culturally appropriate in Sarbagita Metropolitan.

The recommendations concern due to providing better product quality, overcoming for developer's constraints in housing provision mechanisms, empowering the role of dwellers, and developing cultural appropriateness of housing provision. Those recommendations drive to all stakeholders such as; government, developers (formal and informal housing projects), dwellers (community), CBO and NGO.

#### *1. Government Support*

The local government should provide the support for developers specifically for affordable housing project to encourage them providing housing more culturally acceptable and better quality. The government support could be such as: incentives, subsidies, soft loan and other support with transparency and fairly criteria and procedure.

#### *2. Capability of Human Resources Development of Design Team*

Developers have to involve the local Balinese staff in design team of affordable housing projects who have profesional experience and strong familiarity in Balinese culture housing design. Since as we know that the Balinese house concept different to that in rest of Indonesia, developers also should regularly acces and understand the government policies/regulations and have to arrange the training/education about Balinese culture for their staff. Because, this efforts will effect on capability of staff in Balinese housing design. Local government should provide easy access to developers for policies/regulations of Balinese culture or other standards, norm of Balinese housing design through regularly training, exhibition and campaign.

Moreover, developers have to incorporate and implemented the concept Balinese culture in the affordable housing projects by reducing the barrier or constraints hampering in mechanism process. Developer could make ideally affordable housing project more Balinese culture friendly and better quality.

#### *3. Culture Value Implementation*

Developers should offer culturally suitable housing of the affordable housing project in Bali due to Balinese dwellers strongly concern on concept of "sacred-profane" and respect for traditional architecture and built form.

Referring to the concept of "sacred and "profane" areas, developers should understand in housing design such as; (1). zoning of living spaces – allocating praying place within sacred area, while inner courtyard and kitchen allocated within profane area, (2). room position and furniture arrangement (sacred – profane), and (3). oorientation and Circulation - room position/ furniture arrangement in conformity with the rule that facing/ pointing towards the sunrise and mountain is considered sacred while facing sunset and beach is considered profane).

Developers also need to understand regards to respect for Balinese traditional architecture and built form which consist of (1). height of building – should remain under the height of a coconut tree, i.e. less than 15 meters, (2). boundary wall and Balinese gate, (3). building layout – seen as square or combination of squares, (4). building form (square or combination square), (5). Balinese structure and construction (use of Balinese structure), (6). building material (use of local material), (7.) elevation/ facade – should be readily identifiable as comprising three parts: head, body and foot (in line with the Tri Angga concept), and (8). Balinese ornament an colour – presence and compatibility of ornamental elements and colour within the house and the gate.

The local government should provide regulations and guidance of Balinese culture in housing development projects for developers. They should have example as prototype of quality and culture appropriateness in housing development projects for developers. Both government and developers should create and sell a culturally more suitable design by adding cultural motifs and allocate funds for advertising the product. By these efforts, it will improve the demand for the product in comparison to the existing available housing product.

#### *4. Developers Constraints*

It realised that some barriers and constraints hampering in providing culturally acceptable affordable housing regarding to issue of cost and expenditure and capability of human resources design team. Issue of cost and expenditure consist of labor, building material, technology/construction, infrastructure, facilities, services, development permit fees, planning and design fees, marketing fees, government taxes and other cost, fees and taxes. While issue of capability of human resources in design team is regarding to project experiences, local staff involvement, local cultural skill and knowledge, access to Balinese culture documents/policies, and understanding balinese culture.

To overcome the constraints in providing culturally acceptable affordable housing, it strongly needs the local government support for developers and dwellers involvement. Local government support for developers is through incentives, subsidies, soft loan and other supports and empowering dwellers to involve at all stage of planning and design, construction, maintenance, home improvement/incremental, means of involvement and ability of dwellers participation.

#### *5. Dwellers Involvement*

Due to study results show that dwellers perceive the low quality of the current product of affordable housing projects intern of physical standards, spaciousness, cultural appropriateness, infrastructure and service delivery and availability and accessibility of public facilities. Developers have to give space for dwellers to involve and participate in all the stage such as: planning and design, construction, maintenance tasks once, take up home improvement/incremental development of the projects.

