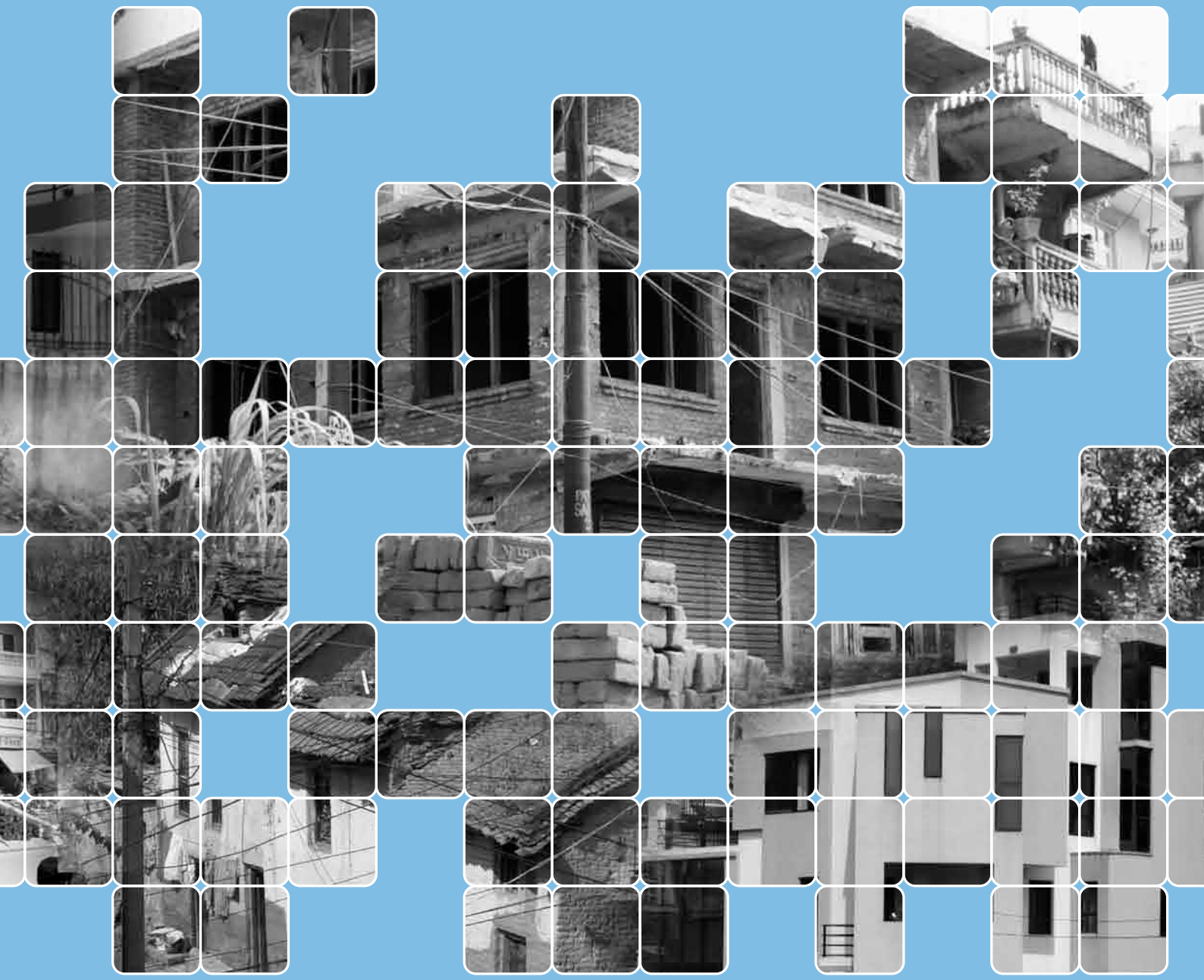
NEPAL

URBAN HOUSING SECTOR PROFILE



UN-HABITAT
FOR A BETTER URBAN FUTURE

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FOREWORD

UN-HABITAT is mandated by the United Nations General Assembly to promote socially and environmentally sustainable towns and cities with the goal of providing adequate housing for all. Today, the housing situation in Nepal, especially for the urban poor, remains far from adequate.

Indeed, urban dwellers in Nepal have been finding it increasingly difficult to afford housing due to rapid price rises in land.

Such is the challenge that the Government of Nepal approached UN-HABITAT to help it formulate its new national housing policy. This publication, the Nepal Housing Sector Profile, is a comprehensive, in-depth outcome of that request.

Published jointly with the Ministry of Physical Planning and Works in Nepal, it shows, for example, that urban land prices had increased 300 percent since 2003, putting housing increasingly out of reach for lower income residents.

At the same time, Nepal has been urbanising rapidly due to an expansion of urban areas and high rates of rural-urban migration. Though the number of squatters in Nepal is low in comparison to other South Asian countries, the situation is worsening quickly and turning into a serious social predicament.

Currently some 10 percent of the country's urban dwellers are squatters, according to the report, but this is expected to rise.

Based on research by a team of Nepalese and international experts, it carries an analysis of the five key elements in the sector - land, basic services, housing finance, building materials and construction technologies, and labour. It gives an assessment of how these components are governed by policy, institutional and legal frameworks, and how they are linked with one another and other urban policies.

Keeping in mind the importance of the housing sector in the wider economy, I am confident that the Nepal Urban Housing Sector Profile will serve as an important tool for all those dealing with housing in Nepal.

> UN-HABITAT welcomes the commitment of the Government of Nepal to facilitating the improvement of the housing conditions of its citizens.
>
> *Joan Clos*

JOAN CLOS

Under-Secretary General of the United Nations

Executive Director,

UN-HABITAT

A MESSAGE FROM

The success of the popular movement of 2007 has brought Nepal in the cross-road of development and prosperity. While we are going through painful political and social transformation process, there are overwhelming but obvious expectations of the marginalised population.

At present, Nepal is observing substantial population pressure in urban centres and has observed high urbanising rate in this region. The fast increasing urban population has over-burdened to already lagging urban infrastructures including housing. In urban areas, the failure of the delivery of shelters is dominantly contributing to enlarging slums and squatters. Janata Awas (People's Housing) is a current strategy of the government to address the shelter need of marginalised rural poor. The programme has been launched successfully in three districts (Saptari, Siraha, and Kapilbastu) in the fiscal year 2010/2011. It is now being extended to other districts of Nepal.

Taking into account of current demand and need for housing, the government is committed to provide shelter to all at an affordable cost. In this context, The National Shelter Policy 1996 is being reviewed to accommodate the aspirations and expectations of the people.

Hon. Top Bahadur Raymajhi

Taking into account of current demand and need for housing, the government is committed to provide shelter to all at an affordable cost. In this context, The National Shelter Policy 1996 is being reviewed to accommodate the aspirations and expectations of the people. The publication of Nepal Urban Housing Sector Profile: its analysis and findings in the context of urban housing is going to be invaluable input in the endeavour. The study has revealed the underpinning issues of delivering shelter, shared valuable knowledge and suggested crucial recommendations in consistent with the global policy of "Shelter for All".

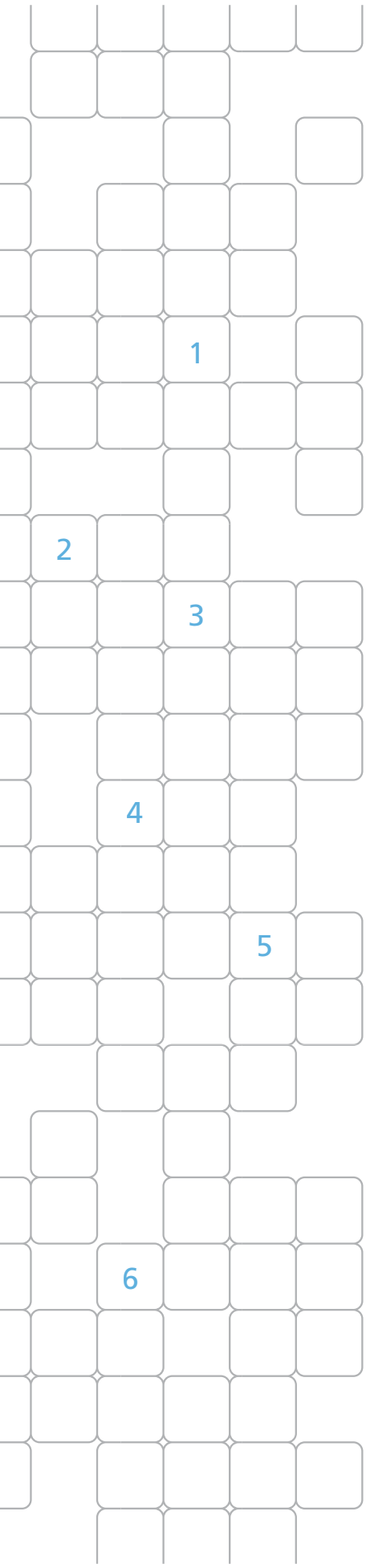
I believe that this document is going to be good reference material for the urban planners and the urban stakeholders. In this context I would like to sincerely appreciate the work and support of UN-HABITAT, the study team, officials of my ministry and the contributors to the study.

TOP BAHADUR RAYMAJHI

Minister

Physical Planning & Works

GOVERNMENT OF NEPAL



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ACRONYMS

DOLRM	DEPARTMENT OF LAND REFORM AND MANAGEMENT
DOTM	DEPARTMENT OF TRANSPORT MANAGEMENT
DUDBC	DEPARTMENT OF URBAN DEVELOPMENT AND BUILDING CONSTRUCTION
DWSS	DEPARTMENT OF WATER SUPPLY AND SEWERAGE
EPF	EMPLOYEE'S PROVIDENT FUND
ICESCR	INTERNATIONAL COVENANT ON ECONOMIC, SOCIAL AND CULTURAL RIGHTS
KMC	KATHMANDU METROPOLITAN CITY
KUDP	KATHMANDU URBAN DEVELOPMENT PROJECT
KVTDC	KATHMANDU VALLEY TOWN DEVELOPMENT COMMITTEE
LSGA	LOCAL SELF GOVERNANCE ACT
MFI	MICRO FINANCE INSTITUTION
MLD	MINISTRY OF LOCAL DEVELOPMENT
MOIC	MINISTRY OF INFORMATION AND COMMUNICATION
MPPW	MINISTRY OF PHYSICAL PLANNING AND WORKS
NBSM	NEPAL BUREAU OF STANDARD AND METROLOGY
NHDFC	NEPAL HOUSING DEVELOPMENT FINANCE COMPANY
NHLDA	NEPAL LAND AND HOUSING DEVELOPERS' ASSOCIATION
NNHS	NEPAL NATIONAL HOUSING SURVEY
NPR	NEPALESE RUPEE
NRB	NEPAL RASTRA BANK
NSS	NATION SHELTER SURVEY
NWSC	NEPAL WATER SUPPLY CORPORATION
RUPR	RURAL URBAN PARTNERSHIP PROGRAMME
RUPSON	REGIONAL AND URBAN PLANNERS ASSOCIATION OF NEPAL
SCAEF	SOCIETY OF CONSULTING ARCHITECTURAL AND ENGINEERING FIRMS
TDC	TOWN DEVELOPMENT COMMITTEE
TDF	TOWN DEVELOPMENT FUND
UCSF	URBAN COMMUNITY SUPPORT FUND
UDLE	URBAN DEVELOPMENT THROUGH LOCAL EFFORTS
UEIP	URBAN ENVIRONMENT IMPROVEMENT PROJECT
USD	UNITED STATES DOLLAR
VDC	VILLAGE DEVELOPMENT COMMITTEE

01

INTRODUCTION

1.1 INTRODUCTION

Nepal is in the process of revising its first National Shelter Policy of 1996. The Urban Housing Sector Profile Study is aimed at supporting this process, driven by the Government, for the urban part. It is meant to improve the understanding of the sector, to enable Government of Nepal, local authorities and other actors to formulate appropriate policy responses and recommendations leading to improvement of housing provision in the changed context.

1.2 BRIEF HISTORY

Nepal is a landlocked country, bordered by the Tibet region of China on the north and India on the south, east, and west. Situated on the lap of the high Himalayas, Nepal has a unique geographical profile: the country rises from 65 m above sea level to more than 8,000 m., resulting in a highly versatile landscape with six different climate zones within the country's average width of 193 km. Nepal is broadly divided into three ecological belts: Mountains, Hills and Terai plain separated by three mountain ranges, Chure, Mahabharat and Himalayas.

Nepal's history can be traced back to the 5000 year old ancient holy books of the Hindus. Indeed Kathmandu Valley (or Nepa in the old Newari language) was a valley of ancient towns as far back as 2nd century AD[1] and it is here that the name Nepal originated from. After centuries of rivalry between the medieval kingdoms, it was united into Greater Nepal by the Shah king Prithvi Narayan Shah in 1769. The country was the only kingdom in South Asia that successfully fought against British India and could keep her sovereignty.

It was largely cut off from the rest of the world until the early 1950s, when a palace revolution and the subsequent overthrow of the autocratic Rana dynasty marked the beginning of Nepal's emergence into the modern world. Yet, politically, the country was once again ruled by an autocratic regime, this time the Shah Kings Panchayat regime which continued till 1990. A feudal economy with instruments of development controlled by limited elites, the country became one of the poorest in the world.

The democratic people's movement of 1990 overturned the Panchayat regime and established multi-party democracy with constitutional monarchy. In 2006, the united forces of the insurgent Communist Party of Nepal (Maoists) and other democratic parties put an end to the monarchy after the King's attempt to return to autocratic rule. Elections were held in April 2008, at which the Maoists secured largest number of seats compared to other parties and on May 14, 2008 Nepal was declared a 'Federal Democratic Republic', abolishing the 240-year-old monarchy. The motion for abolition of monarchy was carried by an overwhelming majority; 560 out of the 564 assembly members. The country is currently in the process of preparing its new constitution.

1.3 POPULATION AND URBANISATION

Traditionally most of the settlements in Nepal were scattered in the hills and the valleys, the mountains remained largely uninhabited because of the harsh climate and steep topography and the Terai plain because of prevalent malaria, Terai being commonly labelled as Kalapani (poisonous water area)[2]. Kathmandu Valley, with its fertile soil, Indo-Tibetan trade route and rich culture, always played a central role in the history of Nepal. After the unification Kathmandu became the capital of unified Nepal as well as the seat of political, economic and social power. Being a centre of productivity, agriculture, industrial production of metal ware and textiles further reinforced its population growth[3]. In the 1950's over 80%[4] of the urban population was residing in Kathmandu Valley.

Figure 1. Map of Nepal

In the 1950's political and climatic reasons fuelled the growth of large permanent settlements in Terai: first malaria was brought under control, and second the opening up of Nepal to the outside world made the former malarial area into a strategically located productive agricultural and commercial frontier with India. This signalled the start of a large scale migration from the hills to the more fertile land of Terai and with it roads and other infrastructure, administrative service centres and industrial activities. The government initially tried to develop it into an agricultural region[5] but gradually the Terai became densely populated and urbanised. In the late 1980's it provided 65% of Nepal's cultivated area, 34% of its road mileage, and having 62% of its industries[6].

Except the traditional towns like Kathmandu, Pokhara and Tansen, most of the fast growing towns are in the Terai. These are either gateway towns to India - like Biratnagar, Birgunj and Nepalgunj - or towns developed in highway crossings - like Hetauda, Butwal and Itahari-. Most of these towns are spread along the highways and additional parallel grids serving the highway. However, none of these towns, whether newly established or expanding, are the result of planned development. Infrastructure and urban service distribution in Nepalese towns can be characterised as unplanned, sporadic and haphazard.

Although Nepal is still predominantly rural – having the lowest urbanisation rate in South Asia at 14% - the situation is fast changing: it also has South Asia's highest urban growth rate (see table 1). In the decade between 1991 and 2001 population growth in the urban areas was three times that of the country as a whole (6.4 per cent compared to 2.2 per cent)[7] arguably been even higher although no official figures are available to support this.

There are two elements to Nepal's urban population growth: one is the increase in number of 'urban areas' and the other one the expansion of existing urban settlements because of rural-to-urban migration.

- In the case of Nepal 'urban areas' is understood to include all municipal areas, although definitions of what constitutes a municipality (*nagarpalika*) have been inconsistent and have frequently changed over the years (see table 2). When the

Table 1. Urbanisation in South Asia 2005

Country	Annual Urban Growth Rate	Level of Urbanisation
Nepal	6.4%	14%
Cambodia	6.3%	20%
Bangladesh	5.3%	18%
Pakistan	4.4%	34%
Philippines	4.2%	53%

Source: Portnov, B., Adhikari, M. and Schwartz, M., 2007

Local Self Governance Act of 1999 redefined municipalities, the criteria differed between Terai belt and hill towns[8]. Based on these criteria the number of urban centres virtually doubled in the 1990s: from 33 in 1991 to 58 in 2001.

- Until the mid-1990s the major reasons for migration from rural villages to urban areas were the classic 'push' and 'pull' factors: soil erosion from natural disasters or deforestation, a shortage of inherited land and lack of alternative income sources in the villages and the health care, schooling and employment opportunities in the cities. Yet rural-to-urban migration accelerated in the mid-1990s because of villages turning into battlefields in the decade long conflict (insurgency) between the Maoists and the establishment. The continuous threat of conflict pushed many to migrate to cities, either because they were forced to leave for security reasons or because they could no longer envisage a future in the failed rural economy[9]. Though no exact figures are available, it is believed that there are 1 million people in Nepal who fled their homes largely due to the threats from both the warring sides since the Maoist Insurgency.[10] A survey conducted by the Central Department of Population, TU found 40 per cent of the population residing in Kathmandu were migrants. A 2003 study by Nepal IDP Research Initiative found that although the official figures suggest less, the number of people permanently displaced by Nepal's conflict may be between 100,000 and 150,000[11].

Municipalities in Nepal may be divided into three categories based on their sizes and rate of urbanisation: Kathmandu Valley, the capital city; medium size cities with very fast growth; and small municipalities.

- At the top of Nepal's urban hierarchy are Kathmandu Metropolitan City, the largest city and four sub-metropolitan cities: Biratnagar, Birgunj, Lalitpur and Pokhara. Kathmandu Valley alone accounts for 31

Figure 2. Nepal's geological profile

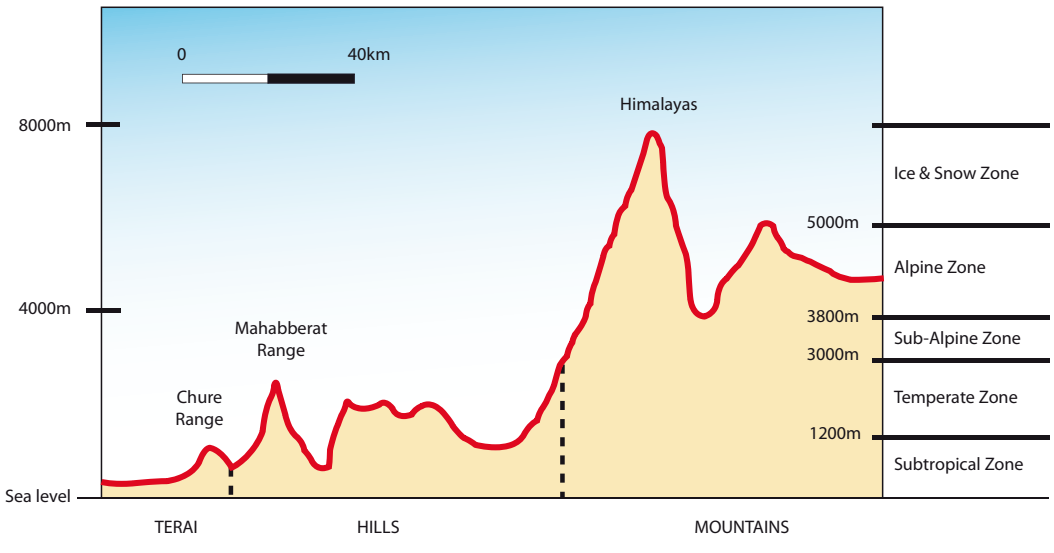


Table 2. Number of Urban Centres in Nepal

Year	Population Criteria	No. of urban centres (municipalities)
1952	No official criteria	10
1961	+ 5000 inhabitants	22
1971	+ 10.000 inhabitants	22
1981	+ 9.000 inhabitants	23
1991	+ 9.000 inhabitants	33
2001	+ 10.000 inhabitants (hills) + 20.000 inhabitants (Terai)	58

Source: Various census data 1952-2001

per cent of the total urban population. The valley's population is likely to increase even in future as a result of natural growth of population and high rate of internal migration of people to Kathmandu Valley. The share of internally migrated population to the total population is as high as 40 per cent[12] in Kathmandu Valley.

- The other concentration of high population growth can be found in medium sized cities in the Terai, most notably in the Indian border towns, already over 50 per cent of the urban population[13] lives in the 33 Terai towns. Examples of speedy growth towns are Butwal, Bharatpur, Itahari while the category of emerging towns would include Attariaya, Kawasoti and Khokana.
- So called 'small municipalities' are the last category and many of these designated urban areas actually show rural characteristics. In fact one-third of urban areas have density levels below the national urban density[14].

1.4 INTRODUCTION TO THE ECONOMY

Nepal ranks among the world's least developed counties in the world with a per capita GDP of $470 in 2009 and an estimated unemployment that approaches half of the working-age population. Nepal ranks 144 out of 182 on the Human Development Report 2009[15], with an estimated 31% of the population living below the poverty line.

Entering the global economy in 1951 as an isolated, agrarian society of horticulture and agriculture blended with animal husbandry, Nepal was much rural in economy. Even today agriculture is the backbone of the Nepalese economy: two-thirds of the economically active population -with majority of its 23.2 million people in rural areas- is engaged in agriculture, yet it only accounts for only one-third of gross domestic product (GDP). Indeed, non-agricultural productivity - with only one-third of the labour force engaged in the manufacturing or service industries - has been at least two times higher than rural productivity[16].

Table 3. Urban population distribution in ecological regions of Nepal

Ecological Regions	Population	% of total urban population	Area in sq. km.	Density, pop per sq. km.
Hills / Mountains	576,024	17.8%	1,047	550
Kathmandu Valley	995,966	30.9%	97	10,265
Terai	1,655,889	51.3%	2,133	1,494
Total Urban	**3,227,879**	**100%**	**3,276**	**985**
Rural Total	**19,923,544**		**143,905**	**138**
Total Population	**23,151,423**		**147,181**	**157**

Source: CBS 2003

Only around one-fourth of Nepal's land area is cultivable, the remainder largely consisting of forests and mountainous areas. The lowland Terai region is very fertile and this is where the main supply of rice comes from, while in the hills and mountains maize and millet are the staple food. Nepal has always been self sufficient in food and up to the 1980s rice, wheat, grain and sugarcane were exported. However in recent years Nepal has become a net importer of food due to high rate of population growth and low level of production in the country[17].

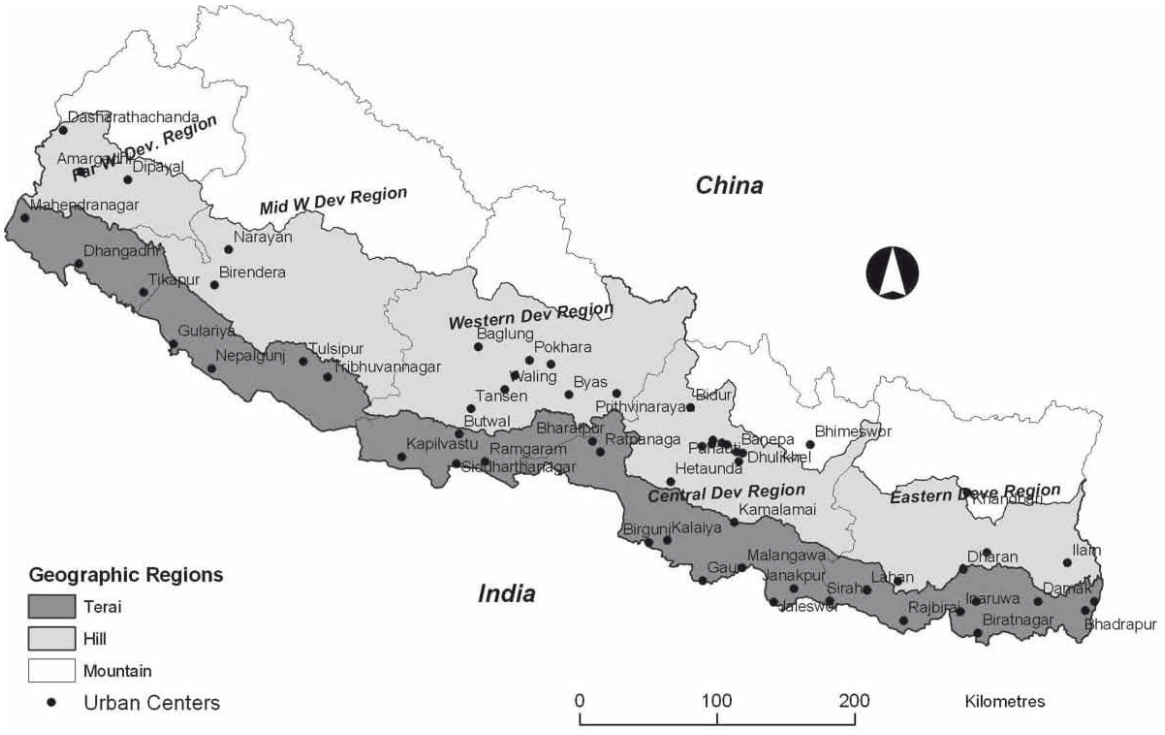
Several factors have contributed to Nepal's underdevelopment, including its landlocked geography, rugged terrain, lack of natural resources, and poor infrastructure. While Nepal initiated development efforts as early as the 1950s with the adoption of periodic plans, economic growth has been lacklustre and slow, and fast-growing urban areas have failed to encourage growth in adjacent rural areas and spread the benefits of growth equitably[18]. Nepal's economy is characterised by a narrow range of exports (carpets, pashmina, garments and leather goods) increasing economic disparity between the mountain areas and the developed Terai region, excessive governmental control and regulation, and inefficient public enterprises and administration. China, India, Japan, the United States, and several European nations have made large investments in

NEPAL HAS THE LOWEST URBANISATION RATE IN SOUTH ASIA AT 14 PER CENT AND ALSO SOUTH ASIA'S HIGHEST URBAN GROWTH RATE (6.4 PER CENT PER ANNUM). IN THE LAST DECADE POPULATION GROWTH IN THE URBAN AREAS WAS THREE TIMES THAT OF THE COUNTRY AS A WHOLE.

Nepal's economy through foreign aid since 1952. Still Nepal's economy is characterized by heavy dependence on foreign aid, foreign aid accounts for more than half the development budget.

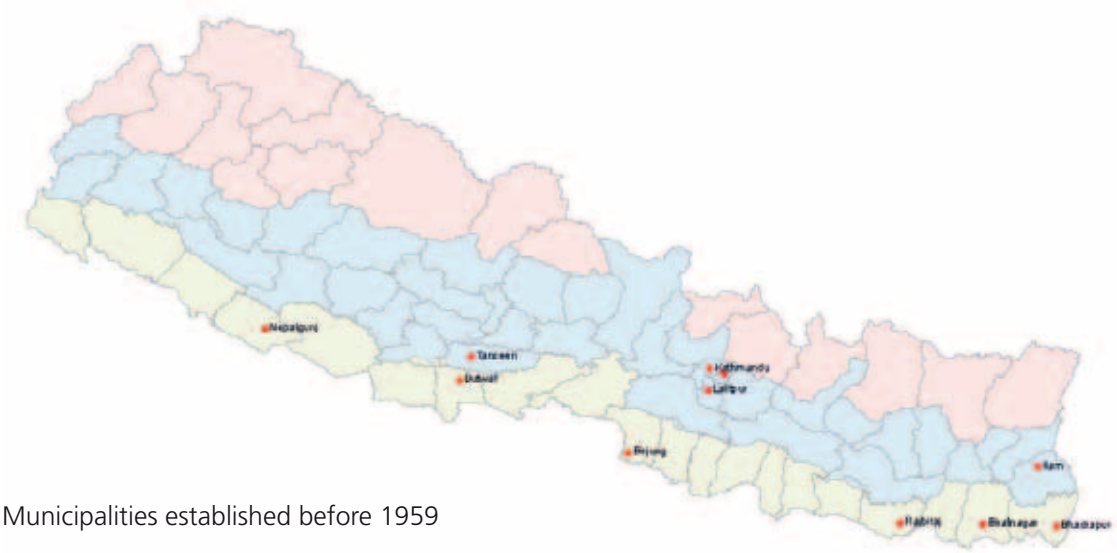
With eight of the world's ten highest mountain peaks -including Mt. Everest-, Nepal is a tourist popular destination for hikers and mountain climbers. Birth place of Buddha and Pashupati Temple for Hindus are religious attraction to their believers. Tourism

Figure 3. Nepal's three different geographic regions

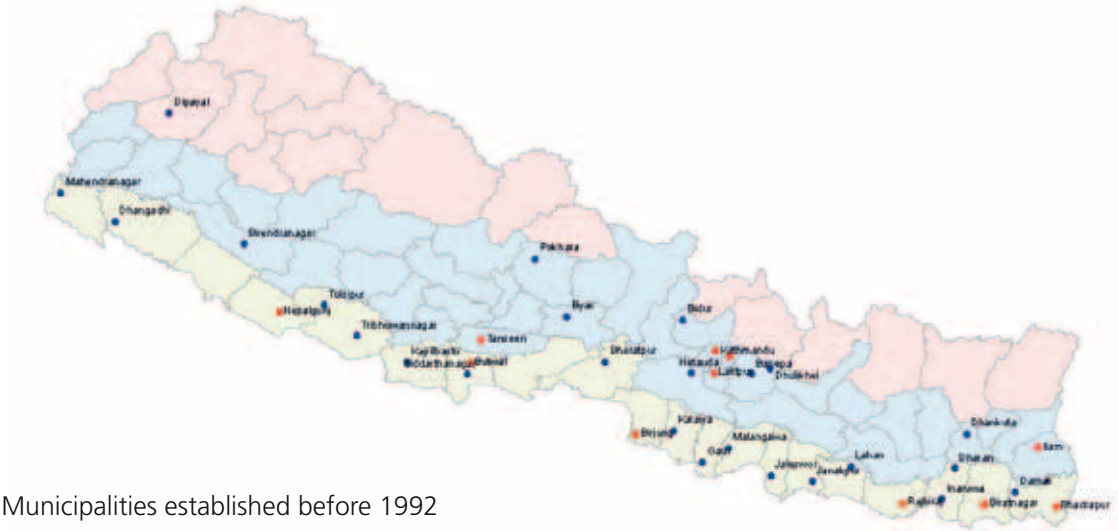


Source: Portnov, B., Adhikari, M. and Schwartz, M., 2007

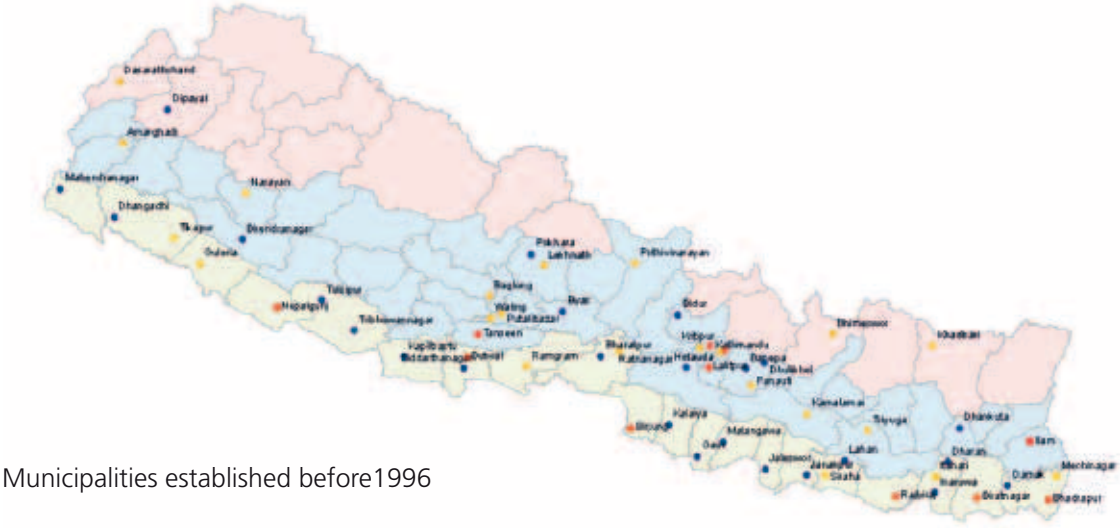
Figure 4. Distribution of urban centres in Nepal in 1959, 1992 and 1996



Municipalities established before 1959



Municipalities established before 1992



Municipalities established before1996

Source: CIUD 2010

Table 4. Basic Facts and Figures on Nepal

INDEX	YEAR	VALUE	SOURCE
Official Name of the country		**Federal Democratic Republic of Nepal**	
Name of Government Institution responsible for Housing		**Department of Urban Development and Building Construction (DUDBC)**	
Area	2001	147181 sq km	Population Census 2001, CBS
Total population	2001	23,151,423	Population Census 2001, CBS
Population growth (per annum)	2001	2.25%	Population Census 2001, CBS
Urban Population growth (per annum)	2001	6.44%	Population Census 2001, CBS
Percentage of Urban Population living in Slums	2010	7-10%	Lumanti 2010
Housing backlog (housing needs)	2011-2021	329,711-434,930	CIUD research
Average population density	2001	157 person per sq km	Population Census 2001, CBS
Average urban population density	2001	985 person per sq km	Population Census 2001, CBS
Gross domestic product (GDP)	2007	10.3 USD billion	Human Development Report, 2009, UNDP
GDP per capita (USD,PPP)	2007	470 USD	Nepal in Figures, 2008, CBS
Percentage below poverty line	2006	31%	Human Development Report, 2009, UNDP
Exchange rate USD:NPR	Jul-10	73.45	UN-HABITAT
Price of a Sac of Cement	May-10	10 USD	CIUD research
Inflation	Jan-10	13%	Nepal Rastra Bank
Economic growth rate	2001-07	1.9%	Human Development Report, 2009, UNDP
Human development index	2007	0.509	Human Development Report, 2009, UNDP
Human development ranking	2007	144 out of 177	Human Development Report, 2009, UNDP
Average life expectancy	2008	66.3 years	Human Development Report, 2009, UNDP
Infant mortality rate	2006	48 per 1,000 birth	Nepal in Figures, 2008, CBS
Number of households	2001	4,174,374	Population Census 2001, CBS
Average household size	2001	5.44	Population Census 2001, CBS
Average household size in urban areas	2001	4.86	Population Census 2001, CBS
# of households per house	2001	1.16	Population Census 2001, CBS
# of households per house in urban areas	2001	1.52	Population Census 2001, CBS

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INDEX	YEAR	VALUE	SOURCE
Total Urban Housing Stock	2006	527,991	CIUD estimation
House Price-to-Income ratio	2010	3.9	CIUD estimation
Minimum Construction cost per m² (formal and/or informal)	2010	182	CIUD research
Mean or Average Plot Size (minimum plot in legislation in USD/m²)	2010	80	CIUD research
Minimum Price of Urban Land (city outskirts in USD/m²)	2010	212	CIUD research
Mean or Average Size of Social/Standard low-income house in m²	2010	54	CIUD research
Number of Banks/Financial Institutions Providing Housing Loans	2010	26	CIUD research
Interest Rate Charge by Banks for Housing Loans	2010	8-12%	CIUD research
Percentage of Public versus Customary Land	2001	26%-74%	Department of Land Revenue
Main Agricultural Products			rice, wheat, grain, sugarcane
Building Materials Available/Produced domestically			brick, stone, timber, cement, steel rods, CGI sheets

Source: Various sources

became a leading industry in the 1980s and has been a major source of foreign exchange earnings since. Although the decade-long insurgency and a global economic slowdown threatened the tourism industry, it picked up remarkably quickly after the 2006 peace agreement promised improved security environment. Figures from the Department of Immigration showed a 37 per cent increase in arrivals in 2007, which surpassed the numbers of tourist arrivals during 1999, the peak tourism year prior to 2006[19]. In 2009 the tourism sector contributed to 7 per cent of the country's GDP[20] and is expected to continue to grow supported by more airlines flying into Nepal, and higher number of Indian and Chinese tourists[21].

Nepal has a massive hydropower potential of which currently an estimated 1 per cent is tapped. Several hydroelectric projects, at Kulekhani and Marsyangdi, were completed in the early to late 1980s, of those planned in the 1990s, only few were actually completed. There has been no lack of willing investors most notably from China and India but agreements on pricing and capital financing have proven to be stumbling blocks. The most significant privately financed hydroelectric projects currently in operation are the Khimti Khola (60 MW) and Bhote Koshi (36 MW) projects. Currently, domestic demand for electricity is increasing at 8%-10 per cent a year.

SQUATTER SETTLEMENTS IN KATHMANDU ALONE HAVE GROWN IN NUMBER FROM 17 IN 1985 TO 40 IN 2010, THE MAJORITY OF WHICH IS LOCATED ON MARGINAL PUBLIC LAND ALONG THE RIVER BANKS. ESTIMATES OF SQUATTER POPULATION VARY BUT A MORE CONSISTENT FIGURE HAS EMERGED IN RECENT YEARS, FOR NEPAL AS A WHOLE IT HAS BEEN ESTIMATED THAT NEARLY 7 PER CENT OF THE TOTAL URBAN POPULATION LIVES IN SQUATTER SETTLEMENTS.

In recent years it has been the Nepali workers working outside the country who have been fuelling growth through significant and steadily increasing amounts of remittances – in 2009 officially recorded remittances rose to USD2.7 billion (22 per cent of GDP) from USD900 million (11 per cent of GDP) in 2005, well exceeding the share of exports which hovers around 12 per cent of GDP[22]. The official flows exclude those from India and through the informal system, *hundi* and those carried in person. When unofficial inflows are included, total remittances could exceed 25 percent of GDP, thereby becoming a key resource in fostering the country's macroeconomic stability.

1.5 CRITICAL ISSUES IN CONTEMPORARY URBAN NEPAL

The growing rural-urban migration combined with the absence of planned urban development is causing an increasingly worrying situation in Nepal's cities. The situation has been aggravated by the ten years of insurgency and the political uncertainties of last few years, resulting in an ever increasing stream of migrants in search of employment and security. The pressure on existing urban infrastructure is enormous and cities are unable to cope with the demand for housing and basic services such as water supply, power, garbage collection and transportation.

