IMPROVING THE ROLE OF INFORMAL LAND DEVELOPERS IN URBAN DEVELOPMENT OF GREATER KATHMANDU.

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CERTIFICATE

This is to certify that this thesis entitled **"IMPROVING THE ROLE OF INFORMAL LAND DEVELOPERS IN URBAN DEVELOPMENT OF GREATER KATHMANDU"** Which is submitted by Mr. Kedar Man Shrestha to the Architecture Department of Institute of Engineering, Central Campus Pulchowk, for the award of the degree of **Master of Science in Urban Planning** is a record of the original bonafide research work carried out by him. He has worked under our guidance and supervision and has been examined. It has been declared successful for the fulfillment of the academic requirement towards the completion of the Master of Science course in Urban Planning.

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DECLARATION

I declare that this dissertation has not been previously accepted as substance for any degree and is not being concurrently submitted in candidature for any degree. I state that this dissertation is the result of my own independent work / investigation, except where otherwise stated. I hereby give consent for my dissertation, if accepted, to be available for photocopying and understand that any reference to or quotation from my thesis will receive an acknowledgement.

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IMPROVING THE ROLE OF INFORMAL LAND DEVELOPERS IN URBAN DEVELOPMENT OF GREATER KATHMANDU.

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ABBREVATION

ADB	Asian Development Bank.
ALC	Agricultural Land Consolidation Law.
CBS	Central Bureau of Statistics
CDR	Central Development Region
CTEVT	Council of Technical Education and Vocational Training
DDC	District Development Committee
DOR	Department of Roads
EU	European Union
GATT	General Agreement on Tariff and Trade
GDP	Gross Domestic Product
GLD	Guided Land Development
HBS	Household Budget Survey
HMGN	His Majesty's Government, Nepal
HUDCO	Housing Development Finance Corporation.
ICIMOD	International Center for Integrated Mountain Development
IEA	Industrial Enterprise Act
ILO	International Labor Organization
INGO	International Non Governmental Organization
IOE	Institute of Engineering,
IUCN	The World Conservation Union
LR	Land Readjustment.
JDA	Jaipur Development Authority.
KMC	Kathmandu Metropolitan Corporation.
KVMP	Kathmandu Valley Mapping Project
KVTDC	Kathmandu Valley Town Development Committee
KVUDP	Kathmandu Valley Urban Development Project.
KVUDPP	Kathmandu Valley Urban Development Plans & Programs
KIDC	Korean Land Development Corporation.
LSGA	Local Self Governance Act
LSMC	Lalitpur Sub-metropolitan Corporation
MLD	Ministry of Local Development
MCHFC	Maharastra Housing Finance Corporation.
NGO	Non Governmental Organization
NLSS	Nepal Living standard survey.
NPC	National Planning Commission
NRB	Nepal Rastra Bank
SWOT	Strength Weakness Opportunity and Threat
SFC	Shelter Finance Corporation.
UIS	Urban Informal Sector.
UIT	Urban Improvement Trust.
UNDP	United Nation Development Project
VDC	Village Development Committee.

ABSTRACT.

Kathmandu Valley is a rapidly urbanizing capital region. The urban population 1 million in 2001 is growing at the rate of 5.81% per year. As a result land plot demand in the valley is increasing. Main causes of demand pressure are migrants from outside, household member numbers decreasing in valley, and people living in rent. ie 54%. These rent living people are the most potential buyer of informal land transaction. Huge money from remittance is invested in land.

Formal private companies and government has supplied only less than 380 ha lands in more than one decade. It is very less significant quantity compared to the demand of 180ha per year (*table 8*). This means it is obvious that the rest of the demands are fulfilled by the informal sector. However there is lack of adequate knowledge about their performance.
This study has made an attempt to study informal land developers. This study was based on checklist interview with the land developers at the sites and their document review.

During discussion they have mentioned the procedure, difficulties and suggestion to improve the work. In procedure, location choosing, document verification, rate negotiation, advance payment, subdivision and selling advertisement are main steps.

Risk of advance payment without legal status is the main procedural problem. There has some technical weakness in subdivision quality. Plots without basic infrastructure demands more investment to rectify the problems. The work is more profit motive in short period. There exist financial and legal problems in the business. Some legal problems in land development are, impracticable land ceiling, private sector have no right to land acquisition, no public private partnership land development approach, no legal encouragement to real state business and no legal status of advance payment and agreement before transferring ownership. No institutional financial support to developers. Data recording, filing and map updating is poor. Weak coordination between line agencies, complicated land administration and registration, vacant land issues, encouragement and facility not provided to the land developers.

Improvement of informal land development can achieve through clear government policy, simplification of land administration, institutional finance support, training, awareness and regular monitoring. Periodic land market survey and dissemination of information is necessary to minimize the speculation. Engineer's input in subdivision planning and accountability helps to improve the product. So, timely monitoring mechanism is essential.

Chapter –I, Introduction.

CHAPTER–I, INTRODUCTION.

1.1 Background.

Urbanization means the process of rural to urban migration, change in occupation of the people from primary to secondary or tertiary activities and change in behaviour, values and institutional structures. This rapid unprecedented urbanization process will require a large amount of prime agriculture land to be converted to urban land. Fringe area (a buffer zone between established urban areas and rural hinterland) is rapidly changing into urban nature need for residential and industrial purposes.

Urban Sprawl is largely responsible for unorganized development in the process of urbanization. Urban sprawl refers to a low-density haphazard development pattern arising due to the scattering and leapfrogging of residential as well as non-residential development into the agricultural land at the urban fringe and beyond. (*M.Subba 2003*).
In Nepal, the level of urbanization is still very low. Yet, we can see rapid urbanization level in the country and there is difference in urbanization rates between the physiographic regions, such as Terai, Hill and Mountain. The differences can be addressed only through the realization of the production potentials of these different regions. According to 2001 census, 13.9% of total population live in urban areas in Nepal.

Table 1. In Nepal: *CBS reports.*

Year	1954	1961	1971	1981	1991	2001
Population	8,256,625	9,412,996	11,555,983	15,022,839	18,491,097	23,151,423
Annual Growth rate (Exponential).		1.64	2.05	2.62	2.08	2.25
Urban Population	238,275	336, 222	461,938	956, 721	1,695,719	3,227,879
Urban Population	2.9%	3.6%	4%	6.4%	9.2%	13.9%
AnnualUrban Growth rate	-	4.4 %	3.23 %	7.55 %	5.89 %	6.65 %.

The 2001 census has shown 3.6 million houses and 4.174 million households in Nepal. This data for the urban areas are 0.436 million and 0.664 million respectively. In urban area of Nepal, small size family in household is increasing. Trend of small member size percentage is increasing up to five members. It shows that more houses are needed for fractioned family. In urban area, less member family is increasing having 4.85 members in average in 2001.

Table 2 , % distribution of household by size for urban 1981-2001 (CBS reports.)

Household size.	1981	1991	2001
Number	153,528	313,342	664,507
Avg HH size, Urban	6.23	5.41	4.85
Avg HH size, National	5.8 member/ HH	5.6 member/ HH	5.4 member/ HH
Urban Valley			4.56

The growth trend of urban population in the Kathmandu Valley Urban region is rapid. In 1960s, the valley urban population was 202,609 and by 2001 is 1,046,185, increasing by almost 500%. The main contribution to the rapid growth of urban population in the valley is migration. During 1981-91, valley population increment was 338,290, in which migrated population contributed 37.5% in total. (*2020 devp concept, Tables 19*). By 2030, valley population is expected to reach three million and of them 80% people would live in urban area. (*2020 devp concept, Page 27*)

Kathmandu is the unique historic town, which is located in the tectonic valley of Kathmandu. The valley includes five municipal towns and over a dozen of small market towns. This is the most populated urban centre in the country. The Kathmandu Valley municipalities have the higher population growth than the nation average growth of 2.25% (*census2001*). Kathmandu valley urban growth rate of 5.81% indicates rapid urbanization in the valley. In Kathmandu district the urban growth rate is 6.96% in 1991-2001.

Table 3 , Kathmandu Valley Population scenario:

Valley Population	Kathmandu	Lalitpur	Bhaktapur	Valley Total	Growth percentile
1981	422,237	173,962	144,420	740619	
1991	675,341	230,616	172,952	1078909	24.65
2001	1,081,845	337,785	225,461	1645091	52.48

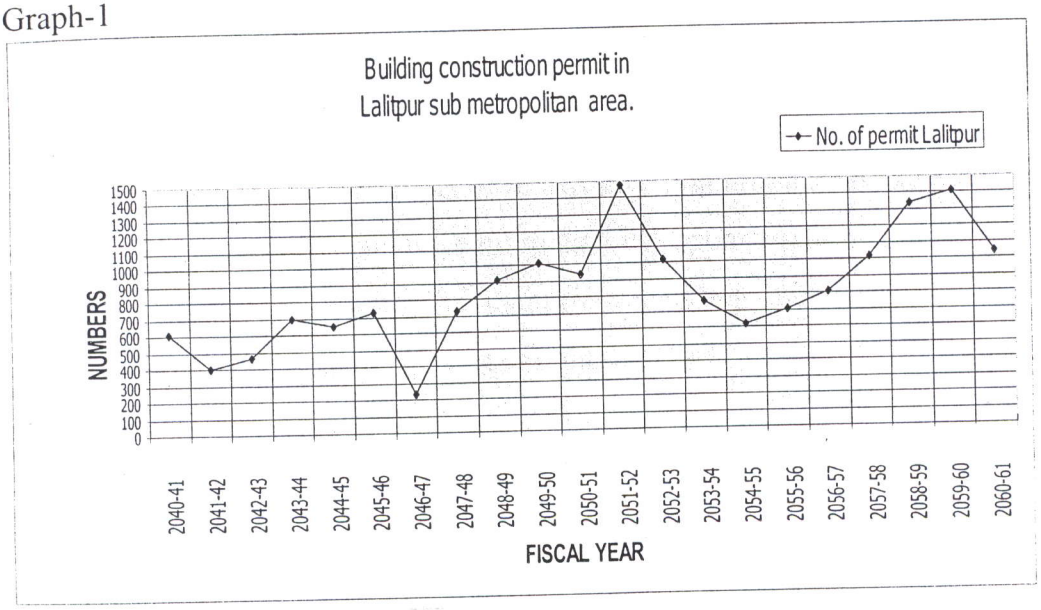
Table 4, Urban Population in Valley. *Source- 2020 Devp concept Table-18.*

Valley urban Population	Kathmandu	Lalitpur	Bhaktapur	Valley Total	Growth percentile (10yrs) In Valley
1981	259,185	79,875	74,548	413,608	58
1991	452,597	115,865	93,375	661,837	61
2001	767,567	163,923	114,695	1,046,185	58.07