Furthermore, developer should provide for dwellers the opportunity to influence the project, power or means in the project design and participate in any stage of projects. With condition, dwellers should be willing to spend time to participate and have the knowledge to contribute meaningfully.

#### *6. Housing Adjustment*

Owing to the developers fail in cultural appropriateness housing provision, as study shown, dwellers took actions to resolve their problems. Some actions completed by dwellers to adjust their house such as: adding temple, changing the boundary wall, installing the gate, changing internal wall (adding/removing/shifting), changing the kitchen position by changing/modifying plumbing, special placement of furniture, adding fixtures or fixed furniture, and installing ornament. Dwellers have to spend money for material and labor cost and also spending time taken to complete changes. Some dwellers also get help from friends/neighbors for home improvements. it has improved the value of dwellers house.

To adjust their house, dwellers have to spare time for home improvement work to make the house more suitable to the needs and increase the value of the house. There were some options that dwellers took for home changes such as: let the project take up the job, employ a contractor to provide the furnished product, employ mason and supervise the work yourself and some dwellers do it by themselves with help from friends/neighbors. The study also shows that some dwellers would be willing to put in time and labor for home improvement under developer (project) supervision.

The local government should support and encourage the dwellers to transform their house in order to adjust it to their culture since the transformation related to the meaning of the house for the dwellers, especially in a culture where religious attachment to the house is very strong, as in Bali.

#### *7. Government Control and Responsibility in Project Development Mechanism Constraints*

The local government should conduct control and monitoring on the quality and culture appropriateness in affordable housing development projects with independent supervision team and clearly procedure and mechanism. The team should come from among stakeholders such as: CBO, NGO, universities, developers and local government.

The local government also should have a responsibility in project up keep and after developers completing the affordable housing projects it in terms of infrastructure, service delivery and facilities. For this reason, local government should set up clearly criteria and procedure and apply penalty for developers who have not fulfilled the criteria and procedure or who have neglected the project.



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## Appendix D.2

# List of Stakeholders Representatives

Agustus-Desember 2012

Research Title:

### **Affordable Housing Provision Projects in Bali, Indonesia: Improving Quality and Cultural Acceptability**

Supervisor: **Associate Professor Shahed Khan** and Co-Supervisor: **Dr. Shane Greive**

PhD Student: **Ngakan Ketut Acwin Dwijendra**

Student Number: 13754895. Department of Urban and Regional Planning, Faculty of Built and Environment, School of Humanities, Curtin University of Technology

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#### **Local Government (3 representatives)**

1. Planning Board of Bali Province
2. Public Work Department, Housing and Settlement
3. Urban Management Department

#### **Developers (3 representatives)**

4. PT Kusemas Mandiri
5. PT Kori Bali Utama
6. PT Multi Aditama

#### **Dwellers/CBO/NGO (3 representatives)**

7. Monang Maning Residence
8. Kori Nuansa Utama Residence
9. Dalung Permai Residence

#### **University (3 representatives)**

10. Udayana University
11. New Media College – Sekolah Tinggi Desain Bali (STD Bali)
12. Warmadewa University



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### Appendix D.3

## Documentation of Interviews

Agustus-Desember 2012

Research Title:

### **Affordable Housing Provision Projects in Bali, Indonesia: Improving Quality and Cultural Acceptability**

Supervisor: **Associate Professor Shahed Khan** and Co-Supervisor: **Dr. Shane Greive**

PhD Student: **Ngakan Ketut Acwin Dwijendra**

Student Number: 13754895. Department of Urban and Regional Planning, Faculty of Built and Environment, School of Humanities, Curtin University of Technology

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Interviews with Stakeholders Representatives

**Source:** Interviews, 2012



Interviews with Stakeholders Representatives  
**Source:** Interviews, 2012



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## Appendix D.4

# Results of Interviews

Agustus-Desember 2012

Research Title:

## **Affordable Housing Provision Projects in Bali, Indonesia: Improving Quality and Cultural Acceptability**

Supervisor: **Associate Professor Shahed Khan** and Co-Supervisor: **Dr. Shane Greive**

PhD Student: **Ngakan Ketut Acwin Dwijendra**

Student Number: 13754895. Department of Urban and Regional Planning, Faculty of Built and Environment, School of Humanities, Curtin University of Technology