Meanwhile land prices in cities have soared to unprecedented highs. In times of political and economic uncertainty people tend to invest in land and housing, this is further fuelled by local banks that have few investment alternatives. Research indicates that also the remittances from overseas Nepali workers are largely invested in land and property rather than in industries or business[23]. According to the Nepal Land and Housing Developers' Association, land prices have risen by 300 percent since 2003 while figures from the Department of Land Reform and Management show that both land prices and land transactions in Nepal's cities almost doubled in 2009 compared to 2008[24].

The combination of soaring land prices and the increasing stream of rural-urban migration is making it difficult for the poor to afford housing, especially in the quickly growing urban areas. The current predicament is such that land and rent prices have risen to such a point that many are unable to pay the rent or price demanded in order for them to claim their right to shelter in urban areas. In this context unauthorised occupancy of land is a growing phenomenon in Kathmandu and other cities. Although the population of squatters in Nepal is far less compared to that of neighbouring countries - Nepali has no word for *'slum'*- the situation is quickly worsening and turning into a serious social predicament.

Squatter settlements in Kathmandu alone have grown in number from 17 in 1985 to 40 in 2010[25], the majority of which is located along riverbanks located on marginal public land along the river banks. Estimates of squatter population vary but a more consistent figure has emerged in recent years. Poverty mapping suggest that in 2010 Kathmandu had more than 12,000 squatters in more than 40 settlements and an additional 40 per cent of squatters were estimated to be occupying public buildings bringing the total squatter population to nearly 20,000. For Nepal as a whole it has been estimated that nearly 7 per cent of the total urban population lives in squatter settlements[26].

Many people living in squatter settlements are subject to harassment by authorities. Without secure tenure (*lalpurja)*, which is often a precondition for access to other opportunities, including credit, public services and livelihood opportunities, squatters have few ways to improve their lives. Residents regard any self-made improvements as high-risk investments, as they are threatened by eviction without compensation. The key institutions refrain from formal interventions as that would be perceived as a *de facto* recognition of the occupancy status.

Squatters in Nepali are commonly referred to as Sukumbasi, although technically there are two distinct categories:

1.6 RESEARCH METHODOLOGY

This study is based on both primary and secondary data as sources of information:

- literature review,
- interviews with selected municipal officials and other stakeholders; and
- household survey

The literature review included policy and legal documentation, the 10-yr periodic plans, books, journal and newspaper articles, both international and Nepali, publications of international organisations, NGO's, research reports but also unpublished material such as thesis-work from Nepali students at international educational institutes. Various sources of quantitative data underpin this study including the statistical data of the Central Bureau of Statistics, most notably the Nepal National Housing Survey, 1991, Census 2001 and Nepal Living Standard

Table 5. Reduced productivity in rice and wheat farming

Agricultural Yield in Nepal as % of	1961-63		1991-93	
	Rice	Wheat	Rice	Wheat
India	129	146	86	57
Bangladesh	116	198	86	75
Pakistan	140	150	93	69

Source: APP, 1995

Photo-1a: Fast paced urbanisation in Kathmandu © UN-HABITAT

Photo-1b: Haphazard urban growth in Kathmandu © UN-HABITAT

Photo-1c: Urban growth concentrating along transport corridors like in Ratnanagar © UN-HABITAT

Survey, 2003/04. A complete list has been included in the bibliography.

In-depth interviews were taken with the Chief Executive Officers (CEOs) of selected municipalities, municipal officers, central government departments, community grassroots organisations, NGO's, UN and other international agencies, advocacy organisations, professional bodies, property developers, brokers, real estate agents and financial institutions. A complete list of resource persons can be found in the acknowledgements section.

Because of the lack of reliable and comprehensive data in some of the thematic areas and the fact that many of the quantitative data were outdated (the 2001 census being the last one) a more accurate dataset was needed to underpin the findings in this study that signalled so many recent developments. The profiling team undertook a 400 household survey in the three different ecological zones: mountain, hill and Terai as well as among different size municipalities: (sub) Metropolitan City, Municipality and Small Town[27]. First municipalities from the three ecological zones were grouped divided according to the urban population distribution in municipalities and towns in Nepal (see table 7).

For each stratum the municipalities were then grouped on basis of similar characteristics such as urbanisation

Table 6. Estimation of Squatter Settlements in Selected Municipalities

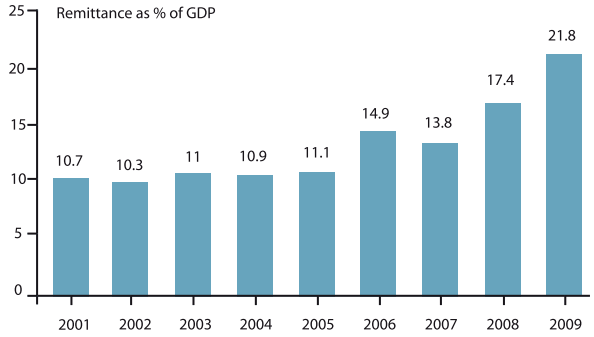
Municipality	Number of settlements	Total households
Bhimdatt	28	2,777
Biratnagar	32	2,540
Butwal	21	5,053
Damak	30	1,009
Dhankuta	10	171
Dharan	56	4,854
Enarwa	17	437
Gulariya	36	1,543
Hetauda	6	320
Itahari	25	1,829
Lahan	10	1,735
Nepalgung	10	336
Rajbiraj	10	460
Ratnagar	13	521
Taulihawa	32	2,035
Tikapur	18	2,544
Tulsipur	**12**	**2,537**
Total	**366**	**30,701**

Source: Lumanti 2009

Table 7. Population distribution per ecological region and survey sample

Strata	Different size cities per ecological region	% of total urban population	Survey Sample City	# of households interviewed	% of total
1	Metropolitan City in Hill Region	17%	Kathmandu	120	30%
2	Sub-metropolitan city in Hill region	8%	Pokhara	50	13%
3	Sub-metropolitan city in Terai region	6%	Bharatpur,	40	10%
4	Municipality in Mountain region	1%	Bhimeswor	30	8%
5	Municipality in Hill region	16%	Tansen, Ilam	60	16%
6	Municipality in Terai region	25%	Nepalgunj Siraha	60	16%
7	Small Town in Mountain region	2%	-		-
8	Small Town in Hill region	16%	Khokana	20	5%
9	Small Town in Terai region	9%	Attaria	20	5%
Total		100%		400	100%

Figure 5. Remittance Inflows (in percent of GDP) 2001-2009



Source: Nepal Critical Development Constraints 2009 Asian Development Bank (ADB), Department for International Development (DFID), and International Labour Organization (ILO)

trend and geographical location. Hereby to ensure a fair representation of the actual urban population distribution the profiling team choose to exclude small towns in the mountain region, and instead select two additional Terai and Hills municipalities. This because although they show up in the urban statistics the towns in the mountains actually have largely rural characteristics, while the Terai and Hill towns are probably underrepresented in the statistics when it come to the recent developments that are relevant in the context of urban housing sector. For each stratum one or more example city were selected, in total 10 towns were selected: Kathmandu Metropolitan City, Pokhara sub-metropolitan city, Nepalgunj, Ilam, Siraha, Bharatpur, Dolakha, Tansen and small towns of Khokana and Attaria.

Each selected town was further classified in small clusters on the basis of urbanization pattern. Households were selected randomly from selected clusters for the household questionnaire survey to

IN RECENT YEARS IT HAS BEEN THE NEPALI WORKERS WORKING OUTSIDE THE COUNTRY WHO HAVE BEEN FUELLING GROWTH THROUGH SIGNIFICANT AND STEADILY INCREASING AMOUNTS OF REMITTANCES – IN 2009 OFFICIALLY RECORDED REMITTANCES ROSE TO USD2.7 BILLION (22% OF GDP) WELL EXCEEDING THE SHARE OF EXPORTS WHICH HOVERS AROUND 12% OF GDP.

Slum:	Slum communities are inhabited by socially disadvantaged people but, unlike squatter settlements, the residents of these slum areas have formal title papers (lalpurja). These communities are defined by poverty, low income, inadequate living conditions and sub-standard facilities.
Squatter (sukumbasi):	Those communities where people have settled on land without legal right to be there, neither as tenants nor owners. These people may live on the land for decades; however, they have no legal title to the land. Although technically Sukumbasi, refers to people who do not own land anywhere in the country, in the urban context Sukumbasi are the squatters residing on unauthorised space, while they may still own land elsewhere in the country.
Unplanned settlements:	Areas where housing is not in compliance with current planning and building regulations (unauthorised housing)

find out details about household structure, physical status, ownership of house and land, accessibility to basic services as well as financial information, household income and expenditure and price of land and housing. Meanwhile focus group discussions were held with line agencies, key stakeholders and key informants to collect more general information such as urbanisation trends, status of the urban centre, types of ownership transfer, price of land and fluctuations over last five years.

Photo1d: CIUD household survey © UN-HABITAT

SECTION ENDNOTES

1. Pokharel, J. 2006
2. Sharma, 1989
3. Sharma, 1989
4. CBS, 2003
5. Schwarz, 2000
6. Gurung, 1989
7. CBS, 2003
8. According to the criteria for Municipalities in the Local Self Governance Act 1999, the minimum population size was set at 20,000 in the Terai and 10.000 in the hills/mountains, while the minimum annual revenue was NPR 5 million in the Terai and NPRs 500.000 in the hills/mountains
9. Tanaka, 2009
10. Pokharel, 2005
11. NHRC, 2003
12. Shrestha, 2006
13. CBS, 2003
14. ADB, 2010
15. HRD, 2009
16. ADB, 2010
17. APP, 1995
18. ADB, 2010
19. Asia Invest, 2006-07
20. WTTC, 2010
21. World Bank, Nepal Economic Update 2010
22. World Bank, Nepal Economic Update 2010
23. Thapa, 2009
24. Department of Land Reforms and Management (DoLRM), 2009
25. Lumanti, 2008
26. Lumanti, 2010 / Pokharel, 2006 (Economic Policy Network and ADB)
27. 'Small Towns & Market Centres' not to be confused with 'small municipality', small towns do not have municipal status. According to the Department of Urban Development & Building Construction, there are an estimated 131 small towns in Nepal.

02

THE POLICY, INSTITUTIONAL AND LEGAL FRAMEWORKS

2.1 BROAD POLICY CONTEXT

2.1.1 HOUSING A NEGLECTED SECTOR

The country's maiden economic development plan called the First Five Year Plan (1956-61) was implemented after the country was opened to the world against the background of extremely limited key information and data. The total plan budget of first FYP was NPR 330 million (USD 4.5 million). There was no mention of housing or urban planning. The housing sector has indeed remained a neglected and low priority sector in the country's national economic development plans. Housing was traditionally regarded as a 'social service' and was not even assigned separate chapter in the Five Year Plans until the seventh FYP (1985 – 90).

Budget allocation for housing and urban development hardly exceeded one per cent and was included within the 'other social service' heading in the periodic plans of Nepal. Despite the significant role being played by urban sector in the national economy, it was never accorded a high priority in the periodic allocation of national resources (see table 8).

The *Basic Needs Strategy* in 1987 was the first step recognising shelter as a basic need. Supporting the campaign of the International Year of Shelter, the government announced to ensure shelter for people living below poverty line (then at 43 per cent) by 2000. Establishment of separate department for housing and urban development, the *Town Development Act 1988*, and the establishment of Town Development Fund are some major achievements made in this plan period. Guided Land Development approach was introduced to meet infrastructural need and control over haphazard expansion particularly in Kathmandu Valley. With the Basic Needs Strategy the idea was launched for a separate housing finance institution

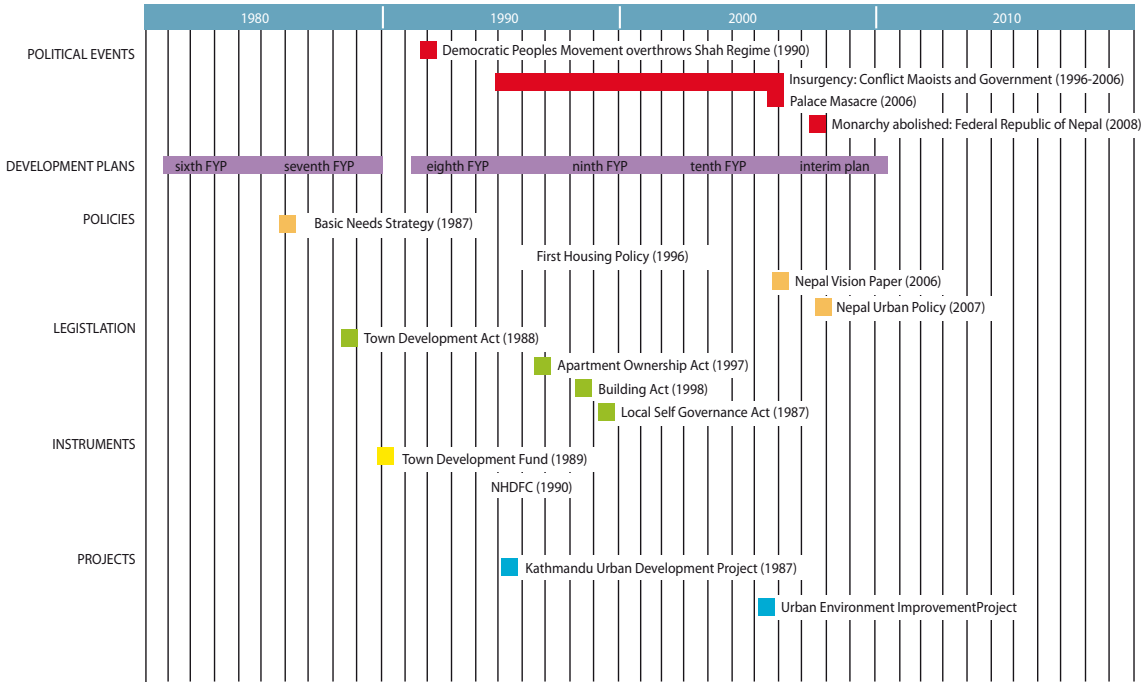
Table 8. Allocation of Government Resources under different Periodic Plans since 1956

Five Year Plan	Total budget (NPR 10million)	Budget in Housing & Urban Planning (NPR 10 million)	Budget in Housing & Urban Planning (USD)	(% of total budget)
First FYP (1956-61)	33	-		-
Second FYP (1962-65)	60	-		-
Third FYP (1965-70)	250	-		-
Fourth FYP* (1970-75)	354	38	51,736	10.7%
Fifth FYP* (1975-80)	919	170	231,450	18.5%
Sixth FYP** (1980-85)	2,175	25	34,037	1.1%
Seventh FYP** (1985-90)	29,000	158	215,112	0.5%
Eight FYP*** (1993-97)	113,479	2,304	3,136,828	2.0%
Night FYP**** (1998-2002)	18,958	175	238,257	0.9%
Tenth FYP **** (2002-07)	234,029	1,126	1,533,016	0.5%

Note:
* Heading: Health, Education and Other Social Services
** Heading: Housing and Town Development Planning
*** Heading: Social Sector
**** Heading: Housing

Source: Various Economic Development Plans, National Planning Commission, Kathmandu.

Figure 6. Nepal Housing Policy Timeline: 1980-2010



in order to make available cheap and easy housing finance to provide access to housing to poor and low income families. In 1990 the Nepal Housing Development Finance Company (NHDFC) was established with a capital of Rs. 3 million to mobilise private resources for the development of housing projects.

The *eight FYP* (1992–1997) was postponed because of the political upheavals in mid-1990. When it was launched in 1993 poverty alleviation was a major objective of this first national plan formulated after restoration of multiparty democracy in 1991. It was then that the Government of Nepal realised the need to formulate housing policy in order to ensure adequate shelter to all in general and poor and low income families in particular, resulting eventually in the 1996 National Shelter Policy.

2.1.2 NATIONAL SHELTER POLICY (1996)

The maiden effort towards this direction was made by conducting the national level housing survey in 1991 with technical support from UN-HABITAT, based on which the National Shelter Policy of 1996 was developed. It clearly spelled out the role of government as a facilitator with a role limited to provision of basic services and regulatory mechanisms, while the private sector was envisaged to take the lead role in housing provision.[1] Objectives were set for the short term (until 1996), midterm (until 2001) and long term (2006). The total housing need for period 1996-2006 was estimated to be 2.5 million units of which only 400.000 or 17 per cent in the urban areas. In addition, around 730,000 dwellings needed to be upgraded of which 60,000 were in the urban areas, less than 10 per cent.

The main instruments proposed to improve the housing situation were:

1. Supply of serviced housing plots through land development programmes executed by Town Development Committees and private developers.
2. Promotion of shelter finance,
3. Development of construction material and technology

Yet the 1996 shelter policy has yielded very disappointing results, the main reason for this is that no organisation has been made responsible to implement this policy. This was the result of the gap between policy and implementation due to inadequate legal frameworks and weak institutional arrangements without clear definition of roles, clear allocation of responsibility, thus leading to duplication, gaps, conflict and competition. The Shelter Policy is currently under revision now and priority is placed for housing the urban poor and upgrading of slums and squatters.

Table 9. Housing production target in 1996 Shelter Policy

	1992-1996	1997-2001	2002-2006	Total
Urban Nepal				
New dwellings	115,000	143,700	174,900	**433,600**
Upgrading	19,100	19,700	20,900	**59,700**
Rural Nepal				
New dwellings	676,900	705,500	733,300	**2,115,700**
Upgrading	215,100	21,800	235,300	**672,200**
All Nepal				
New dwellings	791,900	849,000	908,300	**2,549,200**
Upgrading	234,200	241,500	256,200	**731,900**

Source: National Shelter Policy, 1996

2.1.3 RECENT DEVELOPMENTS AND INITIATIVES

The *Ninth FYP* (1997-2002) aimed at investing in municipal infrastructures through the Town Development Fund (TDF). Integrated Action Plans were prepared for several municipalities and with the promulgation of Local Self Governance Act in 1999 municipalities were given responsibilities of their development guided by the decentralisation policy. The ninth FYP also continued to mobilise fund for housing through the Nepal Housing Development Finance Company and expected to develop 6,000 housing plots by means of land pooling programmes.

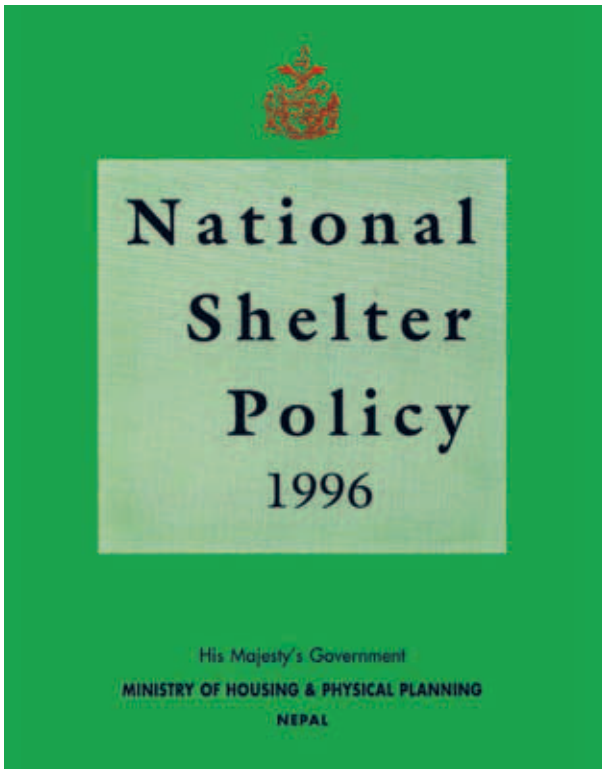


Photo2a: 1996 National Shelter Policy © UN-HABITAT

Yet again implementation was found weak mainly due to lack of resources, weak managerial capacity, absence of coordination, lack of appropriate human resources, etc. The proposed funding vehicle (TDF) was limited to infrastructure not directly linked to housing.

On a positive note Kathmandu Urban Development Project (KUDP) was implemented during this plan period to improve municipal infrastructure in Kathmandu Valley. This project was first of its kind to borrow loan by a municipality for urban infrastructures from external financial sources like the Asian Development Bank.

The *Tenth FYP* (2002-2007) put forth the objective of providing safe and cost-effective houses by promoting systematic settlements for housing sub-sector. 1.5 million (USD 20,400) was allocated for improving housing slums and squatters. The strategy proposed for the housing infrastructure in the plan was largely focused on Kathmandu Valley where the plan intended to lead the Long-term Development Concept of Kathmandu Valley in a coordinated manner. Apart from the valley the plan intended to establish satellite towns or settlement centres. Yet implementation again relied heavily on mobilising the means and resources of private sector.

During the tenth plan period projects like *Urban and Environmental Improvement Project* were implemented as well as a number of infrastructure projects and land development projects. The *City Development Strategy* (CDS) of Kathmandu Metropolitan City was completed in January 2001 was the first initiative from the local government side to recognise squatters as part of urban development agenda and a clear sign of local government's realisation that squatters' issues could no longer be ignored. For the first time,

BUDGET ALLOCATION FOR HOUSING AND URBAN DEVELOPMENT HARDLY EXCEEDED ONE PER CENT AND IT WAS INCLUDED WITHIN THE OTHER SOCIAL SERVICE' HEADING IN THE PERIODIC PLANS OF NEPAL. DESPITE THE SIGNIFICANT ROLE BEING PLAYED BY URBAN SECTOR IN THE NATIONAL ECONOMY, IT WAS NEVER ACCORDED A HIGH PRIORITY IN THE PERIODIC ALLOCATION OF NATIONAL RESOURCES.

members of squatter and slum communities were directly involved in developing a specific strategy for their communities.

In the changed political context after the success of popular movement of 2006 the government came up with New *Nepal Vision Paper* (2006) in which integrated physical infrastructure and compact settlements play a key role. Among others, the vision paper emphasises affordable shelter as national urban policy *"….to increase access of common Nepali people to infrastructure like road transport, water supply, building and housing…".*. and the vision document also explicitly mentions squatter settlements: *'effective programs to address the issue of squatter settlements*[2] whereby priority will be given to include economically weaker section, oppressed class and Dalits (so called untouchables). Following the Vision Paper the *National Urban Policy* (2007) prepared by the Ministry of Planning and Public Works was centred around the theme of sustainable development and poverty reduction and also mentions the urban poor and slum areas as one of the key area to address and puts local governments to take the charge of urban development at local level.

In the last two decades shelter has emerged as an issue on national policy level and features in the main policy documents; it has not been matched by budget allocation and largely relies on the private sector for implementation. Although there have been a number of noteworthy initiatives these largely come from the NGO sector and no special attention has been given to the urban housing issue.

Achievements

From the review of the existing policies and plans, it is clear that the housing sector has not been recognised as a potential resource in the overall socio- economic and physical development of cities in Nepal, despite the newly emerged national shelter policies and their implementing strategies. *'Housing for all'* is mentioned specifically in the 2007 interim constitution, but the urban reality is different. Nepal has no history of government interference in the housing market. Some policy instruments, legal provisions and institutional responsibilities have been put in place but no comprehensive housing policy. The timely adoption of shelter policy in 1996 opened door for intervention in the housing sector. In reality, however, the implementation tools used were weak and inadequate.

The Government of Nepal has endorsed, ratified and adopted numerous other international declarations and covenants regarding right to housing including the International Covenant on Economic, Social and Cultural Rights (ICESCR) the Habitat Agenda and the Millennium Development Goals (MDGs). Yet although they have recognised the right to adequate housing as an important policy principle, housing rights have not been developed as a separate and explicit right in Nepal's context. Government still considers housing for the poor as a social welfare issue-which they may or may not be able to afford to address rather than as a basic human right, illustrated by the fact that the 2007 MDG Report of Nepal does not even include the MDG 7/10 and 7/11 goals.

2.2 LEGAL AND REGULATORY FRAMEWORKS RELATED TO HOUSING

2.2.1 HOUSING IN THE CONSTITUTION

The interim constitution[3] (2007) of Nepal stipulates the right to safe and affordable housing under the notion of 'Shelter for All'. The specific articles referring to housing and land are:

Article 33 Responsibilities of the state:

(h) To pursue a policy of establishing the rights of all citizens to education, health, *housing,* employment and food sovereignty.

(i) To adopt a policy of providing economic and social security including lands to economically and socially backward classes including the landless, bonded labourers, tillers and shepherds.

Article 35 State Policies

(10) The State shall pursue a policy which will help to promote the interest of the *marginalized communities* and the peasants and labourers living below poverty line, including economically and socially backward indigenous tribes, Madhesis, Dalits, by making reservation for a certain period of time with regard to education, health, *housing,* food sovereignty and employment.

(14) The State shall pursue a policy of making special provision based on positive discrimination to the minorities, *landless, squatters*, bonded labourers, disabled, backward communities and sections, and the victims of conflict, including women, Dalits, indigenous tribes, Madhesis and Muslims.

(15) The State shall pursue a policy of making provision of *providing basic land* to the liberated bonded labourers for settlement having determined their exact numbers.

Comparing these articles to the 'housing articles in the 1990 constitution; it is evident that the popular movement of 2006 had a positive bearing on the shelter sector. The policy guidance of the constitution of 1990 has been elevated to right to shelter in the latest constitution. Moreover, the interim constitution has also guided for the pursuance of state policies on housing particularly to the poor and vulnerable. *Janata Awas* (meaning peoples housing) programme recently launched by the government for marginalised rural population in three districts may be the contribution of this constitutional provision.

2.2.2 PLANNING REGULATION

We have to go back three decades to find Nepal's only serious planning effort. In the 1970s land use plans for all the five regional centres were prepared and includes detailed physical development plan of government's institutional area. Also a number of towns were established in Terai by clearing some forest lands and attempts were made to implement a physical development plan in Kathmandu Valley including three sites and services projects. There have been a series of plans prepared in the case of Kathmandu Valley, and some other towns like Birgunj and Biratnagar. However they were not implemented. Since then no comprehensive planning effort has taken place in Nepal's urban areas. Land is mostly developed by individual's decisions with a mixed residential-commercial land use pattern.

Urbanisation in Nepal, as a process, is largely the outcome of location of new economic activities and population movement as opposed to the outcome of a planning effort[4]. The Town Development Act (1988) - which provides with instruments to carry out land pooling projects - and the building bye laws are in fact only the basis of development control in Nepal's cities.

Town Development Act (1988)

The Town Development Act provides the legal basis for implementing town development plans. Yet, the act has no provision empowering local governments to undertake land pooling, currently the main planning instrument. In recent years additional provisions have been included whereby the Town Development Committees have increasingly delegated their authorities to municipalities.

Section 3 of the Town Development Act stipulates the responsibility for *Town Development Committees* to formulate a town plan with any or all of the following objectives:

- To undertake the physical redevelopment of towns in an integrated manner;
- To rebuild, expand and develop existing towns or build new ones;
- To determine land use areas for the purpose of town development and make principle services and facilities available;
- To take other measures connected with the above tasks.

Local Self Governance Act (1999)

The Local Self-governance Act of 1999 is Nepal's decentralisation act, giving municipalities and Village Development Committees the authority to raise funds by taking loans and levying taxes and carry out town development plans and housing programs. Albeit not as comprehensive as the Town Development Act, it gives municipalities and Village Development Committees with the responsibility to deal with the urban housing problem:

- Section 111 (4) (b) of the Local Self Governance Act requires municipalities to consider *uplifting the living standard*, income and employment while formulating municipal plans to support poverty alleviation; and more specifically
- Section 111 (6) (c) stipulates that development programs shall be formulated

in the areas where the marginalised groups are located and poverty is prevalent.

The working area and mandates of Town Development Committees under the Town Development Act 1988 and Municipalities under the Local Self Governance Act (1999), do at times overlap within the same jurisdiction. In principle, the line ministry for Municipalities is Ministry of Local Development while that for TDC is Ministry of Physical Planning and Works. Local Self-governance Act was promulgated eleven years after the launch of the Town Development Act. As the outcome of more decentralised governance, it was introduced with the intention of substituting the Town Development Committees, however, in reality both acts are still in practice, at times creating confusion and conflict of interests. In recent years as municipalities are becoming stronger, Town Development Committees roles are increasingly ceremonial and largely limited to projects of the Department of Urban Development and Building Construction projects.

2.2.3 BUILDING REGULATIONS

Apartment Ownership Act (1997)

Promulgation of *Apartment Ownership Act* (1997) paved road for private sector to intervene into the housing sector. It covers a wide range as ownership rights, rights of customers, operational management, buyer's duties, developer's liabilities. It is compulsory to form user committee of apartment owners' for the proper operation and maintenance of the apartments and their premises.

Building Act (1997) and National Building Code (1996)

Building Act of Nepal was enforced in 1997, applicable for all municipalities and villages in Nepal. *Building Act* has categorised all buildings into four types according to the standards in the *Nepal National Building Code.* These are:

A	Building designed under state of art (international standard)	NBC 000
B	Professionally engineered structures (> 3-storey, structural span > 4.5 m and floor area > 93sq.m)	NBC 101-114,NBC 206-208
C	Mandatory Rules of Thumb for Load Bearing Masonry, and R.C.C. Building	NBC 201, NBC 202, NBC 2005
D	Guidelines for Earthquake Resistant Building Construction (for non-engineered building in remote area with low strength)	NBC 203, NBC 204

The extensive *Nepal National Building Code* has 23 volumes which cover all above categories of buildings, approved by the cabinet in 2003. Building permits can be issued by Municipalities and Village Development Committees. Monitoring of all categories of building should be done by municipalities and Town Development Committees.

Besides building code there are building by-laws in each municipality. As per *Local Self-Governance Act* municipalities are given authorities to prepare and implement building by- laws in their respective area. The building by-laws for the municipalities in Kathmandu valley and emerging towns have been revised in 2007 to accommodate for the changing urban context of the valley, these changes included plot ratio, ground coverage and set back.

SINCE THE 1970'S NO COMPREHENSIVE PLANNING EFFORT HAS TAKEN PLACE IN NEPAL'S URBAN AREAS LAND IS MOSTLY DEVELOPED BY INDIVIDUAL'S DECISIONS WITH A MIXED RESIDENTIAL-COMMERCIAL LAND USE PATTERN.

SECTION ENDNOTES

1. NPC, 1998
2. MPPW, 2007
3. Nepal is governed under the Interim Constitution of Nepal, 2007, replacing the previous Constitution of the Kingdom of Nepal, dating back to 1990. A Constituent Assembly is now charged with writing Nepal's permanent constitution which is scheduled to be promulgated in 2011.
4. Sharma, 1998

03

KEY PLAYERS IN HOUSING

3.1 PUBLIC SECTOR

3.1.1 CENTRAL GOVERNMENT

Ministry of Physical Planning and Works

The Ministry of Physical Planning and Works (MPPW) is the line agency responsible for the housing sector particularly for policy development, physical development plans, building regulations and standards. Through its Department of Urban Development and Building Construction (DUBDC) it implements urban development plans and programmes in Nepal.

Department of Urban Development and Building Construction

The Department of Urban Development and Building Construction is the main body for implementing housing policies, regulations and standards. The department has 25 district level divisional offices all over the country supporting municipalities in preparing periodic plans and digital base maps. Activities initiated by DUDBC in housing sector are.

- Assisting municipalities in preparation of Periodic Plans and digital maps.
- Drafting of *National Building Code* and building by-laws for municipalities
- Enforcement of the *Nepal National Building Code (NBC)* in all governmental and private buildings
- Training and capacity building in the use of *National Building Code* for engineers/ architects at the Building Technology Research and Training Centre; as well as in-country technical training of masons in earthquake safe building construction.
- Publication of promotional materials and demonstration of technologies to the wider public, including organising Earthquake Safety Day on 15 January and World Habitat Day in October each year.
- Retrofitting of existing vulnerable government buildings (hospitals, schools and other public buildings).

The main task of the Department of Urban Development and Building Construction (DUDBC) lies in the sphere of planning. Since 2002 they assisted in the preparation of Periodic Plans of which the planning process is participatory and consultative (17 municipalities to date). The department was also the focal point for the Integrated Action Planning exercise which commenced in 1992 and resulted in more than 30 municipalities having their own integrated action plan, which was later replaced by Periodic Plans as provisioned in the Local Self-Governance Regulations. In addition they have assisted in digital mapping of 27 municipalities.

There is no history of the Department being directly involved in the housing sector. Yet in recent years the attitude the Department of Urban Development and Building Construction, has been increasingly committed to the urban housing problem and acknowledged the issue of squatter settlements. They took exemplary action by signing MOU with the NGOs including Lumanti to upgrade slums and squatters. The department has set a target to upgrade 25 slums and squatter communities in their three year interim plan beginning July 2007. There are several ministries involved in the land tenure issue. Yet in absence of a clear policy on addressing the urban squatter problem, the fund allocated for squatter settlement could not be used as intended. Instead the fund was utilised to buy land for resettlement of squatters.

Table 10. Major organisations involved in housing and urban development in Nepal

PLAYER	ROLE	URBAN HOUSING PRODUCTION
CENTRAL GOVERNMENT		
National Planning Commission (NPC)	• National level policy formulation	-
Ministry of Local Development (MLD)	• Monitor the role of the municipalities under the Local Self Governance Act 1999	-
Ministry of Physical Planning and Works (MPPW)	• Responsible for carrying out 1996 housing policy • Set up of Urban Development Committee and Town Development Committees • Responsible for infrastructures including urban infrastructures	-
Department of Urban Development and Building Construction (DUDBC)	• Supporting municipalities in preparing periodic plans and digital base maps • Preparing building code and its regular updating • Partnering with NGOs in addressing slum and squatter issues	• Janata Awas Programme, 3,000 units in 3 Terai districts (rural housing for Terai disadvantaged groups)
Town Development Committees (TDC's)	• Formulate and implement the town development plans, • Implement land development activities: guided land development, land pooling and sites and services programs. • Enforce construction rules and building codes	• Estimated supply of more than 11,000 serviced plots in urban areas in last four decades (in recent years an increasing number are joint projects of TDCs and municipalities)
Nepal Housing Development Finance Company (NHDFC)	• Provision of housing loan facilities at reduced rates	-
LOCAL GOVERNMENT		
Municipalities	• Formulate and implement the town development plans, • Implement land development and housing programs • Enforce construction rules and building codes	• See above, since recent years involved in provision of serviced plots, no firm estimation known
NGO/INGOs		
Lumanti	• Improve quality of life for urban poor • Secure shelter for the poor • Solidarity for the poor	• Squatter upgrading projects
Habitat for Humanity	• Assist other partners (NGO's) to build affordable housing using local construction technologies	• Started 5,000 unit slum upgrading project primarily rural housing.
UN Agencies		
UN-HABITAT/UNDP	• Facilitate the government in urban development issues including housing • Support in housing disaster affected population in partnership with local governments, and NGOs	• 235 houses under completion for Koshi Flood disaster affected landless people in Sunsari District
PRIVATE SECTOR		
Real Estate Developers	• Development of houses and apartments	• Estimated 750 houses and 7,000 apartments
Land Brokers	• Provision of serviced land for construction	• Estimated supply of 50,000 serviced plots in urban areas in last four decades

For the collaborative effort in improving slums, the Department, along with UN-HABITAT and several NGOs working in the field initiated national level collective entity and platform to facilitate information sharing, discussion and coordination among national government agencies, civil society organisations; private sector groups and donor communities that are involved on the issues of slum upgrading.

The Department also recently initiated the Janata Awas Programme, a first of its kind rural housing scheme in three Terai districts (Siraha, Saptari and Kapilvasti) which is targeted at *dalits* and poor Muslim families. In this project NPR 300 million was allocated for the construction of 3,000 houses in 17 Village Development Committees, 1,000 houses in each district. In 2010 nearly 3000 units were completed whereas, NPR 395 million (USD 5.38 million) is being allocated for the Fiscal Year 2010/2011.

Ministry of Local Development

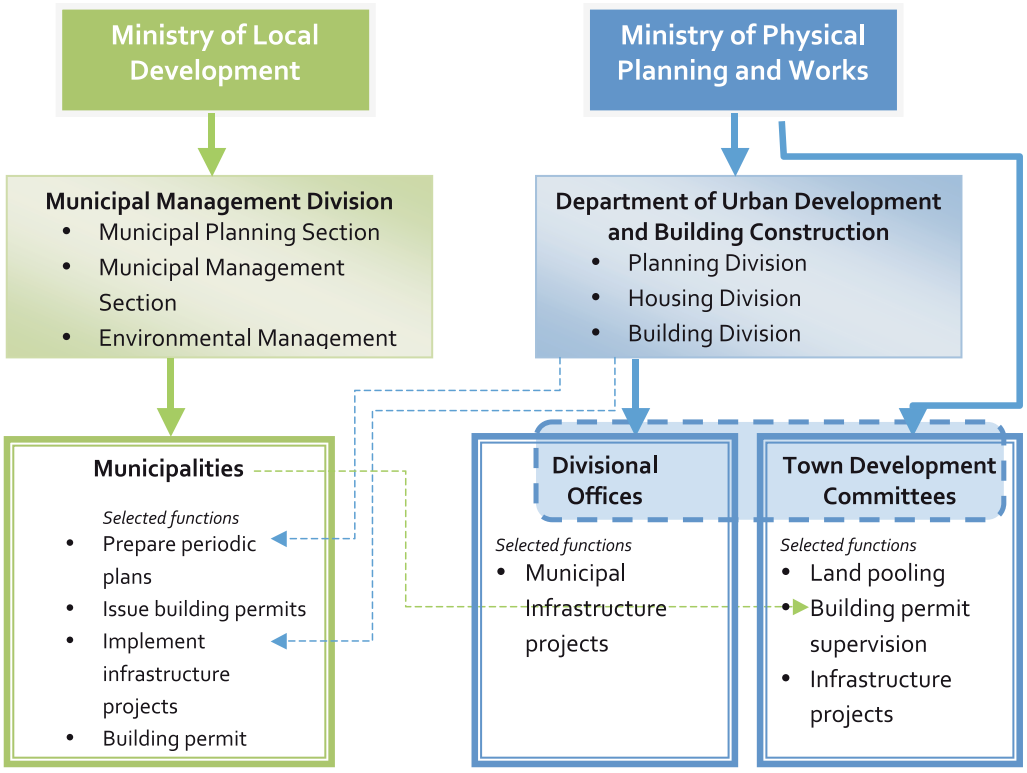
The Ministry of Local Development (MLD) is responsible for the administrative and personnel management function of the local government: the municipalities and Village Development Committees. Weak coordination between the Ministry of Physical Planning and Works and the Ministry of Local Development is an important constraint that hampers the coordinated implementation of plans for the urban areas. The Ministry of Physical Planning and Works is responsible for physical planning of urban areas, whereas, the Ministry of Local Development administers the municipalities.