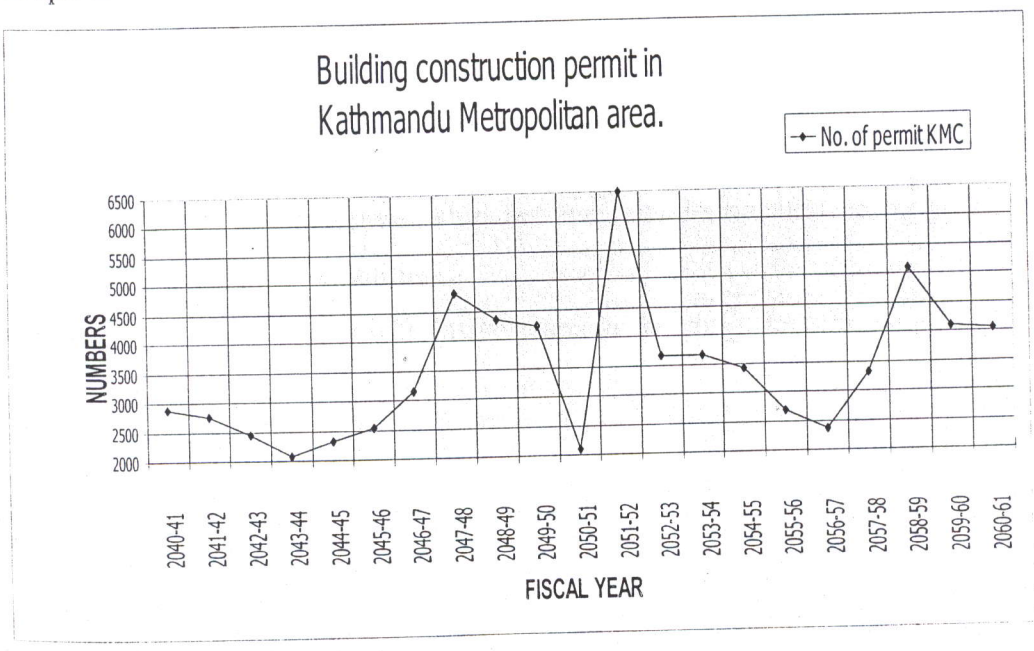
Table 5, Building permit issued by municipalities. *(Source: KMC, Urban Development Dept and LSMC.)*

Year in BS	Kathmandu	Lalitpur	Year in BS	Kathmandu	Lalitpur
2040-41	2876	609	2051-52	6500	1479
2041-42	2746	400	2052-53	3663	1015
2042-43	2430	466	2053-54	3657	763
2043-44	2074	700	2054-55	3415	620
2044-45	2315	650	2055-56	2695	702
2045-46	2537	729	2056-57	2375	808
2046-47	3154	230	2057-58	3319	1016
2047-48	4801	728	2058-59	5111	1339
2048-49	4360	913	2059-60	4110	1413
2049-50	4227	1014	2060-61	4060	1041
2050-51	2094	942 contd...			

Graph-1



Graph-2



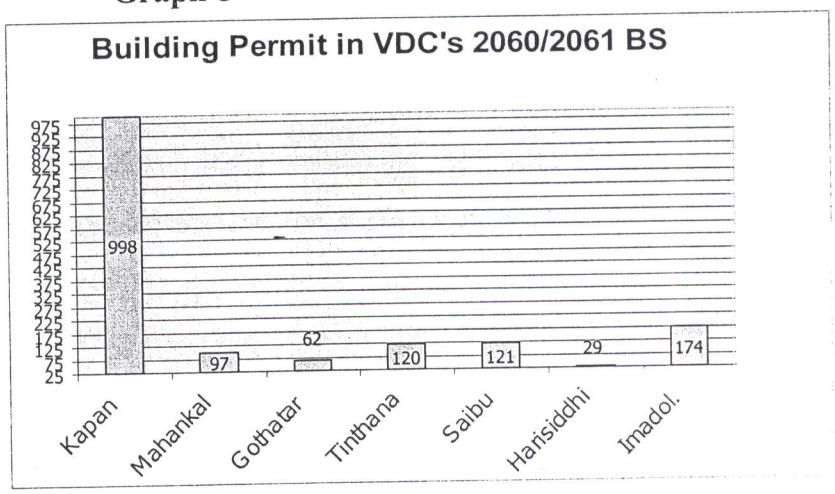
Analysing the data, we can say that the average building permit issued is 5,000 per year in Kathmandu and Lalitpur municipalities only.

Table-6.

VDC	Nos of building permit. 2060-61 BS
Kapan	998
Mahankal	97
Gothatar	62
Tinthana	120
Saibu	121
Harisiddhi	29
Imadol.	174.

Source-Respective VDC offices.

Graph-3



All vicinity VDCs have provision of building construction approval as in municipalities. Indigenous people dominant areas have less nos of approval, whereas new migrants' areas as Kapan, Gothatar and Saibu have more than 90% construction after approval.

In Nepal, as in most developing countries, a strong preference exists for savings in physical assets, such as land, silver and gold, because:

- Securities and other investments are unattractive or non-existent and because inflation tends to erode the value of savings deposited in financial institutions;
- Land is greatly valued for prestige purposes, and to provide a sense of security;
- Some landowners hold vacant land off the market in speculation.

To all urban families, land for housing is essential for access to employment, infrastructure, and social services. To low income families in particular, a piece of land on which basic facilities are provided is its foothold in the urban community.

To Kathmandu Valley as a whole, the smoothly functioning, competitive land market has strengthened the spatial relationship between residential and employment locations, and increased access to poor families.

In contrast, the new forms of relatively sparse housing development in Kathmandu, both formal and informal, are essentially row housing.

To meet the pressure of such urbanization land plot in the urban area, small parcel (piece meal) land in suburb and fringe lands are in a process of rapid development. When land transactions through formal sector become inaccessible to many low and medium income

families, the informal land developers came into the picture. In connection to fulfil land plot demands, whether they are in-migrants from hinterland (Centripetal) or the indigenous people from core area (Centrifugal) are purchasing through informal sector.

Urban area provides employment, marketing opportunities, and inputs and services to the rural hinterland and provides the basis for diversifying agricultural production and increasing agricultural productivity. Formal sector can't provide jobs to all migrated population and urban poor are having difficulty to survive in the city. Along with urbanization, urban areas are suffering from the growing incidence of poverty. Because of dualistic urban economy when formal sector alone is not adequate and effective to provide housing services, informal sector attracts them to start their own self-business like street vendors, vegetable sellers, land brokers etc in low investment.

It is obvious that land is known as the point of departure for urban development and expansion. Land is accepted as wealth and commodity. Within our study area, the private sector is main supplier of land in the land market of greater Kathmandu (Kathmandu and Lalitpur Municipalities) and some emerging as urban area of vicinity VDCs. There is always shortage of land parcel and proper land market information by other sector to the needy persons. The informal land brokers try hard on their own high risk and marginal profit. Land supplies are through the landowners and brokers. The brokers put the majority of lands into the market. Land value is usually based on what sort of urban facilities avails and proximity to the urban centres. The land brokers according to the demand usually set the selling prices.

Informal sector may be defined as the activities , which are not in the record of the government. For overall development of the country urban land development plays a vital role. Good buildings are the major identity of prosperous city. From above data, we can say the unprecedented population pressures in the city housing units are increasing rapidly.

"The informal land developers are individuals or groups of individuals actively participating in land sub division process through the intermediately role in negotiating the landowners, tenants and prospective buyers".

Urban Land is the land under predominantly non-agricultural uses such as housing commerce industries and administrative centers are called urban land. *(Karki Course anual)*

Greater Kathmandu is the area covered by Kathmandu metropolitan and Lalitpur sub metropolitan city. Vicinity Area are adjoining VDC's with greater Kathmandu boundary. They are *Gothatar, Mahankal, Kapan, Tinthana, Saibu, Harisiddhi,and imadol.*

Fringe Area is a highly fluid area in the sense that it reflects the urban dynamics, land use, function and populations, which are trying to adjust in an urban complex. It is the buffer zone in between urban core and rural area.

1.2 Statement of the Problem:

Land plot demand in the valley is increasing. This is capital city having more opportunity of employment and urban facilities. This is the main transit station (entry and exit) for outside the country by air. Main causes of demand pressure are in migrants from outside (average 37.5%). The trend of member size decreasing shows more demand of land plots in coming days.

Table 7, Gross Land Demanded in Valley for 20 years. (2020 development concept table -25)

S No	Period	Projected Population increment.	Proposed density person/ha	Required land Ha.
1	2000-2010 AD	507,224	300	1691
2	2010-2020	576,834	300	1923
Total	**2000-2020**	**1,084,058**		**3614**

Table 8, Dwelling Units demanded In Kathmandu Valley.

S No	Period	Projected Population increment.	Persons per household.	Required units
Housing deficit 2001		242724* *15% of 2001 population.	5	48,545
1	2001-2010 AD	507,224	5	101,444
2	2010-2020	576,834	4.5	128,185
Total	**2001-2020**			**277,874**

Per year 13893 additional dwellings are required. *Source Roshan Pande 2003 thesis.*

According to the Valley 2020 urban development vision, we need additional 3,614 ha land till 2020 for 20 years to cope with the population increment of 1,084,058 at the rate of 300 persons per hectare. It was estimated that 60 % of valley land would be urbanized by the year 2020 *(PADCO, 1986)* out of the horizontal expansion of the city.

Mainly working government, and private sector to produce housing plots in greater Kathmandu. Government involvement has for the first time initiated the Kuleshwore site and services in Kathmandu in 1979. About 280 ha of land development was made available by the government that provided 13,010 plots of different sizes through 13 projects in the valley. (*SB Sangachhe 2002, See table 9*). *"Government initiative in housing plot*

supply is very slow and have not have any significant impact on the housing market due to their limited number and size". (Halcrow Fox et al Vol 3, 1991). Housing demand is simply a need, which is backed up by ability of willingness to pay. For betterment of the city and providing serviced plots public and private agencies are involved.

Table 9 .Land developed by Government in the Valley.

S No	Location	Area (Ropani)	Plot Nos	Period
1	Kuleshwore	521	750	1979-
2	Galfutar	213	450	
3	Dallu	396	1120	1990-2000
4	Nayabazar	840	2320	1995-1999
5	Gongabu	282	700	1989-1996
6	Chabhil(Gopikrishna)	200	259	1995-1999
7	Sinamangal	701	1920	1995- On going.
8	Sinchitar	525	1400	1996- On going
9	KamalBinayak-I	145	400	1987-1995
10	Libali	670	1800	1996-1999
11	Lubhu	269	720	1992-1996
12	Saibu Bhaisepati	552	611	1999-2000
13	Bagmati Corridor (Jwagal)	197	560	1992-1999
		5511rop=280 Ha	13010 plots	

Source –SB Sanghachhe.KVTDC,2002

Formal private companies are able to supply less than 100 ha serviced land plot in the market (*Romesh Sighdel , Upama chand 2003, Roshan pandey '03 thesis*). Government and formal companies supplied only less than 380 ha lands in more than one decade. It is about 40 ha per year. It is very less significant quantity comparing the demand 180ha per year (*table 8*). Then, obviously, rest of 140 ha serviced land plot supplies by the informal private sector. One of them is informal land developers who does more than 1 and less than 50 ropani land assembly, plotting and sell.