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### **1. Issues and Barriers of Affordable Housing Projects not Culturally Acceptable**

*Why cannot this happens the issues in the affordable housing projects in Bali? What are the barriers that may be faced? How do we overcome?*

#### **Summary Results:**

Since dwellers move in and enter the house, they felt that affordable housing projects in Bali are not culturally suitable. The dwellers try to adjust and transform their house to be more culturally acceptable by taking measures such as: installing/replacing the gate and changing the boundary wall. Dwellers have to spend money, time and labor in order to adjust their house to be more culturally acceptable and the cost adding to adjust is 10%,

The housing culture in affordable housing project in Bali need to consider to maintain Balinese culture value and keep efficiency cost of project.

- To achieve culturally appropriate houses, the design process has to acknowledge the Balinese Hindu psycho-cosmic concept as the core principle in the design of Balinese housing. housing spatial organization, structure and form will significantly reflect the Balinese cultural identity.
- Balinese tradition and culture is a tradition of myth and symbol. The organization of a cosmic territory's elements configuration as a result of cosmo-religious beliefs evolves from the translation of phenomena into symbol system. The symbol system expresses these beliefs by abstracting and translating them into principles of organisation.
- Believing that an individual must arrange his life in perfect harmony with cosmic order, the Balinese create their indigenous dwellings according to a centuries-old tradition generated by their idea of cosmic harmony.
- As the Balinese are becoming socially more integrated with outside world however, Balinese housing settlement have been slowly changing.
- Although the culture changes due to globalization, Balinese house symbolic is still strong maintenance. The trend is loss on some part or elements of Balinese culture but it is still less compared to others cultures within Indonesia.

- Balinese culture has still rich of religious, belief, symbolism as social capital and development potential of tourism and economy in Indonesia.

#### *Developer*

- Developers mentioned that as the business, they have to account the profit in housing provision projects. While they have been binded by building contract of government. they have to build as writtinen in legal contract. Yet, the requirement of Balinese culturall elements was not included in section of contract.
- Developers also appealed that the standard price of house determined by Government is minimum standard of affordable house. It does not provide additional cost of installing the Balinese culture elements either in house design or quantity bill of housing project.
- In addition, developers noted that there is still not clear the techhincal guidance for affordable housing with culturally acceptable in particular on ornaments and bulding materials. This lead to lack of understanding of staff to apply in Balinese cultural design in affordable housing project.

#### *Government*

- The government mentioned that we should maintain Balinese culture value in affordable housing project in Bali to keep the unique culure as basic capital of tourism development. They provide regulations and guidance of Balinese culture in housing development projects and support by soft loan, subsidies, incentives and other support in providing culturally acceptable affordable housing.
- The government already issued the Bali Regional Regulation Number 3 of 1974 concerning Balinese Culture. It is stronger hegemony caused the cultural capital to be used as the basis for building, environemnt and tourism development in Bali province.
- The government also asserted that they will provide a prototype of culture appropriateness in housing development projects and encourage the developers to create a culturally more suitable design by adding cultural motifs in affordable housing projects. In addition, the government will facilitate the dwellers to involve at early stage till end of projects from planning and design, construction, maintenance tasks, until home improvement development of the projects.

#### *CBO/Dwellers/NGO*

- Dwellers (2012) claimed that the house is not culturally acceptable and suitbale. They have to take actions to adjust the house more culturally suitable to leave such as changing internal wall, installing/replacing the gate, and changing the boundary wall. They have to spend cost ot time and money to resolve the problems and aslo get helps from friends or neighbors for home improvements.

## **2. Model 1 –Variant type of Culturally Affordable House**

Developers build the affordbale houses binding by government with contract document and policy, with house design given and tight deadline. Since the house finish, developers have completed the contract and dwellers can move in to the house. However, the findings shows that the house is affordable but not culturally acceptable. This model is offering the dwellers with variant type of houses through catalogue 1,2,3, etc with different cost, so dwellers can choose as their preferences. These might not be affordable but certainly culturall appropriatness. For those dwellers are willing to pay more, this models could be applicable.