In other words, there is seemingly a conflict of interest between the two ministries involved in planning: Ministry of Physical Planning and Works has the plans and the planners but regulations prevent them from exercising direct authority in municipalities, while the Ministry of Local Development has the authority but as it has no direct ownership of the plans. As a result quite a number of plans produced by the Department of Urban Development and Building Construction receive limited follow up in municipal activities. Recognising the planning strength last year Ministry of Local Development shared some funds for preparation of periodic plans of selected municipalities with Department of Urban Development and Building Construction.

Nepal Housing Development Finance Company Ltd.

The Nepal Housing Development Finance Company was established in 1990. The need was articulated in the seventh FYP (1985-1990) "*A housing financing institutions will be established for the development of residential areas and residential housing*" Its main objective was to improving the existing housing delivery system and launching new housing schemes

Figure 7. Relation between Ministry of Physical Planning and Works and Ministry of Local Development



through housing loan facilities and other related service in order to meet the growing demand for housing in Nepal. This facility will be discussed in the housing finance chapter.

Town Development Committees

The Town Development Committees fall under the Ministry of Physical Planning and Works (MPPW). The primary function of the Town Development Committees is to formulate and implement the town development plans, it also has the authority to engage in land development activities such as guided land development, land pooling and sites and services programs. Moreover, it has the authority to draw up and enforce the town plans, construction rules, and building codes, with the right to impose fines and issue and enforce demolition orders against illegal construction. Finally, Town Development Committees can also be involved in housing sector.

While Town Development Committees report to the Ministry of Physical Planning and Works, the line agency for the linkage of municipalities to central government is with Ministry of Local Development (MLD). This Ministry provides the chief executive officers in all municipalities and supports municipalities through its Municipality Division.

There are 172 Town Development Committees under Ministry of Physical Planning and Works. Out of these 172 town development committees, Kathmandu Valley Town Development Committee receives government budget and rest do not receive any budget from the government. Town Development Committee may be created to implement town plan in any area, market or regional development centre.

Town Development Committees were active before promulgation of the Local Self Governance Act in 1999, but since the act their responsibilities have been largely taken over by municipalities and the committees role has essentially been reduced to assistance in Department of Urban Development and Building Construction oriented plans and projects.

To date Town Development Committees have not played a direct role in provision of housing, but they have carried out city level development programmes. Estimation of the provision of serviced plots by Town Development Committees hover around 7,000 in last four decades[1].

Kathmandu Valley Town Development Committee

Kathmandu Valley has its designated Kathmandu Valley Town Development Committee (KVTDC) was established by *Town Development Act 1988* under Ministry of Physical Planning and Works (MPPW). Its basic objectives are to develop the entire Kathmandu Valley in a planned manner, to formulate and implement physical development plans and to provide the people of the valley with basic services. It is a unique institution in Nepal with its own legal identity and authority over more than one district. The Government of Nepal (GoN) allocates certain budget annually to the Development Committee for the day to day operation of office and development works.

Responsibilities include land development programs such as guided land development programs, land pooling and sites and services. It also has the authority to enforce plans through the enactment and enforcement of rules and regulations regarding development activities. Thus to enforce the building by-laws it can impose fines and demolition orders. The Development Committee is working in Kathmandu, Lalitpur and Bhaktapur districts where to date it has

Photo3a: Owner built housing under construction in Kathmandu © UN-HABITAT

Photo3b: Agricultural land brought to the market by private developers in Chitwan © UN-HABITAT

completed land pooling projects amounting to a total of 290 hectares in 14 different sites in Kathmandu Valley mainly targeting middle or upper income people on a small scale. In land pooling projects resources are generated and mobilised from within the projects therefore it generally does not burden the budgetary resources.

To date, the land pooling plots have been largely beyond the reach of low income families let alone the poor. But the Development Committee is currently considering how land pooling can better address the need of low income bracket.

Town Development Fund

The Town Development Fund was established with a formation order as a semi-autonomous institution with a credit from IDA and grant from KfW/GTZ under the Ministry of Physical Planning and Works. The fund provided support in technical, financial, and institutional development of towns to ensure their all round development (according to the policy of decentralisation) and strengthen the processes of formulation, implementation, and evaluation of plans in an effective manner. The fund board was deliberately designed not as an implementing agency, but as an institution that supports and finances activities carried out by municipalities themselves. This fund could be utilised to acquire land and conduct housing development programs for squatters and slums in collaboration with other stakeholders, yet so far it has been used in improving transport facilities, drainage, water supply, solid waste, public buildings and social infrastructure sectors only.

3.2 LOCAL GOVERNMENT

3.2.1 MUNICIPALITIES

There are 58 municipalities in Nepal at present. Until 1998 responsibilities of municipalities in urban areas were limited, and urban services were largely catered for by central government line agencies. With the promulgation of Local Self-governance Act (1999) municipalities became responsible for the provision of serviced plots for housing development. The act gave municipalities the authority to adopt town development plans and make the necessary arrangements for their enforcement as well as implement land development and housing programs. They also have the authority to raise funds by taking loans and levying taxes. Specific objectives include:

- Promoting the economic, cultural, and social development of Nepalese citizens;
- Carrying out city level developmental programs, including the provision of infrastructure such as road, drainage and water supply,
- Coordinating and supervising the developmental activities in the urban areas under their jurisdiction.

LAND BROKERS ARE THE PREDOMINANT SUPPLIERS OF LAND FOR URBAN HOUSING: A STUDY SUGGESTS THAT IN THE KATHMANDU VALLEY LAND BROKERS ACCOUNT FOR AS MUCH AS 90 PER CENT OF THE SUPPLY OF HOUSING PLOTS. LAND BROKERS OR DALALS BUY LARGE CHUNKS OF AGRICULTURAL LAND, PLOT IT AND SELL IT. TYPICALLY THEY WOULD PROVIDE A MINIMUM LEVEL OF BASIC INFRASTRUCTURE, WHICH MAY OR MAY NOT INCLUDE ROADS, SEWERAGE DISPOSAL, WATER SUPPLY AND ELECTRICITY POLES.

It is the municipalities who theoretically have most controlling power over building activities through building permits. Yet, depending on the size and location of the municipal area, some of these municipalities have significant gaps in their respective financial and administrative strengths. For example, some smaller municipalities lack qualified engineers to carry the workload for building inspection according to the *National Building Code*.

To date municipalities have not played a direct role in provision of housing. Recently since the promulgation of the Local Self Governance Act they have been involved in land pooling projects city level development programmes. In recent years seven Municipalities (Banepa, Dhulikhel, Panauti, Hetauda, Bharatpur, Ratanagar, Kamalamai) under

Urban and Environmental Improvement Project (UEIP) are doing land pooling projects in 70 hectares of land under the loan assistance of ADB.

Local governments in several cities have started to work with NGOs and slum dwellers' organisations in order to address their development issues. Their outreach, mobilisation and organisational capacities are critical to the success of social inclusion initiatives. These partnerships have allowed municipalities to interlink programs, address pressing needs and expand outreach to the very poor. Assisted by Lumanti (see NGO's) the municipalities of Bharatpur, Dharan, Birgunj have prepared maps of slums and squatter settlements including the characterisation of living conditions.

3.3 PRIVATE SECTOR

3.3.1 OWNER-BUILDERS

In the urban reality of Nepal, housing is more of the personal responsibility of the household than a government task. Unlike in neighbouring countries where the government also acts as a provider of social or public housing, in Nepal the government takes and explicitly facilitating role, which is reduced to laying down some regulatory measures and trying to create conducive environment. As a result owner built housing is still by far the most common approach in housing construction in Nepal; typically an individual fulfils the roles of financer, planner, manager and sometimes designer and builder too.

Indeed the household survey conducted by this study shows that over 85 per cent belonged to the owner built category: they bought land through personal contacts, approached trained designers such as engineers and architects for the site plan (required to apply for building permit), for actual layout and construction they hired manpower ranging from mason, carpenter, plumber to electricians and painters on individual basis from informal markets; purchased the required construction materials like steel, brick, cement aggregate, sand etc. in the market and started the process of constructing the house mostly using their own savings.

While in rural areas the owner-built format is still the predominant form of housing construction, in urban areas there is a growing trend of owners outsourcing part of the planning and construction job to third parties. This has to do with changes in life style and value system people where time is becoming an increasingly precious factor, the increasing level of affordability of certain group of households in the society and the fact that urban immigrants not necessarily have a readily available trustworthy network from which to purchase land and hire labourers.

3.3.2 PRIVATE DEVELOPERS

Private developers are a recent phenomenon in Nepal. The high influx of population to cities, particularly in Kathmandu Valley and other prominent cities like Pokhara and Birgunj during and after the ten year long insurgency in the country, the remittance fund inflow from the workers outside the country, availability of housing loans, and improvement in construction technologies saw a slowly emerging formal housing market. It was the promulgation of *Apartment Ownership Act 1997* that provided the legal framework for development sales and management of multi-storey buildings and paved road for private sector developers to enter into the housing sector.

Photo3c: Plotting the hills around Kathmandu land for housing development © UN-HABITAT

Photo3d: Incremental housing construction © UN-HABITAT

Photo3e: Apartment building under construction © UN-HABITAT

Photo3f: New apartment buildings mushrooming in low-rise residential neighbourhood © UN-HABITAT

The first private developer was *Tashi Rijal Industries*, which started business already in the 1980s, yet in absence of proper legislation[2] the apartments were difficult to sell. Since the 1997 Apartment Ownership Act, there has been a gradual increase of companies entering the market. In 2000 the *Ansal Chaudhary Company* was the first to launch an apartment based housing project in Nepal '*Kathmandu Residency*' in Lalitpur. The project comprised a total of 180 apartments with price ranging from NPR 900,000 (USD12,200) for a one bedroom apartment to NPR 1.9 million USD25,800) for a three-bedroom one. Since then, around 150 private companies have registered with Nepal Land and Housing Developers' Association, out of which most are working in Kathmandu, Pokhara and Bharatpur[3]. Among them only 40 to 50 that focus on the residential sector, the majority caters for the public, utility and office sector. Out of the 40 the majority (around 30) can be characterised on one-off developers, they essentially just completed one project, only 10 have built a successful real estate developer's business model[4].

As of yet the supply of housing estates and modern apartment complexes is mainly geared towards the upper middle class, including *Non Resident Nepalese* living abroad. In fact many of the developers specifically target the latter group and organise housing expositions in America and Australia as part of marketing programme, to attract their clients. So far there has been no evidence of any developer targeting to low income group customers.

Picking up on the South Asian trend in which apartments are emerging as a status symbol and fuelled by banks willing to provide finance the property market in Nepal developed very quickly in the last decade[5], with signs of overheating in 2009. In absence of alternative investments and with low interest rates land and real estate became the preferred investment vehicle, with many purchasing for speculative purposes: indeed anecdotal evidence suggests over half of the apartments remain unoccupied[6]. In selected commercial locations in Kathmandu such as Thamel, New Road and Durbar Marg, land prices went up to over NPR 80,000 per square foot or USD13,000 per square metre[7], exceeding price levels in Hong Kong, New York or London. "*With land prices more than doubling within a year, who would invest in gold, equity or other securities?*".[8]

In December 2009 Nepal's Central Bank the Nepal Rastra Bank tightened their lending to the housing and real estate sector to control speculative and unproductive investments. Banks and financial institutions were required to reduce their real estate lending to 25 per cent of the total lending. Other government measures included income disclosure for land or housing purchases over NPR 3 million (USD 40,000) and imposition of capital gains tax on realty transactions[9]. The measures resulted in a slowdown in the first half of 2010[10] as banks became more reluctant to provide mortgage credit for home buyers and finance new projects. The sector witnessed a 25 per cent decline in real estate transactions during the first 10 months of the fiscal year.

3.3.3 LAND BROKERS

Land brokers are the predominant suppliers of land for urban housing. Land brokers or *Dalals* buy (or hold with the land owner giving some advance sum) large chunks of agricultural land, plot it and sell it. Typically they would provide a minimum level of

THERE SEEMINGLY IS A CONFLICT OF INTEREST BETWEEN THE TWO MINISTRIES INVOLVED IN PLANNING: MINISTRY OF PHYSICAL PLANNING AND WORKS HAS THE PLANS AND THE PLANNERS BUT REGULATIONS PREVENT THEM FROM EXERCISING DIRECT AUTHORITY IN MUNICIPALITIES, WHILE THE MINISTRY OF LOCAL DEVELOPMENT HAS THE AUTHORITY BUT AS IT HAS NO DIRECT OWNERSHIP OF THE PLANS.

basic infrastructure, which mostly include roads, but not sewerage disposal, water supply and electricity poles. Their primary customers are the migrants from other parts of Nepal who have come to the cities looking for employment and/or security. A study suggests that in the Kathmandu Valley land brokers account for as much as 90 per cent of the supply of housing plots[11]. There is a hierarchy of the brokers: those who deal with local land owners directly, those who deal with legal and technical matters having their influence in government offices, and those who invest, but all are commonly referred to as Dalals.

3.4 NON-GOVERNMENTAL ORGANISATIONS

The number of Non Governmental Organisations NGO's in Nepal has skyrocketed in the last two decades from 220 in 1990 to somewhere between 10,000 and 15,000 today, of these around 6,000 are officially registered with the government[12]. However, to date NGO activities have remained in their traditional fields of human rights, health, nutrition, education, income generation, disaster relief, and charity, but unlike in other countries such as India and Bangladesh, very few NGOs in Nepal consider shelter a high priority. The following are the exceptions:

3.4.1 NEPAL SQUATTER FEDERATIONS

Two squatters' federations, Nepal Basobas Basti Samrakchan Samaj (NBBSS) and Nepal Mahila Ekta Samaj (NMES) (women's federation) registered in 1996. These federations have been growing over the past ten years with the main goal being to find means of securing housing rights for poor communities in Nepal. Together with Lumanti (see below) they have strengthened the organisational capacity of slums and squatters, stressed the need for community contributions to housing improvements through savings and persuaded city and state authorities as well as external agencies that urban poor people are able to design and manage housing projects.

The national federation is now active in 30 districts across Nepal, including two districts in the Kathmandu Valley and has over 15,000 members. The squatter's federation continues to focus on security of tenure issues, while and the women's federation concentrates on savings and credit, infrastructure, and women rights issues. Together they have managed to bring

Photo3h: Typical residential compound (housing colony)
© UN-HABITAT

Photo3g: New apartment building in Kathmandu
© UN-HABITAT

Photo3i: Kathmandu Residency One; One of the first apartment buildings in Kathmandu © UN-HABITAT

about change in attitude of government and general public and their perception of squatters. The squatter communities through their federations - NBBSS and NMES – along with Lumanti have also achieved that housing as fundamental right was included in the draft constitution.

3.4.2 LUMANTI SUPPORT GROUP FOR SHELTER

Lumanti Support Group for Shelter is a non-government organisation dedicated to the alleviation of urban poverty in Nepal through the improvement of shelter conditions. Its aim is to reduce poverty through better housing conditions, increased access to basic facilities and strengthened organizational capacities.

Established in 1993 Lumanti was responsible for Nepal's first squatter resettlement project. A new community was built in Kirtipur in 2004 to relocate evicted squatters from Vishnumati Link Road, a road to link the north and south sections of the ring road around Kathmandu, in order to improve access to high density areas and improve traffic flow in the city. The road was planned to run along the Vishnumati River, where a number of communities lived in informal settlements between 3 and 50 years. In 2003 Lumanti took the initiative to establish *Urban Community Support Fund* in Kathmandu with the investment of Kathmandu Metropolitan City and Slum Dwellers International, which supported the construction of 44 units in Kirtipur. The households each paid around NPR 350,000 (USD 4,765) for the housing, the land was subsidised by the fund whereas infrastructure component was supported by Water Aid Nepal, Kathmandu Metropolitan City, the Government, UNESCAP and UN-HABITAT. The mandate of the fund which lives beyond the Kirtipur project is:

- Address growing urban poverty and housing issues by setting up a proper mechanism involving the city government, NGOs and the communities
- Provide soft loans to urban poor communities

Photo3j: Advertisement for commercial housing projects © UN-HABITAT

to improve economic condition, basic infrastructure facilities and housing conditions.

- Enhance the capacity of the urban poor, low income families and the community organizations

The Kathmandu example has been followed by Birgunj Municipality which also created an *Urban Community Support Fund* at city level, in which NPR 1 million (USD13,600) has been allocated. This fund is a revolving one, accessible to the slums and squatter settlements. The fund allocates credit for various purposes including income generation activities, infrastructure improvement, housing and land etc.

Lumanti is also working in collaboration with Asian Coalition for Housing Rights (ACHR) and other organisations to support housing initiatives of slum and squatter settlements in Bharatpur, Biratnagar, Birgunj, Ratnanagar and Kohalpur. In Bharatpur construction of 22 houses were completed and work on 9 houses are going on. Similarly they are implanting water and sanitation projects in 30 urban clusters in Biratnagar.

Photo3k: Advertisement for commercial housing projects
© UN-HABITAT

In addition Lumanti is active in poverty mapping. They have prepared baseline surveys of slums and squatter settlements of Bharatpur, Dharan, Birgunj Municipalities including the characterisation of living conditions therein. Based on the baseline survey findings a *Programme for the Improvement of the Housing and Living Condition of The Urban Poor in Nepal* started in 2005 in partnership with the afore mentioned municipalities. This programme aimed at improving socio-economic and housing conditions of the slum and squatter settlements. The programme has a strong gender component with activities in the fields of housing, savings and credit, education, human resource development and basic facilities improvement. Lumanti was also one of the initiator of the Slum Upgrading Forum established in 2008.

Finally, in absence of legislation to safeguard the rights of squatters, Lumanti initiated to draft a *'squatters housing bill'* to enforce their right to secure tenure. This bill has been handed over to the Ministry of Physical Planning and Works. Since this is informal initiative of preparing a bill by a NGO, the government has not considered to table it in the parliament. However the initiative has yielded two significant results: it has raised awareness on the issue of slum and squatter issue at national political level and has served as reference material feeding in to the drafting of the new housing policy.

3.4.3 HABITAT FOR HUMANITY

Habitat for Humanity International operates in over 87 countries and territories around the world. Habitat for Humanity International is working in 18 districts of Nepal. It works with 14 local partners and had served over 6,000 households to date. They develop houses from basic module of two rooms to growth module with additional room in it. They start construction following a step-by-step approach while promoting locally available materials with cost effective technology and transfer technology.

Although in Nepal Habitat for Humanity has largely focused on housing assistance in rural areas, in 2009 they embarked on a 5,000 unit urban slum upgrading project in Kavre district in partnership with local savings cooperatives. Like Lumanti, Habitat for Humanity Nepal is also among organisations which will partner UN-HABITAT in the Experimental Reimbursable Seeding Operations project that lends the money to local banks and financial institutions that will in turn lend to the urban poor. HFH Nepal's role includes managing the UN-HABITAT loan, coordinate the activities of local partners and liaise with the government over land issues.

Table 11. List of registered commercial low rise residential housing projects in Kathmandu 2004-08

Name of Project	Date	No of units
Star Holding Limited	2004	52
Housing & Prudential JV	2005	103
Kohinoor Housing Ltd.	2005	81
Star Investment Co. Pvt. Ltd.	2006	55
Amarawati Co. Pvt. Ltd.	2006	90
The comfort housing	2006	76
Oriental Cooperative Ltd.	2007	27
Home Land developers Ltd.	2007	36
Shenyang Housing Pvt. Ltd.	2007	31
Padhama Merchant	2008	53

Source: Kathmandu Metropolitan City Office, 2009

3.4.4 CENTRE FOR INTEGRATED URBAN DEVELOPMENT, CIUD

Centre for Integrated Urban Development is a NGO dedicated to improve urban environment. Although it is not directly involved in housing sector, the activities of the organisation are geared towards the improvement of urban infrastructures particularly in poor settlements of urban and peri-urban areas. Water and sanitation is one of its focal areas of work. Pavement of roads, improvement of water infrastructures, sanitation infrastructures, etc. are some areas related to urban housing sector. The organisation is involved in several settlements of Kathmandu Valley. At present the centre is involved in improving water and sanitation situation of 16 settlements of Kamalamai Municipality in partnership with UN-HABITAT, WaterAid Nepal, Kamalamai Municipality and local communities. Tigni, Gamcha, Madhyapur Thimi, Machchhegaun are other locations where the centre is involved. CIUD, with the support of UN-HABITAT developed a poverty mapping tool, which is being extensively used by several agencies including Department of Urban Development and Building Construction, UEIP and others.

Photo3m: Advertisement for commercial housing projects © UN-HABITAT

Photo3l: Billboard for new housing project © UN-HABITAT

3.4.5 SHELTER AND LOCAL TECHNOLOGY DEVELOPMENT CENTRE, SLTDC

Established in 1996 the Shelter and Local Technology Development Centre is a NGO involved in cost-effective house in rural area for low-income group. They introduce improved walling materials like compressed soil block and layer of soil with plastic sheets, wire mesh and bamboo for roofing material. The Centre demonstrates and disseminates cost effective construction technologies and building techniques and works in collaborative partnerships with other organisations/NGO's where they provide the technical expertise, some examples include:

- **Belhi-Chapena - Housing for Fire Victims:** on the request of Saptary Red Cross Society, a project was formulated

Photo3n: Nepal property expo New York © UN-HABITAT

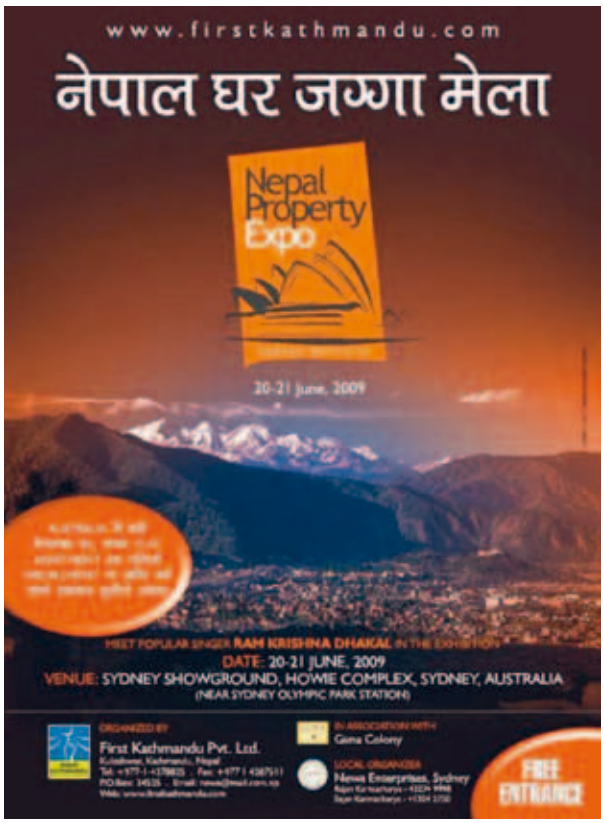


Photo3o: Nepal property expo Australia © UN-HABITAT

to construct 225 houses for fire victims of Behali Chapena, executed in collaboration with Nepal Habitat for Humanity (NHFH)

- **Siraha - Housing for the Musahar families:** Musahar families refer to a Hindu scheduled caste The Centre provided technical assistance to construct 35 houses for these families of which most were homeless and squatters.
- **Pokhara Housing Project:** This is a low-cost housing project targeted to the middle income families. Karmachari Sanchaya Kosh (Government Provident Fund) executed the project to construct 102 houses, in which SLTD provided the construction technologies.
- **Sitapaila Housing Project:** This is a small housing project in Kathmandu, executed by a private company mainly for demonstration. The construction technologies are provided by SLTD. The project consists of only five houses, each showing different types of cost effective building solutions

3.4.6 UN-HABITAT NEPAL

Activities of UN-HABITAT in Nepal are mostly directed towards facilitating networking of urban stakeholders including government, and generally, acting in an advisory capacity. They are involved in issues like slum upgrading, urban governance, urban

Photo3p: Squatter housing before and after upgrading © UN-HABITAT

Photo3q: Squatter house after upgrading © UN-HABITAT

poverty, etc. Other roles of UN-HABITAT Nepal, includes participation in UN system activities, implementation of the Habitat Agenda (Housing For All) and advocating norms and principles of the UN-HABITAT *Global Campaign for Good Governance and Security of Tenure.*

Box 1: Examples of Lumanti projects

Lumanti has been working in the squatter and slum communities since 2005. Locations of choice: Bharatpur, Dharan and Birganj municipalities.

- *Dharan Municipality, has poverty mapping which shows more than 32 slums and squatter communities. The municipality is supportive in improving the living conditions of the slum and squatter settlements by providing basic amenities, safe drinking water and sanitation, electricity and improving infrastructure.*
- *Biratnagar Municipality has developed a vision to involve local communities in urban development programmes. The municipality has shown interest to establish a city level urban community support fund through which loan could be provided to the poorer section of the society aiming to improve their lives.*
- *Bharatpur Muncipality Women's Savings Network, the National Squatter Federation and Lumanti have worked with 5 vulnerable communities in Bharatpur to expand access to water and sanitation and improve drainage in Bharatpur.*

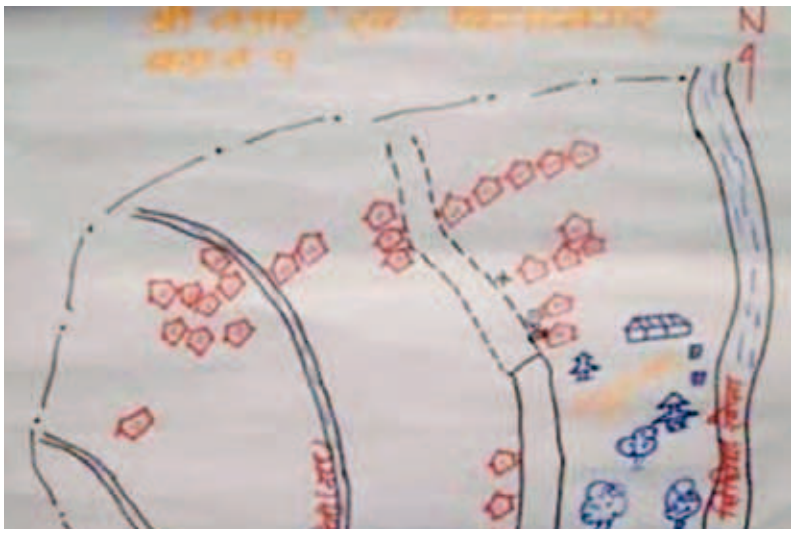


Photo 3r: People's planning process: An approach adopted for squatter housing © UN-HABITAT

Additionally, identifying programmers related to the urban sector, good urban governance and urban management , shelter, slum upgrading, rural-urban linkages, urban environment and local development are also part of the office's duties. As is information dissemination and liaison with Habitat Agenda partners besides representation in national, regional and international workshops/ conferences hosted by the county.

UN-HABITAT is also involved in providing shelter to Koshi flood victims of 2009 in Eastern Nepal. Like the selected Asian countries, the urban sector in Nepal is also benefitting from the Water for Asian Cities Programme where the programme is geared towards pro-poor water and sanitation activities and their replications.

Photo 3s: People's planning process: Participating in designing © UN-HABITAT

Photo 3t: People's planning process: NGO supporting the process © UN-HABITAT

Photo3u: Habitat for Humanity Dwelling © UN-HABITAT

WITH LAND PRICES MORE THAN DOUBLING WITHIN A YEAR, WHO WOULD INVEST IN GOLD, EQUITY OR OTHER SECURITIES?

UN-HABITAT has recently launched a new pilot program to break the poverty cycle by providing small housing loans to the urban poor such as slum dwellers. Funded by Spain, Bahrain and the Rockefeller Foundation, the USD5 million Experimental Reimbursable Seeding Operations project lends the money to local banks and financial institutions that will in turn lend to the urban poor.

Photo3v: Habitat for Humanity dwelling under construction © UN-HABITAT

SECTION ENDNOTES

1. Interview Department of Urban Development and Building Construction, 2010
2. It was not until 1997 that the Apartment Ownership Act of 1997, the Nepal equivalent of a condominium act, allowed the transfer of ownership rights of properties -not just land- .
3. NLHDA, 2010
4. Rajbhandari, O., 2009
5. 'Falling for flats, Kathmandu's apartment craze is catching on as a new surge in housing complexes tries to keep up with demand', Nepali Times, June 2001
6. NLHDA, 2010
7. Transaction in 2008 in Otu near New Road, 1,200 square feet (or 3.5 annas in the locally-used unit of measure), traded at Rs 30 million per anna (342.25 square feet).
8. Nepali Times June 2010, see note 6
9. New measures were: anyone buying or selling land has to pay a tax of 10 percent of the total cost. Likewise, income disclosure is compulsory while buying land worth more than Rs. 3 million and houses worth more than Rs. 5 million, NRB, December 2009
10. The real estate sector witnessed a 25 percent decline in the transactions during the first 10 months of the 2009/2010 fiscal year in Kathmandu. The land revenue offices in the capital received NPR 2.66 billion in land revenue in 10 months against the NPR 3.53 billion during the same period 2008/2009 (Department of Land Reform and Management)
11. CIUD, 2010
12. NGOFN, 2010

04

CURRENT HOUSING STOCK

4.1 HOUSING STOCK

This chapter describes characteristics of the current housing stock in Nepal including housing typologies. 'Housing stock' (or 'housing inventory') is defined as "*the quantity of existing units in a housing market area, regardless of conditions or compliance with standards and regulations*"[1]. In Nepal the definition of a 'house' in both population censuses (1991 and 2001) refers to a structure as shelter: '*surrounded by walls and a roof, and is made of different types of material, such as mud, wood, bricks, stone, and concrete*'. The definition of household that has in the censuses is '*a unit reflecting the arrangements made by persons, individually or in groups, related or not, for living in the same dwelling and sharing meals, housekeeping, budget and other essentials.*'[2] So members of a household are not necessarily related by blood or marriage the common denominator is rather the fact that they share the same kitchen. It is important to note that it actually very common in the Nepalese context for more households to live in the same house. This means that most houses contain several *'dwelling units'*. In the context of Nepal dwelling units are referred to as households.

The Nepal National Housing Study 1991 is the most comprehensive study made in the sector so far. The study suggested that there are 3 million houses in Nepal out of which 300,000 (i.e. 10 per cent) in urban areas. According to the 2001 census, this number had increased to 3.6 million of which almost 440,000 units in urban areas. There was an increment of 13,653 urban dwelling units every year during the period 1991-2001[3]. The CIUD 2010 household-survey suggests that the annual production has almost doubled in more recent years, based on the number of building permits issues in the urban areas that were subject to the survey, the estimated average production has reached 21,346 houses per year.

4.2 HOUSE TYPOLOGY AND MATERIALS

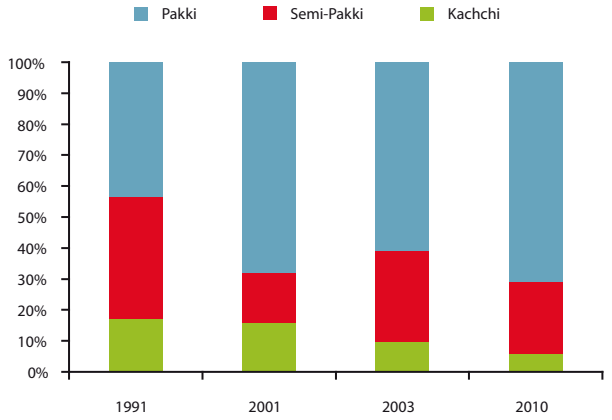
Traditionally construction materials used in Nepal were different for different ecological zones.

- In the valleys where clay is available, burnt or sun burnt brick walls are used over stone foundation. Roofing is either thatched roof or brick tiles.
- In the Terai, houses are built with burnt

Table 12. Housing Typology in Nepal

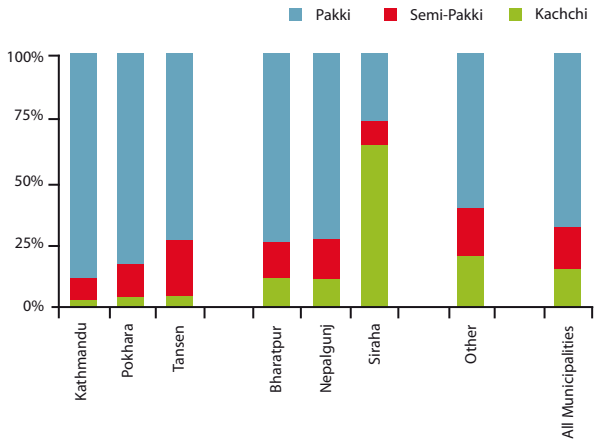
Type	Walls	Roof
Pakki (permanent /robust/durable)	Burnt brick with cement mortar or concrete blocks	Reinforced concrete or cement clay tiles
Semi-pakki (semi-permanent)	Stone, soil, sunburnt brick	All kinds of tiles, slate, corrugated or tin sheets
Kachchi (temporary/fragile/ undurable)	Wood or bamboo reinforced walls with mud plaster	Thatch, straw, bamboo, mud, corrugated or plastic sheets

Figure 8. Housing types in urban areas in Nepal by structural quality 1991-2010



Source: NNHS 1991, CBS 2001, NLSS 2003, CIUD 2010 household survey
Note: for 1991 data, the assumption was made that traditional housing is 50:50 pakki/semi-pakki

Figure 9. Housing types in urban areas in Nepal by structural quality in 2001



Source: CBS 2001

bricks or mud walls. Roofing typically consists of thatched roof or clay tiles.

- Higher up in the mountains and hills, primary materials used are stones. The poorer population uses bamboo reinforced mud walls.

In all ecological zones the poorer population still uses bamboo reinforced mud walls for their rudimentary housing. However, in recent years, cement concrete have become increasingly common in all regions. With its easy availability and durability, for those who can afford cement is gradually replacing all types of traditional construction materials.

The common distinction of housing types is in three different categories according to quality and durability of materials:

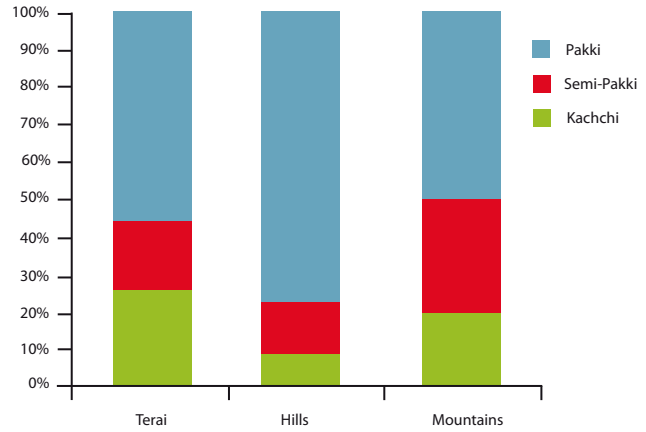
Figure 11 shows the differentiation by housing types in urban areas in Nepal by structural quality. The data indicate a trend towards improvement in the quality of housing over the years. Whereas the 1991 census data point towards 17 per cent of the urban population living in '*Kachchi*' housing, according to the 2010 CIUD household survey this figure has diminished to 6 per cent.

Figure 12 using data of the 2001 census shows that typically in larger cities in the Hills like Kathmandu and Pokhara the structural quality of the houses is better (over 80 per cent *Pakki* housing) compared to new municipalities in the Terai like Siraha where only around 25 per cent of the houses fall in the *Pakki* category. Figure 8 meanwhile shows that overall the quality of the housing is better in hill and mountain towns compared to the Terai.

Photo4a: Semi-Pakki House in between Pakki houses © UN-HABITAT

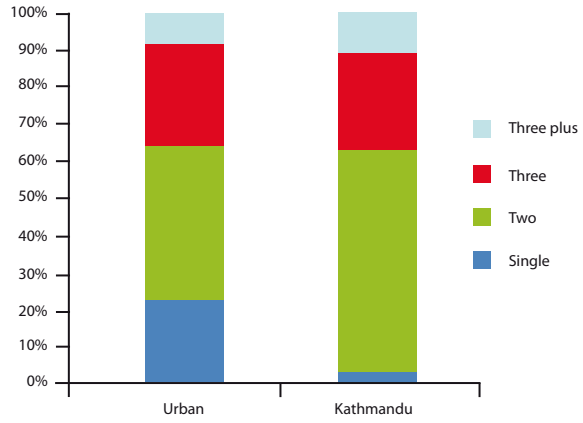
Photo4b: Example Pakki house © UN-HABITAT

Figure 10. Housing types in urban areas in three regions by structural quality



Source: CBS 2001

Figure 11. Housing types in urban areas by number of storeys



Source: 2010 CIUD Household Survey

Typically in Nepal housing in the cities is multi storey, is uncommon in urban areas to find single storey properties. The maximum building height was traditionally determined by the heights of the temples, therefore the urban landscape was largely dominated by two and three storey houses, yet in recent years due to increasing in-migration and soaring land prices, two trends can be observed:

- Home owners have added more floors to their houses. Obviously, in larger cities there are more multi-storey houses than in others and in the city core of Kathmandu it is increasingly common to find four and five storey buildings. Figure 14 shows that according to the 2010 CIUD survey only 22 per cent of the houses is single storey, in cities in the Kathmandu Valley this number is even less than 5 per cent, while the number of houses with three or more storeys is nearly 50 per cent.

- Traditionally the ground floor was not used as it was considered to damp to use as living quarters particularly in Newar houses, however recently in urban areas, as a result of commercialisation and urbanisation it is increasingly common for ground floors to be rented out to tenants for commercial use (shops). The previously *'useless places'* have turned into an important source of revenue. The household survey indicated over 50 per cent of mixed-use housing where the house is being used for both residential and commercial or other purposes. Only 41 per cent of houses are completely residential. These houses are typically more in the hinterland.

4.3 OCCUPANCY & TENURE FORMS

The home ownership rate in Nepal has traditionally been high, over 90 per cent[4] and is likely to remain high. In Nepal, like in many other countries in the region the desire to own a house is important in the context of social prestige and status and also serves as a security against economic hardships. The urban housing market can be characterised as primarily owner-occupied housing, followed by a rental housing subsystem controlled by individual owner-builders[5]. Those that are migrated have their own house in their village, so although they have a tenants status in the city, typically own a house in the rural areas where they come from. Most housing units in Nepal are produced by owner builders and once constructed; houses rarely are purchased by new owners. Thus, construction and land acquisition dominate the competitive *'housing market'* in Nepal, the only significant sub-market being rental housing. In urban areas of Nepal tenure forms broadly fall into five categories:

Whereas in rural areas owner occupied housing is the predominant tenure form with home ownership rates well over 95 per cent[7], the situation in the urban landscape is different. Figure 10 using 1991 and 2001 census data show a sharp increase in rental housing in Nepal's urban areas: whereas in 1991 only 23 per cent reported to rent their dwelling, by 2001 this figure had increased to 35 per cent, while in Kathmandu recent studies suggest that there are currently more households (59 per cent) renting than in the owner occupied category. The CIUD 2010 household survey suggests that the increase in rental housing in urban Nepal is a continuing trend, only 58 per cent of the respondents reported to be owner-occupier whereas renting households amounted to 42 per cent.