However involvement of informal sector in the land development is in their traditional way. They often look into agriculture cheap farmland with minimum services for small-scale land development. Going through the previous report and literature, we know the problems of serviced plot products by informal brokers were in large scale. Technical aspects are main issues. Plots without basic infrastructure demands more investment to rectify the problems. Informal land developers are trying to minimize the errors of broker's work by providing plot road network and other facilities. To some extent,

developers themselves are sub-division planners. They think less use of land in road and other purposes and more and more land selling in plots. Then product may suffer of inadequate entry access, no minimum curve radius (acute curve), absence of land for community use and parking, Cul-de sac and dead end (no turning space for vehicle), drainage provision and inferior quality of work in minimum cost. Developers' gives less importance in minimum engineering standards. This trend obstructs further intervention of planned concept by public sector in future. They are free to make whatever they want in minimum cost. Till date no monitoring mechanism exists by the concerned authorities. Thus the city is growing haphazardly.

1.3 Rationale of the study.

From background and problem statement sub chapter, we can say that the informal land development issues are major and directly relevant to urban development. The city planned or unplanned development largely depends on the informal land developers.

Informal land developers are coming as emerging actor in land development in small area. However, they may dominant actor in future. Preliminary information has indicated that their product quality is sub standards. It is said, they completes project in short period and cost effective (affordable cost).

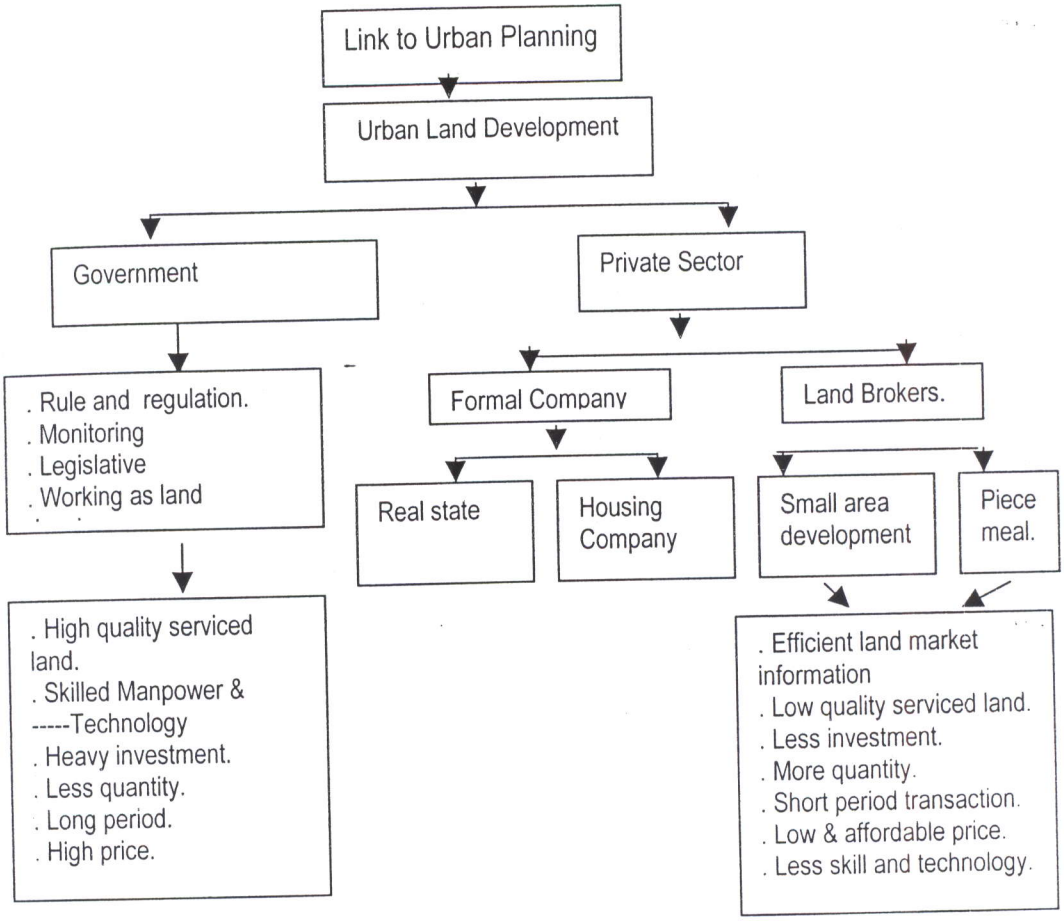
Many studies has been made of formal developers and government works. All are land related and serviced plot production motive work. But the working style, scope and limitation are different to each other. So far no study on informal land developers has been carried out for the last two decades. This study helps to know their working procedure. Study also helps to asses their product is sub standard comparing to cost or not and to know their quality and problems in the business. In Urban development, contribution of informal land developers may good or bad. Study also compares in its technical aspect.

In our valley context, some studies were made in 1986 (padco '86) about the informal land brokers. At that time, informal land developers were not seen in the picture. Problems faced by brokers and these emerging land developers are different and should be studied in different manner.

This study aims to know their problems and explore ways to improve their role. Improvement helps to solve community and urban land related problems. Study also provides more knowledge on how to enable them to provide good plans, infrastructures and services to the dwellers of greater Kathmandu. It also would give more insight to the city plan authority.

What we have seen in the provision of services of infrastructure or technical aspect by the informal sector there is often inferior quality. Why it is so? May be financial and legal status are undefined. Government authority did not make effort encouragement and monitoring to improve their role. This issue is to be addressed in the context of urban planning prospect.

: Chart -1.



1.4 Objective of the Study.

The study aims to understand the characteristics of urban informal sector in land development in Greater Kathmandu (Kathmandu and Lalitpur city). This study will focus on improving the role of informal land developers, and their contribution toward the urban development in terms of fulfilling the housing plot demands in national housing planned way.

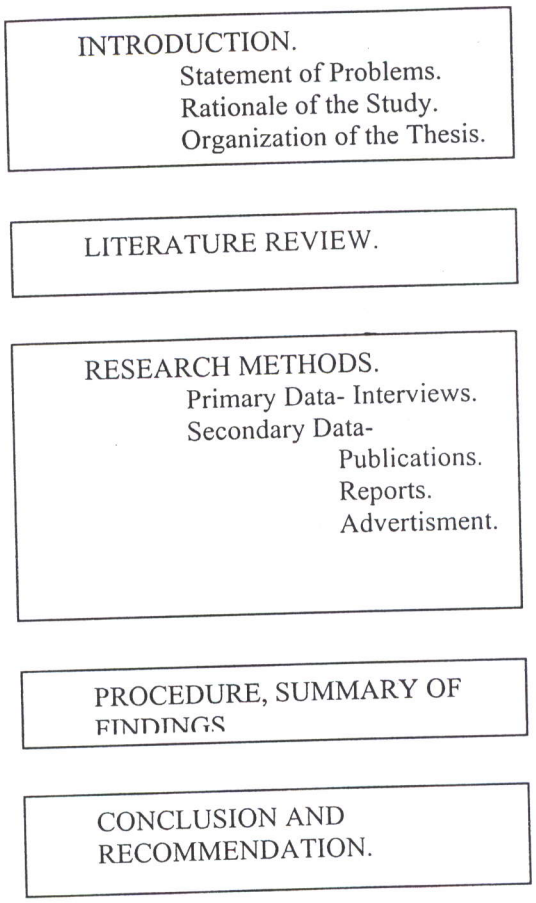
Specific objectives are as follows:

I. To understand their operational procedure (Land assembly, Advance contract, development and selling).

II. Assess informal land developer's quality of sub division (Access road, Plot road, service utilities, physical infrastructures, open spaces).

III Examine their technical, financial, and legislative problems.

1.5 Structure of the study. Chart -2



1.6 Organization of the thesis.

The whole study is divide into eight chapters. They are Introduction, Theoretical framework and Literature review, Research design, Informal land developers in Kathmandu, Existing legislative provisions, operational procedure of informal land developers and findings, conclusions and recommendations.

The first chapter explains briefly the problem identification and objective formation. In second chapter, we will see the Theoretical framework and Literature review. Third chapter Research design is basically to discuss different research methods adopted for the study. The fourth chapter deals with informal land developers in Kathmandu. The fifth chapter explains Existing legislative provisions. Sixth chapter is operational of informal land developers. Seventh chapter is summary of findings and Eighth chapter is conclusion and recommendations.

1.7 Scope and limitation of the study.

The researcher himself completes this academic study within three months.

I. This study will provide information to the people engaging in the informal land developers handling more than 2 ropani lands.

II. The study will be confined to the on going land sub division (plotting) development area.

III. Checklist questionnaire based Interviews with about fourteen informal land developers and more than seven dwellers (who reside or purchased developed plot).

IV. Study area is Kathmandu and Lalitpur municipalities and its vicinity emerging urban area.

Chapter –II, Theoretical framework and literature review.

CHAPTER –I I, THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 Urbanization Process in Developing Countries.

It is already stated that urbanization means the process of growth in the proportion of population living in the urban areas. This process creates multidimensional activities. It changes the structure of economy in territorial response.

Dr Pitamber Sharma in Population monograph of Nepal 2003 page 375 writes:

"Historically, the concept of urbanization has been related to specialization, industrialization and consequent economic development. Although the form of this relationship has remained contested, there is a general consensus among scholars that a fundamental characteristic of urbanization is the structural shift in employment from agriculture to non-agriculture pursuits. In other words, urbanization is a territorial response to structural changes in the economy. A distinctive division of labour, technology based production of goods, trade of variety goods and service, high level of spatial and economic interaction and relatively high density and diversity of population are basic tenets associated with urbanization.

Dr Jigbar Joshi writes in his book Housing and urban development in Nepal,1999 edition;

Urbanization in developed countries accompanied by the declining rate of population growth, increasing the life expectancy and being smaller family size. But in the developing countries, we get different scenario. A high population growth rate and an unprecedented rural-urban migration due to extreme hardships in the rural areas characterize the urban explosion. In the context of developing countries, urbanization is, in general, characterized by the following:

- *Rural to urban migration.*
- *Change from agricultural activities to non-agricultural activities.*
- *Change in occupational structure from agricultural to industry and services.*

- *Change from sparse rural settlement pattern to a relatively dense urban settlement pattern.*
- *Increased interactions and functional linkages among centres of population concentrations.*
- *Change in behaviours, values and institutional structure.*
- *Change in physical environment and,*
- *Increased modern amenities and services.*

We can understand the distinction between rural and urban are of relative concept. When rural areas dependency in agriculture based income becomes lesser and lesser, then the area tends to change in urban nature. There is no hard and fast limitation that the major cities belong to expand more. Other small area can be urban centre having its potential hinterland with services and economic linkages.

T. G. McGEE in his essay the urbanization process in the third world, 1971; explains:

Developing countries is facing towards urbanization. But most of the population still live in the rural areas. Urban population growth is increasing at the rate of 8%, which seems a accelerating rate compared to developed countries. This figure indicates that the cities get doubled in population in ten to fifteen years. It is termed as urban revolution in developing countries.

This phenomenon was seen in nineteenth century in developed countries. (*Reissman).* T.G. McGEE identified three main facets of the urbanization process in the developing countries. They are- first demographic, second, economic and third is social. The demographic aspects of the urbanization were two fold:

('i) Cities grew rapidly in the developing capitalist world from 1800 onwards, and
(ii) The total proportion of population residents in cities increased compared to the residents in rural area.

Here the term urban growth will mean the same as city growth. The term 'urbanization level' will mean simply the proportion of a country's total population 'resident in urban areas'.