*Based on **Model 1**. Do you think that the model could be applied in order to improve cultural acceptability of affordable housing projects in Bali? What are the possible opportunities/barriers to apply it?*

### **Summary Results:**

- The comments of stakeholder noticed that dwellers have options to choose their preferences. The design catalogues should be representative of Balinese culture and can be afforded by dwellers. Refer to Bali are strong and distinctive cultural identities that provides a context where the issue of product quality and cultural appropriateness in affordable housing provision is highly significant. Moreover, Balinese lifestyle is affected by the strong influences of religion, customs, norms and behaviors.
- The design catalogues should be resulted from design exhibition in order to be more appropriate with dwellers preferences and the price of houses types are still affordable for dwellers and good quality. In case, if it is not affordable but certainly cultural appropriateness, so that for those dwellers are willing to pay more, this models would be applicable.
- The living culture of Bali is important issue, well established and needs to be conserved and protected because the heritage must be conserved, the right of the Balinese to express their culture must be respected and it also makes good economic sense in terms of tourism potential.

#### *Developer*

- Developers asserted that by providing variant type of houses through catalogue 1,2,3, etc with different cost will be obstacle, the reason is one type of house will be easier and cheaper in design and building construction as well. We look for the simple to build and get more profit each house.
- However, developers also mentioned that they can provide variant type of houses through catalogue 1,2,3, etc with different cost as long as the government clearly include in document contract and put more fee in contract.
- Developers also appealed that some type of houses might be not affordable for low income people. It might be affordable and culturally acceptable when less variant type of houses i.e. 5 samples but those fulfill minimum standard of quality and cultural appropriateness.

#### *Government*

- Government appealed that they support this model which is offering the dwellers with variant type of houses through catalogue 1,2,3, etc with different cost, so dwellers can choose as their preferences. These might not be affordable but certainly cultural appropriateness. For those dwellers are willing to pay more, this models could be applicable.
- Government will review the contract document of affordable housing projects and issue new document contract that provide variant type of houses with different cost. However, they are not guarantee the price of some type of houses are not affordable for low income people.
- Government also clearly asserted that Balinese culture has the significant cultural sensitivity as elements of Balinese House. Government as enabler will invite all stakeholder especially design expert partners, and student of architecture to conduct design competition of Balinese culture houses type and the fifth best will be catalogue of variant type of houses.

*CBO/Dwellers/NGO*

- Dwellers affirmed that by providing type of houses through catalogue 1,2,3, etc with different cost, they will have options to choose with house that culturally acceptable and affordable for them.
- Dwellers clarified that the design catalogues should be appropriate with their preferences and the price of houses types are still affordable and good quality. In case, if it is not affordable but it is certainly cultural appropriateness, they are willing to pay more because this models would be applicable and acceptable for them.
- Dwellers also mentioned that the variant type of houses should be resulted from design exhibition with accommodating the most general preferences of Balinese dwellers in order to be more appropriate and affordable. Due to Balinese house concept is different to that in the rest of Indonesia, in terms of zoning of living spaces, building material, ornament, façade, orientation and circulation and structure construction and also elements of house design that is culturally suited in Bali such as Balinese style ornaments, Balinese gate, boundary wall, height of building, furniture arrangement and form of roofs.
- Moreover, dwellers, CBO and NGO also declared that the living culture of Bali is important issue, well established and needs to be conserved and protected because the heritage must be conserved, the right of the Balinese to express their culture must be respected and it also makes good economic sense in terms of tourism potential.

**3. Model 2 - Sweat Equity**

As study shown, since dwellers move into the house, they destroy the house in order to adjust to be more culturally acceptable. They are willing to contribute labour and spend the cost for more than 10% of house price. Balinese residents also have strong community bond in form of traditional community forum (*banjar*). This implies that the concept of "sweat equity" could be applied to lower the cost of housing in order to spend more on making housing more culturally suitable.

However, it needs the policy arrangement to developers where community can be involved and how the mechanism process due to concerning more cost for quality control and risk for possibility of projects delaying and taking more time.