Table 13.Tenure Types in Urban Nepal

Type	Characteristics
Owner occupied	Hold title to property, either purchased or inherited,
Owner occupied (not registered)	Have acknowledged ownership, but not registered, i.e. donated, like *Guthi*[6]
Rent	Hold no title to property, rental agreement with landlord, pay rent
Rent free	Hold no title to property, rental agreement with landlord, not pay rent
Squatter	Have no acknowledged ownership, nor title to property, possibility for eviction

The 2010 household survey also provided the opportunity to look into the characteristics of the rental market. Tenants do not typically occupy a complete house; they rather rent a number of rooms or a floor with a family. The household survey suggests that nearly half of the urban households live in a house that they share with one or more households: either relatives (owner/occupied with multiple ownership) or with tenants (owner plus renting households). In Kathmandu Valley over 30 per cent of the respondents indicated to have more than one renting household living on the family premises. Anecdotal evidence suggests that the number of households living in one house can be as many as 30[9]. The household survey indeed suggests an increasing incidence of overcrowding. Excluding kitchen and toilet, there are 12 percent of dwellings that consist of just one or two rooms.

As a result of the heavy concentration of urban population in Kathmandu Valley, naturally the urban housing problem in the valley is more serious compared to the other major towns of Nepal. The lack of institutional arrangement for housing the urban poor vis-à-vis the sky rocketing prices of land and housing has compelled or has left no other option for the urban poor than to squat on public land.[10] According to a study conducted by Lumanti the number of squatter settlements in Kathmandu increased from 17 in 1985 to 40 in 2010 with a total estimated population of nearly 12,000[11]. While the number of settlements tripled in that period, their population rose by tenfold and now accounts for 7% of the urban population. The problem of squatters is also increasingly visible in other fast growing municipalities like Dharan and Biratnagar.

Compared to most other sections of urban society in Nepal, the housing conditions in the slum and squatter communities are very poor. The building standard which sets minimum requirements for residential buildings is not commonly adhered to resulting in a high incidence of substandard housing structures, often built with non- permanent materials unsuitable for housing. These makeshift shelters provide little or no protection from the heavy monsoon rains or the soaring heat. Overcrowding is common due to large families and small housing units. In addition,

Photo 4c: Traditionally buildings heights were limited by the height of the temples © UN-HABITAT

Photo4d: Modern city-scape with 4-5 storey buildings © UN-HABITAT

the quality of life within these houses is also poor. Lighting, ventilation and space are limited and many houses lack basic facilities such as access to water and private safe toilets.

4.4 HOUSING PRODUCTION

Owner-built housing has been and still is the predominant mode of housing supply both in urban and rural areas. Traditionally, people hired masons, carpenters and labour force in daily wages basis and also family members were involved in the construction. More recently, especially in urban areas this has become a slightly more formal process in which labour is contracted to a chief mason or small contractors while the owner provides all construction materials. The 2010 CIUD household survey suggest that the share of owner-built houses in urban Nepal is indeed over 70 per cent of which only 22 per cent managed the whole process themselves.

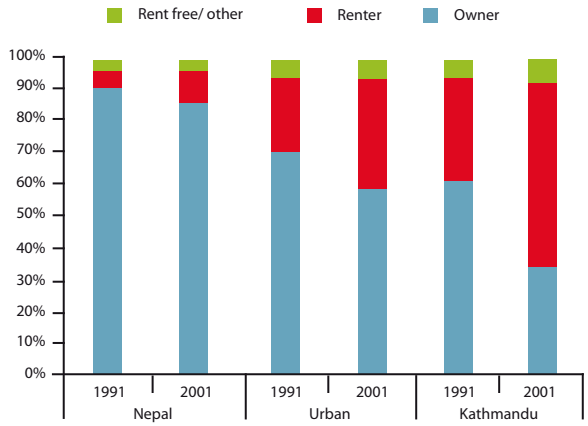
Although the practice of building a house with the purpose of selling it is still not widespread, the 2010 CIUD household survey revealed that in Kathmandu Valley almost one third of the home owners purchased a ready-made house, and this number was nearly 20 per cent for urban Nepal. Among the buyers, the vast majority bought the house from personal contacts and around 10 per cent from real estate agents/ companies or brokers.

4.4.1 OWNER BUILT

Land delivery for the construction of housing is mainly served by agricultural land. In rural areas traditionally household expansion would be accommodated for by building in the backyard or adding a new grid next to the neighbouring lane. In urban areas people rely on land brokers to mediate with the land owners to find suitable and affordable parcels of raw land. These land brokers could be individuals, smaller groups or registered land broker companies.

The process of conversion of agricultural land is largely uncontrolled and has started to become an environmental problem. With the rampant in-migration, poor regulation, weak controlling mechanisms and uncontrolled market forces not only fertile agricultural land has been converted into building sites but also risk prone lands like river banks and steep slopes. Easily available heavy construction equipments, relatively cheaper construction materials (compared to land price), and escalating land price has further deepen the problem of the use of unsuitable land for housing purposes.

Figure 12. Tenure Types as Percentage of Population



Source: Central Bureau of Statistics Population Census 1991 and 2001, Vol. III Household Characteristics. Kathmandu Valley 2001 figures are an estimation based on a study by Shrestha, 2006.

Note: Squatters do not feature in the official tenure statistics as a separate category, although recent studies suggest that squatters amount to around 7 per cent of total urban households[8].

Photo4e: Poor squatters along Tinau Irrigation canal
© UN-HABITAT

Photo4f: Squatter settlement at Balkhu along Bagmati River
© UN-HABITAT

Photo4g: Established squatter community in Bharatpur
© UN-HABITAT

Photo4h: Formalised squatter settlement in Tansen
© UN-HABITAT

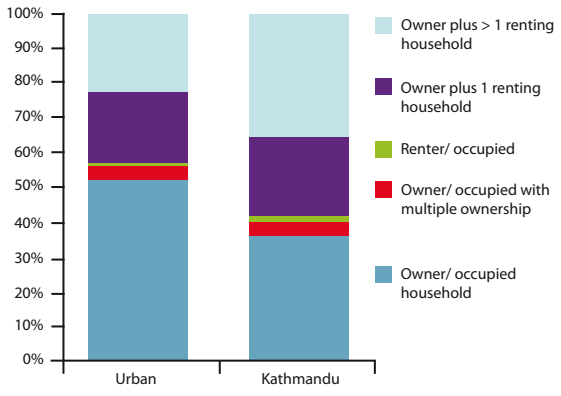
For construction within Nepal's municipalities building permits are mandatory[12], for which technical drawings are required. This is the first control tool for the municipalities to regulate construction. However, according to the 2010 CIUD household survey in municipal areas for only 74 per cent of the houses a building permit was acquired from their municipalities. Moreover, there is absence of mechanisms to monitor the adherence of building code in the construction of buildings, and especially the smaller municipalities are in deficit of engineering human resource. Even when the building permit is dutifully applied for, it is common practice for people to hire engineers for the sketches and reinforcement drawings, whereas these technicians are not necessarily involved in the supervision of the construction works. In most cases they still rely on the experience of masons for concrete constructions.

To make an estimation of minimum construction cost of a dwelling unit this study took average dwelling unit size in urban area for one household is determined to be 584 square foot (54 square metres) on a plot of 856 square foot (80 square metre). The estimation used the 2003 National Living Standards Survey 2003 as a guiding reference. Assuming a minimum cost for constructing such a dwelling unit of NPR 1,400 (USD212 per square metre) or a total of NPR 817,600 (USD11,200) with minimal finishing. Land in the outskirts of Kathmandu is available at prices from NPR1,200 per square foot (around USD180 per square metre). Based on this the minimum total cost of the dwelling unit in urban areas will be around NPR 1.8 million (USD 14,600).

4.4.2 OWNER PURCHASED

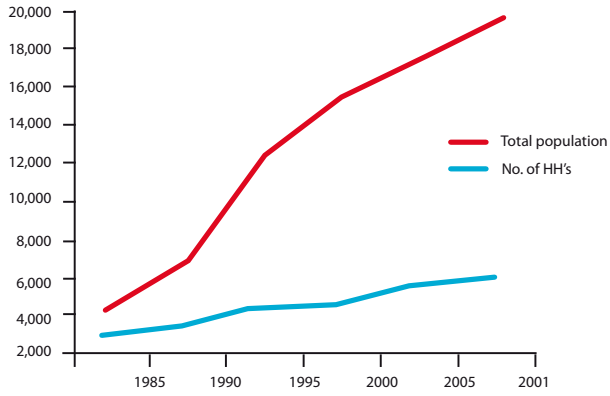
As discussed in the previous chapter the phenomenon of private housing developers and companies sell houses and apartments instead of developed land to its potential buyers are fairly recent in Nepal. Estimations from the Nepal Land and Housing

Figure 13. Tenure Status in 2010 Household Survey



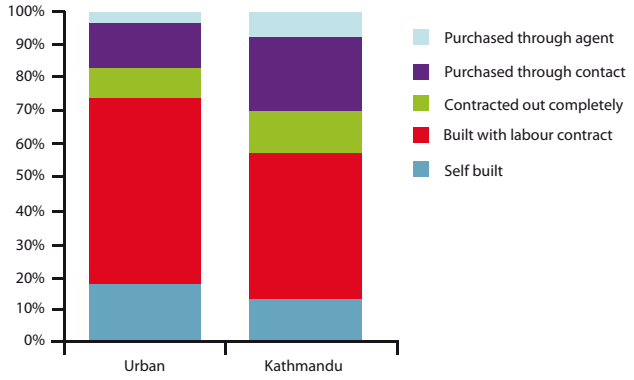
Source: 2010, CIUD Household Survey

Figure 14. Growth of Squatter Settlements in Kathmandu Metropolitan City



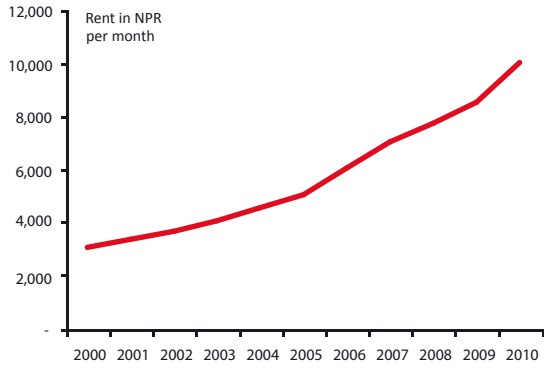
Source: Joshi & Bjoness, 1987, Concerned Citizens Group Kathmandu Squatter Site Survey, 1990, Tanaka, 1997, Lumanti, 2000, 2005 and 2010

Figure 15. Method of House Acquisition in Urban Nepal



Source: 2010, CIUD Household Survey

Figure 16. Increase in rental levels in Kathmandu



Developers' Association suggest that in the last decade private housing developers have produced around 700 housing units and 7,000 apartments[13].

Estimations of current capital values of individual houses range between NPR 5 million (USD 70,000) and NPR 20 million (USD 270,000). At the bottom of the market multi-storey apartments of around 800 sq ft (74 square metre) are offered for NPR 1.5 million (USD 20,000)[14]. The pricing in the real estate market is essentially determined by demand and supply and fuelled by the insurgency prices have skyrocketed in recent years. The tables below give an indication of rents and capital values for residential property in Kathmandu valley as at 2010 market values. The prices clearly indicate the enormous discrepancies between the poor population and the more well-off, the difference between rents at the bottom of the market and those at the high end of the market is enormous, one can rent a room for as little as NPR 1,500 (USD 20) a month, whereas a house could easily cost up to 100 times that price A closer study at some selected locations in Kathmandu reveals that rental yield of residential properties have fallen as low as 2 per cent, with inflation levels currently at 4 per cent meaning a negative investment yield[15]. In Nepal's current investment climate people buy property in absence of alternative options and based on the assumption that prices will just keep going up. This would further substantiate the conclusion that home prices in Kathmandu are artificially inflated because of the speculative pressure on the market.

Table 14. Estimation minimum price self constructed dwelling in Kathmandu Valley

	Size in square foot	Size in square metre	NPR price per square foot	NPR price per square metre	US$price per square metre	Total Price in NPR	Total Price in US$
Dwelling Construction	584	54	1,400	15,556	212	817,600	11,200
Land Purchase	856	80	1,200	13,333	182	1,027,200	3,400
Total						**1,844,800**	**14,600**

* *Estimation of unit sizes based on 2003 National Living Standards Survey 2003 as a guiding reference.*
** *Estimation of land and construction prices based on consultation with developers, land brokers and construction companies in Kathmandu,*

Table 15. Prevailing rents in Kathmandu Valley

Type	Monthly rent	
Room (renter)	NPR 1,500-2,000	USD 20-25
2 rooms (renter)	NPR 2,000-4,000	USD 25-50
One floor (renter)	NPR 4,000-6,000	USD 50-80
Simple 4 BR apartment in outskirts	NPR 7,000-8,000	USD90 -120
Inner-city 4 BR appartment	NPR 15,000-20,000	USD200-250
House (4BR plus) in outskirts	NPR 30,000-50,000	USD400-600
Inner city 4 BR plus house	NPR 50,000-150,000	USD600-2,000
Inner city 4 BR plus luxury house	NPR 150,000-200.000	USD2,000-2,500

Source: Estimations by NLSS 2003 as a guiding reference, supported by anecdotal evidence from a number of real estate agencies and property developers

SECTION ENDNOTES

1. UNCHS, 1992
2. CBS, 2001
3. CBS, 2001
4. NLSS, 2003-04
5. KMC, 2000
6. Guthi is a kind of trust established to run/manage/maintain cultural, religious or social activities, on part of which houses can be built, but will not get ownership rights.
7. Census 2001
8. Lumanti, 2010
9. CIUD, 2010
10. Shrestha, 2009:21
11. Lumanti, 2008
12. NNBC, 1994
13. NLHDA, 2010
14. NLHDA, 2010
15. NLHDA, 2010

05

HOUSING NEEDS AND DEMAND

5.1 POPULATION GROWTH AND DISTRIBUTION

Urban areas of Nepal are facing an unprecedented rural-urban migration and subsequent increase in population. The 2001 census recorded an annual growth of population of 2.25 per cent while the urban population grew three times that rate at 6.4 per cent.[1] Since the 1970's the urban population virtually doubled every ten years. Centralised policies, opportunities and recent political conflict can be broadly characterised as main factors behind the rapid growth of urban population especially in the capital. It is expected that this rate must have further increased in this decade.

The population of Kathmandu valley has doubled in the 1991-2001 period and Kathmandu Valley experienced the average annual intake of approximately 54,000 migrants. In the period 1991-2001, urban population of city of Kathmandu experienced an annual growth of 4.7 per cent with other cities recording growth rates of 2.6 per cent (Kirtipur) 3.4 per cent (Lalitpur) and 4 per cent (Madhaypur-Thimi).

The projected urban population of Nepal for the year 2011 is 5.6 million and for 2021 is 9 million[2]. Assuming average household size of 4.86 there will be 1.1 million households in urban centres of Nepal by 2011 which would rises to 1.8 million by 2021. By that time more than one fourth of the country's population would live in cities compared to 4 per cent in 1971.

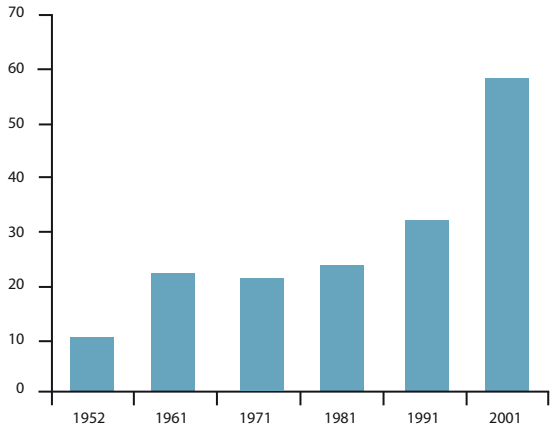
The two graphs below highlight the two elements of the phenomenal growth in urban population since the 1970s. One is the increase in number of 'urban areas' (Figure 17) and the other one the expansion of existing urban settlements because of rural-to-urban migration (Figure 18).

Table 16. Population Growth in Nepal since 1970

	NATIONAL		URBAN		
Year	**Population**	**Growth rate**	**Population**	**Growth rate**	**Proportion of population (%)**
1971	11,555,983		461,938		4%
1981	15,022,840	23%	956,716	52%	6%
1991	18,491,097	19%	1,682,274	43%	9%
2001	23,151,423	20%	3,227,879	49%	14%
2011	28,584,975	19%	5,598,886	42%	20%
2021	34,172,144	16%	9,047,244	38%	26%

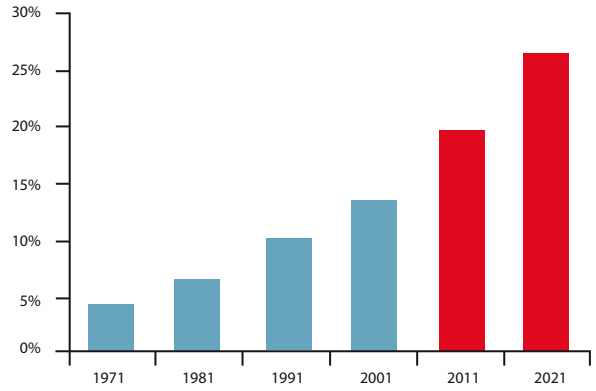
Source: Census 1971-2001, Population Projection for Nepal 2001-2021, CBS 2003[2]

Figure 17. Number of Urban Areas (Municipalities) in Nepal



Source: various census data 1952-2001

Figure 18. Urban Population as % of Total Population



Source: Census 1971-2001, 2011 and 2021 projections are based on the Population Projections for Nepal 2001-2021, CBS 2003[3]

5.2 HOUSEHOLD CHARACTERISTICS

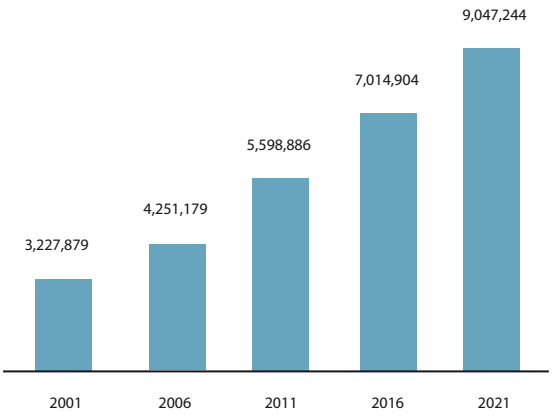
According to Population Census 2001, the country has 4,253,220 households. Average household size varies from 5.4 in rural areas to 4.9 in urban areas.

The urban housing scenario is increasingly alarming, more number of people are living on rent, the overcrowding indices is high, the infrastructure is not meeting the needs of the people whether it be water supply or sanitation. The number of squatters is increasing and the slum areas are also following the same trend. The financial resource is not available easily. The land plots are difficult to find. The urban houses are in dilapidated state and need up-gradation. Much of the housing is vulnerable to earthquake and flood. Most of the houses are owner built and lack the expected attribute, as would be the houses built by organised sector such as the housing companies.

5.3 ESTIMATING HOUSING NEEDS

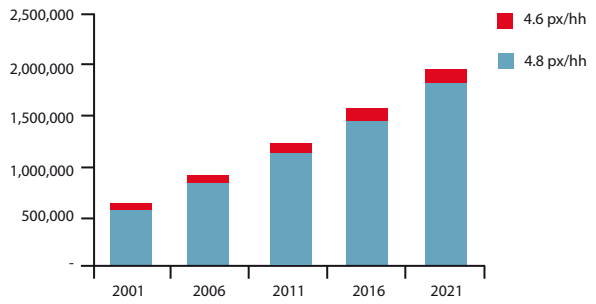
It is difficult to make a genuine attempt at estimating the housing needs in Nepal. The *Nepal National Housing Survey* was done back in the early nineties (1991) as a preparation for the *National Shelter Policy* but this was a largely quantitative study with a linear projection of the then valid growth rates which resulted in an estimated housing need of 2.5 million units in the period 1996-2006 of which 433,600 or 17 per cent in urban areas. Not only have the underlying

Figure 19. Projection # of urban population



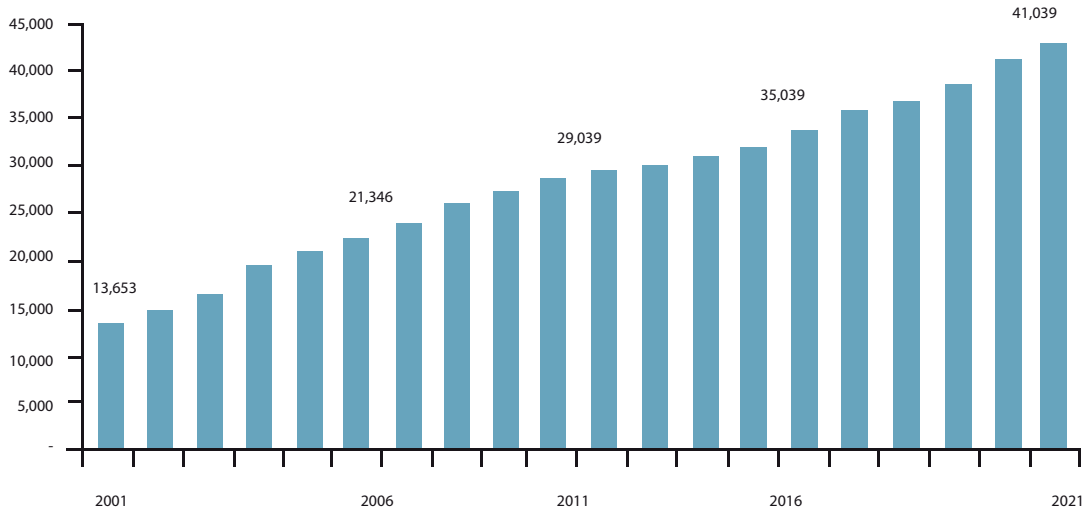
Source: Population projection for Nepal 2002-2021 and UN Population Division (2009 revision)

Figure 20. Projection # of urban households -two scenarios



Source: Population projections for Nepal 2002-2021 and UN Population Division (2009 revision)
Assumptions: Scenario one, average household size 4.86
Scenario two: average household size 4.6

Figure 21. Projection Urban Housing Production



Projected housing stock 2001-2021 (this table is part of the above graph)

Year	No. of houses
2001	436,533
2006	527,991
2011	657,414
2016	814,609
2021	1,007,804

assumptions of this study changed dramatically since, little is known about the achievements in meeting this target. Moreover the study did just provide an indicative quantitative figure and did not take into account the qualitative side of the analysis.

The other difficulty is the availability of data. We mainly have to rely on the Nepal Living Standards Survey(2003/04) for data and these studies assume average size of land occupied by a dwelling unit in urban area is 1,448 sq. ft. (135 m^2), whereas for low income groups the a plot of 856 sq. ft. (80 m^2) area is commonly accepted as the average plot size. These same survey data assume that there is an average of 1.5 households living per unit in urban areas, which is probably a true reflection of the actual reality given the fact that houses (as opposed to dwellings) do typically accommodate more than one household, but further complicates things when estimating housing needs.

Taking the UN Population Division (2009 revision) as well as Population Census 2001 of CBS of Nepal -which estimates the urban population of Nepal to be 7.0 million in 2016 and 9 million in 2021- as a starting point one can conservatively calculate that

Table 17. Estimating Housing deficit – minimum scenario

Year	Demand		Supply		Deficit
	Urban Population	Urban households	# of houses	# of dwellings	
2011	5,598,886	1,152,034	657,414	999,269	152,765
2016	7,014,904	1,443,396	814,609	1,238,206	205,190
2021	9,047,244	1,861,573	1,007,804	1,531,862	329,711

Table Assumptions:

- Urban household projection based on average household size of 4.86
- Using average housing production of 13,653 (1991-2001) 21,346 (2001-2011) 35,039 (2011-2021)
- Assuming no deficit in base year 2001
- Assuming an average of 1.52 households per house CBS 2001

Table 18. Estimating Housing deficit – maximum scenario

Year	Demand		Supply		Deficit
	Urban Population	Urban households	# of houses	# of dwellings	
2011	5,598,886	1,217,149	657,414	999,269	217,880
2016	7,014,904	1,524,979	814,609	1,238,206	286,773
2021	9,047,244	1,966,792	1,007,804	1,531,862	434,930

Table Assumptions:

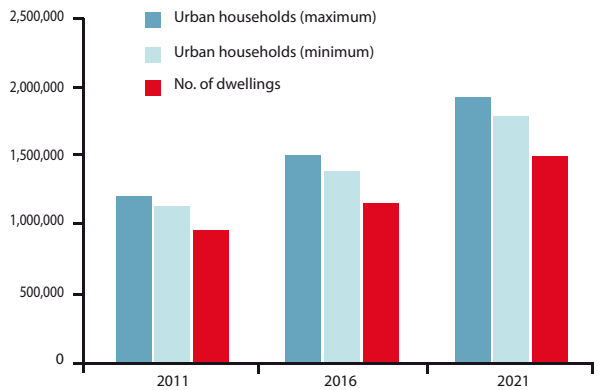
- Urban household projection based on average household size of 4.6
- Using average housing production of 13,653 (1991-2001) 21,346 (2001-2011) 35,039 (2011-2021)
- Assuming no deficit in base year 2001
- Assuming an average of 1.52 households per house CBS 2001

there will be 1.4 million urban households in 2016 and 1.8 million in 2021. This is assuming an average urban household size of 4.86 (2001 Population Census). However if one uses the average urban household size from the 2010 survey which indicates an average urban household-size of 4.6 one arrives at a number of 1.5 million and 2.0 million respectively.

The total housing stock in 2001 amounted to 436,533 houses (not units) assuming an average of 1.52 of households living in one house and/or a housing deficit of around 230,000 houses[4]. Based on census data we know there was an increment of 13,653 urban dwelling units every year during the period 1991-2001[5], while the CIUD 2010 household-survey suggests that the annual production has almost doubled in more recent years, based on the number of building permits issues in the urban areas that were subject to the survey, the estimated average production has averaged 21,346 houses per year in the period 2001-2010. Using these figures we extrapolated the average urban housing production for the years 2011-2021 and estimated that the urban housing stock will continue to increase over the 2011-2021 period with an average annual production of 35,039, from the present 650,000 (2011) to over 1 million houses in 2021.

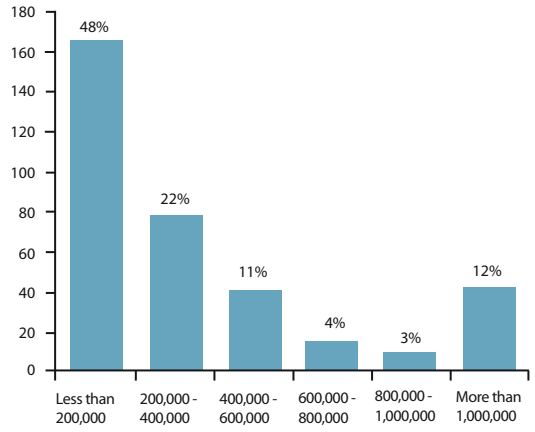
The conservative estimate for the housing need is over 300,000 units by 2020 translated into additional requirement of 30.000 units per year in the 2010-2021 period. Yet a more exploratory scenario that takes into account the decreasing urban household size indicates that the housing deficit could exceed 400,000 translating into an addition production requirement of at least 40,000 dwelling units per year in the same period, which would mean doubling the current annual housing production.

Figure 22. Projection Housing Deficit 2021



'SINCE THE 1970'S THE URBAN POPULATION VIRTUALLY DOUBLED EVERY TEN YEARS. CENTRALISED POLICIES, OPPORTUNITIES AND RECENT POLITICAL CONFLICT CAN BE BROADLY CHARACTERISED AS MAIN FACTORS BEHIND THE RAPID GROWTH OF URBAN POPULATION ESPECIALLY IN THE CAPITAL.'

Figure 23. Income and saving capacity of individual households



In both scenario's the estimated 40,000 urban squatters have not been included as part of the equation. Another factor that has not been taken into account that this calculation refines itself to the urban population as stipulated per census, just including those areas that are designated as municipalities. Yet the CIUD survey suggests that in fact a fair number of small emerging towns are in reality urban areas, but are currently not included as such, therefore the actual number would have to be adjusted upwards if we would do justice to the urban reality.

5.4 DEMAND FOR HOUSING: INCOME AND ABILITY TO PAY

The estimation of household income is one of difficult tasks in Nepal. Official data dated back to 2003[6] and suggest the average annual household income in urban area is NPR157,550 (USD2,145) but the 2010 CIUD household survey suggests NPR 889,129 (USD12,000) per annum. The CIUD household survey only concentrated on urban areas and did not take into account any squatter settlements.

The household survey of this study has also collected the information on savings of urban households. The survey data has revealed that nearly 90 per cent of the households have some saving. Among those who have savings, 48 per cent have annual saving of less than NPR 200,000 (USD2,700) and 52 per cent have more than NPR 200,000 annual saving (Figure 27), which corresponds to about one/fifth of the annual income. The household survey also revealed that one third of the urban households have three or more economically working persons, suggesting the underlying reason for the substantial saving capacity of the households in relation to income.

How much should a household earn per month to afford housing in urban Nepal?

Given the fragmented data, the precise answer to this question is difficult, but to get a hypothetical idea of how much a monthly household income should be to afford housing in different price categories at the bottom of the market in urban areas of Nepal we have made the following assumptions:

- The minimum price for a plot of land, minimum price for a self constructed house and minimum price for a standard house purchased from a developer in outskirts of urban areas (table 19)
- Minimum rent for different property sizes in outskirts of urban areas (table 20)

THE CONSERVATIVE ESTIMATE FOR THE HOUSING NEED IS OVER 300,000 UNITS BY 2020 TRANSLATION INTO AN ADDITIONAL REQUIREMENT OF 30.000 UNITS PER YEAR IN THE 2010-2020 PERIOD. YET A MORE EXPLORATORY SCENARIO THAT TAKES INTO ACCOUNT THE DECREASING URBAN HOUSEHOLD SIZE INDICATES THAT THE HOUSING DEFICIT COULD EXCEED 400,000 TRANSLATING INTO AN ADDITION PRODUCTION REQUIREMENT OF AT LEAST 40,000 DWELLING UNITS PER YEAR IN THE SAME PERIOD, WHICH WOULD MEAN DOUBLING THE CURRENT ANNUAL HOUSING PRODUCTION.

Figure 24. Working members per household

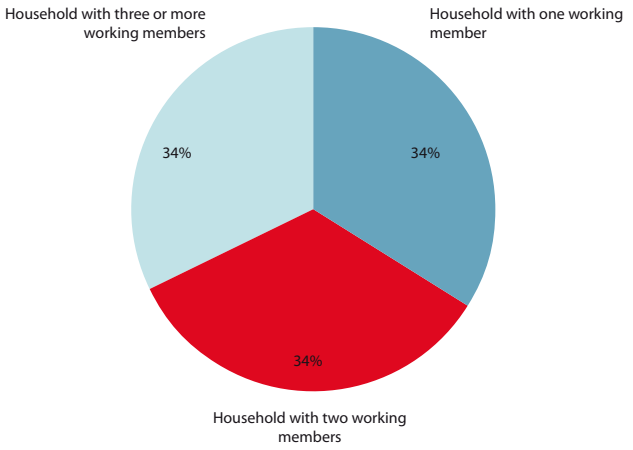


Figure 25. Monthly income required to afford housing in different categories

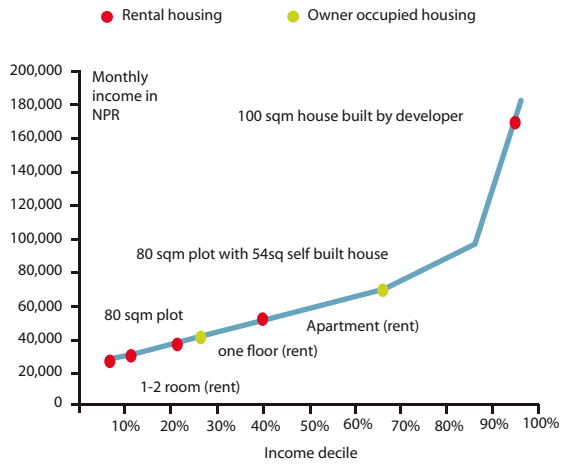


Table 19. Affordability for owner occupied housing

Purchase housing unit	Area (m2)	Price (NPR)	Down-payment	Loan (NPR)	Monthly payment (NPR)	Monthly income to afford loan (NPR)
Minimum price plot of land	80	1,000,000	100,000	900,000	13,438	26,876
Minimum standard house (self built)	54	1,800,000	180,000	1,620,000	24,188	60,471
Standard house (purchased)	100	5,000,000	500,000	4,500,000	67,190	167,975

Table 19 Assumptions:

- Down-payment percentage: 10%
- Interest rate (per annum): 13%
- Repayment period (years): 10
- Percentage of income for loan payments: 40%

- The income distribution from 2005 CBS Poverty Trends in Nepal projected on the CIUD 2010 household survey

Figure 29 shows that more than 75 per cent of the urban population does not have sufficient income to afford the minimum standard 50 sqm self constructed house on 80 sqm plot in the outskirts of a city and 95 percent cannot afford to purchase a readily built property. Renting one or two rooms is affordable for the vast majority (90 per cent), while 40 percent can afford to rent a basic 4 bed room apartment in the outskirts of town.

Using the data from the 2010 Household Survey, average urban annual household income is NPR 889,129, while the average price of a house in the urban areas stood at 3.5 million NPR, the house to income ratio for urban Nepal stands at 3.9. This is assuming self built housing.

MORE THAN 75% OF THE URBAN POPULATION DOES NOT HAVE SUFFICIENT INCOME TO AFFORD THE MINIMUM STANDARD 50 SQM SELF CONSTRUCTED HOUSE ON 80 SQM PLOT IN THE OUTSKIRTS OF A CITY AND 95 PERCENT CANNOT AFFORD TO PURCHASE A READILY BUILT PROPERTY.

Table 20. Affordability for rental housing

Renting housing unit	Monthly Rent in NPR	Monthly income to afford (NPR)
Room (renter)	1,500-2,000	8,500
2 rooms (renter)	2,000-4,000	15,000
One floor (renter)	4,000-6,000	25,000
Simple 4 BR apartment in outskirts	7,000-8,000	37,500

Table 20 Assumptions:
- Rent to income ratio: 20%

SECTION ENDNOTES

1. Stover, J. et.al, 1997
2. CBS, 2001
3. Stover, J. et.al, 1997
4. CBS, 2003,
5. CBS, 2001
6. NLSS, 2003

06

URBAN LAND SUPPLY

6.1 URBAN LAND MARKET

Serviced land is in great demand in Nepal's urban areas, agricultural areas are being converted into residential and commercial land at an alarming rate, rapidly reducing fertile agricultural land, slope land, swampy land, forest and other environmentally sensitive areas. The residential area in Greater Kathmandu has increased from 13.7 per cent in 1971 to 30.6 per cent in 1981 to 46 per cent in 1991[1]. A study suggests that the demand for serviced plots increased fourfold in 20 years in Kathmandu and Lalitpur, from 1947 hectares of land in 1981 to 4569 hectares in 2001[2].

Figure below gives an indication of increase in land prices in the last few years. These reflect the 'maximum' price levels set by a committee formed by Department of Land Revenue, taking into account access conditions and other facilities also (water, sanitation, electricity and telephone). The committee fixes a minimum price base for ownership transfer and every fiscal year the price is revised by the same committee. These are used for the purpose of land registration and taxation, and fixing of compensation. Buyers and sellers are not bound by the set price levels and in actual practice market price are much higher. Yet the officially recorded land price remains artificially low as it is in the buyer's interest quote as low price as possible, as they have to register the land in his name by paying registration fee based on quoted value of the property to get land title certificate called "*Lal Purja*".

For the same reason transactional records typically do not reflect the real value of land as it is in both buyers and sellers interest to keep the 'official' price low. Therefore the data from the Department of Land Revenue, albeit useful to depict trends, are less meaningful when it comes to analysing actual price development on the land market. The CIUD survey has yielded sufficient data for the city of Kathmandu –for the other cities the sample size was too small- to provide an indication of the market prices of residential land over the past 15 years: the average price of land has nearly doubled in 15 years from NPR 218,250 per anna (or USD124 per sqm) to NPR 515,313 per anna (or USD228 per sqm).

In Kathmandu and other cities agriculture areas are fast depleting and converting to new residential areas. At fringe of Kathmandu, the minimum price of land with non-motor access is about NRS 400,000 per Anna or (NRS 12,580 per sqm/171 USD per sqm). The fact that standard plot sizes are comparatively large (one ana is 342 sqft or 32 sqm and the minimum required

Table 21. Average land price in Kathmandu 1995-2010

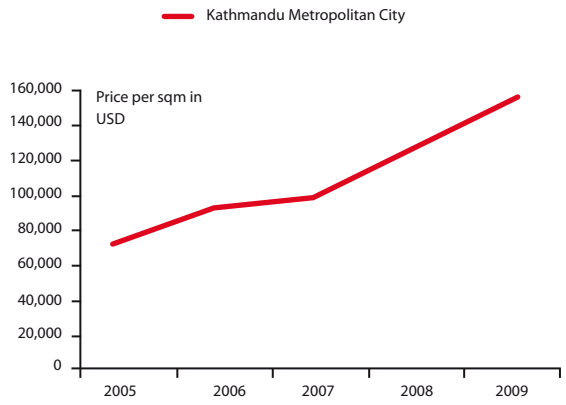
Year	NPR per ana	NPR per sqft	NPR per sqm	USD per sqm
1995-2000	281,250	822	9,137	124
2001-2005	382,979	1,120	12,442	169
2006-2010	515,313	1,507	16,742	228

Source: CIUD 2010 Household Survey

would 2.5 ana) an attributing factor to making land unaffordable for the poor. This is one of the driving forces for urban poor into informal settlements.