S.Devis describes the demographic components have vital role leading to urbanization in the industrialized nations. There are three ways of city growing according to S.Devis (quoted by T.G McGEE;1971) -

(a) Because of population growth, settlement previously classified as rural are re-classified as urban;

(b) Through an excess of births over deaths (Natural increase); and

('c) Because people have moved from non urban to urban areas.

Out of above three ways, third point is most important factor of urban growth in the developing countries. To understand why this rural-urban migration occurred, one must evaluate the economic facets of the urbanization process. The principal economic feature of the process was the shift from agricultural to non agricultural occupations. This was experienced by western industrialized country, only difference was the varying rates of economic developments. S.Davis has explained the reasons for this structural shift in employment as follows:

> *"The reason was that the rise in technological enhancement of human productivity, together with certain constant factors, rewarded urban concentration. One of the constant factors was that agriculture uses land as its prime instrument of production and hence spread out people who are engaged in it, where as manufacturing, commerce and services used land as a site. Moreover, the demand for agricultural product is less elastic than the demand for services and manufactures. As productivity grows, services and manufactures can absorb more manpower by paying higher wages. Since non agricultural activities can use land simply as a site, they can locate near one another and thus minimize the friction of space inevitable involved in the division of the labour. At the same time, as agricultural technology is improved, capital cost in farming rise and manpower becomes not only less needed but also economically more burdensome. A substantial portion of the agricultural population is therefore sufficiently disadvantaged, in relative term, to be attracted by higher wages in other sectors." (As quoted by TG McGHEE 1971).*

Urbanization and economic growth in western world go together. In developed industrial countries urbanization process and economic growth also have been responsible for radical social change also. In this regard Reissman argued the impact of urbanization of social change as:

> *"Urbanization is social change on a vast scale. It means deep and irrevocable changes that alter all sectors of a society... Apparently the process is irreversible once begun. The impetus of urbanization upon society is such that the society gives way to urban institutions, urban value, and urban demands" (As quoted by TG McGHEE 1971).*

The influence of urbanization can be seen everywhere in human related activities. Family size becomes smaller, religion loses its important position and new social structures emerge, new power and class pattern characterize the social structure and behaviour changed. Urban society as a distinct entity emerges.

2.2 Urban Growth management.

The concept of urban growth management was born in the late 1960s and nurtured by American's awakening interest in environmental protection, which was then sweeping the nation. With time, however, and after considerable practical and academic exploration of the concept, growth management came to be accepted as a planning and administrative approach to dealing with development. It emphasized support and coordination of the development process more than pressing limits on it. Growth management evolved into a positive tool to guide community development rather than into a negative force to contain it. (*Porter Douglas R,1996 in Growth management what it is and what it does?)*

> *Ben Chinitz framed a more incisive and comprehensive definition;*
> *Growth management is active and dynamic....., it seeks to maintain an ongoing equilibrium between development and conservation, between various forms of development and concurrent provision of infrastructure, between the demands for public services generated by growth and the supply of revenues to finance those demands, and between progress and equity".*

It is obvious that many changes occur when cities and suburbs grow. Subdivisions full of new houses spring up on formerly open farmland. Other urban facilities also added as city demands. Such highly visible changes are accompanied by shift in the social and economic dimensions of urban life. Different kinds of people arrive, some of whom crave lifestyles unlike those of past residents. Some may be wealthy and bid up housing prices; others may be poor and requires special services. Especially rapid urban growth can have a downside as well. It challenges both citizens and governments to prepare for change. They must find ways to adapt Personnel lifestyles and government structures to new circumstances.

Unplanned growth poses sever problems in the city. Growth has earned a bad reputation in many communities; it is the failure to plan for growth that should take the blame.

Government that fails to anticipate growth sees opportunities turn into problems, not only for themselves but usually for surrounding communities as well. In contrast, communities that "plan ahead" to foresee and meet the needs associated with urban development can capitalize on the benefits of growth.

2.2.1 Nepal government policy in the urban growth management;

In the tenth five year national development plan 2002-2007, (page 261 Nepali version) has also proposed to manage the urban growth in systematic way. It is based on some indicators regarding the urban and land development. Some important indicators are;

a. To launch healthy city programs in 10 municipalities.
b. To launch Urban Environment schemes in 9 municipalities.
c. For Kathmandu valley, to launch Harisiddhi Satellite town plan.
d. To supply 20,000 residential plots within 5 years with a target of 500 hectare of land development.
e. To improve environment of 5 squatter within Kathmandu Valley.

It is obvious that 500 ha is very small quantity to cope with the demand of serviced land. As per 2020 concept 3600 ha is required for 20 years. Till date government has succeeded to provide only 280ha land in more than one decade. So, role of private sector, especially newcomers as informal land developers plays a vital role in this regard. They only need encouragement and technical support.

Taylor (1982) states " The role of planners and decision makers are very much crucial in planning process, Their relationship should have to be harmonized. Their isolation would inherit the major flaws in planning"

2.3 Land Tenure ship.

" Land tenure is the mode by which land is held or owned or the set of relationship among people concerning the use of the land and its product" (Payne 1997:3).

Philip Kivell states in his book land and city 1993, p93 that

"As with patterns of land use, the patterns of land ownership are important but poorly understood aspect of urban development. The principles and supposed effects of ownerships are hotly debated from time to time. But empirical evidence is thin. There is even justification for the claim that less is known about the pattern of land in Britain today than at the time of the Domesday survey nine centuries ago. Britain does not have a complete cadastral survey and register.

Ownership, where land is concerned, is far from a simple concept. With long and varied histories, most European countries have evolved complex pattern of land holdings and tenurial rights. For, Britain Denman (1978:101) suggested that 'it would be exceedingly difficult to identify and classify all tenurial system in existence'.

What is clear is that land tenure involves a "*complicated collection of rights to own, occupy, use or improve space and to lease, sell or pass it one's heirs. It consists in parts of physical attributes such as size, topography, location and accessibility, and, for the other part, a set of institutional and legal rights and obligations. These later are essentially socially constructs which vary from country to country, and from time to time*".

Kivell also quotes *" According to Ratcliffe (1976:21) , ' system land tenure embody those legal contractural or customary arrangement, whereby individuals or organizations gain access to social or economic opportunities through land.... Land without the dimension tenure is a meaningless concept'*

2.4 Rural and Urban Land

Land is considered to be a stable income and a desirable form of property, symbol of high social and economic status. The lack of alternative forms of investment is the main reason for increasing demand for urban land. *(karki in MSc course manual)*

Rural Land

The area where predominantly agricultural use is in practice is basically the rural land. These areas are relatively remote in terms of roads and services. The houses are mostly built up by indigenous materials some scattered and some clustered. The competing users of land for housing plots and commercial activities are less and therefore land price is cheaper. Dominance of vast farm land with respect to the built up areas. The rental value of rural land is very low.

Urban Land

The land under predominantly non-agricultural uses such as housing, commerce, industries and administrative centers are called the urban land. The urban lands are mostly rendered with better roads and services, information, health and educational facilities and market with wide variety of goods.

There are large numbers of competitors of land for housing, commerce, industry, and institutions and therefore, higher price of land. Urban land is surrounded by relatively large built up areas made up of modern building materials. This land has higher rental value

Briefly urban land problem mentioned in manual are

- Lack of enough land at the right price and in the right location.
- High cost and low affordability of land and housing.
- Ineffective government programs and actions in the area of urban development.
- Private sector resistance to government land regulations.
- Environmental resource constraints to land development.

2.5 Concept of Informal Sector.

Keith Hart in 1971 was the first person to introduce the formal - informal dichotomy in the study of migrant group, in an urban area of Nima in Accra (Ghana). According to him, "The informal sector provides income earning opportunities for a large number of people though it is often regarded as unproductive and stagnant. We see it as providing a wide range of low cost, labor intensive, competitive foods services, etc. We therefore advocate a positive attitude on the part of government towards the promotion of informal sector"

There exist many more views regarding the definition of informal sector. As per Amin (1982): "At the conceptual level to include all enterprises which are not officially regulated and which operate outside the incentives system offered by the state and its institutions. In contrast enterprises, which enjoy official recognition, protection and support, are defined as formal sector enterprises. No such support or protection is available to informal sector enterprises. At least these enterprises are tolerated but the norm is to subject their operators to routine harassment or pursue overt and covert policy with the aim to reduce or eliminate these 'unauthorized economic activities' altogether. At the empirical level, the informal sector is defined to comprise those economic enterprises, which employ less than 10 persons (including the owner) per unite and which simultaneous satisfy one or more of the following conditions:

- It operates in open premises;
- It is housed in a temporary or semi permanent structure,
- It does not operate from spaces assigned by government, municipality or private organization of officially recognized market places;
- It operates from residence, or backward, and
- It is not registered.

"The distinction between formal and informal income opportunities is based essentially on that between wage earning and self employment (Hart 1973). There are certain terms such as informal income generating activities, petty capitalism, urban sub proletariat; unremunerated

sector, unorganized sector and self employed individuals, which have been used interchangeably by Hart.

The macro dualism models identify the new income generative activities in the informal sector. The heterogeneity of the people was also recognized.

Though Hart's article was published in 1973 later than I.L.O. report in 1972, his paper is regarded as the first in the sense that he presented the paper at the conference on "urban unemployment in Africa7' in the Institute of Development Studies, University of Sussex in September 1971. Subsequently the paper was published in the journal of Modem Africa studies 1973 under the title "informal income opportunities and urban unemployment in Ghana".

The ILO mission to Kenya followed the analysis of Hart in utilizing the characteristics of enterprises as the basis of dichotomy but it enumerated details and specific characteristics of the two sectors to identify the target group more distinctly mainly for policy measures. The mission defines: "Informal activities are the way of doing things, characterized by ILO (1972):

Table 10 The ILO's Distinction between the Informal- Formal sectors.

Informal Sector	**Formal Sector**
• Ease to entry • Indigenous inputs predominate • Family property predominate • Small scale of activity • Labor intensive • Adaptive technology • Skills from outside school system • Unregulated/ competitive market	• Difficult to entry • Overseas inputs • Corporate property • Large scale of activity • Capital intensive • Imported technology • Formally acquired (often expatriate) skills • Protected markets (e.g. tariffs, quotas, licensing)

Source: ILO, 1972:6

As per Lewis model (1954), transfer of surplus labor from the rural subsistence sector will be closely associated with the growth of employment in the urban industrial sector.

Lewis model does not provide an adequate explanation of the extent of labor transfer that has taken place in the low-income countries like Nepal. There is an implied assumption of non-existence of urban unemployment in this model.

Several elaborations, refinements and modifications were made by Fei and Ranis (1964), but these models did not address the extent of labor banisters and their consequences.

Hart (1973) has described that the distinction between formal and informal income opportunities is based essentially on wage earning and self-employment. The macro dualism models (DATE) identify new income generative activities in the informal sector.

According to **Marx's axiom of urban development** urban sector develops due to the investment in different activities by rich people at the cost of exploiting poor people. Rich people expand their investment in urban sector.

SethuRaman (1976) has defined "all unregistered commercial enterprises and all non-commercial enterprises that have no formal structure in teens of organization"

Within IS, two sectors:

I. An irregular sector, consisting of a variety of legitimate (lawful) low status fringe activities like begging, various forms of casual labor such as gardening, car washing, leaf racking as well as many illegal activities.