*Based on Model 2. How the concept of sweat equity could be applied in order to improve cultural acceptability of affordable housing projects in Bali? What are the possible opportunities/barriers to apply it?*

**Summary Results:**

- In general, the comments of stakeholder is that dwellers are willing to contribute labour and spend the cost for more than 10% of house price. Balinese residents also have strong community bond in form of traditional community forum (*banjar*). This implies that the concept of "sweat equity" could be applied to lower the cost of housing in order to spend more on making housing more culturally suitable. However, it needs the policy arrangement to developers where community can be involved and how the mechanism process due to concerning more cost for quality control and risk for possibility of projects delaying and taking more time.

*Developer*

- Developer appealed that ...the possible barriers to apply those strategies is the constraints of developers related to the less benefit that might be attained by developers due to the loss of labour benefit and also loss of power in completing the projects.

- Developer also mentioned that this model will decrease their profit due to no profit anymore from labor cost. By allowing dwellers take over the labor, it means that developers have no change to get profit from labor cost.
- In addition, developer also asserted that if this model would like to apply, they intend to handle project supervision of dwellers labor in order to control quality and schedule of projects.

#### *Government*

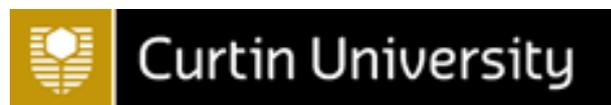
- The Government mentioned that dwellers as labor should have good skill and knowledge in house construction to keep the quality of affordable housing projects.
- The Government will the policy arrangement to developers where community can be involved and how the mechanism process due to concerning more cost for quality control and risk for possibility of projects delaying and taking more time.
- The Government also asserted that they will formulate the clearly mechanism of the concept “sweat equity” among stakeholders: developers, governments and dwellers so that each can get benefits from the projects. The government will continue to strongly support for developers and dwellers involvement through incentives, subsidies, soft loan and other supports.

#### *CBO/Dwellers/NGO*

- Dwellers fully agreed with the concept of sweat equity due to the high cost of labor and more culturally suitable. They also claimed that in the early stage of administration process, they have to pay 3% of administration fee such as: fee of provision, notary, life and property insurance, and also the 3.5% of sale and buy tax.
- Dwellers mentioned that they should have a good corporation and relation with developers as teamwork to complete the affordable housing projects. The concept of sweat equity will be one significant solution to overcome our barriers. However, it needs the policy arrangement to developers where community can be involved and how the mechanism process due to concerning more cost for quality control and risk for possibility of projects delaying and taking more time.
- Dwellers also asserted that developers should provide power to dwellers in labor of projects. Developers should provide space for dwellers to involve from early stage till end of projects from planning and design, construction, maintenance tasks, until home improvement development of the projects, especially in the stage of construction where the sweat equity can be applied. In addition, developers should share the power by providing us means to engage in the projects in particular at construction stage. We have great willing and ability to contribute with time and labour.

#### **4. The Proposed New Model – Variant Type of Culturally Affordable House and Sweat Equity**

- The most stakeholders in particular from government, dwellers, NGOs and CBOs appealed that the proper model might be more applicable and acceptable for dwellers, by combining model 1 and model 2.
- The government, NGOs and CBOs mentioned that this new model is providing the dwellers both preferences and involvement. First, dwellers are able to choose their preferences with variant type of houses through catalogues with different cost. Second, dwellers are able to contribute their labor through concept of “sweat equity”...
- This model could be relevant to lower the house projects cost in order to spend more on creating housing more affordable and certainly culturally appropriateness. This model also requires the policy agreement of dwellers involvement and the mechanism process related to the risk of quality control and project schedule.



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## **APPENDIXES E**

### **PERMISSION TO USE COPYRIGHT MATERIAL**

3 June 2012

Head of 'Permukiman Natak' Journal  
Department of Architecture  
Udayana University  
Bali, Indonesia  
80582

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Name : **Ni Made Yudantini**

Position : Head of 'Permukiman Natak' Journal, Department of Architecture,  
Udayana University, Bali, Indonesia

Date : 15 June 2012

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A handwritten signature in black ink, appearing to read 'Kompyang Wisastra Pande', written over a light grey rectangular background.

Name : **Kompyang Wisastra Pande**

Position : Head of REI (Real Estate Indonesia), Bali Representative,  
Indonesia

Date : 12 July 2012