In Nepal land use controls started with the adoption of the Town Development Act. One of the drawbacks of the land use control is that it does not ensure land availability for low income housing. The other problems include weak cadastral, registration and tenure records and the lack of cooperation among concerned government agencies. Given the economically and socially highly stratified Nepalese society, extremely skewed land distribution and ambiguous role of bureaucracy it is very difficult for the poor people to benefit from land reform and management programmes programmes. Legally regulated land reform measures are not always effective and can be manipulated by powerful land owners. An additional problem in land management is the existence of the 'land mafia'. These people manage to acquire legal land ownership documents and forcefully evict settlers, who may have been living on the land for decades.

Figure 26. Development of Maximum land Prices in Kathmandu



6.2 URBAN LAND MANAGEMENT

6.2.1 SITE AND SERVICES PROGRAM

The concept of sites and services program was to facilitate the assembly of undeveloped raw land and its conversion into serviced land. It was done by acquiring the land and providing the physical and social infrastructure networks like roads, piped water and sewer lines, electricity, open and commercial spaces, spaces for schools and health services etc. A number of sites and services schemes have been launched in the 1970s by the Town Development Committees to cope with the housing needs; for instance Kuleswor and Golfutar in Kathmandu and Saibu, and Bhaisepati in Lalitpur.

Offering adequate open space, proper planning and a good location, the program at its initial phase quickly gained popularity, but the necessity and cost associated with land acquisition became the major drawback for the program. The time consuming process along with nominal compensation distribution frustrated the displaced land owners, which caused project delays and incurred extra burden of cost for the project. As a result, although these projects were meant to cater to low income families, the beneficiaries were mainly higher and middle income groups.

6.2.1 GUIDED LAND DEVELOPMENT PROGRAM (GLD)

The *Guided Land Development* program envisaged to support the guided town expansion while avoiding public acquisition of private land. The concept was based on the assumption that private land will be made available for public roads through voluntary contribution by the land owners, thereby minimising the financial burden for the implementation agency. The programme used the town plans prepared by the Department of Urban Development and Building Construction as a starting-point, which were based on cadastral maps and included proposals for new roads, improving existing roads and establishing missing linkages in the road network. Serious problems of access to plots after rapid private housing construction in agricultural land became the main reason to prepare the Guided Land Development Plans. It was mainly applied in the urban fringes with high potential for urban expansion but lacking access roads and in residential areas where land lay idle due to poor road access.

The program required public cooperation for voluntary contribution of land hence it was being used only in places where the public approached *Kathmandu Valley Town Development Committees* and voluntarily offered their land. The programme was popular after the experience of the costly sites and services program, yet it never reached the scale required to make a difference. The program had some serious drawbacks. First due to unavailability of precise and updated cadastral maps it lacked accuracy in plan preparation, moreover, it failed to address those who lost land in a scheme and it did not provide a road layout according to technical or topographic requirements but only according to the existing plot boundaries. This increased the cost of infrastructure networks and could not ensure infrastructure access to all plots.

Photo6a-b-c: Land for sale in Kathmandu through land brokers
© UN-HABITAT

6.2.2 LAND POOLING/ LAND READJUSTMENT

Land pooling or land readjustment program is a technique for managing the land of urban-fringe, whereby an agency consolidates a selected group of land parcels and then designs, services and subdivides them into a layout of streets, open spaces and serviced building plots. A certain percentage of land is taken for the streets and public open spaces (approximately 30%) and the remaining building plots are transferred back to the original land owner. Agreement of more than 50 per cent of the owners is necessary to initiate a scheme. The technique is based on a self-financing principle, in which the entire cost of the project is recovered by the sale of some of the serviced building plots after the completion of the project.

For the plots that are to be sold a minimum prices is fixed by the project and then this is published in the local newspaper, those who are interested to buy such plots can apply by quoting their offer through sealed envelope together with a receipt of bank depositing certain percentage of quoted price as an earnest money. After the expiry of the stipulated date, all the sealed envelopes of potential buyers are opened and the highest bidder for a particular plot is offered the plot and the earnest money of the rest are all returned. Usually, the quoted offered price for developed plots is higher than the minimum quoted price[3].

Legally backed up by the *Town Development Act* of 1998, the land pooling program has gained popularity in country like Nepal, where adequate funds for land acquisition and the provision of infrastructure for development purposes have always been limited. The advantage of the *land pooling program*, is a support to the planned urban expansion, while avoiding the need for land acquisition initial capital requirement as compared to the *site and services schemes*. Also from a user's perspective it was preferred over the *sites and services* as the amount of compensation paid to the owners was generally low compared to prevailing market prices whereas in land pooling project, land is not acquired but temporarily taken by the government for planning purposes and after the construction of infrastructure it is again returned to the original land owners.[4]

Land pooling projects are by far the most successful land readjustment project implemented in Nepal. In Kathmandu Valley the Kathmandu Valley Town Development Committee completed 11 lands pooling projects and made available more than 11,000 developed housing plots on around in 4532 hectares of land and is planning to implement six more covering a total area of 284 hectares in the coming years[5]. International donor agencies like ADB for Kathmandu Urban Development Project and UEIP are also engaged in land pooling projects in municipalities outside Kathmandu valley.

Despite the success of the method, the number of developed plots is still limited compared to demand in the market and the implementation period of almost all projects is also pretty long. Not a single land pooling projects has been completed on time (except Naya Bazaar Land Pooling) and time over run has become the normal characteristic of all land pooling projects to date. In Kathmandu Valley a total of 11,549 developed housing plots have been

Table 22. Affordability for rental housing

Name of Project	Project Area in ha	Year completed	Plots (Nos)
Kuleshwor	521	1979	750
Galfutar	213	1982	450

Source: CIUD 2010 Household survey

produced so far from 11 land pooling projects and the total number of developed plots is unlikely to exceed 15,000 even after the completion of the on-going projects. Meanwhile 10,000 houses are built annually in the five municipalities of the Kathmandu Valley on plots acquired though informal land brokers.

Other flaws of the programme are that it is largely missing out social aspects in newly developed urban areas such as lack of places for social interaction and recreation. Projects usually do take into account the building by-laws which stipulate a minimum of 3 – 5 per cent of open spaces provided yet they can be found mostly at the inappropriate or wasteland or places where building construction is not permitted. An example is the Gongabu land pooling project, where open spaces have been provided under high tension line with restricted access *'no unauthorised entry'* makes that the space cannot be used.

Some of the difficulties in implementing land pooling projects in Nepal are requirement of high management capability from municipalities and KVTDC, need of an updated land record system of plot boundaries and roads and precise and updated base and cadastral maps. Despite the popularity, the program has not been able to function as pro-poor land management schemes in Nepal. Despite the existence of a cross subsidy mechanism in the system thorough means of a requirement of a minimum of 10 per cent of developed plots for poor households this has not resulted in the necessary increase in supply for poor households.

Other issues with land pooling projects

- The continued cooperation and understanding of the land-owners required
- Delays, lack of motivation, limited publicity
- Reiterative costing due to increase in land price
- Cost sharing not based on the price differences by plots
- Tendency for speculation due to inflationary land prices, loss of opportunity costs
- Delay causes problems in replication
- Cost/benefit sharing problems weakens PPP
- Service plots costs more than returning plots
- Projects need not pay government taxes and risks remain with the government

6.3 LAND ADMINISTRATION

Land Administration in Nepal is based on parcel based deeds registration system since 1965. Land records prepared before 1965 were in verbal description in a defined area within the district. The land records were handled by the village or area chief for recording, registration and transfer of land and it was assigned by the district land revenue head office. The system was sporadic and was not uniform throughout the country. The systematic official registration of land or compulsory land registration system was introduced since 1965. Since then, land registration and administration is based on cadastral maps with unique real estate identifier (parcel number) and landownership certificate are distributed to the owners. Those basic cadastral data became very much useful and gradually indispensible for civil administration, judiciary, planning, valuation and taxation, local governance and banking or economic activities. Although the cadastre system was focused to fiscal purpose in the beginning, it was gradually used as legal and multipurpose cadastre, yet to date land administration is dedicated mainly for land registration and land transfer.

Photo6d: Landpooling project in Bhaise Pati © UN-HABITAT

THE AVERAGE PRICE OF RESIDENTIAL LAND IN KATHMANDU HAS NEARLY DOUBLED IN 15 YEARS FROM NPR 218,250 PER ANNA (OR USD124 PER SQM) TO NPR 515,313 PER ANNA (OR USD228 PER SQM).

The history of cadastral survey goes back to the early 17th century in Nepal. A systematic cadastral survey (graphical survey with plane tabling technique using local control points) however was commenced in 1965. The basic objective of the early cadastral mapping was to assist in land revenue, to support the land reform and management program. Other objectives of mapping are to provide security of land titles to private and public land, to assist in policy formulation and implementation of land reform and management programs, and to establish a central archive of cadastral information. With the introduction of the Land survey Act 1963, the cadastral map became the legal documents defining the boundaries of all land properties and provide the basic data for land administration including land taxation and become an integral part of the land registration process.

The updated cadastral mapping work of 75 districts of Nepal was completed throughout the country in the year of 2000, out of which 38 districts were mapped without the National Coordinate System Network, while mapping works of the remaining 37 districts were completed using the National Geodetic Network. A decision was taken to re-survey those districts where National Control System was not connected and also to prepare parcel plan in the urban areas. Previously established nine Survey Offices have got responsibilities to carry out cadastral re-mapping works of selected districts and they have been doing this mapping work until the beginning of the year 2009.

The cadastral mapping is still largely done manually. As a result working cadastral maps not always have the desired level of accuracy. Due to the increase in population and great demand for land, there is an increasing need for updated and reliable land information. In recent years many land disputes originated because cadastral map and actual site conditions differed greatly. An initiative for digital cadastral mapping of the whole country is being started, with a pilot project in Banepa and similarly all the land revenue offices of Nepal have automated their records using computerised data entry process and in some districts the computerised ownership transfer process has also been initiated[6].

Box 2: Land Registration Procedures

Land act 1965 Clause 216(1) defines the provision of land registration, while Land revenue act 1977 clause 8(2) and land revenue regulations 1979, rule 5 (B) defines the procedures for registration.

The first step of the land registration begins from a token, where token number is provided to the current applicant after verification of all the required documents. Token is given only if the land specifications in the original title deed from the owner exactly match with the records in the land revenue office. After the records are matched the land is enquired for its mortgage, holding or other restrictions. The land administration officer endorses the application after enquiry and witnesses are called from both the parties for confirming that buyer and seller are the genuine ones. After all the above steps are verified at manual basis the land if finally registered. The documents to be presented at land revenue office for land registration at different cases are listed hereunder:

For registration of land

1. *Previous land records receipt*
2. *Recommendation letter of local government authorities on status of parcel.*
3. *Declaration form No. 7 submitted to the land reform offices*
4. *Certificate of death or certificate of heredity relationship in case of heredity transfer.*
5. *No. 2 receipt that shows any evidence/ proof document showing ownership.*
6. *In the case of tenancy request to convert into ordinary land, documents like receipt of paid land rent or promising document on rent or tenancy certificate.*
7. *Application should include parcel no, area, location Town/village ward no,*

owners name, address etc., tenancy name if tenancy exists.

8. *Present situation of land including cadastral map, field book, citizenship, legal and family ties, and other related documents.*

For ownership transfer into the state registers (Locally known as registration)

- *Application from both parties (present owner and the beneficiary) in two copies each.*
- *Land tax clearance certificate of the current fiscal year*
- *Photocopy of citizenship certificates of both the parties*
- *Original title deed certificate*
- *Letter from the local authority stating the access type to the current plot.*
- *Tax clearance certificate for building in case of building in a plot*

The registration fees are determined on annual basis according to the fiscal provision. Including registration fee, following documents have to be mandatorily submitted for the purpose of land registration.

For land sharing with the Tenant (50% share for both the parties according to prevailing law)

9. *Duplicate copy of parcel detailed document.*
10. *Application that should include justified and explanation of mutual understanding related documents and their rights.*
11. *Application with deposited amount and registration charges*
12. *Citizenship certificate*

For land transfer from the deceased to the nearest kin

13. *Certificate of death*
14. *Land ownership certificate and receipt of land tax paid for the current fiscal year*
15. *Certificate of heredity relationship*
16. *Anybody wants to leave heredity right should present in the office and present willingness document for resigning the right.*
17. *Recommendation letter of local government authorities on status of parcel*
18. *A copy of citizenship certificate*

6.4 LAND OWNERSHIP

The system of land tenure has evolved in various forms and phases in Nepal. In the beginning the main form of land tenure was in the form of state ownership, later under the autocratic rule, different forms of land tenure existed: all the land except *Guthi* or trust land was converted into *Raikar* or private holding. Currently three forms of land tenure system exist officially; private land *Raikar,* trust land *Guthi, and various types of government land*.

Informal land holdings and security of tenure is not recognised or registered officially in Nepal. The existing land administration system in Nepal, as in most of the developing countries does not support the registration of informal rights. There has been insufficient focus on pro-poor land management. Moreover, the cadastral system has to be compliant with the interest of the existing land tenure, and simple and flexible enough to accommodate the changing nature of tenure. The flexibility in existing system is required to adapt to the local conditions and to cope with the dynamic nature of land tenure.

6.5 INSTITUTIONS RELATED TO LAND ADMINISTRATION

6.5.1 DEPARTMENT OF SURVEY

The main function of this department is to prepare the aerial, topographic, cadastral and other spatial maps. The cadastral maps produced by Department of Survey are still being used as an official record for land ownership and for land development. These cadastral maps were prepared through cadastral survey in 1964 and are not accurate from a land planning and development point of view, as cadastral survey and mapping was mainly carried out for the purpose of collecting land revenue. In some cities like in Kathmandu and Lalitpur, resurvey was conducted in a larger scale with improved accuracy.

6.5.2 DEPARTMENT OF LAND REFORM AND MANAGEMENT

The Department of Land reform and Management - formerly known as Department of Land Revenue - is under the Ministry of Land Reform and Management, and undertakes land reform, land administration and transaction functions through

Table 23. Land Pooling projects in Nepal

#	Name of Project	Project Area	Plots
1	Dallu	396	1,120
2	Nayabazar	840	2,320
3	Gongabu	282	700
4	Gopi Krishna	200	259
5	Bagmati Phant	197	560
6	Kirtipur	107	300
7	kamal Binayak	145	400
8	Liwali	670	1,800
9	Lubhu	269	720
10	Sinamangal	901	1,970
11	Sintitar	525	1,400
	Total	4,532	11,549

Source: CIUD 2010, Household survey

its nationwide district offices. The department is the arbitrator, safe guarder for the land ownership, tenancy rights, and keeper of land ownership records and organ for revenue collection and administrator for the land management. Through its District Offices it performs different land reform and land administration activities with regards to protection of land rights, collection of land related fees and land registration in the country.

6.5.3 TRUST CORPORATION

Trust Corporation - *or Guthi Sansthan* - functions under *Trust Corporation Act* of 1976 and is responsible for managing the government trust land all over the country. The Trust Corporation has a role in land pooling projects when land parcels have dual ownership or include government administered trust land. It is actually a common phenomenon for government administered trust land to be claimed by local people to be their private land and disputes between authorities and local people on land holdings are manifold. The major role of the corporation is to finalise these dispute and administer the trust. In recent years there is an emerging trend of converting trust land into private land by fixing some amount as cash depending on location of the site.

6.6 LEGAL AND REGULATORY FRAMEWORK

6.6.1 LAND (SURVEY AND MEASUREMENT) ACT 1963

This act was the start of cadastral surveying in the country and has since been amended to incorporate provision for other type of surveys like topographical, geodetic and levelling surveys. The purpose of survey is to provide necessary information regarding land as required by the government agencies and the public.

6.6.2 LAND ADMINISTRATION ACT 1967

This Act was enacted to meet the purpose of establishing Land Administration Offices to administer updates and maintain the records after completion of survey in the districts. However this responsibility was taken over by Land Revenue Offices through enactment of Land Revenue Act in 1977.

6.6.3 LAND REVENUE ACT 1977

This Act tasks the Department of Land Reform and Management with land registration and ownership transfer and collection of land revenue. It also gives the Department the authority to settle land disputes.

6.6.4 TRUST CORPORATION ACT 1977

This Act authorises the Trust Corporation to administer and maintain records of government trust Land. Besides, it allows Trust Corporation to register the land as Trust under section 39 of this Act.

6.6.5 LAND ACQUISITION ACT 1977

The *Land Acquisition Act* empowers the government to acquire private properties for public purpose and is one of the main legal provisions for urban development schemes to be executed. In accordance to the act, public and private land can be acquired with the provision of cash compensation determined by the committees constituted for such purpose.

6.6.6 TOWN DEVELOPMENT ACT 1988

The Town Development Act empowers *Town Development Committees* to formulate and implement land development schemes, to enforce land use regulations, freeze land use and impose restriction on the use of land. An important clause is 12.1.2, which empowers Town Development Committees to commence a land pooling scheme in urban areas with the consent from more than 50 per cent of the landowners.

6.7 SQUATTER SETTLEMENTS AND EVICTIONS

Land in central urban areas is highly priced and there is great demand for private and formal sector entrepreneurial investment and development in such land. In such a context, piece-meal private sector interests tend to prevail over equity concerns and holistic urban development paradigms.

Eviction is the corollary of the widespread tenure insecurity in informal settlements. Providing infrastructural services such as water supply and sanitation in squatter settlements, evictions can suddenly undo the progress in these fields, which is a reason for the development organizations to keep their interventions limited in scope. Though evictions are not so common in Nepal compared to other developing countries, some evictions had occurred. In most cases, these were carried out in inner city areas where land was in high demand for mostly public investment and forest areas.

Evictions are generally common but in recent years alternatives have been developed that are satisfactory to both the urban poor and the government e.g. Kirtipur Housing Project, Asian Coalition for Community Action (ACCA, Program) where evictions have been prevented through negotiation and alternative planning. And also NGO like Lumanti Support Group for Shelter and three people's organizations, the NBBSS, NMES and JMS have been active in the slum upgrading programme. From 1996, these three organizations have worked together to stop evictions, to build and strengthen the organizations of the slum and squatters and to demonstrate to governments and international agencies the capacities of the urban poor to design, build and manage projects to improve their housing (or build new structures) and to improve infrastructure and services

However, in 2009, newspapers reported five evictions in different places out of which one was in Kathmandu[7]. Currently no specific policy exists to prevent unnecessary evictions and violations of housing rights, security of tenure of the existing squatter settlements and incorporation of the provisions of resettlement and adequate compensation to the evicted families.

Box 3 Kirtipur Housing Project

Kirtipur Housing is first of its kind in Nepal. This initiative shows the changed approach of local government towards addressing the issue of squatters. In 1996, Kathmandu Metropolitan City (KMC) initiated forced evacuation of some 25 families residing next to Paropakar School along Bishnumati River to construct a public toilet. However, in 2003 KMC joined hand with other stakeholders to initiate resettlement project those are displaced from a road extension project in Bishnumati. Lumanti was the facilitator in the process where KMC provided fund along with other international donors. Urban Community Support Fund was established by the municipality to invest for the urban poor. It not only provides shelter to the Bishnumati Link Road development project affected families but also sets a precedent of being an environment friendly community.

The beauty of this project is the promotion of partnership that brought the concerned stakeholders in a single platform enabling them to make contributions in various ways that led to the success of this project. It provides the squatter families who were evicted and left homeless by the Bishnumati Link Road construction a place to belong and set down new roots.

An important goal of this project is to eradicate the psychological burden of being a squatter and to give people the opportunity to become free citizens with the right to make decisions regarding their lives, housing and employment. This project has been successful due to the combined efforts of all members of society, setting an example of a unique grassroots approach to help the urban poor. The involvement of the government in this project will hopefully make it more responsible and also make it sensitive in rehabilitation of the communities when planning development projects.

Source Lumanti 2008

6.7.1 THE ASIAN COALITION FOR COMMUNITY ACTION PROJECT (ACCA)

The ACCA project at Salyani squatter community in Bharatpur was launched in February 2009, This project *is the first-ever community-led housing and settlement upgrading project in Bharatpur, and has been a vivid learning opportunity for the whole city.* The municipality provided security of tenure in the form of guarantees to the Salyani community and thereafter Lumanti worked together with the community to develop their housing design and community redevelopment plans.

The ACCA program is managed by the squatter's federation and squatter women's savings cooperative which is supported by a city-level ACCA project management committee. This committee comprise of representatives from the squatter federation, the communities, the women's savings cooperative, the municipality and Lumanti. All ACCA funds are channelled through the women's savings cooperative that is responsible for the overall financial management. The families have taken the loan of maximum NPR 100,000 with 5 per cent interest to build their houses with the commitment to pay back in 5 years time. Out of 30 houses, construction of the first 8 houses is complete and 18 more houses are under construction, all the houses are built entirely by the people. As the work progress, the relationship between the communities, local government and the Forest Department grow stronger. The community received timber for doors and windows from the Forest Department 6 times cheaper than the market price.

The Asian Coalition for Community Action has set out to transform development options for Asia's urban poor by supporting community led change processes in 10 cities in 15 Asian countries over three years. Poor community are the key change agent in the process, addressing issues of land security, infrastructure, social and economic development and housing at scale. This new program, which is being funded by the Bill and Melinda Gates Foundation, was approved initially at the end of October 2008. Asian Coalition for Housing Rights (ACHR), based in Bangkok is an intermediary for the project funding from the Gates Foundation.

6.8 BRIEF CONCLUSION

Land management continues to be difficult processes in developing country like Nepal. The substantial annual influxes of migrants that are invariably poor remain unreached by any of the land development schemes. Many sites and services scheme plots tended to be too expensive for the poor. Guided land development is not applied in low-income areas and illegal slum areas. It raises the values of lands owned by the middle and high-income families, making them even less affordable to the urban poor.

Similarly, as poor people do not have access to land, they do not benefit from land pooling – to date the main government instrument to undertake urban expansion- which increases the values of plots to their owners, making them more difficult for others to purchase. Moreover, there has been no practice to extract additional land from land readjustment programs for public benefit, which might be used at subsidised costs to cater to the urban poor. The urban land development utilised by the poor is mainly provided by the private or informal land developers and for the poorest, the residence is in the form of rented accommodation or illegal occupation of land.

Meanwhile squatting or unauthorized occupancy of land existence of urban squatters is fast increasing which is due to unavailability of adequate and affordable land plots as per the economic status of urban population.

SECTION ENDNOTES

1. Shrestha, 2003
2. Pokharel, J.R, 2006
3. Mattingly M,1996
4. Mathema, A.S, 1999
5. CIUD, 2010
6. Adhikary, K.R
7. Lumanti, 2010

07

INFRASTRUCTURE AND BASIC URBAN SERVICES

7.1 OVERVIEW OF BASIC URBAN INFRASTRUCTURE PROVISION

The main issue in housing provision is the poor availability of serviced land. The absence of services is prevalent throughout urban areas, and relatively indiscriminate when it comes to the well-to do and have-nots. With the exception of selected pockets on both sides of the equation (squatters[1] on one hand and the so called '*housing colonies*' newly developed gated residential communities) neighbourhoods are typically mixed and it is quite common to find an expensive properties next to a half completed structure, each with access to the same services like roads, drainage and water supply.

Until 1999 responsibilities of municipalities in Nepal were limited to selected urban activities and they were mainly central government line agencies that carried the responsibility for provision of urban services. With the promulgation of *Local Self-Governance Act (1999)* municipalities became tasked with the part of the responsibilities including road, drainage and water supply, but in reality the limited resources only allow municipalities to upgrade smaller infrastructures like adding few meters of drains, paving walkways or maintaining existing infrastructures. For larger infrastructures they still largely depend on the central government or donor agencies. This situation has left municipalities relying on central government for resources but also for implementation of larger projects as they did not have the managerial experience or capacity of handling such projects.

In Nepal urban infrastructure are provided by various agencies. Although Local Self-Governance Act (1999) LSGA 1999 has given municipalities the authority from roads and water supply to electricity, there are other contradicting acts and regulations that also authorise the same services to other agencies. Roughly the following categories can be distinguished:

TYPICALLY INFRASTRUCTURE IS CONSTRUCTED AFTER THE HOUSES HAVE BEEN BUILT, RESOURCES ARE WASTED AND DUPLICATED, RESULTING IN INEFFICIENT USE OF FUNDS.

- Primarily, municipalities are focused on solid waste management, building permit and control, construction of urban roads and lanes, market centres and bus terminals, urban drainage and waste water management, etc.
- Kathmandu Upatyaka Khanepani Limited (KUKL) is responsible for water and sanitation services in Kathmandu, the Nepal Water Supply Corporation in most of other municipalities
- Nepal Electricity Authority has the sole authority of electricity supply
- Department of Urban Development and Building Construction (DUDBC) supports municipalities technically particularly in the case of larger projects that are mediated by central government.

To promote private investment in the sector of public infrastructures like roads, transport, hydropower, water supply, waste management, in 2006 *Act for the Provision of Private Sector Investment in Construction of Infrastructure and Operation* was promulgated. The main aim of this umbrella act was to secure private investment while regulating the services expected from them. This act was meant to facilitate public

private partnerships in urban service provision but to date hardly any projects have taken off that are worth mentioning.

7.2 WATER & SANITATION

7.2.1 WATER NETWORK AND SUPPLY

Piped water system was introduced in Kathmandu in 1895 during Rana regime[2] and is indeed is rather common in most of the municipalities particularly in their main core areas. The coverage of pipe network (considering tap connection fully plumbed or yard tap) increased from 65 per cent in 2001 to over 90 per cent in 2010[3]. The CIUD household survey indicated that over 85 per cent have an individual connection to piped water, while 7 per cent have to rely on community taps to access water[4]. The main problem however is with the water supply. The service in most of the cities is irregular and water quality is poor. The city supplies have chlorine treatment at the most. Water rationing is rather common and supply hours are decreasing sharply year by year. In most cases surface sources are almost exploited and one has to explore remote sources to cater for increasing demand. Because of poor management and maintenance, adopting inferior technical solutions and old pipelines, most of the distribution pipes cannot sustain required pressure. In addition, pilferage and other technical losses are common, making the volume of water unaccounted for over 30 per cent[5]. Apart from high investment requirements, water right conflicts and resource sharing issues with the hinterland population are emerging more seriously in recent years.

In more than two decades population of Kathmandu Valley has more than doubled while very nominal increment was done in water supply. As a result, residents throughout Kathmandu, irrespective of the neighbourhood, are getting water for about an hour on every 5th day. At present the dry season and wet season water production is estimated to be 97 MLD and 150 MLD[6] with respective deficiencies of 65 per cent and 54 per cent.

People are adapting to the scarcity through digging shallow wells, buying water from private tanker services and exploiting every drop of traditional water systems like wells and stone spouts. Because of its relatively better quality municipal supply is used for drinking and cooking while ground water source is used for other household purposes where available. The burden of time, resource and effort for fetching water has become severe with more stress to poor particularly poor women. Large hotels, industries, high-end apartment buildings and gated communities typically install deep wells to extract fossil water from more than 200 meter down.

In addition to the volume, also the quality of water is a major concern as most of the system lacks adequate water treatment facilities and have poor pipe networks. With few exceptions, most of the municipal supplies are limited to chlorine disinfection, and many deliver water directly from the source without any treatment. According to the CIUD household survey over 70 per cent reported that they follow some type of water treatment for drinking water, like boiling or filtration.

Already in 1988 the World Bank initiated the Melamchi Water Supply Project to increase the water supply in Kathmandu Valley by means of bringing water from Melamchi Valley through a 26 kilometre long tunnel and improving distribution pipe network.

Photo7a: A typical 'mixed' urban neighbourhood with Pakki and Kachchi housing © UN-HABITAT

Photo7b: A lavish residential bungalow with poor infrastructure © UN-HABITAT

This project has not yet materialised, was postponed several times and the current completion target year is 2013.

Water supply was traditionally managed under Nepal Water Supply Corporation, (NWSC). After its poor performance the water management in Kathmandu Valley was transferred to recently established public company called Kathmandu Upatyaka Khanepani Limited (KUKL) under the water reform process within the above mentioned Melamchi Water Supply Project. Meanwhile the Nepal water Supply Corporation is still responsible for water supply in municipalities outside Kathmandu Valley. Drainage is considered as part of the water supply services.

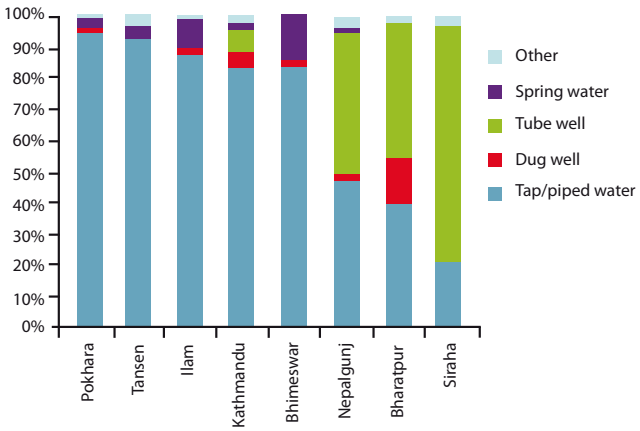
In newer municipalities, either municipalities themselves are managing or community managed water supply systems are prevalent. The coverage of centralised systems within municipality however in most cases are limited to the city core. The fringe areas are either annexed to the main system along with its growth or have their own local systems. In Terai towns, people rely on dug wells and tube wells where municipal supply does not reach or is inadequate.

7.2.2 ACCESS TO WATER FOR THE URBAN POOR

Historically public taps were the source of water for general public. Later with the popularity of private connections public taps became the service for poor communities. In Kathmandu Valley alone there are 989 public taps out of which only 613 are in working condition[7]. In recent years water managers have been trying to close down these taps to prevent further losses whereas municipal political members were in favour of such taps for obvious reasons. Finally the Nepal Water Supply Corporation stopped providing water free of charge through public taps, but instead

Photo 7c: Community tap in slum area © UN-HABITAT

Figure 27. Urban water network coverage in selected cities



Source: CIUD Household Survey 2010

a large number of public taps were installed for which the municipality pays the tariff. In Kathmandu the Low Income Consumer Support Unit (LICSU) provides community taps as opposed to conventional public taps (or stand posts) to serve poorer population with nominal charges. As the government could not afford stand posts while poor people could not connect private connection, community taps were envisaged as an in-between solution. The community taps are owned and managed by its users and need to pay nominal fee by each user. Since this is a new initiative, the success of the system is yet to be tested.

In squatter communities, to have a tap with running water is a luxury; a toilet simply a dream. Slum dwellers face long journeys to fetch water. Water pumps are sometimes available, but regularly fail to work and people are unwilling to take responsibility for fixing them. Although since recent years a land ownership certificate is no longer a necessity to connect to city supply, slum dwellers and squatters are largely excluded from formal water supply[8]. The recently adopted National Urban Water Supply and Sanitation Sector Policy (2009) has for the first time included those living in slums and squatters when addressing the need of the poor, the Nepal Water Supply Corporation has in selected cases installed water in these communities through an intermediary like a Ward office or an NGO.

A number of donor led initiatives have started in recent years to improve urban infrastructures including water, among which the:

- Urban Environment Improvement Project (UEIP). In Bharatpur and Hetauda municipalities utilised the loan money to

Photo 7d: Traditional wells in Kathmandu © UN-HABITAT

Photo7e: Community tap squatter settlement of Kathmandu © UN-HABITAT

augment additional water to their existing systems. Under the Small Town Water Supply and Sanitation Project, phase I and II, several smaller municipalities and small towns have received the ADB loan to establish community-based water supply system[9].

- Ilam Municipality is an example where with the assistance of JICA the supply was handed over to the municipality (a water board headed by the mayor of the municipality) for management. One of the difficulties reported by the municipality is the low tariff rate fixed by the water board due to political interest. There is absence of future planning and investment while the city has already started facing water shortage.
- The Department of Water Supply and Sewerage managed system in Tansen and Bhimeswor Municipalities are again a different configuration whereby fringe settlements are served through community managed systems serving water through community organisations registered under Water Users' Committee in District Development Committee as per the provision of *Water Resource Act*. However, given the ever increasing size of the systems the management capacity is getting beyond the limit of community management. Moreover, such systems are weak in addressing technical management in the absence of trained human resources.

Private sector management is very much talked about in most of the policy documents in Nepal. However in real practice not a single system is under private management. Private sector on the other hand is popular in bigger cities like Kathmandu and Pokhara in delivering tanker service or bottled water. Even with very high water price these commercial ventures are becoming very popular not only among well to do people but also to urban poor who are compelled to buy water per bucket or jar basis.

Surprisingly, traditional water sources like wells and stone spouts dating back to the 13th century still provide water in the historic cores of the traditional Newar towns in Kathmandu Valley. Although ponds and water canals *(Rajkulos)*[10] have been damaged during the years, many of these traditional water systems have survived the test of time and are still in place[11]. To cope with increasing water scarcity these traditional wells which used to deliver free water are now becoming a sought after source of water in times of scarcity and are now commonly controlled by local groups with a flourishing business where there is acute shortage of water.

7.2.3 SANITATION

For decades, sanitation has been the least priority area of the government as well as local bodies. The investment in urban sanitation is mainly spent on constructing drains. Most of these drains are designed for storm water, but eventually turn into combined sewer ultimately polluting recipient rivers or streams. Except few old storm water drains constructed by Nepal Water Supply Corporation, most of the drains in all municipalities are constructed under municipal investments. These drains are poorly engineered, frequently clogged and breaks down time and again.

As guided by Nepal Water Supply Act (1989) management of waste water including storm water is the responsibility of the Nepal Water Supply

Table 24. Typical Water Tariff in System Managed by Different Organisations

SN	Typical water supply systems			Monthly water tariff (NPR)	
1	KUKL water charge in Kathmandu Valley	First 10 m^3	55.00	Additional every m^3	17.50
2	Tansen WS system operated by DWSS	First 8 m^3	36.00	Additional every m^3	10.00
3	Nepalgunj WS system operated by NWSC	First 10 m^3	50.00	Additional every m^3	10.00
4	Bhimeswor community operated system	Flat	50.00		
5	Birendranagar Small Town Water Supply System	For 1-10 m^3 per m^3	9.50	11-20 m^3 per m^3 Above 20 m^3	14.25 19.00

Source: Field survey and Focus Group Discussions

Corporation in its service areas, but the Local Self Governance Act 1999 has given the responsibility to municipalities in their territories. Since it is difficult to charge for this service, the water corporation has largely left this service to municipalities. At present considerable fund of municipalities are invested on drainage systems. Irrespective of the responsibilities the role of Water Corporation and municipalities for waste water treatment is lacking in all municipalities.

In 2007 CIUD and UN-HABITAT did a comprehensive survey of Madhyapur Thimi Municipality, which showed that the 40 km drains that had been constructed[12] in this new municipality with the population of around 50,000 were not only poorly designed but poorly maintained as well. This resulted in all the waste water ultimately reaches to Hanumante River without treatment. Same is the case of most of the municipalities. In Tansen, people started refilling the septic tanks and started joining the waste water into storm water drain. Taking the advantage of terrain, the drains are flushed by monsoon rain every year, but creating environmental and social problems in downstream settlements[13].

Since the service of Nepal Water Supply Corporation and municipalities in the context of sewerage is limited to drainage construction, almost all such systems are discharging raw sewer into natural water bodies. Except the Guheswori Waste Water Treatment Plant which is treating less than 10 per cent of the waste water generated in the city of Kathmandu, none of the sewer lines are equipped with treatment facilities. The other four waste water treatment plants left defunct in Kathmandu Valley are Dhobighat waste water treatment plant in Kathmandu, Kodku treatment plant in Lalitpur, and Sallaghari and Hanuman Ghat waste water treatment plants in Bhaktapur. Recently a community scale waste water treatment plant has been installed in Madhyapur Thimi Municipality with the support of UN-HABITAT to demonstrate how waste water treatment can be managed in partnership with municipalities. The city of Pokhara has a septage treatment facility and Hetauda Municipality has industrial waste water treatment plant. Apart from this none of the municipalities in Nepal has waste water treatment facilities.

NEPAL IS EXPERIENCING AN ENERGY CRISIS OF UNPRECEDENTED SEVERITY, CAUSED BY YEARS OF UNDER-INVESTMENT AND SHARP GROWTH IN ELECTRICITY DEMAND. THIS LONG-TERM PROBLEM WAS EXACERBATED IN RECENT YEARS BY DROUGHT IN PART OF THE COUNTRY AND THE POLITICAL INSURGENCY. AS A RESULT, BY JANUARY 2009, GRID-BASED CONSUMERS WERE BEING SUPPLIED WITH ELECTRICITY FOR ONLY 8 HOURS PER DAY.

To address this problem septic tanks have been made compulsory while granting building permit in

most of the municipalities. However none of them have system to monitor and control septic tanks. Therefore, in most cases, individuals do not construct septic tanks or even if they have septic tanks, they connect the waste water line to nearby storm water drain thereby avoiding the cost of emptying septic tanks.

Realising that sanitation, particularly taking care of waste water is never in the priority of its stakeholders, the *Nepal Urban Water Supply and Sanitation Policy (2009)* recommended environmental sanitation as an integral component of Urban Master Plans as guided by *National Urban Policy (2007).* This includes the provisions and management of wastewater and solid wastes at household, commercial facility and institutional levels. This is the first time that sanitation is recognised beyond just the issue of toilet coverage, which was until recently the only commonly used indicator too measure sanitation. The 2001 census shows that 22 per cent urban households are without toilet facilities. Recent data of the Department of Water Supply[14] suggest that this coverage is 23 per cent, while the 2010 CIUD household survey indicates and average of 57 per cent for urban Nepal.

From the household 37 per cent of the households use municipal drain for discharging waste water where as 47 per cent claims that they have septic tanks and 10 per cent have pits (Figure 13).

In the household survey 54 per cent of the households are served with storm water drains, most of which are constructed by municipalities (72 per cent) and few are constructed by communities (8 per cent). 43 per cent said that they contributed in the construction of such infrastructures. This shows that there is a better willingness of local communities in participating in the construction of drainage infrastructures.

In Terai towns waste water management is more challenging due to limited slope, tropical climate and shallow ground water table. In cities like Birgunj and Biratnagar, open drains are constructed on both sides of roads and municipal sweepers need to de-sludge them every day while collecting solid waste. This is one of the major sources of water borne diseases in these cities. Very recently, few combine systems were constructed under UEIP which enjoy waste water treatment plants like constructed wetlands. The success of the system is yet to be observed as the municipalities are about to operate these new systems. One limitation can be observed under the UEIP project as the project coverage is a small segment of the municipality; remaining drains discharge raw sewage in natural water bodies defeating the overall purpose.