II. The sector proper, consisting of small-scale economic activities, commonly non-wage and carried on by family concerns.

Sethuraman modified the definition of informal sector in general:

"It consists of small scale units engaged in the production and distribution of goods and services with the primary objectives of generating employment and incomes to their participants not withstanding the constraints on capital, both physical and human and know how" (1981), second, the existing definition fails to approximate reality, such as to assume the homogenous character attributed to all components in informal sector as stated by Bromley (1979):

2.6 Urban Land and land use.

Bijayananda Mishra, states in his book Urban land Markets in Asia

'Land is essential for all human activities. Land is limited in quantity. Hence, it is one of the most valuable resources for development. Further its immovability makes it high location specific and its potential for use determines its values. As a vital and also scarce resource it requires effective management and control.

Since land is valuable it is a profitable asset for the owner. To own land or real state property provide lifetime satisfaction to most people and it is often seen that through acquisition of land or space people consolidate themselves in the urban economy. Land ownership provides societal status in many societies. Land also is an important vehicle of transfer of wealth through inheritance. For all these reasons, to own land or a real state property is not only an economic necessity, but also a psychosocial necessity as well for many.

Land use, planning and control happen to be the most important tool with any city planner. In the process of planning a city the most important job of a planner is to plan out the land use because all other provisions are based on it. It is directly related to land value and transportation. Any piece of land may become prime land and worth a lot of money overnight because of change of its use in the development plan.

Major problems of development are often linked to improper use of land. Since land essentially is to be occupied for use, ownership of land, rights to occupy and use it etc, largely determine efficiency in use. In case of urban land, because of the intensity and complexity of urban activities and more because its value is greatly determined by various types of services and infrastructure provided by the government and the demand on it is created by the society, utmost priority attention is required for its management and control.

In the developing countries of Asia, provision of adequate shelter for majority of urban population remains as critical as a decade ago. Despite long efforts made by several governments and large amount of money invested and energies spent in the urban land development and housing sectors, shelter deficits are mounting in most metro cities of Asia and increasing numbers of the low income households are being deprived even of minimal shelters with minimal provisions of potable and sanitation facilities.

He further clears that 'In the case of developing countries the informal markets control almost all transactions of lands in this category which account for 60 to 85 percent of all transaction in land. The major development issues related to this category of lands are: how the operation of these markets can improved so that the resultant physical development attains a minimal desirable standard in-terms of layout and provision of space for basic urban infrastructure and facilities without jeopardizing the present easy entry of the poor and low income households and how, to harmonize the agriculture and urban uses and reduce environmental conflicts between those. Informal land markets not only accounts vast majority of all land transaction in many metro cities of Asia but also, more importantly, that provide the most efficient means by which the low income and poor households have access to land and/ or housing and consequently consolidate their positions in the urban economy.

F. Stuart Chapin, Jr, mentions in his book urban land use planning, P8.

Use of the individual land parcel- The land economist views land use in terms of economic theory, with the use of each land parcel determined in what he calls "the urban land market". He looks upon land (real state in the generic sense) as a commodity traded in this market subject to the forces of supply and demand.

Urban land is considered to have values because of its potential to produce income in the future. This value is based on what developers would be economically justified in paying for it

As true with all informal systems, by their very nature, the 'informal' land markets are subject to abuse and manipulations by interest group and resultant development is often of rather poor physical quality with limited possibilities for improvement in future. In spite of the shortcomings, the 'informal' land markets significantly contribute to urban growth by catering to the needs of the majority of the urban population, which is economically disadvantaged and is normally ignored by the 'formal' land markets. The need, therefore, is to understand the principles and conditions, which determine the operation of these 'informal' markets in order to strengthen their merits while reducing their undesirable characteristic.

2.7 Experience in other countries.

It would be relevant to look into land management experiences in other Asian countries and cities. *(Ramesh Sigdel in his thesis 2003, summarizes as)*

2.7.1 Experience in Japan

In1954, the land readjustment law was enacted. It was the accumulation experiences of agricultural land consolidation law. More buildings and more development facilities was the main motto. Land readjustment projects are still one of the measures for implementing city / town planning in the present city planning law, which was totally revised in 1968. The legal urban planning system in Japan consists of three components, viz, ' Land use', "Urban facilities", and "urban development projects". Combination of these three can be comprehensive and cope with the pace of rapid urbanization. Involvements in urban management are Individual implementation bodies (uses **ALC law,** 100% consent landowners and lease holders), Land development cooperatives (composing all landowners and lease holders) and public sector.

Generally private or cooperative sector are involved in implementation except in disaster and high priority projects. Land readjustment law **(LR Law)** has provided ample legal provision. The individual implementing body and the land readjustment cooperative are granted the 'public juridical persons' status in **LR Law**. But the public sector does not stipulate such status, because it already has the juridical persons' status in other legislative provisions.

These individual and cooperative juridical person statuses are

- Can procure necessary funds from private banks.
- Can be a applicant or defendant in a suit.
- Can obtain tax incentive benefits.

Project can be implemented after governor's approval.

2.7.2 Experience in India.

India is experimenting upon the private land and housing development schemes in some states. Private cooperatives, experiences of Jayapur-

Some 15 persons, in possession of land holding can buy land infringe area and subdivide it into residential plots and sell within the members. This phenomenon was adopted since 1945. After Urban Improvement **trust (UIT)** 1959, direct purchase from farmer was stopped. But public sector could not supply land allotment till 1968. Due to high demand

pressure, those cooperatives purchased land without permission. In 1971, Revenue department imposed ban using farming land conversion rule 1971. Same time new cooperative registration stopped and revenue increased to existing one. Urban land ceiling and registration act 1976 restricted even more of the transaction. In 1970 Rajasthan housing board was formed to provide housing. **JDA,** Jaipur development Authority formed to implement master plan of Jaipur. In between those days cooperative activities was done on illegal basis. Rajasthan could not stop the illegal transaction, and regularized giving approval the works by cooperatives under new conversion rule 1981.

Formal private sector in Indian context is involved in urban land development process

a. *Independent Industry* - Land is assembled through the open market and developed in conformity with the prevailing regulations related to urban development by independent formal private sector in the form of property developers/real estate companies. The independent private developers could also develop the land made available by the public sector through the provision of land banking.

b. *Partnership with Public Agencies* - Private sector is involved in collaboration with public agencies (mainly city development authorities) to develop the land property assembled or provided by public agencies. To achieve the easy functioning of private sector, various working/operational models have been worked out. However, the efficient functioning of these operational models is largely dependent upon the existing provision of legal, institutional and financial framework.

The private sector's involvement in land development activities have been enhanced by the availability of housing finance and credit facilities through central and state governments, the financial institutions, the private sector and individual house owners. As an example, Housing Urban Development Corporation **(HUDCO)** was established in 1970 under the Ministry of Urban Development, Government of India, whose primary function was to support urban development and housing activities all over the country through state housing boards, development authorities, local authorities and statutory institutions set up by the state government.

Similarly, in Mumbai, the institutional finance is available for investment in land through Housing Development Finance Corporation **(HDFC)** for individual borrowers; Maharastra Cooperative Housing Finance Corporation **(MCHFC)** for cooperative housing societies; **HUDCO,** Housing urban development Corporation, for public housing agencies; National Housing Bank to facilitate long-term finance to the individual developers and builders and Shelter Finance Corporation **(SFC)** to mobilize institutional finance.

2.7.3 Experience of Korea

The needs for efficient urban land management through land development in Korea start from the massive entry of refugee population after the 1953 war in Greater Korea. R. G. Gupta in his famous book "Shelter for Poor in the Fourth World, 1995" states that the rate of urbanization has been increased from 28°,% in 1965 to 65.4% in 1985 and is expected to reach 75,% in the end of twentieth century.

In Korea, the overwhelming rate of urbanization and scarce land resources gave rise to various issues and constraints in land development practice. As a policy response to the steep rise in land value and short supply of land, various land policy measures were introduced which were focused on punishing that- excessive land holdings in the form of "Comprehensive Measures for Suppressing Speculations and Stabilizing the Land Prices" (Lee, 1998).

Government of Korea, adopted regulations related to real estate transactions, expanded the area covered by the "Standard Land Price Assessment System", adopted licensing procedures for real estate brokers, increased taxes on capital gains from property sales and holding of idle lands and established the Korea Land Development Corporation **(KLDC)** to expand public sector's supply of developed lands as well as to initiate some public land banking system.

However, according to Lee, these policy reforms were largely ineffective to meet their objectives. Therefore, a comprehensive land policy was introduced during eighties when the land value was again in rise. This new policy named "Measures to Enhance Public Interest in Land Related Matters" included -

a. The comprehensive land holding tax, a new system of value assessment
b. The reinforced land transaction regulations
c. Three new radical measures, viz., the ceiling on urban residential land per household; the development charge and the land value increment tax

According to Lee, the land policy was further supplemented by policy reform measures in late eighties. This new policy reform has the provision for the land development charge (at the rate of 50% on the increment in the land value arising from the development of land after adjusting for the cost of development) levied on lands developed for residential, industrial and other uses.

Land value increment tax is also levied to recapture windfall gains, which deters landowners from holding on to a land for speculative purpose. The new policy reform though being complementary to comprehensive land holding taxation system, the fundamental approach was different as the new policy depended upon the fiscal tools to compel landowners to dispose their excessive holdings which are quite a departure from the approach of putting direct ceiling on the land holding.

Objectives of Land Development Schemes and Private Sector:

The land development practice was initiated in Korea since the enforced of Korean Land Readjustment Act of 1934. In the first two decades, the land readjustment technique was not used widely, but the fifties and sixties experienced massive land development programs. However, the objectives of the land readjustment schemes were quite different in the earlier period.

In the fifties, Koreans used to develop land for the rehabilitation of war damaged area. This decade experienced about 9 land readjustment schemes of smaller sizes in Seoul (14.74 ha being the average project size). Most of the projects were implemented within the inner city areas, badly damaged in the occupation period and Korean War. The project financing was done through public institutions' subsidy and the contribution of original landowners in equivalent land (average contribution being 22.8%). At that time

the developed plots were re-distributed completely to the original landowners who were upper and middle-income groups.

The massive urbanization trend in the next two decades completely changed the original land development objective. The new aim was to provide serviced housing lots. In the sixties and seventies, about 26 big land readjustment projects with average project size of 354 ha (total developed area being 9305 ha) were implemented. The financing was done completely through the contribution of the landowners in cost-equivalent land (the average contribution being 35.3% of original land area). The developed plots were re-distributed to original landowners.

However, the projects started to supply developed land/plots to economically weaker section only from eighties. About 12 projects with average size of 115 ha were implemented in the eighties in Seoul (total area developed was 1442 ha). These projects were implemented with valuation approach in which different land parcels were categorized as per their location and present value. The development was financed again through the contribution of the landowners. As the fringe urban expansion areas of Seoul were experiencing massive rise in land value and as the approach of these, land readjustment was valuation based, the original landowners contributed more than half of their land (about 55.3%) to get developed plot. Thus the implementing body could provide residential plots to economically weaker section of the society.