In the slum and squatter communities, the immediate environment also has serious disadvantages. Very few lanes between the houses are paved and so any rain quickly reduces the surface to a quagmire, and people have to wade through mud and water overflowing from drains. There are no facilities for refuse disposal and rubbish builds up around people's homes. Latrines are also often unhygienic, in poor condition and shared by a vast number of people. This is not only due to the inability to afford for the services, but also due to their lack of legal access to these services because the settlements are largely excluded from public sector service delivery.

Photo7f: Private water servicing in Pakhara © UN-HABITAT

Photo7g: Water servicing as a lucrative business © UN-HABITAT

7.3 SOLID WASTE MANAGEMENT

Solid waste management was one of the first responsibilities given to municipalities in Nepal. With the given size of the urban economy, historically waste management was not considered a problem in most urban areas. Yet with the rise in population, change in consumption pattern and rising awareness of people, solid waste management has become one of the major challenges in most of the municipalities in Nepal.

With the Local Self Governance Act all the responsibilities from collection, transport to ultimate disposal have been allocated to the municipalities. At present municipalities are providing sweeping and collection services either through its own staff or contracted out. In larger municipalities like Kathmandu, Lalitpur or Pokhara, some private collectors are also involved in waste collection. However, these services are most likely focused on downtown and commercial areas. In the 2010 CIUD survey municipalities reported that their waste collection was primarily focused to main core. Municipalities like Ilam and Tansen do not have regular service to fringe areas while Siraha and Bhimeshwor do not serve the outer areas. Peri urban areas are normally neglected. The household survey showed that 77 per cent of the 400 sampled households have solid waste collection service, of which 80 per cent is served by the local body while 15 per cent reported to have community system. 40 per cent of the households pay some fee for waste collection while remaining are served for free.

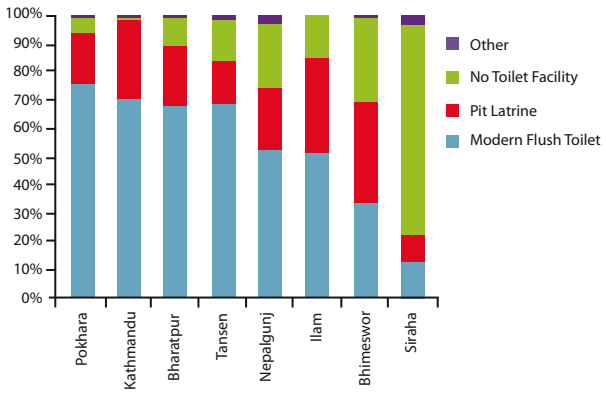
Disposal is more challenging as in most of the cases land fill site is not available within the municipal boundary. Collected waste is dumped in nearby empty spaces or holes, mostly in near streams and depressions. Except few hospitals having incineration facilities, health care waste is also mixed with municipal waste creating a very high risk of health hazards and epidemics. With few exceptions none of the municipalities have sanitary land fill sites. Kathmandu and Lalitpur are partially filling their waste in Aletar Landfill Site. Ghorahi Municipality in Dang Valley has a better land fill and Dhankuta Municipality is in the same direction. Pokhara has a sanitary land fill built under ADB loan. In all other municipalities waste is not disposed properly. Some have controlled dumping like in Bharatpur, Ilam and Tansen or open dumping like in Nepalgunj and Siraha.

Recently revised solid waste management act is under consideration in the parliament which is expected to be more instrumental in addressing the management issue in the present context.

7.4 ROADS

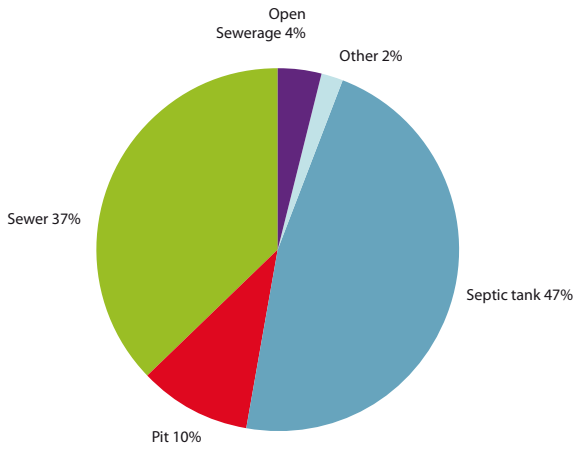
If we look into the infrastructure budget of municipalities, investments on roads constitute a major item. Road construction –especially black topped- is highly visible and therefore politically attractive. Indeed, data consistently show an encouraging picture, official 2008 data suggest that on average of 35 per cent of the roads in urban areas are black topped. The household survey shows an even more encouraging picture, indicating that out of the sampled urban households 75 per cent are served with black topped road. Yet, this figure could deceiving as many of these blacktopped roads are in

Figure 28. Toilet coverage in urban centres



Source: 2010 CIUD Household Survey

Figure 29. Different waste water disposal systems



Source: 2010 CIUD Household Survey

Photo7h: Sanitation in squatter area in Kathmandu © UN-HABITAT

Photo7i: Roadside drain filled with solid waste in Birgunj © UN-HABITAT

fact in such a deplorable state that the population would have better off with a gravel road.

In the absence of norms and standards for urban roads, the quality of road construction can be described as ,dozer culture bulldozing road alignment without proper design and involvement of appropriate technical human resource, resulting in un-engineered roads that although they may be blacktopped wash away within the matter of years. Another issue in road construction and maintenance is coordination with other utility services like water supply, drainage or telephone. Frequent digging of roads is one of the major causes of damaging the carriage way.

The *Public Road Act 1974* is the principal legal document that has made provisions for road construction, maintenance and extension in Nepal. The act defines the public road, road limit (right of way), classifies roads into four categories, and prohibits the construction of any type of structure within the right of way. The Act also has provision for realising betterment tax from beneficiaries. This provision stipulates two layers of betterment tax: First category (higher charge) for plots adjoining the road (up to 250 metres on each side) and second category for beyond 250 metres from the road (lower charge). However, to date the government has not utilised this provision. The Department of Roads is responsible for Strategic Road Networks which also includes highways and VVIP roads that passes into municipalities. Yet, within the municipal boundaries the Local Self-Governance Act 1999 transferred the responsibility for urban roads to respective municipalities including constructing roads, their maintenance and repairs, provide parking services to various modes of transportation, and register and limit vehicles. Previously the responsibility of the Department of Roads, there was no matching transfer of resources. Road Board Nepal is supporting municipalities by providing partial fund for road maintenance. The centrally collected fund for road maintenance is distributed to municipalities and meeting the board criteria for maintaining urban roads. NPR 1.098 billion (USD 14 billion) were distributed to 51 applying municipalities for the fund. Table 22 shows the distribution of fund for road maintenance in the year 2008-2009 for selected municipalities. Although this is a positive initiation towards maintenance of roads, the fund available is insufficient as each year more road lengths are added.

A relatively new development is that in the inner quarters, especially slum areas, brick paving and surface improvement are done. Some decade ago these areas were under serious neglect. Assisted by NGO's like Lumanti, in recent years awareness of people has increased and they have managed to make gain support from political representatives and municipalities for their infrastructure improvements.

The Road Board Nepal is newly introduced institution. The *Road Board Act 2002* relates to expedite to make necessary provisions on repair and maintenance of roads, minimising the expenditures to be incurred in repairing and maintaining the roads and making transparent and effective the repairing and maintaining works of the roads. This act considers all the roads in the country including urban roads. As provisioned in the act, vehicle tax and road use tax are collected centrally and brings to the central basket. This is later distributed to maintenance works of roads as per requirement. The act has formed an autonomous body to manage the fund called Road Board Nepal.

One of the shortcomings in the context of roads is the absence of urban road standards. *Nepal Road Standard (1970) with First Revision (1988)*[15] is the authentic document for the roads and its standards in Nepal. The document is inclined towards highways and other road types; very little has been suggested in the case of urban roads. The Nepal Road Standard has categorised roads into four categories: i) National highways; ii) Feeder roads; iii) District roads; and iv) City roads/streets. In this classification Category (iv) may be considered as urban roads, but there is an absence of any standard for this category. The only reference that can be taken is to Management Support and Urban Development Project (1989) classification[16]. Their classification, however limited to some prototype designs, is a good reference yet lacks formal approval from concerned government agency. Therefore, in real practice, standard for roads are used from the building by-laws developed by municipalities.

7.5 URBAN TRANSPORTATION

In the city of Kathmandu, the government use to operate public bus transportation. The poor management brought the service to halt from two decades. At present all the public transportation in municipalities are delivered by private sector. This includes three wheelers to buses. Quantity wise public vehicles are increasing rapidly. Table 23 shows the increase in vehicle number in a decade in the country. In Kathmandu Valley alone, there are 13,313 public transport vehicles (bus, mini bus, micro bus, tempo) run in 166 routes in the valley and its hinterland daily[17]. With increased number, there is tough competition which has ultimately compelled the entrepreneurs to compromise with the quality of service.

Motorcycles became very attractive means among the middle income group and lower income groups, especially the youths. As a means of transport, the survey revealed that motorcycles are the most used means followed by walking to commute to work. This may be due to the relatively higher public transport tariff.

One of the lacking area in traffic management is the concerns of pedestrians. Road space, particularly footpaths are encroached by several unauthorised activities like street vending, vehicle and bicycle workshops, extension of shops, etc. There are several examples that footpaths are removed or encroached to widen road for vehicles. Moreover, maintenance of footpath is of very low frequency compared to motor carriage ways. Bus stops are haphazardly located. Traffic regulators give low priority to public transport compared to private vehicles. Therefore, there is a need of awareness building among the cross section of stakeholders for better managed urban transportation.

Guided by *Traffic and Transport Act 1992*, and its subsequent regulation *Traffic and Transportation Management Regulation, 1998* Department of Transport Management, DoTM under Ministry of Labour and Transport is the main responsible body for transport management in Nepal. However, in practice functions of DoTM are limited to vehicle registration, transfer of vehicle ownership and issuing public transport route permits. Other major responsibilities like vehicle emission and pollution control, road accident prevention and control, vehicle inspection, etc. are not fulfilled as expected. The *Local Self-Governance Act, 1999* has limited the role of municipalities to registration and providing number plate to push carts, rickshaws, horse carts, etc. Better coordination between DoTM and other

Photo7j: UEIP project in Hetauda installing new drains © UN-HABITAT

Photo7k: Open sewer in front of houses © UN-HABITAT

Photo7l: Scavengers at a solid waste solid waste dumping site in Butwal © UN-HABITAT

Photo7m: Door to door solid waste collection service in Butwal © UN-HABITAT

agencies including municipalities and DDCs, are inevitable for better transport management, especially public transport management.

7.6 ELECTRICITY

Nepal is experiencing an energy crisis of unprecedented severity, caused by years of under-investment and sharp growth in electricity demand. This long-term problem was exacerbated in recent years by drought in part of the country and the political insurgency. As a result, by January 2009, grid-based consumers were being supplied with electricity for only 8 hours per day. Moreover, the majority of Nepalis live in rural areas and have no access to reliable sources of electricity. The chronic shortage of electricity has had a highly negative impact on all aspects of the economy and has imposed a heavy burden on Nepalis, during dry seasons power cuts can be up to 20 hours per day.

The country is currently able to exploit only 0.75 per cent (i.e. 619 MW) of its total generation capacity which is estimated at 42,000 MW. The present capacity is catering only 6.2 million units of energy (i.e. 55 per cent of the demand) against the need of 11.6 million units. The annual demand of electricity has been steadily increasing by 9.3 per cent. This acute shortage led the government to announce National Electricity Crisis in 2008. To cope with the crisis the government has called for private investment in the sector. It came up with ambitious plan of 10,000 MW in a decade[18].

Nepal Electricity Authority NEA is the government owned entity established under *Nepal Electricity Authority Act* in 1984. This authority is solely maintaining the national grid and distributing electricity all over the country. While generating hydropower, it also purchases power from other

Table 25. Road quality in urban areas

		Road (in KM) (as of 2005)			
Municipality	**Population (2008 projected)**	**Total length**	**Black topped**	**Gravelled**	**Earth**
Bharatpur	124,934	459	110	223	126
Bhimeshwor	23,973	40	33	4	4
Ilam	18,741	82	20	12	50
Kathmandu	924,752	728	481	203	44
Nepalgunj	65,412	83	19	26	38
Pokhara	219,215	285	125	35	125
Siraha	25,594	44	5	15	24
Tansen	27,013	571	21	6.69	543

Source: Municipality Profile of Nepal, 2008

Photo7n: Newly black topped road in Butwal
© UN-HABITAT

Photo 7o: Damaged black topped inner road in Kathmandu
© UN-HABITAT

producers, but of smaller quantity. Hydropower is the primary source of electricity in Nepal. There are private companies, national as well as international, involved in hydropower generation as the country has open its market to meet the power demand. Another act called *Electricity Development and Management Act 2005* was promulgated for this purpose. NEA, as a sole distributor buys power from these companies and distribute through its national grids.

The household survey suggests that more than 90 per cent urban area are connected to an electricity network, also households in squatter settlements[19]. In the absence of land ownership certificate, Nepal Electricity Authority also provides electricity under the approval of the municipality. In some municipalities, like in Nepalgunj, some areas are extended with community electricity distribution approach. The Government invests 80 per cent on the infrastructure for distribution and community shares 20 per cent. Based on bulk metering electricity is given to the community with subsidised rate (NPR 3.5 against normal rate of NPR 7.4). This is one of the attempts to reduce pilferage in the system which is estimated to be 17 per centin the case of Nepalgunj. The connection charge in average is NPR 1,220 and additional NPR 1,000 for cable extensions. In urban areas average electricity consumption may be taken as 60 units per month paying NPR 445.

7.7 INFRASTRUCTURE FINANCE

As planned development is rare in Nepal's urban areas, urban infrastructure typically follows residential construction rather than the other way round. Roads, water supply, drainage and other infrastructures reach the neighbourhood only after some critical mass start living there and become politically influential. Because unplanned development is rather common in all municipalities of Nepal, financing infrastructures are reactive to meet most needy. There are mainly four sources of financing in infrastructures: a)

Table 26. Road Maintenance Fund Allocated for Selected Municipalities (Fiscal Year 2008 2009)

Municipality	Amount (Rs.)
All municipality	109,800,000
Bharatpur	2,400,000
Bhimeshwor	1,300,000
Ilam	2,400,000
Kathmandu	15,000,000
Nepalgunj	3,000,000
Siraha	1,600,000
Tansen	1,600,000

Sources: Department of Transport Management

Municipal investment; b) Investment by service providers; c) Investment from external sources; and d) Community participation.

- Municipal finance has two major sources: a) Collection of integrated property tax, revenue from renting property or delivering municipal services; and b) Share of Local Development Tax[20]. Except renting of municipal properties, collection of integrated property tax is not significant as the rates are low and few people actually pay property tax. Shared revenues include Local Development Tax which is collected by the Ministry of Local Development is distributed to municipalities based on a predetermined formula. In addition, municipalities can access loans from the Town Development Fund or preferred borrowing from international agencies. Yet comparing to the investment needs, the borrowing capacity is limited. Every municipality prepares annual budget which is approved by the Municipal Council, typically divided in numerous small projects, an ad-hoc response to the increasing local needs and aspirations within a severely limited budget. This makes that larger investments like investment in municipal level infrastructures tend to get less priority against neighbourhood level small projects.

- The other sources of investment in municipal infrastructures are the investment of sectoral service providers like the Water Supply Company and Electricity Authority. They invest to expand the system to cater the demand of the services. As the water tariff are said to be very low, the Water Supply Company shows less willingness in expansion because of their funding limitations. In such cases consumers collectively share the initial infrastructure costs. They form a users' committee, contribute equal share from each members to fill the funding gap. Guided by government plan the central line agencies are also expected to invest in municipal services like roads, upgrading old township or municipal infrastructures. Yet, these investments are sporadic and are not reliable sources of investment. The only remotely reliable source of income is for maintenance of urban roads provided for by the Road Board Nepal that collects various taxes on road use centrally and distributes accordingly.

- The third category of investment is from external sources. Grants from bilateral agencies, loan from international development banks, etc. are important sources of infrastructure investments. Town Development Fund (TDF) established under *Town Development Fund Act 1990* is the instrument developed to invest for municipal infrastructures. Started with KfW support, the Fund is funding central infrastructures that have direct return like market centres, bus terminals, public toilets, etc. so that the pay back is secured. Unfortunately, the Fund is not open to housing or housing related infrastructures. Occasionally, funds are also available from various projects intended for one or other objectives. Funding from Rural Urban Partnership Programme (RUPP) from UNDP, Local Government Capacity Development Programme (LGCDP) from multi donors, are some examples of them.

Photo 7p: Gravel road in Rananatagar © UN-HABITAT

Photo7q: Chaotic traffic management in Birgunj © UN-HABITAT

IN MORE THAN TWO DECADES POPULATION OF KATHMANDU VALLEY HAS MORE THAN DOUBLED WHILE VERY NOMINAL INCREMENT WAS DONE IN WATER SUPPLY. AS A RESULT, RESIDENTS THROUGHOUT KATHMANDU, IRRESPECTIVE OF THE NEIGHBOURHOOD, ARE GETTING WATER FOR ABOUT AN HOUR ON EVERY 5TH DAY.

Urban Development through Local Efforts, UDLE the project of GTZ is supporting urban sector of Nepal since 1987[21]. Their focus however is in governance, planning and urban management. In case of water and sanitation UN agencies like UN HABITAT under its Water for Asian Cities Programme and international NGOs like Water Aid are involved in delivering services particularly to urban poor communities. Although their investments are very nominal compared to government or bilateral agencies, they have tried to establish examples of sustainable, community based and resource conserving technologies, processes or management approaches. In most of the cases these organisations partner with local NGOs like Lumanti, Centre for Integrated Urban Development (CIUD) and Environment and Public Health Organisation (ENPHO) mobilise local community and municipalities to invest in joint activities. There are several slums and squatter settlements where infrastructures of water and environmental sanitation are being improved like in the case of Lubhoo by CIUD, Chapagaun by ENPHO, and Khadipakha by Lumanti.

- The fourth source of investment is the investment through community participation in their needy projects. Community participation in urban infrastructures like roads, drainage and water supply has become very common in hill municipalities, but not much appreciated in Terai towns. For example, for the construction of roads, people contribute up to 40% of the cost in Butwal, Pokhara, Dharan or Tansen, but 20% is very difficult in Birgunj, Siddhartha Nagar or in Biratnagar[22].

Private investment and public private partnership are very much talked about models for infrastructure investments. Unfortunately after decades of policy interventions, conducive environment could not be created. Therefore, there is hardly any example of such investments in urban infrastructures except housing and real estate companies that have mushroomed in Kathmandu and many larger cities. Apartment buildings and expensive suits have served a portion of housing need, but has done very little contribution to city infrastructures and particularly catering housing to low income groups. Moreover it has created further pressure on the limited municipal infrastructures like roads, water supply and sewerage[23].

7.8 BRIEF CONCLUSION

There are number of private institutions which cater to housing needs of people, but their roles as institutions of large scale service providers especially catering to the needs of low-income groups of people are still negligible. The low-cost building and construction industries dealing with the production and promotion of low cost building materials do not seem to exist in the overall framework of institutions.

The government's response to urban poverty has been limited and ineffective, though efforts to manage urban development and include the urban poor in this process are growing. Some local wards

Photo7r: Electricity supply in Kathmandu © UN-HABITAT

tend to provide services for urban poor communities (water supply, construction of community schools etc.) and recommend for electricity lines simply due to the political reasons (for securing vote in local ward election) than actually upgrading their conditions. Nevertheless anecdotal evidence suggests that some squatter settlements have currently been undergoing ad hoc improvement programs including the improvement of sanitation, water supply, saving and credit schemes for economic improvement, adult literacy class for social up-liftment etc. Most of these activities are carried out informally with the assistance of NGOs.

Typically infrastructure is constructed after the houses have been built, resources are wasted and duplicated, resulting in inefficient use of funds. The other gap in terms of infrastructure facilities is the standard of service. There is absence of standard of road for urban areas. Recently government has come up with water quality standard. Similarly public transportation standards, waste water standards are required for minimal quality control of urban services.

SECTION ENDNOTES

1. This includes squatter settlements, as well as marginalised communities in existing urban neighbourhoods like the sweeper and butcher community settlements in Kathmandu Valley and Dom community settlements in Terai towns. The size of such pockets are relatively small.
2. UN-HABITAT, 2008
3. Jha, B.C., 2010
4. CIUD, 2010
5. CIUD, 2008
6. MoF, 2009
7. CIUD/NGOFUWS, 2005
8. MPPW, 2009
9. Water Aid, 2006
10. Rajkulo is the traditional water canal meant for irrigation as well as pond recharge.
11. UN-HABITAT, 2008
12. CIUD, 2007
13. CIUD, 2010
14. Jha, B.C., 2010
15. NRS,1988
16. MSUD,1989
17. KSUDP, 2010
18. GoN, 2009
19. CIUD, 2010
20. Local Development Tax is the substitute to octroi that municipalities use to collect. This tax is collected pooled by the government from custom points and distributed to municipalities by MLD in the agreed proportion.
21. UDLE, 2006
22. Portnov, B., Adhikari, M. and Schwartz, M.: Urban Growth in Nepal: Does Location Matter?, Urban Studies, Vol. 44, Nos 5/6 915-937, May 2007
23. Based on focus group discussion findings and own experiences.
24. Based on focus group discussion findings and own experiences.

08

CONSTRUCTION INDUSTRY AND BUILDING MATERIALS

8.1 SIZE OF THE SECTOR

Construction industry has recorded 5.7 per cent growth rate as per Economic Survey 2008/2009 which is notable as compared to other sub sectors. This sub sector's growth rate was only 3.1% in the previous year. Satisfactory progress in overall construction subsector is mainly attributable mainly to the unprecedented real estate boom of the last few years in Kathmandu valley and other urban areas.

The preliminary estimate of per capita GDP at current price stands at NPR 30,361 (USD 415) for the year 2007/08. The economic growth of the country measured by GDP is 5.56 per cent in the year 2007/08. The ratio of construction occupied in GDP was 6.5 per cent in the previous fiscal year[1]. The gross value added by construction industry increased from NPR 40,952 Million (USD 557 million) in 2005/06 and in 2007/08 it reached to NPR 51,044 million (USD694 million).

THE CONSTRUCTION INDUSTRY IS STILL LARGELY DOMINATED BY THE INFORMAL SECTOR, WHICH MAKES QUALITY CONTROL ONE OF THE MOST PRESSING ISSUES. IN THEORY THE INSTRUMENTS AND LEGISLATION (BUILDING CODE AND NEPAL NATIONAL STANDARD) ARE ADEQUATE BUT ENFORCEMENT OF REGULATIONS IS AN ISSUE.

8.2 INSTITUTIONAL AND REGULATORY FRAMEWORK

8.2.1 NEPAL BUREAU OF STANDARD AND METROLOGY, NBSM

Nepal Bureau for Standard and Metrology (NBSM) is the body that looks after the activities concerning standardisation and quality control of building materials. It grants licenses to use the *National Standard* mark on industrial products. It provides testing facilities and laboratories accreditation services for various building materials like brick, cement, steel rods, PVC pipe, and corrugated iron sheets, pipes and wire. It has its own construction material testing laboratory. Currently there are eight cement factories and 12 iron rod factories which have received National Standard Mark.[2], out of a total of 55 cement and 39 for iron rod factories.

8.2.2 PUBLIC PROCUREMENT MONITORING OFFICE

Public Procurement Monitoring Office was established under section 64 of *Public Procurement Act (2007)* to control procurement of works, goods and services in housing projects by any entity which uses public funds, make such procurement by fulfilling the procedure as referred to in the act. This act has following provisions

1) Responsibility for procurement of work and its procedures.
2) Tender and consultancy services.
3) Procurement proceeding on review of decisions
4) Procurement contract
5) Monitoring of procurement

8.2.3 CONSTRUCTION ENTREPRENEURS ACT (1999)

The *Construction Entrepreneurs Act (1999)* is the governing act for the construction industry. The government issues license to the entrepreneurs based on their qualification and capacity which demands annual renewal. Foreign companies having temporary license are allowed to be involved in public works as specified in the license.

8.2.4 THE LABOUR ACT (1992)

The *Labour Act, 1992* lays down the legal framework and the basis for the rules, regulations and guidance for establishments employing 10 persons or more. It deals with matters relating to employment and security of employment, working hours and minimum wages, welfare of employees, employer-employee relations and the settlement of labour disputes. *Labour Regulations (1993)* further complement the Labour Act with clarification in issues such as security of profession and service, remuneration and welfare provision, health, cleanliness and safety, etc. Yet, because the construction sector is largely informal, typically only "A" Class contractors - representing less than 5 per cent of the total number of contractors (see figure 20) - actually employ permanent staff and comply with labour regulations.

8.3 KEY PLAYERS IN THE CONSTRUCTION SECTOR

8.3.1 INFORMAL SECTOR

Informal sector builders are responsible for the great majority of housing construction in urban area of Nepal. They are usually employed by the owner on labour contract basis. As mentioned in previous chapters, over 80 per cent of the households surveyed lived in owner-built houses, traditionally built by the owner themselves, but increasingly some of the work is being outsourced to so called petty contractors who are solely dependent on informal workers

Filling the gap left by the skilled Nepalese workforce (masons, carpenters, plumbers) who left to work on construction sites in Arabic countries, South East and East Asia, many Indian workers have entered the workforce in Nepal. Anecdotal evidence suggests that in fact Indian workers outnumber Nepal workers at buildings sites[3].

8.3.2 FORMAL SECTOR

Being a predominantly rural country the Nepalese construction industry does not have a long history. To promote the industry the government established National Construction Company Nepal in 1960. Along with the Company several construction companies emerged. These companies however were limited to large buildings and infrastructures of the government. Most of the larger projects implemented in Nepal relied on grant or loans and were therefore mainly done through international contractors, as most of the Nepalese construction companies could not meet to the required standard. It was not until the 1990s after the promulgation of Apartment Act that Nepalese construction companies started to emerge as a business sector.

Recent surveys suggest that in urban areas around 18 per cent of total employment generation by the construction industry. According to the data of the Department of Industry the total number of formal construction workers has been fairly stable over the last five years and hovers around 1,700 to 19,000[4], this despite an enormous property boom in the country, possibly reflecting that this number only accounts for those employed in 'grade A. and 1,780 in 2008 which is a reflection of showing not only that the size is small but it is almost stagnant, this was despite the property boom.

Contractors can be categorised into four groups. Figure 19 shows the estimated number of contractors registered in 2007. Most of these companies rely on the government for jobs which typically include urban roads, water supply, drainage, etc. Apart from recent private sector housing projects very few are actually involved in housing construction. The vast majority of contractors (category B-D) typically do not employ a base of permanent staff but rather outsource assignments to petty contractors who are solely dependent on informal workers[5].

Because of the informal character of housing construction in urban Nepal, architectural and real estate consultancy was virtually non-existent in Nepal. Yet in recent years along with the recent property boom, consulting firms have been increasing in number. Demand for architectural, interior design and real estate consultants has increased substantially and this sector is now emerging as an important alternative for government jobs and avenue for entrepreneurship for young and aspirant engineers, designers and architects[6]. Also the formulation of the National Building Code in 1997 was an important initiative in streamlining practices in the industry. Whereas prior to the code the construction practice varied from one sector to another– for example the Ministry of Education followed one guideline and the Ministry of Agriculture had another set of

guidelines – since the building code has introduced a set of uniform guidelines, a milestone in the professionalising the building and construction sector.

8.3.3 FEDERATION OF CONTRACTORS' ASSOCIATIONS OF NEPAL (FCAN)

In 1990, after the promulgation of democracy in Nepal contracting firms organised into Contractors' Association of Nepal, re-establishing themselves in 1997 under the present name. The organisation lobbies the government in favour of their rights, represent the business in various governmental and non-governmental activities, and are dedicated to the welfare of their members. Since the organisation membership is only open to registered firms, non-registered firms are not involved in the organisation's activities. At present the Federation has 70 district chapters out of a total of 75 districts.

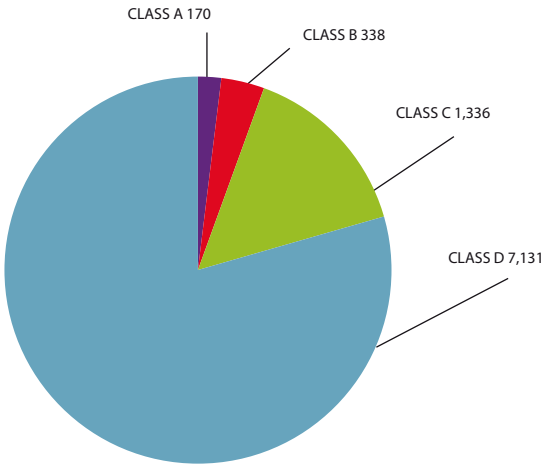
8.3.4 NEPAL LAND AND HOUSING DEVELOPERS' ASSOCIATION (NLHDA)

The 1990's saw the emerge of an industry previously non-existent in Nepal: real estate developers (locally often referred to as 'housing companies'). In 1994 the Nepal Land and Housing Developers' Association was formed, nowadays comprising of around 200 companies primarily limited to Kathmandu Valley and few other cities like Pokhara and Bharatpur. Since company-built housing in Nepal is rather new, there were several issues related to public concern as well as the interest of the developers. They were active in discussions on the revision of Apartment Ownership Act and promulgation of Real Estate Act that is under preparation. They also voiced their concerns over the 2009 attempt of the government to cool down the overheated property market and are currently petitioning the government to more strictly regulate urban construction, establish licences for real estate agencies and construct the outer ring road in Kathmandu Valley.

8.3.5 SOCIETY OF CONSULTING ENGINEERS AND ARCHITECT FIRMS (SCEAF)

The Society of Consulting Engineers and Architect Firms SCAEF is an association of engineering and architecture firms aiming to develop the consulting industry in Nepal. The society is a non-profit making organisation established mainly to protect the interest of its member firms and assist the government in the overall development of the country. Although there is relatively large number of consultancy firms in the country, only larger firms are organised in the Society which has a membership base of around 75 firms. The two main objectives is to professionalise the industry, stimulate the business and professional interest of Nepalese Consulting firms and create conducive atmosphere for healthy competition among consulting firms.

Figure 30. Contractors by classification



Source: Federation of Contractors Associations of Nepal

8.3.6 NEPAL ENGINEERING COUNCIL, NEC

NEC was established under the *Nepal Engineering Council Act 1998*. The objective of NEC is to make engineering profession more effective by mobilising its human and technical resources in a more systematic and scientific manner. It is mandatory for engineers to become member of the council to work in Nepal, particularly in public sector. Till 2008, 11,588 engineers of various fields were registered in the Council. In addition the Council acts as an accreditation office to engineering colleges. As of 2010, 29 colleges have permanent/ temporary approval to run various engineering programs.

8.3.7 EDUCATION

Nepal started education in engineering in 1981. At present the engineering colleges and universities are capable of producing adequate number of qualified engineers to meet the demand. For middle level and lower level engineers, the Institute of Engineering and Centre for Technical Education and Vocational Training are producing human resources. Moreover, there are several trade schools for the basic level human resources. The number of qualified engineers graduating is around 3,000 on an annual basis. Most of the university graduates suffice with a bachelor degree, of the 3,200 engineers graduated in 2008,

only 179 had a post graduate degree. Yet, observing the market, it is at the lower end of the spectrum, particularly skilled labour like masons, carpenters and plumbers, that there is a gap. As the country is observing more skilled labourers migrating to Arabian countries and East Asia like Korea, Japan and Malaysia the market started facing a shortage which is being filled by Indian migrant workers.

8.3.8 INSTITUTE OF ENGINEERING (IOE) AND OTHER ENGINEERING COLLEGES

Established in 1972, the Institute of Engineering IOE is Nepal's oldest and the widest engineering education consortium. The institute is one of five technical institutes under the country's principal university, Tribhuvan University (TU) and is also the governing body for engineering and architecture education. Whereas architecture degrees date back to the 1970s, it was not until 1996 that a curriculum in Urban Planning and Environmental Engineering was offered at the Pulchowk campus, with support from the Norwegian Government. At present the institute produces engineering human recourse in various faculties from undergraduate level to doctoral level.

There are several affiliated engineering colleges to IOE and other universities like Kathmandu University, Purwanchal University and Pokhara University are also producing engineering human resource but is a smaller number.

8.3.9 CENTRE FOR TECHNICAL EDUCATION AND VOCATIONAL TRAINING (CTEVT)

The Centre for Technical Education and Vocational Training was established to develop lower and middle level technical workforce in Nepal. In the engineering industry it provides training in wood working, mason training, etc. while at middle level various engineering human resources including civil engineering are offered by the centre and its affiliated training institutes. There are 17 training institutions out of which 7 institutes are related to construction works. In 2009, the centre produced around 6,000 lower level graduates and around 2,000 middle level graduates.

8.4 BUILDING MATERIALS

Most of the basic building materials are produced in Nepal. Construction materials like stone, aggregate, sand and bricks are available locally. There are traditional brick makers in Kathmandu and Terai and sand mining, stone quarrying, and aggregate (*gravel*) making are in fact major sources of local employment. The industrial products like cement, steel rod, pipes, CGI *(Corrugated Galvanised Iron)* sheets, electric cables and similar products are also produced in the country, although the raw materials for these products are mostly imported. There are few small industries producing building construction accessories and fixtures like nails, hinges and fittings, otherwise are imported mainly from India or China. It is estimated that 80% of cement, the most sought after building, is imported[7]. The building materials commonly used in Nepal can be classified into three categories:

1) Local (traditional) building materials;
2) Modern building materials manufactured in Nepal; and
3) Imported building materials.

8.4.1 LOCAL (TRADITIONAL) BUILDING MATERIALS

Brick: There are two types of bricks in use in Nepalese market. Normal hand-made bricks are

Photo8a: Poor quality bricks © UN-HABITAT

Photo8b: Traditional hill house in Pokhara © UN-HABITAT

called local bricks and the bricks made by Chinese brick machines and are called Chinese bricks. Local bricks are extensively used for all types of structure. Chinese bricks generally have a higher compressive strength compared to the local bricks. There were several Chinese type brick factories in Kathmandu Valley few years back, but because environmental regulation does not allow these factories in the urban areas, there this number has been reduced to one single factory, with a total output of 428 million[8]. Yet, the strength, size and shape of the bricks produced in Kathmandu Valley are relatively poor compared to bricks produced in Terai, so Kathmandu Valley relies on the Terai and valleys for bricks to facilitate the construction boom.

Stone: Natural stone is perhaps the oldest most abundant and most durable ready-made building material in Nepal. It is also probably the largest visible mineral resource in the country. Being widely available in the hills the major varieties found in the country are limestone, sandstone, dolomite, granite, quartzite and marble. Marble is processed into sheets and stone is mined from quarries or collected from the riverbeds. In Terai plain, stone is brought from Chure Range. In recent years the damage done by sand and boulder mining is an increasing environmental concern. Even the characteristic large boulders in Kathmandu's River Trishuli have disappeared.

Timber: Timber is one of the oldest and most extensively used building materials in Nepal. It is used in house construction for doors, windows, staircases, flooring, roofing and wall panels, as well as for structural members such as columns, beams and trusses. In traditional hill houses they used predominantly soft local timber which is one of the reasons why hill houses had a short life span. After the construction of a wider road network, hard woods are transported from the Terai forest. Like sand mining haphazard timber logging fuelled by the recent real estate boom is a cause for concern.

SKILLED WORKFORCE BOTH AT BOTH ENDS OF THE SPECTRUM (SKILLED LABOURERS AS WELL AS EDUCATED PLANNERS AND ARCHITECTS) HAVE LEFT NEPAL EN-MASSE TO LOOK FOR BRIGHTER FUTURES IN THE ARAB STATES SOUTH EAST ASIA, THE VACUUM FILLED BY INDIAN MIGRANT WORKERS.

8.4.2 BUILDING MATERIALS MANUFACTURED IN NEPAL

- **Ordinary Portland cement:** There are presently 54 cement factories registered in Nepal of which two are public enterprises and rest is privately run. Out of 54 industries only 8 industries have received permission to

Table 27. Price of construction materials

Materials	NPR	USD
Best Quality Grade A Brick (per 1,000 bricks)	12,000	163
Best Quality Grade B Brick	9,000	123
Cheaper 'A' bricks	10,500	143
Cheaper 'B' bricks	8,000	109
Cement (per bag)	750	10
Steel Rod (per kg).	65	1
Sand (per cubic feet).	45	1
Gravel (per cubic feet)	48	1
Timber (Sal Wood) per cubic feet	2,200	30

Source: 2010 CIUD Household survey

use the *National Standard* mark. According to market estimates[9] the annual demand for cement in Nepal is about 2.5 million tons, the domestic cement companies meet only 20 per cent of this demand and remaining 80 per cent comes from India in the form of cement clinker and cement bags. The government established three major centres for cement industries in Hetauda, Kathmandu and Udaypur. Yet the state run cement factories had difficulties competing with Indian or Nepali private companies and in fact the Himal Cement Industry of Kathmandu had to close down because of environmental reasons[10] .According to market estimates the annual demand for cement in Nepal is about 2.5 million tons, the domestic cement companies meet only 15 per cent of this demand and remaining 85 per cent arrives as cement clinker from India. The government established three major centres for cement industries in Hetauda, Himal and Udaypur. Yet the state run cement factories had difficulties competing with Indian or Nepali private companies and in fact the Himal Cement Industry had to close down because of environmental reasons· With its hills and mountains the proven reserve of limestone -which is the raw material for cement- of limestone in Nepal is 210 million tons[11], whereas the estimated reserve is a high as 1 billion. However, due to several reasons including the environmental legislation and power cuts, neither the government nor private companies are producing to their full capacity. Should these industries run with full capacity, in theory about half of the national demand could be met with local resources.

- **Reinforced steel rods and structural steel sections:** There are presently 35 plants that manufacture reinforced steel rod and structural steel sections in Nepal. All are privately owned and most of them are located in Terai. The largest factory is the Himal Iron and Steel (P) Ltd. in Parwanipur with the production capacity of 75,000 metric tons annually. The smallest plant has a production capacity of only 2,400 metric tons annually[12]. Out of these 35 plants only 12 plants have received permission to use *National Standard* mark. Most of these industries are more than 15 years old as per registration list from. Demand of reinforced steel rod is met by these industries.
- **Corrugated galvanized iron sheets (CGI):** There are presently 5 CGI sheets manufacturing plants in operation in Nepal. All plants are privately owned and are mostly located in Terai. Plant capacity range from 300 to 15,000 metric tons per year. Due to light weight and easy for transportation CGI sheets are mostly used as roofing material in most of houses in Hill and high mountain.