Until the late nineties, the land development activity was exclusively public sectors' undertaking besides allowing private sector to develop certain smaller areas. The public undertakings through land readjustment technique in Korea have been a success story despite the fact that the total percentage contribution of cost-equivalent land is increasing (sometimes over 50% contribution) mainly due to the real estate boom and ability to maximize the associated high quality benefits. It is estimated that more than 51% of the total built up area within Seoul is the outcome of land readjustment technique (Lee, 1998). However, with increasing demand for land and growing strength of the private sector in Korean economic market, government has initiated the various policy measures to involve

private sector in large-scale urban development. The basis for involvement of private sector in large-scale land development is strengthened by the strong urban land policy and regulation measures.

Summary:

Land development was introduced in Korea during the Japanese occupation of 1905-1915, the critical enactment being the Korean Land Readjustment Act of 1934. In 1966, a Land Readjustment Project Act was enacted, which while permitting readjustment by private initiative, placed greater emphasis upon projects initiated by local authorities. Korea is unique in its effort to use land adjustment for the purpose of creating low-income housing by the provisions in the 1980 Korean Master Plan for Public Housing Construction and National Urban Land Development.

Thus, Korea has act legislative provision to implement land development schemes by private sectors since last forty years. However, the private sector was not involved in large scale land assembly till recently. With a massive economic boom and massive urban expansion, the government of Korea has initiated the formulation of various policy measures to involve private sector for large-scale urban development works.

2.8 Land management in Asian cities.

This publication is the result of a study by the Economic and Social Commission for Asia and the Pacific carried out over the period May 1994 to February 1995 in collaboration with the Regional Network of Local Authorities for the Management of Human Settlements (CITYNET) as a response to a need perceived in its member cities. It was printed by CITYNET.

Every day in Asia, the urban population increases by the equivalent of one city of 140,000 people. In fact, the urban population is expected to double over the next 20 years. Cities have so far absorbed their growing numbers in settlements with a varying quality of living mostly located in the urban fringe. However, the shortcomings of present land management systems have gradually become obvious, as the urban growth has resulted in negative impacts such as sprawling squatter settlements and traffic chaos. Although appropriate land for housing

exists, sometimes in relatively central locations, it is not accessible to vast sections of society because of factors such as land speculation and lack of public investment in infrastructure and transport facilities.

A major revision of current policies and practices regarding land and its planning, Development and control are called for in most Asian countries. Such a revision requires bold action in many areas including land-use planning, zoning, infrastructure provision and property taxation to mention only a few.

This cityNet report is the source of land management options and analyzes their effectiveness as these are practiced in six municipalities in South and South-East Asia, which served as case studies. Six case municipalities are Bandung (Indonesia) and Dhaka (Bangladesh), each with a population of several million. Makati (the Philippines), which is part of metropolitan Manila, and Penang Island (Malaysia) are medium-sized municipalities, whereas Hué (Viet Nam) and Kandy (Sri Lanka) are relatively small.

Land use and methods to control its use.

Physical planning instruments used by developing countries today have been developed in Europe and typically need adoption before being suitable for Asia. They are generally too static for rapidly growing cities lacking implementable land use control mechanisms and investment priorities. Furthermore, standards for building regulations and lot sizes are too high, and the plans are next to impossible to monitor. More dynamic tools include structure plans and, regarding zoning ordinances, mixed-use zoning and floor area ratios (FAR). As current practices in many situations can be defined as "emergency" planning, that is planning after a problem has emerged, it is important that municipalities define their objectives and adopt clear land policies to be able to influence physical development at an earlier stage. Among the case studies, some type of citywide plan was common but updating often proved difficult. Many case studies identified the monitoring of land-use and regulations as a key problem. Furthermore, municipalities in metropolitan areas experienced problems with the coordination of national and other municipal governments. Regarding the current land use pattern, the responses to the questionnaire indicated that most municipalities had large tracts of agricultural land available in the urban periphery.

A large portion of the land was zoned as residential (29%) while very little land was vacant (five per cent). The minimum plot sizes for residential land, ranging from 36 to 152 square meters, was often too large to give low-income groups access to land.

The availability of public land and public land acquisition-The chapter initially describes how large public land banks have failed in the past as the public sector has not been efficient and sensitive to needs. However, a small land bank with certain key plots is essential for the smooth provision of land for the required infrastructure network without governments being forced to pay excessive land prices because of development pressure. Although the use of expropriation is recommended only as a last resort, data from the case studies indicated that surprisingly large tracts of land had been expropriated. In the case of Hué as much as eight per cent of the total municipal land area had been expropriated during the latest three-year-period for which figures were available whereas the equivalent figure for Kandy was three per cent.

Land development argues that the private sector should play a major role in land development and the provision of housing, possibly in public-private partnerships. The public sector should focus its activities on providing the major infrastructure network. It should especially promote an appropriate development of the urban periphery as that is more cost-effective than investments in already built-up areas. Research suggests that landowners are rarely required to pay the full costs of infrastructure provision in Asia, even within areas where the residents were financially well off. It is imperative that governments with limited financial resources attain full cost-recovery.

There is even a strong case for the public sector to get a large part of the increase in values resulting from the land development process. Furthermore, governments need to make major efforts to reduce the number of administrative procedures required for obtaining permits and approval as well as the time these consume. The complications and delay of the administrative framework contribute to the delay in response of land markets to changing demands of the population and to making land speculation rampant in Asia. However, the lack of alternative investment opportunities are probably the foremost reason for land speculation. In all the cases municipalities were involved in land development although rarely on a large scale. They used very different methods to control land development. Among them were Penang's innovative honor system which required practitioners to adhere to professional principles.

Although almost all case studies identified land speculation as a major problem, it was strikingly clear from the information provided that serious attempts were rarely made to curb land speculation and to encourage capital investment on land. Whereas Dhaka and Hué did not even levy a property tax on vacant land, no case-study had a windfall profit tax and, where capital gains tax was levied, the tax level was very low and the implementation poor.

The land registration and information systems,- are typically a major obstacle to improving land management systems in Asian cities. It is not unusual that only 10 to 20 per cent of transactions are formally registered. A functional land registration system provides tenure security and support for the property taxation system as well as facilitates efficient physical planning and the setting up of a land information system. A land information system is an efficient and cost-effective means of storing, extracting and sharing information on land, such as transactions, land use, land ownership, population densities and land values. In many municipalities, the land registration systems were incorrect, and registering was time-consuming and expensive.

Bandung estimated that only about 50 per cent of the land in the municipality had been registered and that only about 25 per cent of applications for land registration had been approved within two years. In Dhaka the land registration fee was as high as 18 per cent of the deed value and there were indications that there had been large-scale fraud related to land registration.

Property taxation - which was typically an under-utilized source of municipal revenue in Asia, contributing to less than 20 per cent of the total budget. In comparison, transfers from national and state governments were a larger source of revenues. As the responsibilities of municipalities increase, it is vital that they are provided the opportunity to generate and administer the funds required. Municipal revenues in the case-studies varied substantially. Makati's total revenues were more than US$90 per capita and Bandung's less than US$10. Property tax revenues were highest in Penang, about US$35 per capita and less than US$10 in all the other case municipalities. Dhaka and Makati could independently set tax rates and decide on property tax structures and reductions whereas Bandung and Penang could not.

Access to land for the urban poor,-which is definitely a critical issue. As centrally located land has become very expensive, the urban poor have been "pushed" to the urban periphery where income-generating activities are difficult to find. Municipal governments have not

been successful in trying to provide housing opportunities to meet the rapidly increasing demand. To increase the output, governments have gradually adopted the role of facilitators rather than providers. The study reviews a number of current approaches for the provision of low-income shelter. Typically, most of these are too costly for governments and require considerable staff resources to carry out. All the case municipalities made considerable, some even extraordinary, efforts to provide low-income shelter. More conventional methods such as sites-and-services schemes, settlements upgrading and rental housing were preferred. The land value increase had been so substantial in some cities that condominiums and rental housing were utilized to maximize the use of the limited supply of relatively centrally-located land. Asian cities have faced an uphill task to provide shelter and infrastructure for its growing numbers and it appears that the task will become even more unmanageable. It is, therefore, imperative that they approach the crucial issue of managing its limited supply of land in a professional manner.

There is a need to set clear long-term objectives regarding the use of land and to make administrative frameworks more efficient. Municipalities would need to adopt land policies, which continue to promote economic development while, at the same time, limit the negative impact on the living environment and economically less affluent income groups.

2.8.1 Problems and solutions identified by the case-studies

The case studies were requested to list their major land management problems and propose solutions. Many municipalities considered that unregulated land use was a serious problem. Furthermore, an often-indicated problem was the lack of coordination between different national, regional and municipal government bodies and overlapping responsibilities.

Bandung indicated that unregulated and unmonitored land use was the major problem with emerging negative impacts on the environment.

Dhaka City Corporation stated that there was a need for a stronger coordination of various government agencies in order to improve the urban development situation. A large number of national government ministries, directorates and agencies as well as municipal and other government agencies and the private sector were involved in the development of Dhaka. Their responsibilities were often not clearly defined and sometimes they overlapped. Most activities related to land management (such as town planning) were regulated and

implemented by national government agencies and Dhaka City Corporation felt that its, presently limited, influence over the development within its borders should be increased.

In Hué, encroachment on public land was considered a major land management problem. It had caused water to be polluted within the inner walls and damaged cultural and historical buildings. The municipality intended to mitigate the problem by improving land-use information through the production of up-to-date maps using national co-ordinates as well as by consolidating Land Management Offices in order to implement national land-use systems in local areas.

In Makati, the scarcity of inexpensive land for low-income housing was considered a major problem and the municipality, therefore, intended to ease the problem by implementing several tenement housing projects. Furthermore, the municipalities and cities in Metropolitan Manila needed some form of coordination. As the zoning ordinance for the capital region had not been revised since its adoption in 1981, several changes in land use had adversely affected neighbouring cities and municipalities causing traffic congestion, for example. The Metro Manila Mayors' Council had formed a committee on land use and zoning to integrate proposed changes to the zoning ordinance which was expected to be more responsive after being revised.

Penang mentioned several key issues which caused land management problems:

(1) The city was old and land policies practiced previously were often difficult to replace or modify;

(2) Conflicts between redevelopment and conservation;

(3) Conflicts between modern technology and cultural heritage and traditions;

(4) Frequently changing demands for residential developments; and

(5) High expectations of the citizenry for an improved quality of life, such as better infrastructure and security, as well as improved recreational facilities.

Furthermore, land management could be improved by

(a) having a joint master plan of the national, regional and municipal governments;

(b) planning and managing land with clear directives and commitment;

(c) maintaining and compiling statistics to ensure that objectives were achieved; and

(d) realizing that land is scarce and that there is a need for a balanced development.

THE LAND BANK IN DELHI **Box-2**

Delhi's largest landowner, without comparison, is the municipal Delhi Development Authority (DDA). The land bank in Delhi was developed during the 1950s and 1960s to direct and control the development of the city. However, apart from the fact that DDA now is extremely wealthy, the land bank has not become an efficient land management tool mainly because of problems caused by acquisition, disposal and development policies. The root of the problems stemfrom the fact that the objectives of the land bank never were clearly defined.

The scheme, which was started in 1961, allowed DDA to take control over all land designated for urban development. DDA would subdivide and service the land. The acquisition process under the applicable law, the 1894 Land Acquisition Act, is both cumbersome and expensive in terms of time and money. The level of compensation has also been debated since it is based on the value of the land at the date of notification which can be 20 years before the actual transfer takes place.

It was stipulated that the serviced land should be disposed of by auction to the highest bidder except in some specified cases. The financial success of the land bank is indicated by the increase of the revolving fund set up for the purpose. The fund increased from 50 million rupees in 1961 to 2068 million rupees in 1981, an increase of 4136 per cent. DDA became the largest landowner during the same time period. Problems with the disposal process include high auction prices and cumbersome administrative procedures. Land, which is disposed of by other means than auction, faces problems with inappropriate allocation procedures favoring more influential population groups.

Another problem was that the objectives of the land bank were not clearly defined from the outset. There were no targets attached to very general objectives. For example, one objective was "To prevent the concentration of land ownership in a few private hands and safeguard the interests of the poor and underprivileged" (Acharya, 1987) without specifying any targets. It can be concluded that DDA has not been very successful in distributing land to low-income groups. As of 1982 14669 plots had been distributed to low-income groups which is about 44 per cent of the total amount of plots distributed. Although the high-income group only constituted eight per cent of the population, they received 38 per cent of the plots and 58 per cent of the residential land area.

It is also interesting to note that instead of achieving its objective of regulating land values, these have actually increased considerably since the introduction of the scheme.

Sources: Acharya (1987) and ESCAP (1993).

LAND DEVELOPMENT IN FORT BONIFACIO **Box-3**

The 1992 Bases Conversion and Development Act of the Government of the Philippines gave the mandate to a government agency, the Bases Conversion Development Authority (BCDA), to develop or dispose of about 800 hectares of Metro Manila's military camps. The main objective is to finance the provision of necessary infrastructure for the conversion of former American base land.

Other objectives include the contribution of funds for the relocation of military bases, the modernization of the Philippine military, housing and community projects, various municipal governments in Fort Bonifacio as well as an increase in government revenues. A specific objective for the development of Fort Bonifacio is to create a new centrally-located and 'environmentally sound' residential, commercial and recreational area. By the year 2000, at least three million people are expected to commute in and out of the Fort Bonifacio on a daily basis.

In Fort Bonifacio, 440 hectares of land have been designated for development of which 214 hectares will be developed during phase I (1995-2004) in a private/public partnership.

The private sector has been invited to bid on a 55 per cent share of a corporation jointly owned by the Government and the private sector which will be formed for the development of phase I. The rest of the area will be developed in phase II which is scheduled for 2005-2014.

Fort Bonifacio is to become a 'clean and high-technology' district. Therefore, the intention is to exclude factories from the area, build a mass-transit system and reserve between 20 to 42 per cent of each zone for open spaces, roads and recreation. Fort Bonifacio will have five major zones: 47 hectares for a central business district (competing with the nearby business district in Makati); 163 hectares of mixed high density development; 29 hectares of institutional area (schools and hospitals); 92 hectares of high-end residential area for foreign residents and embassies; and 71 hectares of so called socialized housing for the relocated families. In order to cope with the increased traffic volume, several access roads will be widened into four to six lane highways, among other traffic solutions.

The Government is expected to raise at least 20 billion pesos (approximately 770 million US dollars) from the sale of the shares in the corporation. BCDA is expected to raise substantially more government revenues than from similar government projects because the sale of developed land in Fort Bonifacio will fetch a considerably higher price. Previously, the Government had sold only raw land. BCDA expects the high-end residential area to fetch 20,000 pesos (800 US dollars) per and the central business district to fetch 76,500 to 100,000 pesos (2,500-4,000 US dollars) per square metre. Government revenues will be used to fund the relocation of military facilities and the 5,235 military and temporary households. BCDA will provide loans with good conditions to the relocated households (two-year grace period, 12 per cent interest, 20 years repayment period) for centrally located two-three bedroom units, which will have access to public transport and services as well as employment opportunities. Each household will also be granted 50,000 pesos (about 2,000 US dollars) in compensation.

Some of the major constraints faced by BCDA include the delay of a major highway project crucial for the Fort Bonifacio traffic situation, the uncertain revenues from the project, an unresolved land dispute and the relocation of military facilities and residents in the area. The successful implementation of the first stage was seen as critically important.

Newspaper clippings (e.g. Philippines Daily Inquirer) and other information from the Makati Municipality

Land banking

Five municipalities responded to this question. Bandung, Dhaka, Makati and Penang responded that no land bank was available, whereas Hué had a policy to "keep land for development until the year 2010". The policy, which had been approved by the national Government, included land for future residential projects and infrastructure. Dhaka, however, was considering introducing a land bank. Presently, the amount of vacant land in Dhaka was about 7.2 square kilometres (3.1 per cent). It is interesting to note that 5.0 square kilometres (74 per cent) of the vacant land was owned by other government organizations than Dhaka City Corporation.

Figure 7.3 shows the changes in land values during the land development process.

As the city grows, the value of nearby rural land starts to increase, often several years in advance, in anticipation of changed land use and higher capital values. The time when this increase will begin and the rate of increase, depend on the level of anticipated increased value (expected return of investment) and the risk involved. In theory this anticipatory increase would not occur if there was a capital gains tax or a windfall profit tax which would cover the total increase in capital values in land in connection with land development. The major justification to exact windfall gains is that they are not created by the labour or capital investment of the landowners but by the investment of the public authority.

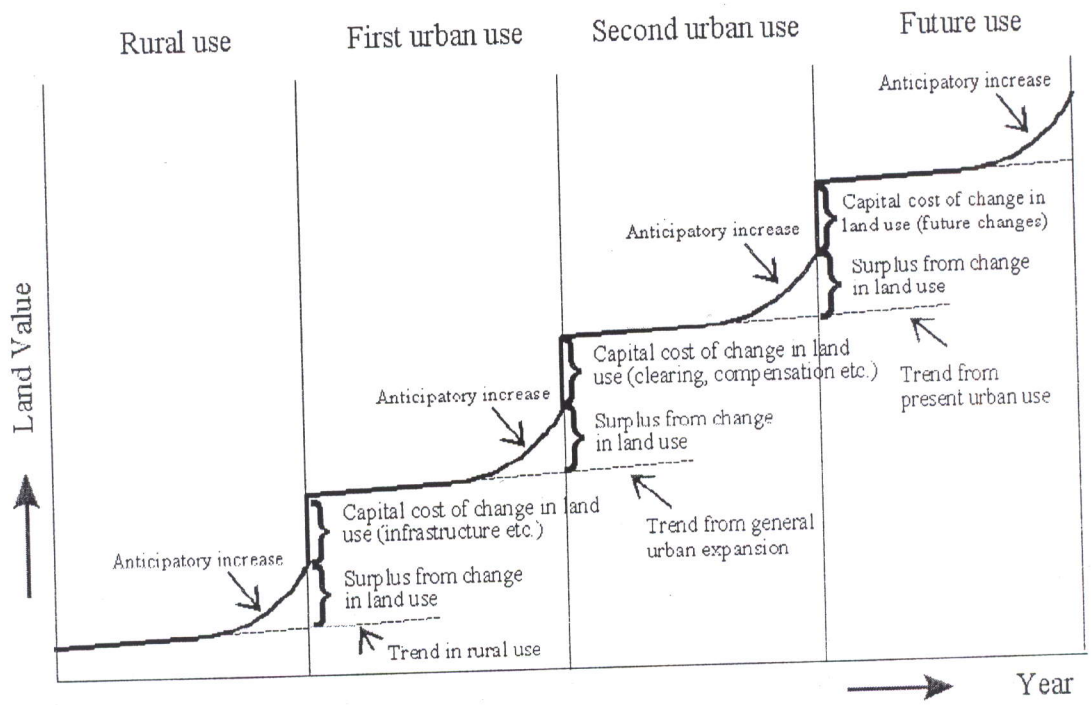
Betterment taxes are charges imposed on landowners specifically to recover the costs for infrastructure development. A major problem in many developing countries is the failure to collect betterment, let alone the windfall gains (the anticipatory increases). This failure causes shortages in financial resources and contributes to a considerable lag in infrastructure provision. In fact, it is very likely that the anticipatory increase in land value will be higher in countries where the government is known to fail to collect the costs to the public for infrastructure provision as the landowners will attempt to collect a value equivalent or higher than the expenditure made by the public authority.

Research shows that the revenue potential from land value increment taxes and betterment Levies are greatest when the tax is clearly linked to a specific expenditure (Shoup, 1983). Regarding the payment of betterment taxes, some landowners may be unwilling to pay for what they consider unnecessary infrastructure improvements (such as paved roads). As

betterment taxes can be substantial, it can also lead to financial problems for landowners and sometimes force them to sell the land. A number of solutions exist to improve the cash-flow problems of landowners: First, the authority could provide loans with market interest rates although this may create extensive paperwork. Second, the payment could be postponed until the land is sold deducting the betterment as a lump-sum from the selling price. A general problem with these methods is that cash-strapped Asian authorities may have to wait for a considerable time before their investment is refunded.

Another method to cover the costs for infrastructure provision is a valorization charge. This Method raises a substantial share of Colombia's municipal revenues. It is a complex system whereby the costs for infrastructure provision are shared by the beneficiaries on the basis of expected increases in the property values (Devas, 1983).

Figure 7.3. Changes in capital values of land with changes in land use



Source: Adapted from Dunkerley (1983)

LAND MARKET ASSESSMENT **Box-4**

The objectives of the land market assessment (LMA) tool is to assist governments in analyzing the impact of their current urban land policies and to form a basis for improving these policies. Dowall and Clarke (1991) provide the following brief description:

"The aim of the land market assessment is to provide an accurate and up-to-date database on the operation of the urban land market. Information about the operation of the land market in terms of prices and supply of serviced land presents a concrete foundation for defining appropriate strategies for improving land market performance. LMAs can be used to support four broad activities: providing information for governmental planning and decision-making; evaluating government policies and actions; serving as a foundation for structuring land-based taxation systems; and providing information for private sector investment and development decisions."

More specifically, LMAs can, for example, indicate:

(1) Whether the supply of serviced land will be sufficient for the growing population and commercial and industrial sector;

(2) where urban land conversion is taking place;

(3) land value development; and

(4) real development costs for housing and industrial and commercial space.

The requirements for the land market assessment are limited. Depending on the size of the city and the objectives of the LMA, a small team of professionals, a few computers (which do not have to be very powerful) and some software programs are required. LMAs have been carried out in, for example, Bangkok, Jakarta and Karachi. Please refer to Dowall (1991) for a detailed description of the Land Management Assessment tool.

Sources: Dowall (1991) and Dowall and Clarke (1991)

Chapter –III, Research Design.

CHAPTER –III, RESEARCH DESIGN.

3.1 Research method.

The study aims to understand the characteristics of urban informal sector in land development in Greater Kathmandu (Kathmandu and Lalitpur city) and vicinity VDCs emerging as urban areas. This study focused on improving the role of informal land developers, and their contribution toward the urban development in terms of fulfilling the housing plot demands in national housing planned way.