8.4.3 IMPORTED BUILDING MATERIALS

Most of the imported building materials are finishing material and sanitary, electrical, heating and ventilating fixtures. Other essential imported building materials are glass, aluminium sections, plaster of paris, sanitary fixtures, electrical fixtures, marble, granite, etc. Most of these materials are imported from India and China.

Photo8c: Modern urban houses in Bhimeswor © UN-HABITAT

Photo8d: Reinforcing steel rods for Pakki housing © UN-HABITAT

8.4.4 BUILDING MATERIAL COSTS

Cost of building materials varies from one place to other in Nepal. Table 28 presents an estimation of the cost of various types of building materials at the time of the household survey, but while these give an accurate picture of the cost, it must be noted that these prices have seen massive fluctuation in the market over the last few years. Particularly cement and brick is in short supply and therefore prices are under pressure.

8.5 BRIEF CONCLUSION

The construction industry is still largely dominated the informal sector, which makes quality control one of the most pressing issues. In theory the instruments and legislation (building code and Nepal National Standard) are adequate but enforcement of regulations is an issue.

Migration of workers to international job market has a considerable impact to housing sector as well. Skilled workforce both at both ends of the spectrum (skilled labourers as well as educated planners and architects) have left Nepal en-masse to look for brighter futures in the Arab States South East Asia, the vacuum filled by Indian migrant workers.

Sustainable use of building materials and use of sustainable building materials are two emerging issues in Nepal's construction sector. The use traditional techniques have eroded over time, and have been replaced by new techniques more adapt to the requirements of 'modern living'; but for which –aside from basic materials such as brick, sand and stone- the majority of supplies is directly or indirectly dependant on import. Indeed most of finishing materials used in Nepal are imported from neighbouring countries. Fuelled by the recent real estate boom demand for construction materials fast outpace supply, resulting in steep price increases, especially for imported materials. Although there are several cost effective and environmentally friendly construction materials and techniques available in Nepal, these tend to be unpopular and are sparsely promoted.

TRADITIONAL TECHNIQUES HAVE ERODED OVER TIME, AND HAVE BEEN REPLACED BY NEW TECHNIQUES MORE ADAPT TO THE REQUIREMENTS OF 'MODERN LIVING'; BUT FOR WHICH –ASIDE FROM BASIC MATERIALS SUCH AS BRICK, SAND AND STONE- THE MAJORITY OF SUPPLIES IS DIRECTLY OR INDIRECTLY DEPENDANT ON IMPORT.

Table 28. Loan Conditions of the Nepal Housing Development Finance Company Ltd

Loan Amount	USD	Conditions
Up to NPR 2.5 million	USD 34,037	Collateral in the form of land or a house
NPR 2.5 - 4.5 million	USD 34,037 - 61,266	As above plus additional approval from Board Sub- Committee
NPR 4.5 million and up	US 61,266 and up	As above plus additional approval from full Board

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09

HOUSING FINANCE

9.1 INSTITUTIONAL, LEGAL AND REGULATORY FRAMEWORKS

The Central Bank of Nepal was established under *Central Bank Act (1955)*. The commercial banks are established under *Commercial Bank Act 2031(1974)* and *Bank and Financial Institution Act 2021(1964 old) and 2063 (2006 new)*. Co-operative societies are established under the *Co-operative Act 2048 (1991)* and regulated, monitored and supervised by the Department of Co-operative, Government of Nepal. The Central Bank regulates, directs and monitors the entire banking and financial sector for smooth operations and to ensure financial and monetary stability and discipline in the country.

9.2 FORMAL SOURCES

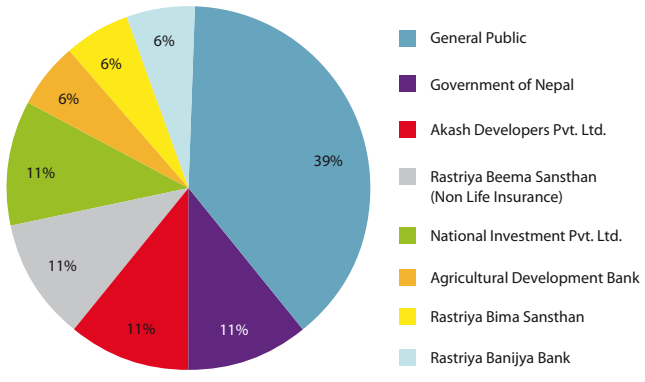
9.2.1 COMMERCIAL BANKS

The commercial banking sector in Nepal is relatively small in comparison to the size of the country's 23 million population. There are 26 in total but many of them are owned by wealthy families with other business interests. Yet, especially in recent years commercial banks and financial institutions have become an important source of housing finance both for purchasers and developers. Typical lending terms period ranges from 5 to 15 years and charge interest rate ranging from 10 to 15 per cent per annum. Typically the land and or the property serve as collateral.

In absence of investment alternatives the housing finance has been a major business for banks and financial institutions in the last decade. According to July 2009 Central Bank data commercial banks had invested NPR 76.4 billion (US$ 1 billion) in real estate loan and housing loans accounting for 19 per cent of the total loan portfolio, with some banks like Kist Bank Ltd. Development Credit Bank Ltd. having almost half (42 and 40 per cent respectively) of their outstanding loans in housing and real estate. In an attempt to cool down the overheating property market and improve risk management in Nepals' fragile financial sector the Central Bank directed all 26 commercial banks in Nepal to bring their the share of individual mortgage loans down to 10 per cent within three years. Moreover, the monetory policy of NRB (July 2010) has slightly raised the share of housing loan to 15 per cent and real state loan to 10 per cent.

The phenomenal growth of banks, finance companies, co-operatives, micro finance etc. over the last two decades has largely missed the rural catchment area. In 2006 the number of Nepalese households with bank account was only 26 per cent at the national level[1].

Figure 31. Shareholder composition of Nepal Housing Development Finance Company



Source: NHDFC, 17th Annual Meeting Report 2009, Kathmandu

None of the banks provide any subsidised loans for particular income groups. The exception being low interest housing loans for employees almost all commercial banks and financial institutions including the Central Bank as an incentive to buy or construct a house. In order to reduce the risk for the provider and the loan more affordable for the borrower (employees), there is a need of compulsory insurance of such loan, whereby in the case of default and/or death of borrowers of loan, the insurance company will pay back the loan amount. Such insurance of loan covers both the principal amount as well as calculated interest.

9.2.2 NEPAL HOUSING DEVELOPMENT FINANCE COMPANY LTD. (NHDFC)

The Nepal Housing Development Finance Company was established in 1990. For the first time the Seventh Five Year Plan (1985-1990) realised the need of introducing housing finance in Nepal in the following words: *"A housing financing institution will be established for the development of residential areas and residential housing"* (The Seventh Plan 1985: 837). Further it stated: *"Priority will be given to solving the residential problems of low and middle income families by encouraging private sector investment…."* (Ibid). Following the objectives of the plan, Nepal Housing Development Finance Company was established under *Finance Company Act (1985)* in 1990 with the main objectives of improving the existing housing delivery system and launching new housing schemes through housing loan facilities and other related service in order to meet the growing demand for housing in Nepal[2].

Originally the Government of Nepal was the largest shareholder, but they currently hold only 11.02 per cent of the shares. Aside from the general public other shareholders include life insurance companies and other commercial banks. The Board of Directors is composed of 8 members with one representative from each shareholder with exception to General Public which has three representatives.

The Nepal Housing Development Finance Company at present provides individual housing loan for a maximum period of 15 years against collateral both for the construction or purchase of a new house and/or improvements of existing properties. Loan to value ratio commonly stands at two-third of the assessed value of the property. The interest rate charged by the Company is comparable to commercial banks at 13 per cent per annum.

The operation of the Nepal Housing Development Finance Company is modest both in terms of volume and number of lenders. The average size of loan is NPR 150,000 (USD 2,042) the maximum loan amounting to NPR 6.0 million (USD 81,688) and the total number of borrowers is around 800 amounting to a total of NPR 429 million (USD 5.8 million).

After a period of almost two decades, the Nepal Housing Development Finance Company did not manage to achieve a sufficient critical mass to supply affordable housing loans and also has a limited geographical coverage, it still operates in Kathmandu Valley only. Although the Government of Nepal initially envisaged developing the Nepal Housing Development Finance Company as a specialised housing finance institution, it failed to provide the required support in terms of finance and policy support measures to strengthen and back up the initial idea. Essentially the company has to work under the same financial and company regulations as all other banking and financial institution in Nepal, and in fact directly competes with these institutions when it comes to mobilising savings as well as providing

Table 29. Loan and investment of Employee Provident Fund

	NPR in Billion	in Million USD	% of Total
Loan to subscriber	35.0	47.5	48%
Fixed deposit	25.5	34.7	35%
Government banks	6.6	89.3	9%
Project finance	4.4	59.5	6%
Share of commercial / financial institutions	0.7	0.9	1%
Building and Housing Sector	0.7	0.9	1%
	72.8	**232.8**	**100%**

Source: Employee Provident Fund

THE HOUSEHOLD SURVEY SHOWS THAT AS MUCH AS 85 PER CENT OF THE HOUSEHOLDS HAVE SHOWN THEIR PREFERENCE TO BORROW FROM BANK AND FINANCIAL INSTITUTIONS RATHER THAN FROM FRIENDS AND RELATIVES AND TRADITIONAL MONEY LENDERS. NOT SURPRISING SINCE TRADITIONAL MONEY LENDERS USUALLY CHARGE EXORBITANT INTEREST RATES RATE OF INTEREST

loans. With no additional funds coming its way to subsidise interest rates rate naturally it has difficulties surviving in the banking industry, let alone that it can provide housing loans to low income and poor people at low rate of interest.

9.2.3 EMPLOYEE'S PROVIDENT FUND (EPF)

Employee's Provident Fund was established under *EPF Act* (1962) initially to manage NPR 3.7 million (USD 50,374) fund of 26,000 government employees and military staff which now has evolved into a fund with 440,000 clients and a net worth of NPR 79.15 billion (USD 107 million).

The Provident Fund provides housing loan to permanent employees of government (civil, police, military), semi-government (corporations), academics institutions and organised private sector. Housing loan conditions from the Employees' Provident Fund are more attractive than in the commercial market or Nepal Housing Development Finance Company. Howver, this housing finance is available only to subscribers of the fund. Borrowers pay the deposit rate plus one per cent which in the current market conditions comes down to ten per cent. The fund has so far provided total loan of over NPR 700 million (USD 0.9 million) in building and housing sector which, although it amounts to just one per cent of the total loan and investment of the fund, is double the value of the housing loan portfolio of the Nepal Housing Development Finance Company.

Although the share of the housing and construction loans to total loan and investment is still small in the current urban context, given the resource base of the Provident Fund there is significant upside potential. For the coming five years they target an additional 6,000 housing loans[3]. Moreover the Provident Fund seeks to expand its role in housing provision, something they experimented with when they assisted in the construction of 102 low cost units (semi finished structures) in Birauta, Pokhara which were sold to its clients. They recently started planning to build 1,500 housing units in Chitwan, Kathmandu Valley and emerging towns outside the valley within next five years in order to provide housing facilities to their clients.

9.2.4 SAVING AND LOANS (COOPERATIVE) PROGRAMME

Nepal has a long history of co-operative movement and there are an estimated 15,000 number of registered co-operative societies in Nepal[4]. Most of these co-operative societies have been established for

Photo9a: Mushrooming Finanicng institutions along New Road in Kathmandu © UN-HABITAT

Photo9b: Savings & Loans Associations targeting home based workers © UN-HABITAT

Photo9c: Housing finance products suitable for incremental building process © UN-HABITAT

agricultural development and agri-marketing in rural areas, but increasingly they follow the population drift toward the urban centres. Saving and loan programmes have been implemented by various Non Government Organisations and albeit a small percentage, housing loans are part of their service package. Because the loans typically do not require collateral, therefore these loans have proven to be useful particularly for poor households to maintain, extend and improve their houses both in rural and urban areas in Nepal[5].

Some of the Non Governmental Organization like Lumanti has initiated savings and co-operative programme to provide access to credit to 6,710 households in the squatter and slum communities of nine municipalities of Nepal through 12 registered co-operatives and have managed to mobilise around NPR 40 million (USD 544,588)[6]. Moreover, Lumanti together with Kathmandu Metropolitan City (KMC), Nepal Mahila Ekta Samaj, Nepal Basobas Basti Samrakshan Samaj and other stakeholders have created the Urban Community Support Fund in Kathmandu Valley to provide access to finance for purchasing and upgrading of homes. The Kirtipur Housing Project (see box) was the first of such programme to receive funds from UCSF[7].

Another example can be found in the eastern Dolkha (one of the districts in Central Development Region of Nepal) where NGO's in the village of Kabre, Mirge and Namdu have initiated co-operatives schemes which collect not only small savings but also provide loans even for housing. These co-operatives have a total membership of 6,000 and more than 90 per cent of households in these three remote villages have joined the co-operatives. The performance of these co-operatives have not only impressed the officials

THE SPECIALIZED HOUSING FINANCE INSTITUTION THAT WAS FOUNDED TWO DECADES AGO FOR THIS PURPOSES OFFERED VERY LITTLE AND ARE DIFFERENT FROM CONVENTIONAL BANKS AND THEREFORE WAS NOT ABLE TO MAKE A LITTLE TO IMPROVE ACCESS FOR LOWER INCOME GROUPS

involved in the co-operative societies in Nepal but also the high officials from co-operative societies from Thailand and Bangladesh as these villages are frequently visited by these top officials[8].

Finally, Biratnagar Municipality has developed a vision to involve local communities in urban development programmes. The municipality has shown interest to establish urban community support fund - a city level fund- through which loan could be provided to the poorer section of the society aiming to improve their lives. The municipality is working in Partnership with Rural Urban Partnership Programme (RUPP) to reduce poverty. Through this project *Tole and Lane Organisations* (equivalent to community committees) are formed in each community which play an important role in community development and housing related initiatives.

9.2.5 MICRO FINANCE INSTITUTIONS (MFIS)

Micro Finance Institutions (MFIs) in Nepal are emerging as one of the most important sources of small credit to low income people to start their small business enterprises and improve agriculture including poultry farming and livestock. As the process for borrowing loan is simple, quicker and easy and interest rate charges on borrowed amount is reasonable therefore MFIs are gaining popularity in recent years. However, MFIs is Nepal up till now have not issued any loans for housing except when processing funds provided to them by international institutions or agencies. Building on this expertise there is possibility of mobilising MFIs of Nepal into housing sector, especially for smaller interventions such as repair or maintenance.

9.2.6 UN-HABITAT'S EXPERIMENTAL REIMBURSABLE SEEDING OPERATIONS (ERSO)

Habitat for Humanity International, Nepal is the partner agency which handles UN-HABITAT's designated trust fund under ERSO (Experimental Reimbursable Seeding Operators) model for slum upgrading and infrastructure projects related to housing for low income families in 8 urban slums in Nepal through 15 local NGOs partners and microfinance institutions. The projects in 8 slum areas are expected to last 3 years and benefit over 1,760 families comprising 6,700 individuals.

The total project amount is USD 650,000 (USD 550,000 from UN-HABITAT (of which USD USD 500,000 is a loan) and USD 100,000 from Habitat for Humanity International (HHI)). The seed money is being channelled by UN-HABITAT provides USD 500,000 loan at 1 per cent interest rate to HHI, and HHI makes available the loan to local NGO's at 3 per cent interest rate. Similarly, the end users, the target families get such loan at 7 per cent interest rate from NGO's which is cheaper compared to prevailing interest rate charge by banks and financial institutions on home loan.

Preference will be given to poor and marginalized families. The target family will be provided approximately USD 350 for the construction of new house, repair or improvement of the existing ones. The cost sharing modality is 60/40 based on the model of 'save and build' (cash or kind including labour) where 60 per cent of the cost is provided by local partner NGO as loan. The loan amount is provided for a period of 3 years to target families in the project areas. Among the 8 project areas Jhapa, Biratnagar, Dharan and Ilam falls on Eastern Development Region; Kathmandu, Chitwan and Panauti falls on Central Development Region and Pokhara falls on Western Development Region.

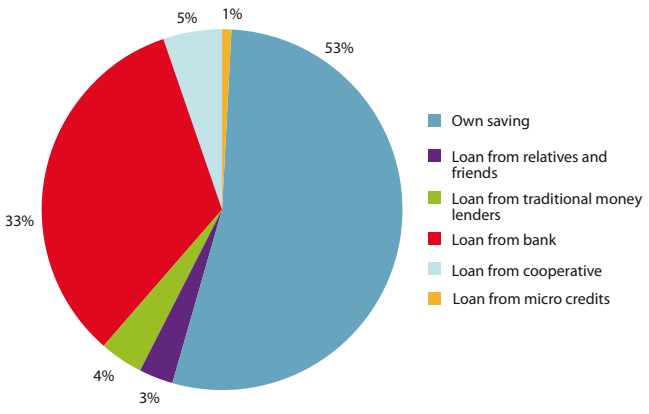
9.3 INFORMAL SOURCES

9.3.1 INFORMAL LENDERS

Traditionally people used to borrow money from friends or relatives or go to traditional money lenders for loans for different purposes including housing loans. The money lenders provide loan against collateral usually land or house. However, in recent years there has been a remarkable decline in these practices. Due to institutional availability of agricultural credit and fast and wide spreading of a network of banking and financial sector including micro finance and co-operatives in the country, the number of alternative sources of finance grew rapidly. In 1991 it was estimated that roughly 70 per cent of shelter financing in came from the informal sector[9]. The 2010 CIUD household survey shows that this percentage is as low as 4 per cent. The majority (53 per cent) relies on own savings, while as much as 33 per cent has accessed a loan from a commercial bank.

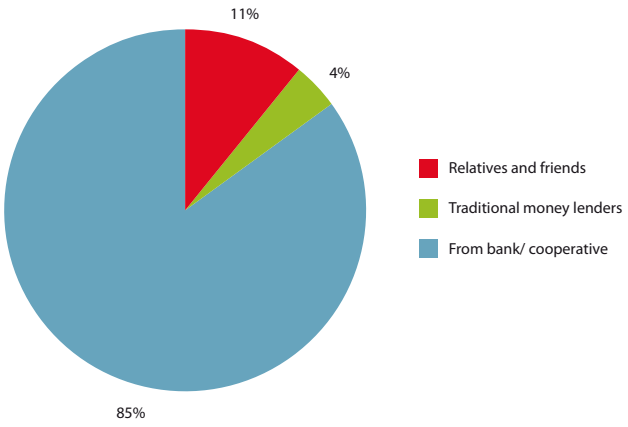
Indeed, due to availability of attractive home loan schemes at competitive interest rates from different financial institutions an increasing number of regular income earners prefer to borrow from these financial institutions to buy a home or an apartment rather

Figure 32. Source of financing for purchase of land or housing construction



Source: 2010 CIUD Household Survey

Figure 33. Borrowing preference for purchase of land or housing construction



Source: 2010 CIUD Household Survey

than borrowing from relatives and friends and traditional money lenders or waiting for many years to accumulate savings and to self-build a home or buy an apartment. The household survey shows that as much as 85 per cent of the households have shown their preference to loan from bank and financial institutions rather than from friends and relatives and traditional money lenders. Not surprising since traditional money lenders usually charge exorbitant interest rates rate of interest up to 36 per cent as against 10~15 per cent by commercial banks and finance companies.

9.4 BRIEF CONCLUSION

Easy and cheap housing finance is one of the most important critical elements inhibiting the poor from access to adequate housing. The existing housing finance system has not been able to address and solve the housing finance problem of poor and low income families with high interest rates and unfavourable lending conditions for lower income groups, for whom at times collateral in the form of land and house makes access to finance unattainable. The specialized housing finance institution that was founded two decades ago for this purposes offered very little and are not very different from conventional banks and therefore was not able to make a little to improve access for lower income groups.

The recent real estate boom in Nepal has in fact made matters worse for lower income groups as the cost of both land and construction materials were driven up by the large demand. In a bid to curb the speculative tide Nepal Rashtra Bank (NRB) has directed all commercial banks to bring down the share of housing and real estate loan to 15 per cent and 10 per cent respectively as per the monitory policy of NRB (July 2010) of their total loan from the 2009 levels of over 25 per cent on average. This regulation of the bank already slowed down activity on the real estate market, yet the underlying market forces have not changed and will therefore to continue to exert an upward pressure on prices.

As in many developing countries mentioned above resource is a constraint or problem on the part of the government and there are immense potential resources at the hands of the informal sector or household sector. There are 15 thousands cooperative societies existing in Nepal at present and some of them have already started providing housing loan to its members and the members are usually the poor and low income families. As these societies are spread throughout the country and cater the needs of the poor and low income families therefore cooperative societies could be the appropriate channels to provide housing loan to these families. Therefore, efforts needs to be made by the concerned agency of the Government of Nepal to further encourage these societies both in rural and urban areas to provide more access of housing finance to poor and low income families through technical and financial supports.

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10

CROSCUTTING ISSUES AND GENERAL CONCLUSIONS

10.1 CROSS CUTTING ISSUES

10.1.1 GENDER

In the patriarchal society of Nepal women still are kept behind in many socio-economic fronts. Nepali customary law only sons and unmarried daughters can inherit property. The married ones have to share with their husband what they get from their father in laws. Therefore, the hereditary properties, particularly land and house titles are mostly with men. Nepal overall figures indicate that men owned 90 per cent and women owned 10 per cent of the private land in Nepal.[1]A 2008 report commissioned by the National Women's Commission - which was one of the fore-fighters of equal rights to ancestral property for women and married daughters - assessed the situation in 68 of 75 districts in Nepal, revealed that less than one per cent (only about three women in 500) had houses in their names and only 6 per cent of women had land-ownership certificates in their name[2]. In urban areas of Nepal, however, women's assets holdings have increased dramatically over the last four decades[3]. According to the CIUD 2010 household survey 30 per cent of the registered houses are owned by women, when it comes to ownership of additional lands this amounts to 24 per cent.

There are a number of factors in the urbanizing context that promote female ownership of land. The main one being the changing social fabric in cities with a large percentage of immigrants: the large number of men migrating abroad in the search of work and fortune and the recent insurgency in the country has added to the percentage of singe and women headed households. Another reason is the to avoid the costly customary sharing arrangements in the case of family break up which require a man to share his earnings with all other family members. Finally a recent government policy to provide a 25 per cent tax rebate to properties registered to women has exerted an upward pressure on women ownership in land and property.

According to Population Census 2001, about 17 per cent of the urban households are headed by

Photo10a: Also modern buildings do not always follow the building norms, a renowned hotel in Tansen Municipality
© UN-HABITAT

Photo10b: 235 houses were constructed by UN-HABITAT to rehabilitate landless Koshi flood victims of 2008
© UN-HABITAT

Photo10c: Bamboo mats as construction materials in Habitat for Humanity Houses © UN-HABITAT

female. The household survey of this study revealed a similar figure of 19 per cent of households headed by a female. According to the definition used in censuses, homeowner refers to the legal status of ownership of house or part of house or apartment/ flats that usually is used by household. Generally, the eldest male member of household is regarded as head. Being male dominated society, most of household has usually reported the male member of household regardless of age as the head though questionnaire instruction manual of census has explained the term with practical examples.

10.1.2 ETHNICITY & SOCIAL INCLUSION

Nepal has more than 150 ethnic groups. These ethnic groups were living in traditional houses not only in the remote settlements but also in urban areas. As the country is rewriting its constitution, one of the current political discussions revolves around the issue of ethnicity. Towns (or part of the towns) that were once dominated by one ethnic group have because of rapid urbanisation now become gathering places of people from different regions, cultural backgrounds and religion. For example Newars and Thakalis, are praised for their craftsman and tradesman ship. Nepal's most famous cities - including Kathmandu - were built based on Newari principles and funding. Yet Kathmandu, traditionally predominantly Newar, has seen its Newar population being reduced to only one third of the total population in 2006[4] and the figure is further diminishing. As a result, ethnic harmony and conservation of traditional norms and values are slowly disappearing. Other examples include Pokhara, Tansen, Ilam and Kabhre Valley.

10.1.3 ENVIRONMENTAL SUSTAINABILITY

The tarnished face of cities, particularly in the outer fringes preparing for new housing is aggravating the environment of urban areas. Flatting the hill slopes with bulldozers, cutting the hill slopes and haphazard digging and filling to produce, developed land for housing is affecting the environment. Mining of sand that use to be the storage of ground water, narrowing and encroaching the flood plains to grab more parcel of land, and filling the plains with road infrastructures blocking the natural flow of water, do not give good impression to people about housing projects. Although the environmental regulations demand IEE and EIA for larger projects, the massive construction of land agent brokered plotting and owner build houses, are ultimately becoming a challenge for sustainable development. Therefore, a balance of housing need and ecological carrying capacity need to be addressed by housing policies.

10.1.4 DISASTER RESILIENT HOUSING

Nepal is a disaster-prone country, suffering landslides, avalanches, floods, and earthquakes, there is, according to the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), *'no effective disaster response organisation'* within the Government of Nepal (GON). This is particularly true for the housing sector, where earthquake resistant building is simply not a priority. For a considerable part of the owner-built urban housing stock, the foundations are weak, walls structurally unsound and there are no provisions for fire escape, flooding etc. Despite the fact that the *National Building Code* actually does incorporate these issues, in the absence of monitoring and supervision desired benefit is not obtained. This is an issue of importance in earthquake prone Nepal. Indeed traditionally settlements considered specific norms in designing their settlements to cope with natural disasters like earthquake and landslide risk. However, when western construction technologies were imported, these factors were not given due importance. The *building code* does stipulate minimum amount of open spaces, minimum width of roads, it provides for fire escapes or fire extinguishers, but today's Nepali townscape is dominated by continuous building with few open spaces and narrow and encroached roads with limited accesses for emergency vehicle movement.

Moreover, the country is facing flood and landslide incidences every monsoon and also forest fire victims in every summer. With the climate change phenomena the incidence of disaster is expected

to be increasing every year. In 2009 the flood of Koshi river devastated the whole region which was followed by the flood in the west of the country. UN-HABITAT in partnership with UNDP and District Disaster Reduction Committee of Sunsari District, Government of Nepal jointly initiated rehabilitation of 235 landless families affected by Koshi flood.

There are three major players in promoting disaster resilient buildings: the Department of Urban Development and Building Construction, the municipalities and NGOs. The Department of Urban Development and Building Construction is giving training to masons, engineers and overseers on an annual basis in every year in every district of Nepal and also published various promotional materials like posters, pamphlets, booklets with information about the *National Building Code* and earthquake vulnerability reduction. In partnership with the Nepal Society of Earthquake Technology, an NGO, the department is organising various symposiums and workshops to stimulate compliance with the *National Building Code* and better preparing the communities for disaster incidences. The Earthquake Risk Reduction and Recovery Preparedness Programme is being launched currently in five municipalities representing one region each. Key activities of Programme are as follows:

- Conduct earthquake risk, vulnerability and capacity assessment in programme municipalities.
- Capacitate government institutions and communities to implement earthquake preparedness planning and safe construction practices.
- Capacities of the government strengthened in disaster recovery preparedness to support recovery operations in post-disaster situations
- Capacities of the government to implement national disaster management framework by supporting locally appropriate solutions for earthquake risk reduction.

10.1.5 GREEN BUILDING AND CONSTRUCTION TECHNOLOGIES

Sustainable use of building materials and use of sustainable building materials are two slowly emerging issues in contemporary urban Nepal. Interestingly the traditional craftsmanship of Kathmandu Valley, is perhaps one of the best examples of energy saving, space efficient and harmonious building technologies in history. Yet, these have not only eroded with the import of western technologies, but are also not feasible to replicate as the way of living has changed. In recent years a number of economic and effective technologies have been introduced in Nepal:

Rat trap bond: The rat trap bond is a brick masonry walling technique in which bricks are laid on edge such that the shiner and rowlock are visible on the face of the masonry as a brick cross, creating an internal cavity bridged by the rowlock. This cavity acts as an insulating layer to balance the heat transfer from outside to inside or vise-versa. It is as good as English bond brickwork and due to its light weight, is resistant to earthquakes also. Besides being economical (25-30 per cent of bricks and 40-50 per cent of cement is saved), there is energy saving of more than 50 per cent as compared to the English bond thereby contributing to the reduction of green house gas in the environment.

Compact soil block: The compact soil blocks are manufactured by soil (usually stabilised soil) into required size blocks using a block making machine. Compact blocks have higher compression strength than ordinary mud and adobe walls. Their use does not require any additional skills over those required for ordinary masonry. Compressed blocks can be produced with vertical holes for the provision of reinforcement for earthquake resistant construction. The block making machine can be locally manufactured and is transportable, thus saving in transportation of the finished product to the site.

Bamboo eco-housing: In 2005 a local NGO called RES-Nepal with the support of Global Environmental Fund of UN and International Network of Bamboo and Rattan (INBAR) introduced a bamboo eco-housing in the Terai. The houses are examples of earthquake proof, low cost housing solutions with a durability of over 30 years[5]. The houses are made of nine panels of prefabricated bamboo in a wooden frame. The prefabricated panels are then assembled in the light concrete foundation made with stone and concrete. After the assembly of the panels in the foundations, all the walls are plastered with cement mortar.

So far 18 prefabricated houses have been constructed, with a size of about 30 square meters, one unit costing around NPR 75.000 (USD 1,000). Although promoted for rural poor - in this case specifically targeted at the 'Kamaiya' recently liberated bonded labour - this technology can equally suitable for low income urban communities.

10.2 GENERAL CONCLUSIONS

Fast paced urbanization combined with the absence of planned urban development is causing an increasingly worrying situation in Nepal's cities.

Nepal is one of the lowest-income countries in the world, it is also a country with the lowest level of urbanization and the highest rate of urbanization in South Asia. Population growth, sparse and unplanned settlement, migration, rapid urbanization and environmental degradation are issues that cripple Nepal's housing sector. Compared to other countries in the region, interference in the housing sector in Nepal has been minimal, no form of public of social housing provision, no serious options to increase access to housing finance for lower income groups, and -with land-pooling being the main instrument for planned urban development- also largely failing in terms of land management, arbitrary land use and transactions has increased, hindering economic development and poverty reduction priorities.

The growing rural-urban migration combined with the absence of planned urban development is causing an increasingly worrying situation in Nepal's cities. The situation has been aggravated by the ten years of insurgency and the political uncertainties of last few years, resulting in an ever increasing stream of migrants in search of employment and security. The pressure on existing urban infrastructure is enormous and cities are unable to cope with the demand for housing and basic services such as water supply, power, garbage collection and transportation.

Land prices in cities have soared to unprecedented highs, making land increasingly unaffordable for the urban poor

In times of political and economic uncertainty people tend to invest in land and housing, this is further fuelled by local banks that have few investment alternatives. Research indicates that also the remittances from overseas Nepali workers are largely invested in land and property rather than in industries or business. The combination of soaring land prices and the increasing stream of rural-urban migration is making it difficult for the poor to afford housing, especially in Kathmandu and other fast growing cities.

More than 75% of the population does not have sufficient income to afford the minimum standard house in the city outskirts

The current predicament is such that land and rent prices have risen to such a point that many are unable to pay the rent or price demanded in order for them to claim their right to shelter in urban areas. More than 75% of the urban population does not have sufficient income to afford the minimum standard 50 sqm self constructed house on 80 sqm plot in the outskirts of a city and 95 percent cannot afford to purchase a readily built property.

The housing need is estimated to be 40,000 per year up to the year 2020, which would mean doubling the current annual housing production

Nepalese cities also face a production backlog: the conservative estimate for the housing need is over 300,000 units by 2020 translation into an additional requirement of 30.000 units per year in the 2010-2020 period. Yet a more exploratory scenario that takes into account the decreasing urban household size indicates that the housing deficit could exceed 400,000 translating into an addition production requirement of at least 40,000 dwelling units per year in the same period, which would mean doubling the current annual housing production.

As a result unauthorised occupancy of land is a growing phenomenon in Kathmandu, it is estimated that in Nepal nearly 7% of the urban population lives in squatter settlements	Although the population of squatters in Nepal is far less compared to that of neighbouring countries - Nepali has no word for *'slum'*- the situation is quickly worsening and turning into a serious social predicament. Squatter settlements in Kathmandu alone have grown in number from 17 in 1985 to 40 in 2010, the majority of which is located along riverbanks located on marginal public land along the river banks. Estimates of squatter population vary but a more consistent figure has emerged in recent years. Poverty mapping suggest that in 2010 Kathmandu had more than 12,000 squatters in more than 40 settlements and an additional 40 per cent of squatters were estimated to be occupying public buildings bringing the total squatter population to nearly 20,000. For Nepal as a whole it has been estimated that nearly 7 per cent of the total urban population lives in squatter settlements
Another worrying situation is the quickly increasing proportion of people renting without any form of support or control, often in overcrowded conditions	Responding to demand for cheap living quarters in recent years a rental market has emerged in Nepali cities. Data show a sharp increase in rental housing in Nepal's urban areas: whereas in 1991 only 23 per cent reported to rent their dwelling, by 2001 this figure had increased to 35 per cent, while in Kathmandu recent studies suggest that there are currently more households (59 per cent) renting than in the owner occupied category. This signals to the incidence of overcrowding, typically tenants –commonly referred to as renters- do not typically occupy a complete house, they rather rent a number of rooms or a floor with a family. The household survey indeed suggests an increasing incidence of overcrowding. In Kathmandu Valley over 30 per cent of the respondents indicated to have more than one renting household living on the family premises, while anecdotal evidence suggests that the number of households living in one house can be as many as 30.
The trend of adding more floors to meet housing demand is irreversible and is creating a dangerous situation in earthquake prone Nepal, it also puts an immense burden on the existing urban infrastructure	Another indication of the increasing pressure on the urban land and housing market is the densification of urban areas, both in established cities and emerging border towns there is a worrying trend of adding more floors to meet housing demand. Whereas some years ago the cityscape was still dominated by 2-3 floor buildings, 4-5 floors has become more commonplace. Not only is this a dangerous situation in earthquake prone Nepal, it also puts an immense burden on the existing urban infrastructure. The instruments the government as to control urban growth are largely inadequate, the only regulatory tool used in Nepal to control construction is the building permit which is made mandatory to all buildings in the municipalities and some urbanizing small towns. Yet, the household survey confirmed ample anecdotal evidence of cases where building permit norms are not followed.

Which is already overburdened: water supply is poor, sanitation is alarming in some urban areas, road-conditions are appalling and facilities for waste collection and treatment are glaringly lacking

With the population growth present sources of urban infrastructure are inadequate to meet the demand. Typically infrastructure is constructed after the houses have been built, resources are wasted and duplicated, resulting in inefficient use of funds. Service provision is poor, water supply coverage seems encouraging, but the reliability and quality are in the question. This is a great challenge to municipalities where existing sources are depleting but the soaring population is demanding additional water. There are examples of projects that have made a difference like the '*low-income consumer support unit*' in Kathmandu, but there is an urgent need to improve water provision for urban poor. Sanitation coverage in terms of toilet has improved in recent years, but waste water treatment is missing overwhelmingly. Ultimate disposal of solid waste is a challenge faced by most of the municipalities as few have access to land fill sites.

Yet meanwhile the housing sector has largely been neglected by the government and is dominated by informal processes with little institutional control or help of formal sector

The urban housing sector has not been recognised as a potential resource in the overall socio- economic and physical development and as a result had received minimal budget allocation. Since inclusion as separate budget item in 1986, budget allocation hardly exceeded one per cent. Also in recent years intended policy interventions, have not been matched with budget allocation. For example, the government in the Tenth FYP proposed to improve infrastructures of five squatter settlements and the fund allocated was NPR 1.5 million, this amount would not even be sufficient for even for a single settlement improvement.

Nepal's National Shelter policy dates back to 1996, a period when the urban reality was very different from today. The policy was based on the expectation that market forces would meet the housing demand and this has proven to be wrong assumption. The basic idea of enabling strategy to attract private sector investment in housing was indeed successful in attracting housing developers in the construction of individual dwelling units and apartments to cater for the needs of higher income groups, yet it failed to direct private investment to lower market segments.

The municipalities who in theory carry the main responsibility for provision of urban services are ill-equipped to deliver and unable to meet the quickly growing demand

There are several agencies involved in various types of infrastructure delivery and management in urban areas. Since the municipalities who under the Local Self Governance Act are responsible for provision of basic urban services are not capacitated to undertaking such responsibilities with wider urban perspective. Moreover, while learning to do so, the tenure of the elected local bodies was terminated in 2002, and literally the municipalities are without their leaders. Notwithstanding, the high population growth rate, their poor local resource base, and the weak capacity to provide, collectively resulted into poor infrastructure services in municipalities far less compared to the rising demand.

To date, the main intervention instruments were land development programmes like land pooling but these have failed to address the needs of the lower income groups.

The main instruments were land development programmes like land pooling, yet many of these did not succeed mainly because of lack of coordinated action in delivering the services. Providing utilities and services by other line agencies against the planning strategy ultimately led to miss the target. In fact there is not a single land pooling project that is completed even adding more than 50 per cent of its stipulated time. The government has implemented some land development projects, such as guided land development, sites and services projects and land pooling. However, these attempts have been limited and far from meeting the need. Land and housing projects that have been undertaken did not address the issues of poor and vulnerable groups, especially those living in squatter and slum settlements.

Also, initiatives to improve access to housing finance lacked specific instruments to make a difference in delivering housing loans to poor and low income families

Access to housing finance for low income and poor families is a major issue of concern, as these groups are largely beyond reach of the commercial banking sector because collateral requirements and risk assessment. Households largely reply on own savings and borrowing from friends and relatives for housing construction, which is more suited to the incremental building process; few access loans for land or housing.

The government's brainchild the Nepal Housing Development Finance Company initiated in the 1990s to provide housing finance at affordable cost to low income and poor families failed to materialise as this Company could not expand its activities beyond the Kathmandu valley nor could it meet the objective as envisioned by the original plan, it basically functioned as any financial company and lacked any leverage to be able to offer subsidise or otherwise attractive savings and lending schemes.

There are laudable initiatives from the likes of Lumanti and Habitat for Humanity who are supporting housing initiative of poor households by mobilizing external funds and individual savings, but they have insufficient resources to be able to upscale their activities. Similarly there are around 15,000 savings and loans cooperatives in Nepal. Although the cooperative movement is rooted in the rural areas, they have increasingly followed the population drift towards the urban centres and are adjusting their products packages accordingly: -albeit a small percentage- they have housing loans as part of their service package and because these loans typically do not require collateral, they are particularly useful for poor households to maintain, extend or upgrade their dwellings.

In addition there is untapped accumulated capital that could potentially be used for housing loans in the Employee Provident Fund – an education& pension fund for civil servants - and the Town Development Fund, of which the use is currently limited to urban infrastructure.

And interventions to improve construction quality, ensure affordability and promote sustainable use of building materials is much needed in a country where increasingly construction materials need to be imported.	The mechanisms to control quality of works are in place, but mainly because of understaffing the administration is not sufficiently equipped to enforce building laws and control market forces. The existing measures typically take the shape of controlling and protective regulations which do not necessarily suit an environment where the vast majority of the construction sector is dominated by 'informal' operators. Sustainable use of building materials and use of sustainable building materials are two emerging issues in Nepal's construction sector. Although the traditional architecture of Kathmandu Valley is a shining example of energy and space efficient building techniques with a distinct community harmonization component, these techniques have eroded over time, and have been replaced by new techniques more adapt to the requirements of 'modern living'; but for which –aside from basic materials such as brick, sand and stone- the majority of supplies is directly or indirectly dependant on import. Fuelled by the recent real estate boom demand for construction materials fast outpaces supply, resulting in steep price increases, especially for imported materials. Although there are several cost effective and environmentally friendly constriction materials and techniques available in Nepal, these tend to be unpopular and are sparsely promoted.
Enabling is no longer enough: the need is for a housing policy with a focus on the low income majority and takes into account the specific dynamics of the Nepal land and housing market	The government needs a more pro-active approach in demonstrating models that successfully produce housing, housing finance or services land for lower segments in the society and then provide a conducive environment for replication. This approach should take the range of informal players in the land and housing market (land brokers, builders, small contractors, money lenders, etc.) seriously and design realistic policies that have has objective to engage them with more 'incentive based' instruments, rather than controlling or protective measures.

10.3 ENABLING IS NO LONGER ENOUGH: POLICY IMPLICATIONS

10.3.1 LAND MANAGEMENT AND ADMINISTRATION

1. Go beyond the enabling role and adopt a leading role in planning of urban expansion. Update the land use plan (including zoning plan) to reflect the current urban reality and have a basis to control the situation of plotting the land haphazardly in the urban fringes. The focus of these plans should not be restricted to existing urban areas but also include urbanising towns and villages. Planning should be done with a strong urban ecological perspective, that pro-actively 1) promotes efficient land use through mixed-use housing, (housing combined with business and trade) and multi-storey living for lower income groups and 2) seeks to avoids the formation of social stigmatised neighbourhoods (both at the high end (housing colonies) and low end (squatter settlements) of the market and promotes inclusive neighbourhoods inspired by the qualities of traditional Nepalese settlements.

2. Adjust the land valuation system so it corresponds to market values and the government does not miss out on an important source of potential revenue.

3. Make land purchase more affordable by streamlining procedures for purchase and registration of land and making them more transparent and affordable for common people. Encourage the use of smaller parcels to promote affordability taking into account the limited availability of land in the hilly country.

4. Increase efficiency of land administration and registration system through the modern technique of GIS and digital mapping. Computerized land records and mapping and quick delivery of services is one of the essential part for modern land administration system.

5. Make maximum use of government owned lands– an increasing number of which is being encroached on - for new settlements.

6. Introduce regulations to curb speculation of land and property and cool down the overheated real estate market.

7. Adopt leanings of government housing support like Janata Awas (people‘s housing) for urban areas considering sustainability against ‚give away‘ approach.

8. Put in place legal provisions and other regulating tools on rental housing (in the form of a rental act) to fill the urgent need for protection of rights of both landlords and tenants in a fast growing urban rental sector. Also explore concepts for provision of affordable rental housing to suit the transitionary stage of urban migrants.

10.3.2 URBAN INFRASTRUCTURE

1. Review overall long term urban infrastructural needs in view of preferred urban expansion and formulate a comprehensive development vision plan on national level for the long term (20 years) with matching regional periodic plans for 5 year intervals. These expansion plans anticipate and explore areas for further expansion of urban areas while considering the ecological balance to avoid overcrowding. This would allow the government administration to take a more pro-active approach in land acquisition and service provision, also in areas that are not yet officially designated as municipalities.

2. Further strengthen the role of municipalities to meet the infrastructure provision objectives as formulated in the development plan by 1) budgetary allocation of municipalities should be based on city level and include graded pricing as per economic status of the city and 2) budget allocation should be matched with increased responsibility for delivery of services through a commonly agreed municipal infrastructure development plan. 3) investment in human resources to improve the institutional capacity of municipalities (especially smaller municipalities) to deliver and monitor quality infrastructure. In addition a coordination mechanism should be installed in the form of an infrastructure development committee to avoid duplication and confusion among different agencies.

3. Introduce cross-subsidy elements in land pooling projects or provide additional government investment in infrastructure provision to provide a breakthrough in the broker-facilitated land development process in which the strategy of as minimum as

possible to meet the minimum requirement largely applies. These strategies should be targeted at making serviced land more affordable to lower income groups, especially in fast growing urban areas

4. Review existing PPP instruments in close consultation with private sector to make them more lucrative for private investment and design a workable PPP policy to attract private sector in housing infrastructure, including urban transportation.

5. Make water quality and service level a priority in urban water supply. Local community based initiatives of water supply may be promoted for water efficiency and better management in favour of centralised supply systems wherever applicable. Learning from LICSU implementation in Kathmandu pro-poor water initiatives may be adapted in other areas as well.

6. Promote appropriate local and affordable sanitation alternatives and strictly control disposal of untreated waste water especially by industries. Adopt measures to make re-use of existing sewage treatment plants mandatory. Legal, technical and managerial tools need to be strengthened to fill the gap in the implementation of better sanitation practices in urban areas including waste water management.

7. Explore alternatives beyond land-fills to improve solid waste management, and in case the landfill alternative is selected, it needs to follow sanitary norms. Build public awareness and policy in refunding waste segregation policy.

8. Improvement of urban transportation is required to promote decongestion of city core and balanced development of urban areas. Meanwhile, lead and partner with private sector to promote better urban transportation in urban growth centres and consider mass transportation and eco-friendly methods of transportation

9. Promote existing infrastructure standards and make the standards mandatory while providing permission from concerned agencies. Develop effective controlling measures in central and local level to make sure the standards are followed. Invest more resources in building awareness to politicians and public for proportionate development and bring uniformity in community participation in infrastructure development in all municipalities.

10. Revise existing law concerning acquisition of land for infrastructure development activities and simplify the process.

10.3.3 HOUSING FINANCE

1. Reorganise and strengthen the financial institutions (including Nepal Housing Development Finance Company) with funds, manpower and legal backup to enable it to work as originally planned and visualised. Possibly in the form of a housing development bank at the central level; (e.g. HUDCO or urban poor community fund with regulatory power).

2. Make housing finance a priority issue in new housing policy design, introduce measures through regulatory framework and /or tax or subsidy provisions to allow providers of housing finance to better reach low income target groups. Experiment with alternative repayment schemes such as ballooning repayment schemes.

3. Channel finance to informal sector as they are the main providers of urban housing. Make it easier for land and house brokers and small contractors to access to finance, for example by setting up saving/borrowing schemes for targeted groups whereby the government can act as a guarantor for loans.

4. Promote responsible saving and borrowing behaviour initially through accessible operations like savings and loans associations and foster partnerships between these associations, NGO's microfinance institutions and commercial institutions. Further promote community based saving scheme in squatter settlements, where they can be key element to slum and squatter upgrading programmes. Provide additional support through awareness campaign to encourage people to mobilise their assets especially targeted at lower segments of the market; with special consideration for poorest of the poor

5. Explore innovative risk management procedures to reduce the bank's threshold of security on land and property, such as

joint tenure ship options. The ERSO model (chapter 9) could help banks reaching further down the market. Explore ways to offer incremental loans adapted to gradual building processes as well as infrastructure loans.

6. Find ways to tap the resources in the Town Development Fund and Employee Provident Fund and other welfare funds possibly matched with international funding to create momentum in providing subsidized funding mechanism targeting to low income groups.

10.3.4 CONSTRUCTION SECTOR

1. Dedicate more research and development to cost effective locally available traditional construction materials like compact soil block and bamboo, as well as green building techniques. Promote their use while discouraging the overreliance on natural construction materials like sand, wood as well as imported materials. Provide additional support low income groups to make explain the added value to of using durable building construction materials and encourage rehabilitation and reconstruction of existing buildings as an alternative for new construction. Ensure good practices in this field as documented by NGOs bring to a larger audience that includes those working in the construction industry, varying from small contractors to large developers through sharing platforms, demonstration projects and information centres.

2. Provide incentives for local production of finishing materials, like fixtures and fittings as well as basic building materials like brick, concrete blocks, etc. in the country to reduce the import of these materials from other countries. Develop mechanism to better control monopoly players in the construction industry and establish competitive market.

3. Strengthen the *National Standard* and develop mature monitoring mechanisms that take into account market forces in all municipalities, which will allow them to better monitor and control the quality of works on a more regular basis. Also introduce quality control mechanisms for manufacturing of *National Standard* building materials.

4. Take informal sector serious as an important player in the housing market. Revise building regulation with this new mindset and find partners for effective enforcement. Strengthen the capacity within municipalities to follow the norms and controlling mechanism like the building code and building bylaws. Promote building code to the general public with wide coverage, and specially aim the small contractors.

5. Target capacity building programmes to those who produced most of the housing in urban areas: the small contractors. Help them increase their efficiency and professionalism, increase their access to finance and promoting them in the market.

10.3.5 LABOUR AND EMPLOYMENT

1. Analyse the roles and requirements of all the players in the 'informal' sector and design (including land brokers, skilled and semi-skilled construction workers, self-builders, designers) and building their capacity and awareness, with a strong focus on the building code and by laws. Focus on formal training and formalising jobs and professions rather than recruiting the informal sector workers.

2. Find creative way to curb the pull factors that make local skilled craftsmen seek employment abroad. Invest in additional skill-based training (mason, carpenter, plumber, electricians, etc.) to meet market requirement with mandatory skill testing and registration. Develop provisions for the monitoring and regulation of these workers and in the housing sector and make them part of the municipal network.

3. Design technical training courses in building control specifically for smaller municipalities to increase their capacity to enforce the building laws. Design training courses in partnership with academic and professional institutions. Include refreshment training, document best practices and include these in training courses.

4. Institutions dealing with control of public lands should be strengthened and made more responsible. For that addition training is needed in land surveying, land management, and land development.

SECTION ENDNOTES

1. Neupane, S., 2000
2. Unequal Citizens: Nepal Gender and Social Exclusion Assessment; Department for International Development (DFID) and the World Bank, National Planning Commission (NPC)
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5. International Network for bamboo and Rattan: Bamboo Eco-Housing Project in Nepal, 2005

APPENDIX

HOUSING SECTOR PERFORMANCE CONSTRAINTS MATRIX

	Land	Infrastructure	Housing finance	Building materials & construction sector	Labour & Employment
A. Institutional and organizational framework	A1.Land use plan (incl. zoning concept) is outdated (1970's) and is not followed up by land management authorities (Ministry of Land Reform and Management)	A2. Municipalities are the key agencies that need to bring together different departments in infrastructure delivery but (roads, water, and electricity). Coordination can be a difficult task, especially given the informality of construction sector. For example: 150 Million NPR for squatter-improvement was not spent, was because of interdepartmental confusion	A3. The Nepal Housing Development Finance Company was established to provide an avenue of housing finance for lower income groups, yet due to a lack of instruments and financial leverage, they have not been able to reach these groups and improve their access to housing finance.	A4. The mechanisms to control the quality of works are in place, but mainly because of understaffing, they are not sufficiently equipped to control market forces.	A5.Within the central administration the capacity is sufficient, yet in smaller municipalities there is a problem in both in number and qualifications of personnel.
	A1. Land registration (required for both land and real estate transactions) can be time consuming. Title registration can operate as a 'deed system'.	A2.The budget distribution in most of the municipalities is based on proportionate division of the common sum to all wards. This undeclared policy has hindered city level infrastructure-provision, especially infrastructure for future growth.		-	-

	Land	Infrastructure	Housing finance	Building materials & construction sector	Labour & Employment
	A1. Cadastral maps are not digitized and not always accurate, because still partly based on inaccurate measuring methods. There is little coordination among the concerned agencies.	A2. Due to political influence, construction of infrastructure tends to benefit a limited population while others are disadvantaged.	-	-	-
	A1. Government land is owned by the central government. The responsibility of protection lies under local authority without the authority to use.				
B. Regulatory and legal framework	B1. Regulatory function of the government is not suited for the rapid urban expansion, contributing to the scale of public land encroachment.	B2. Because of the weak government, both at central level and local level enforcement of control measures is weak.	B3. There is no specific regulation and legal framework to allow specialised institutions to provide affordable housing finance.	B4. Absence of appropriate quality control procedures on construction materials. Currently this is solely the responsibility of the buyer, as a result delivery, quality or quantity is not always consistent.	B5. There is a lack of human resource for enforcement of building laws, both in quantity (1 inspector per ward) and quality (administrative rather than technical).
	B1. Land holding cost is low and transaction cost is high. Plus no regulations to curb speculation of land and property.	B2. Because spontaneous development has become the dominant mode of urban expansion, it is difficult to meet planning and quality standard of infrastructure provision. Leading to densification without sufficient infrastructure and security in case of natural disaster.	B3. NHDFC is governed and regulated by same finance company act as other financial institutions.	B4. Absence of control in informal housing sector delivery and vertical expansion, resulting in poor urban environment and higher risk in case of natural disaster.	B5. There is absence of database of skilled workers so that quality of the workers are monitored and enhanced, and make them responsible.
	B1. No specific regulation for rental housing, which is fast emerging as an important source of urban housing supply.		B3. The rule that financial institutions have to lend up to 3% of their mortgage portfolio to deprived sector is often not applied.		B5. Good practices like the ones documented by the CTEVT do not filter through into government and academic training programmes.

	Land	Infrastructure	Housing finance	Building materials & construction sector	Labour & Employment
C. Supply	C1.Formal (public) sector systems for serviced land provision are inadequate to cope with urban growth, the private (formal and informal) sector is currently the major supplier of both land and housing to all income groups.	C2. In the absence of proper infrastructural planning, supply of infrastructure is haphazard.	C3.There is abundant supply in housing finance both for consumers and providers of housing. However, banks' strict lending conditions make housing finance inaccessible for lower income households without sufficient collateral.	C4. Apart from basic construction materials like stone, sand and bricks, majority of supplies are directly or indirectly dependent on import.	C5. There is inadequate supply of skilled human resource at basic level (mason, carpenter, plumber, electricians, etc.) due to better job prospects and earning possibilities abroad. This gap is filled by Indian migrant workers at higher price having a negative impact on the economy of the housing sector.
	C1. The cross subsidy element in the prevalent land pooling system is weak. There is a mandatory provision to make land available for low income households but is not applied in the urban reality, therefore plots delivered by land pooling projects are typically beyond the reach of low income households.	C2. Community approach to the infrastructure supply is designed to meet their immediate needs. This approach not only limits their future expansion but also hinders the expansion of the settlements upstream or downstream.	C3. Town Development Fund is limited to selected urban infrastructure and has a possibility to lend for housing financing and is mandatory; but has not considered housing financing.	C4. Cost effective and environment friendly construction materials are not popular and are not promoted.	-
	C1.Other than the land pooling system there is no serious government attempt to make land available to address the housing need of low income and homeless poor people.	C2. Due to political influence, construction of infrastructure tends to benefit a limited population while others are disadvantaged.		C4.There is monopoly and sometimes cartel formation in construction materials supply affecting affordability and quality of materials.	-
	C1. No government role in supply of any form of subsidised or social housing.	-	-	-	-

	Land	Infrastructure	Housing finance	Building materials & construction sector	Labour & Employment
D. Demand	D1.Demand for urban land increasingly concentrated in urban fringes of Kathmandu Valley and rapidly growing urban centres in Terai. (Without proper plan).	D2.The high pressure of population on urban areas has created unprecedented pressure on infrastructure.	D3. Households tend to largely rely on own savings and borrowing from friends and relatives for housing construction, few access loans for land or housing.	D4. Fuelled by the recent real estate boom, demand for construction materials already outpace supply, resulting in rising prices, especially for imported materials.	D5. To compensate for the large out flux of labourers, there is a growing demand for skill-based training.
	D1. Urban fringes are not bound by municipal law.				
E. Policy	E1.Leaving the housing sector solely to market forces, has created a market vacuum for the weaker segments of society.	E2. Pricing policies give infrastructure providers no strong motivation to extend the reach of services to informal areas.	E3.There seems to be no clear cut policy from the government to increase the provision of housing finance, particularly to poor and low income families.	E4. No policies exist that promote the use of local, indigenous or environmentally friendly building materials.	E5.Local small scale contractors like labour contractors are not registered so largely unaffected by any policy decisions.
	E.1 None of inadequate policies adapted in earlier policy documents has been capable of delivering the service (or product) to needy poor population as expected.	E2.PPP policy of the government for infrastructure provision did not work as envisaged. Not a single such project was implemented for the delivery of infrastructure after the adaptation of National Shelter Policy 1996.	-	-	-
	E1.Most of the government plans and programmes' intend to attract private sector and PPP approaches but, none has succeeded in bringing private developers on board to deliver in housing particularly to low income group.	E2. The policy of community participation in infrastructure development is not uniform in all municipalities.			

	Land	Infrastructure	Housing finance	Building materials & construction sector	Labour & Employment
F. Implementation arrangements and instruments	F1.Government instruments to control the haphazard city development are lacking. Implementation of city level plans is weak; this includes both land development infrastructure provision and housing.	F2.In the absence of coordination among the line agencies who provide infrastructure, land acquisition for services is very difficult.	F3. Banks are very risk averse and in absence of any incentives to collaborate with NGOs and micro-finance providers to deal with housing, they remain reluctant to do so.	F4. Building code is being promoted occasionally, no regular dissemination to all skilled and semi-skilled construction workers, owners and technicians.	F5. Municipalities are given no role in coordinating and controlling labour and employment. Whereas division offices of the Department of Urban Development are remote for local workers.
	F1.Government investment is insufficient in guided land development as well as land pooling plans.	-	F3.Interest rates have remained high, while global interest rates are low, no use of alternative (subsidised) instruments to lower interest rates for specific target groups.	F4.The government's ambition level in establishing public private partnerships in provision of serviced land for housing has not been matched by any specific measures or incentives to stimulate private developers to engage in partnerships with the public sector.	F5.The law that regulates responsibilities of both Town Development Committees and municipalities are contradictory at some points and in fact some of their responsibilities overlap, leading to situations where neither party feels responsible for the task.
	F1.Government is missing out on revenue, because the current valuation practice fails to take market forces into account.	-	-	-	-
G. Institutional capacity	G1.Capacity enhancement in effective long term planning for adequate land allotment is lacking.	G2.Institutional capacity of most of the municipalities is inadequate to provide infrastructural services as these were provided by line agencies in the past.	G3.Formal sector housing finance institutions are typically not funded or structured for lending to the low income borrower, no innovative approaches in risk management to allow for targeting different income groups.	G4. Institutional 'support' for the housing sector typically takes the shape of controlling and protective measures, whereas 'promotional' instruments are largely missing.	G5.Municipalities do not have provision for monitoring, regulating or registering skill based workers in housing sector.

	Land	Infrastructure	Housing finance	Building materials & construction sector	Labour & Employment
	G1. In comparison to neighbouring countries and in comparison to other sectors few NGO's are active in the field of land and housing, which also leads to the sector receiving little international assistance.	-	G3. Current micro finance institutions provide loans for reparation and maintenance but do not have the capacity to provide loans for land purchase or housing construction.	G4. Some NGOs are promoting good practices. There is absence of exchange and promotion of these practices to general public.	G5. Municipal government in smaller municipalities needs to strengthen their technical and administrative capacity to regulate building by laws and enforcement of building code.
H. Affordability and price-to-income issues	H1.Prices of urban land have gone up disproportionally to income levels in recent years. Formal and informal serviced land is increasingly unaffordable for most of the Nepalese household.	H2.Poorer households are paying relatively more when considered the burden added on top of the cost of infrastructure services.	H3.Housing loans provided by banks and financial institutions are typically not affordable to the majority of the needy households.	H4.Psychologically, people are not convinced of the quality of local construction technologies, even for low rise building, which means they unnecessarily rely on exported building materials which cost them both time and money.	H5.Due to migration of skilled workers abroad, the cost and availability of workers is becoming increasingly difficult.

HOUSING SECTOR PERFORMANCE PRIORITY ACTION PLAN

	Land	Infrastructure	Housing Finance	Building materials and construction sector	Labour and Employment
I. Institutional and organi-sational fra-mework	I1. Update land use plan (incl. zoning concept) to reflect current situation and allocate one institution the task to monitor the policy and plan.	I2.Develop and implement commonly agreed municipal infrastructure development plan. Co- ordination among the stake holders. Establishment of infrastructure development committee.	I3.Reorganise and strengthen the financial institutions (including Nepal Housing Development Finance Company) with funds, manpower and legal backup to enable it to work as originally planned and visualised.	I4.Develop mechanisms that allow for control the quality of works, taking into account market forces.	I5.Design training courses in building control specifically for smaller municipalities.
	I1. Urban Land use policy should be formulated immediately, to be followed by a land use plan be prepared.	I2.Municipalities need to be strengthened to take the leading role in infrastructure provision while government agencies should facilitate them in progress. City level budget should be utilized.	I3.Establish a housing development bank at the central level; so as to make it more competitive (e.g. HUDCO or urban poor community fund with regulatory power).	-	I5.Governmnetal Institutions should work more in partnership with municipalities and academic institutions.
	I1. An Integrated Value System Land and land record system that is realistic and corresponds to market values.			-	-
	I1. Strengthen institutions dealing with the protection of public land and make them more responsible for protection.	-	-	-	-
	I.1 Streamline the procedures for purchase and registration of land; make them more transparent, affordable by common people and service oriented. Introduce services like GIS and computer based i.e digital mapping) to update cadastre.	-	-	-	-

	Land	Infrastructure	Housing Finance	Building materials and construction sector	Labour and Employment
J. Regulatory and legal framework	J1.Introduce legislation to increase volume and quality of rental stock and update rental act to safeguard tenant's rights as well as landlords.	J2. Develop effective controlling measures in central and local level.	J3. Introduce innovative risk management procedures to reduce the bank's threshold of security on land and property.	J4. Strengthen the National Standard and develop monitoring mechanisms in all municipalities. Policy on manufacturing of NS standard material to be encouraged.	J5. Introduce registration of skilled workers at municipal level/ Labour market information.
	J1.Strengthen institutions dealing with the protection of public land and make them more responsible for protection.	J2. Promotion of existing infrastructure standards and make the standards mandatory while providing permission from concerned agencies. Standard infrastructure development.	J3. Introduce subsidised savings/ loans scheme to reduce high interest rate for selected target groups.	J4.Introduce stronger mechanisms for quality control in production process of construction materials.	J5. Organise refreshment training, document best practices and include these in training courses.
	J1.Introduce regulations to curb speculation of land and property and cool down the overheated real estate market. For example • Land holding tax • Vacant land tax • Transaction tax	J2. Revise existing law concerning acquisition of land for infrastructure development activities.	J3. Introduce saving schemes with subsidised interest rate for provision of infrastructure.		J5.Establish quality control mechanism for higher level skilled human resource.
	J1. Make present regulatory system more effective and punishable, especially with regard to safeguarding public land.		J3. Encourage Employee Provident Fund and other similar welfare funds for provision loans for housing for the poor.		
	J1. Standardise plot for urban housing so that land broker can have a more substantial role rather than dealing with one or two parcels at a time.	-	-	-	-

	Land	Infrastructure	Housing Finance	Building materials and construction sector	Labour and Employment
K. Supply	K1.Adapt the land-pooling system to make it more accessible for low income households, especially in fast growing urban areas, for example through additional government investment in infrastructure development.	K2. Urban expansion should be based on periodic plan and periodic plan should be prepared for 5 years to 20 years development vision plan.	K3. Encourage saving and borrowing behaviour through operations like savings and loans cooperative.	K4. Develop policy to discourage natural construction materials like sand, wood etc.	K5.Municipalities should provide training to the local deprived people.
	K1. Focus on supplying land that can be serviced incrementally.	K2. Awareness to the politicians and public for proportionate development.	K3. Town Development Fund could also play a role in provision of subsidized funding mechanism targeting to low income groups.	K4. Develop policy in producing eco- friendly local construction materials and encourage both parties	
	K1. Establish Housing minimum requirement norms Real Estate Act (already in draft)		K3. Introduce special saving/borrowing schemes for targeted groups whereby the government can act as a guarantor for loans.	K4. Existing controlling mechanisms to be more effective in regular monitoring of market.	
L. Demand	L1.Building on best practice as accumulated in organisations like Lumanti, start with relocation and upgrading programmes in existing unsettled and unhealthy settlements and then further replicate to other settlements.	L2. Review overall long term urban infrastructural need and support municipalities in meeting the requirements mobilising local as well as central resources.	L3. Promote responsible saving and borrowing behaviour initially through accessible operations like savings and loans associations and foster partnerships between these associations and commercial institutions.	L4. Promote rehabilitation and reconstruction of existing buildings.	L5. Invest in skill-based training (mason, carpenter, plumber, electricians, etc.) Skill testing to be mandatory.
	L1. Extend bylaws also to the urban fringe areas.	L2. Expansion plans should consider ecological balance to avoid overcrowding.	L3. Introduce awareness campaign to encourage people to mobilise their assets .	L4. Support low income groups in using durable building construction materials.	
		L2. Anticipate and explore areas for further expansion of urban areas and take a more pro-active approach in land acquisition and service provision.	L3. For promotion of housing finance, differentiate between categories and target lower segments of the market; and special consideration should be designed for poorest of the poor.	L4. Dedicate more research and provide more support for improving the traditional materials that are used by poor households.	
		L2. Infrastructure development also in urbanising areas that are not yet officially designated as municipalities.			

	Land	Infrastructure	Housing Finance	Building materials and construction sector	Labour and Employment
M. Policy	M1. Enabling is no longer enough: the focus of housing policy should be on the low income majority. The government needs to make a more pro-active role in demonstrating models that successfully produce housing and/or serviced land for lower segments of society and then provide a conducive environment for replication.	M2. Come up with workable PPP policy to attract private sector in housing infrastructures, including urban transportation. Review existing PPP instruments in consultation with private sector to make them more lucrative for private investment.	M3. Make housing finance a priority issue in new housing policy design, introduce measures through regulatory framework and /or tax or subsidy provisions to allow providers of housing finance to better reach low income target groups.	M4.Increase efficiency and professionalism of small scale contractors.	M5. Focus on formal training and formalising jobs and professions rather than recruiting the informal sector workers and training systems into the housing supply programmes.
	M1.Government should encourage an enabling environment for PPP in housing construction, with concrete incentives for private developers to target lower segments of the market.	M2. Budgetary allocation of municipalities should be guided by comprehensive development plan that includes graded pricing as per economic status of the community.	M3. Introduce measures to control unproductive investments in housing with speculative motives.	M4. Include incentives to increase production and quality of local building materials such as brick making, concrete blocks, etc… and quality to be monitored.	
	M1. Make maximum use of available government land for new settlements.	M2. Bring uniformity in community participation in infrastructure development in all municipalities.	M3. Encourage housing micro finance and explore partnership with banks and other financial institutions.	M4. Concentrate on skills materials, labour, etc. needed for cost effective housing.	
	M1. Replicate successful subsidised initiatives like Janta Awas (people's housing) from rural areas to urban areas		M3. Explore joint tenure ship options to reduce financial burden and associated risk.	M4. Develop mechanism to control monopoly players and establish competitive market.	-
	M1. Introduce cross subsidising elements for higher end housing projects and include a component of concessional housing to specific target groups.	-	-		-
	M1. Apply social principles for urban expansion planning, avoid formation of 'housing colonies' and promote mixed housing in line with Nepalese traditions.	-	-	-	-
	M1. Housing rights should be fundamental rights. Create alternative instruments for forced evictions.				

	Land	Infrastructure	Housing Finance	Building materials and construction sector	Labour and Employment
N. Implementation arrangements and instruments	N1. Strong political will and commitment to implement city level plans.	N2. Simplify the process of acquiring land for infrastructure development.	N3. Explore international funding with fund management through Town Development Fund. The TDF and other financial interested financial institutions should reduce its cost of fund to make the service affordable to the low income sector.	N4. Promote building code to the general public with wide coverage.	N5. Capacity building of municipalities to regulate labour and their employment.
	N1. Employ legal, financial, and market tools to influence housing prices in favour of low income and poor families control unplanned development of cities.	N2. Community level water management initiatives and donor funded low-income consumer support unit should be promoted against centralised systems to cater water to urban poor.	N3. Promote saving group approaches in partnership with NGOs	N4. Take informal sector serious as an important player in the housing market. Revise building regulation with this new mindset and find partners for effective enforcement.	N5. Establish registration mechanism of skilled-based workers in municipalities and introduce mandatory skill testing.
	N1. Review land and property tax. Reduce transaction cost for transfer of property, particularly to poor and low income families.	N2. Promote appropriate local and affordable sanitation alternatives and strictly control disposal of untreated waste water especially by industries. Provide sewerage treatment plant re-use of existing plants to be mandatory.			
	-	N2. To improve waste management, explore alternatives beyond land fill. If landfill alternative is selected, it needs to follow sanitary norms.	-		-
	-	N2. Public awareness and policy in refunding waste segregation policy.			
	-	N2. Lead and partner with private sector to promote better urban transportation in urban growth centres and consider mass transportation and eco-friendly methods of transportation.	-	-	-

	Land	Infrastructure	Housing Finance	Building materials and construction sector	Labour and Employment
O. Institutional capacity	O1. Enhance institutional capacity of all agencies dealing with land and especially land administration agency, so they can keep up with the actual urban reality.	O2. Enhance institutional capacity of municipalities to deliver and monitor quality infrastructure	O3. Better capacitate the financial institutions to fill the vacuum that banks leave in making housing loan to poor and low income families at affordable rate.	O4. Facilitate the smaller contractors by helping to build their capacity, and promoting them in the market.	O5. Bring local small scale contractors in municipal network.
	O1. Introduce land registration based on electronic systems and digitise land maps.	O2. Provide adequate human resources at municipal level.	O3. Develop knowledge and skill in innovative housing finance products.	O4. Municipalities should be strengthened to follow the norms and controlling mechanism like the building code and building bylaws.	O5 Develop provisions for monitoring, regulating or registering skill based workers in housing sector.
	O1.Include housing element into the poverty alleviation fund.	-	O3.Introduce innovative risk management procedures to reduce the bank's threshold of security on land and property.	O4.Develop research and development programmes to promote cost effective and environmentally friendly technologies and increase sharing platforms and information centres.	O5. Increase training of construction and supervision skills.
P. Affordability and price-to-income issues	P1. Introduce incremental land development schemes and allocate land for development before main servicing.	P2. Adopt cost effective servicing to reduce the proportion of income spent on water, sanitation and energy.	P3.Offer various incremental loans adapted to gradual building processes.	P4.Establish model demonstration houses to promote local construction technologies.	P5. Train skilled and semi-skilled workers to meet the market requirement.
	P1. Establish cheaper registration fee for disadvantages groups as well as women.	P2. Focus resources on improving access to potable water.	P3. Experiment with alternative repayment schemes such as ballooning repayment schemes.	-	-
	P1.Give priority to poor and low income people in government by providing subsidy, preferably on the demand side (such as registration fees).	P2. Subsidize basic facilities to poorer communities.		-	-
	P1. Policies reviewed to make it more realistic about affordability and scale.				

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ANNEX

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Nepal Urban Housing Sector Profile Study (November 1, 2010)

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Mr. Sohan Sharma	Reporter	EJN
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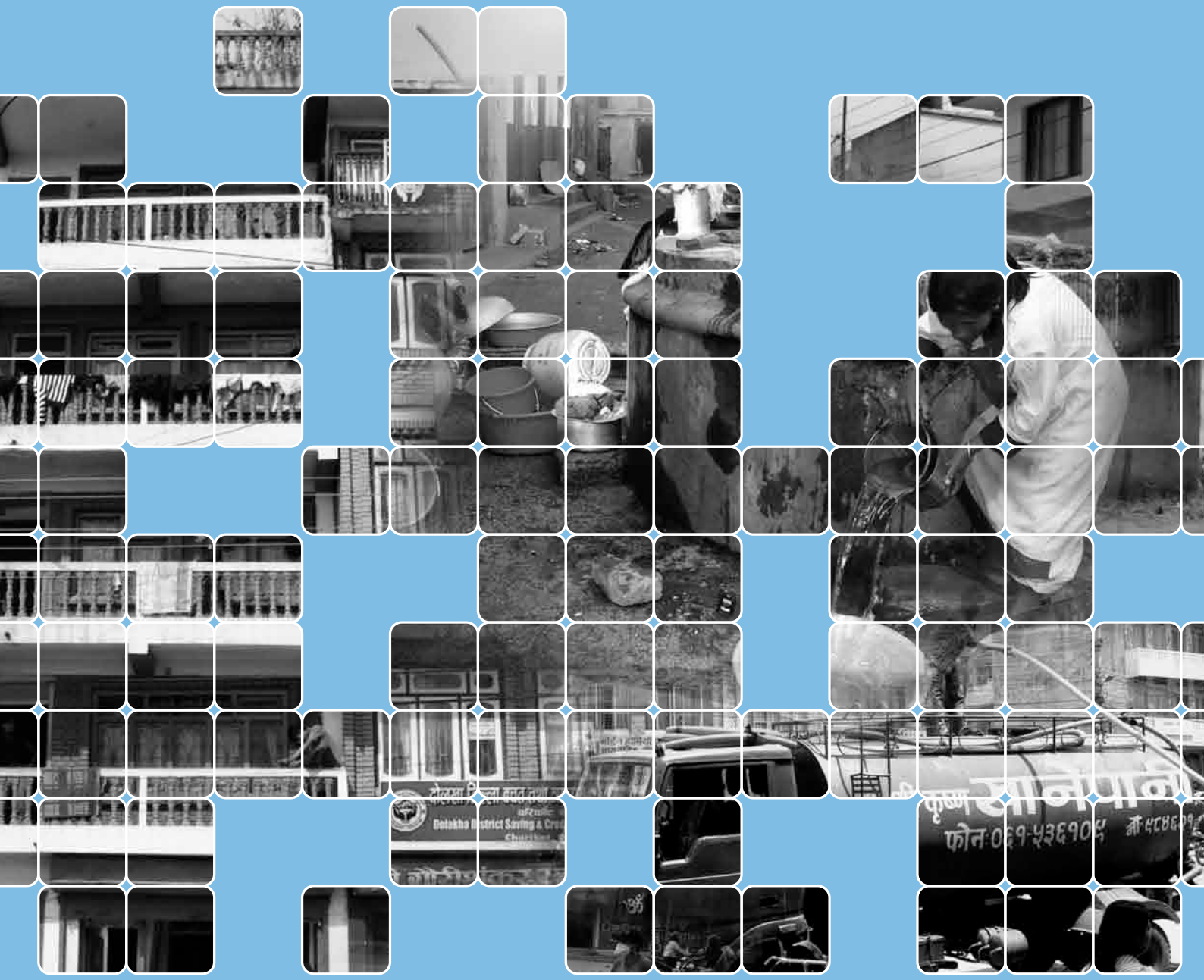
Mr. Ashok Shahi	Ex Mayor,	Tansen Municipality
Mr. Shishir Poudel	CEO	Tansen Municipality
Mr. Prahlad Prasad Gautam	Chief	District Office of Land Revenue, Palpa District
Mr. Rajendra Pant	Branch Manager	Water Supply Office, Tansen
Mr.Sunil Maharjan	Engineer	Nepalgunj Municipality
Mr. Suresh Kumar Rauniyar	Junior Engineer	Nepalgunj Municipality
Mr.Dal Bahadur Khatri	Senior Officer	District Office of Land Revenue, Nepalgunj
Mr.Deep Jyoti Shakya	Chief	Nepalgunj Branch Office, Nepal Water Supply Corporation
Mr. Khadga Bahadur Chaudhari	Engineer	Town Development Committee, Nepalgunj
Mr. Prafulla Man Singh Pradhan	Habitat Programme Manager	UN HABITAT
Ms. Lajana Manandhar	Director	Lumanti
Mr. Sahash Man Pradhan	Manager	Nepal Housing Development Finance Company
Mr. A K Bohara	Manager	FNCCI
Mr. Sunil Kumar Poudel	Senior Divisional Engineer	Department of Roads
Mr. Saroj Kumar Pradhan	Senior Divisional Engineer	Department of Roads
Mr. Mahesh Basnet	Ex Mayor,	Ilam Municipality
Mr. Bishnu Dev Yadav	Chief Executive Officer	Siraha Municipality
Mr. Bhoj Raj Kaudel	Senior Engineer	Bharatpur Municipality
Mr. Prakash Kumar Shrestha	Chief	District office of Land Revenue, Chitwan
Mr. Lal Krishna Poudel	Officer	District office of Land Revenue, Chitwan
Mr. Buddhi Shrestha	Assistant	District office of Land Revenue, Chitwan
Mr. Prakash Amatya	Senior Engineer	Birgunj Sub-metropolitan City
Mr. Achut Raj pandey	Head Business Banking	Prabhu Finance company Limited

Name	Position	Institution
Ms. Amrita Sharma Subedi	Manager Resource Development	Habitat for Humanity International-Nepal
Mr. Umesh Jha	Division Chief	Western Division office of road
Mr. Tilak Poudel	Chief Executive Officer	Pokhara Sub Metrpolitan City
Mr.Krishna Prasad Koirala	Administrative Officer	Pokhara Sub Metropolitan City
Mr. Purna Bahadur Gurung	Act.Senoir Divisional Engineer	Pokhara Sub Metropolitan City
Mr. Santosh Shrestha	Engineer	NEA, Pokhara Distribution Branch
Mr. Ishwor Prasad	Assistant Manager	Nepal Water Supply Corporation, Pokhara
Mr. Lok Raj Sharma	Assistant Administrative Officer	Nepal Water Supply Corporation, Pokhara
Mr. Mukund Prasad Dhakal	Chief Land Revenue Officer	District Office of Land Revenue,Kaski District
Mr. Keshab Poudel	Officer	Everest Bank Limited,Lazimpat
Mr. Ramesh Rajthala	Officer	Everest Bank Limited,Lazimpat
Mr. Mahendra Dangol	Officer	Employees Provident Fund,Thamel



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