Specific objectives as follows:

I. To understand their operational procedure (Land assembly, Advance contract, development and selling).

II. Assess informal land developer's quality of sub division (Access road, Plot road, service utilities, physical infrastructures, open spaces).

III Examine their technical, financial, and legislative problems.

To achieve the above said objective, research was conducted mainly as direct discussion with the informal land developers. The study also helps us to know the working environment and shortcoming in their profession. Attitude of their clients (Prospective buyers) and neighborhood would be added benefit of the study.

Urbanization is often considered as the change in land use due in course of time. But it is not purely based on physical parameters. It also affects social, cultural and economical aspects of human life. The effect of physical phenomenon can be understood more meaningful, if it is observed in its contextual reality of social, economic and cultural factors. But the research seeks to explore physical and working principles and impact in cityscape. Social may be another research potential. Here checklist interview question is designed as an open ended type to get diverse views from the respondents.

3.2 Method of Data collection.

The research methods used in this thesis are.

Secondary data.

- Newspaper advertisement.
- Printed material from different source.
- Reports.

Primary Data -

- Discussion (based on checklist interview questions)
- Physical Observation.
- Photographs, Maps and documents

Total forty-three sites were identified in the base of newspaper advertisement published in National daily Kantipur (table 21) in the duration from chaitra 2060 to AShoj 2061 BS. Sites numbers within ring road in Kathmandu and Lalitpur were 14 and 2. Similarly outside sites from ring road were 18 and 9. In total both side were 32 in Kathmandu and 11 sites in Lalitpur.

Researcher did his best to visit more sites to collect adequate data. In total 31 sites were visited (inside and outside of ring road 11 and 20 nos). Many site location and information was inadequate. Concerned contact person also made confusion about the route. In Kathmandu 22 sites data collected (inside and outside of ring road 9 and 13 nos) and Lalitpur total 9 sites, (inside and outside of ring-road 2 and 7). (Table 22).

Reports and documents were collected as mentioned in bibliography. Workshop paper 2047 BS, and Padco report 1986 were more relevant.

3.2.1 Checklist Interviews.

The primary research checklist interview question of this thesis has to be understood in views and contribution of the informal land developers in aspect of urbanization. It helped to go through the feelings and attitude of the dwellers in the developed plot. Physical attributes and their further improvement scenario help to provide guideline to launch future projects.

Frankly speaking, there was no site based on screening of informal land developer. The researcher tried to discuss with land developer any time, anywhere and anyone. Researcher

requested 30 persons for appointment regarding the thesis. More than six fellows missed their appointment schedule three times. It means they want to ignore the meeting. Others did not show their interest claiming their time constraint. As a result only fourteen land developers, seven dwellers and one land expert granted their valuable time for discussion.

- Interviews--Informal Land Developers (who makes plotting and sells) and dwellers.

Relevant checklist interview questions to fulfill Objective No 1.

To understand operational procedure (Land assembly, Advance contract, development and selling).

On What basis did you chose land type and location?

How do you identify buyers and sellers?

How do you purchase or make agreement on land for plotting and selling (initiation and procedure)?

How do you secure your finance?

With Dwellers .

On What basis did you chose this plot and location?

How did you identify seller?

Are you satisfied with the dealing of the seller?

Relevant checklist interview questions to fulfill Objective No 2.

Assess informal land developer's quality of subdivision (Access road, plot road, service utilities, physical infrastructures, open spaces). Technical aspect of Objective 3.

How or who makes plotting on the map (technical support)?

What is your comment and satisfactions on the quality of you're plotting (road, open space, dead ends, drains etc)?

What is your suggestion to improve your performance?.

With Dwellers.

Are you satisfied on the quality of plotting (road, open space, dead ends, drains etc)?

What is your suggestion to improve such development?

Relevant checklist interview questions to fulfill Objective No 3.

Examine their technical, financial and legislative problems. (For technical, refer previous objective).

What are the difficulties in doing the business (legal, financial etc)?

What is your suggestion in increasing more supply or quantity of plots in the valley?

What is your expectation from government to improve your performance?

3.2.2 Selection of Study Area

The study areas are within the Kathmandu and Lalitpur municipality and adjoining urban area of vicinity village development committee. Areas are divided as city and fringe areas as inside and outside of ring road, where such activities are being launched. Main approach road already exists in such areas. The different locations are selected with a goal to obtain information of different core and fringe locations.

3.2.3 Physical observation and mapping.

The maps and sketches of the study areas were collected in the field. Photographs of new construction are taken to understand the site. Sites are shown in map.

Chapter–IV, Informal Land Developers in Kathmandu.

CHAPTER-IV, INFORMAL LAND DEVELOPERS IN KATHMANDU.

4.1 Land

Land is point of departure for shelter and urban development. It is the commodity and wealth. We can say urban is package of utility services.

Land, because of its unique nature and the crucial role it plays in human settlements, cannot be treated as an ordinary asset, controlled by individuals and subject to the pleasures and inefficiencies of the market. Private land ownership is also a principal instrument of accumulation and concentration of wealth and therefore contributes to social injustice; if unchecked, it may become a major obstacle in the planning and implementation of development schemes. Social justice, urban renewal and development, the provision of decent dwellings and healthy conditions for the people can only be achieved if land is used in the interests of society as a whole.

(from the **Vancouver Action Plan**, Recommendations for National Action [1976] at the conference that heralded the birth of the UN).

Land, which is a necessity of all human existence, which is the original source of all wealth, which is strictly limited in extent, which is fixed in geographical position - land, I say, differs from all other forms of property in these primary and fundamental conditions.....We see the evil, we see the imposture upon the public, and we see the consequences in crowded slums, in hampered commerce, in distorted or restricted development, and in congested centers of population... and we say here and now to the land monopolist... `you shall be taxed at the true selling value'.... **Sir Winston Churchill**, Edinburgh, July 17, 1909.*A new housing development for the urban poor in South Africa.*

4.2 Urban Land and land use.

Bijayananda Mishra, states in his book Urban land Markets in Asia

'Land is essential for all human activities. Land is limited in quantity. Hence, it is one of the most valuable resources for development. Further its immovability makes it high location specific and its potential for use determines its values. As a vital and also scarce resource it requires effective management and control.

Since land is valuable it is a profitable asset for the owner. To own land or real state property provide life time satisfaction to most people and it is often seen that through acquisition of land or space people consolidate themselves in the urban economy. Land ownership provides societal status in many societies. Land also is an important vehicle of transfer of wealth through inheritance. For all these reasons, to own land or a real state property is not only an economic necessity, but also a psychosocial necessity as well for many.

Land use, planning and control happen to be the most important tool with any city planner. In the process of planning a city the most important job of a planner is to plan out the land use because all other provisions are based on it. It is directly related to land value and transportation. Any piece of land may become prime land and worth a lot of money overnight because of change of its use in the development plan.

Major problems of development are often linked to improper use of land. Since land essentially is to be occupied for use, ownership of land, rights to occupy and use it etc, largely determine efficiency in use. In case of urban land, because of the intensity and complexity of urban activities and more because its value is greatly determined by various types of services and infrastructure provided by the government and the demand on it is created by the society, utmost priority attention is required for its management and control.

In the developing countries of Asia, provision of adequate shelter for majority of urban population remains as critical as a decade ago. Despite long efforts made by several governments and large amount of money invested and energies spent in the urban land development and housing sectors, shelter deficits are mounting in most metro cities of Asia and increasing numbers of the low income households are being deprived even of minimal shelters with minimal provisions of potable and sanitation facilities.

He further clears that 'In the case of developing countries the informal markets control almost all transactions of lands in this category which account for 60 to 85 percent of all transaction in land. The major development issues related to this category of lands are: how the operation of these markets can improved so that the resultants physical development attains a minimal desirable standard in-terms of layout and provision of

space for basic urban infrastructure and facilities without jeopardizing the present easy entry of the poor and low income households and how, to harmonize the agriculture and urban uses and reduce environmental conflicts between those. Informal land markets not only accounts vast majority of all land transaction in many metro cities of Asia but also, more importantly, those provide the most efficient means by which the low income and poor households have access to land and/ or housing and consequently consolidate their positions in the urban economy.

F. Stuart Chapin, Jr, mentions in his book urban land use planning, P8.
Use of the individual land parcel- the land economist views land use in-terms of economic theory, with the use of each land parcel determined in what he calls "the urban land market". He looks upon land (real state in the generic sense) as a commodity traded in this market subject to the forces of supply and demand.
Urban land is considered to have values because of its potential to produce income in the future. This value is based on what developers would be economically justified in paying for it

As true with all informal systems, by their very nature, the 'informal' land markets are subject to abuse and manipulations by interest group and resultant development is often of rather poor physical quality with limited possibilities for improvement in future. In spite of the shortcomings, the 'informal' land markets significantly contribute to urban growth by catering to the needs of the majority of the urban population, which is economically disadvantaged and is normally ignored by the 'formal' land markets. The need, therefore, is to understand the principles and conditions, which determine the operation of these 'informal' markets in order to strengthen their merits while reducing their undesirable characteristic.

In Nepal, Valley context, PADCO 1986, study on land use policy in KV admitted that the various aspects of urban planning and development in the valley. This study provided detailed information related to geographical situation, landscape, land use and ownership and proposed policies. Land market and its actor were also identified. Due to lack of institutional structure, lack of land use regulations, confusion and overlapping between government institutions regarding function and responsibilities and lack of legal and regulatory instrument, the recommendation did not change in reality.

4.3 Informal Land developers.

It is obvious that urban land management is vital for an urban planner. It attempts to ensure adequate land supply by correction the land market imperfection such as simplifying the rules and procedures, making the land ceiling and land taxation reasonable and devising the incentives and exemptions to those who are interested to ensure planned and adequate supply of land. *(Karki TK, course manual).*

Main actor to intervene in existing informal land market with an aim to get the balance between supply and demand is public and private sector. The urban development in the context should address the following objectives;

- Adequate supply of developed serviced land at right location and at affordable price.
- To ensure optimum utilization in-terms of efficiency and,
- To safeguard the interest of urban poor by equitable distribution of urban land.

Public sector alone can't succeed in fulfilling the demands. They have to work as a helping mechanism to promote private sector rather that self-being the implementer. But public sector can play an enabling role to the private sector to function efficiently.
Dowell 1989, observes that as a broad tool of urban land management, public land development rarely works. It is because land development is extremely complex and risky business. Most of the public do not have characteristic of highly motivated entrepreneurship with skilled and efficient logistic support, always willing to take risks.

Involvements of private sector, the three positive inherent properties efficiency, effectiveness and equity have the vital role in land development activities.
Mishra 1997, states, one of the fundamental determinants of the efficiency and effectiveness of any arrangement is competition. Efficiency in this context is both allocation efficiency (whether the product is that most highly valued far consumers) and technical efficiency (the appropriate combination of inputs to achieve lowest product cost). Similarly, the third 'equity' implies to equal access as all people are treated equally in the market mechanism, which, as supporter of free market mechanism believe, is inherently equitable in nature. (Quoted by S.Uppreti)

In Nepal, our culture and tradition shows high demand of own built houses. The flat system and direct purchasing of built house culture is just being introduced. Dominant fact is that people do like to explore piece of land own-self and builds the house as per their financial capability in storey incremental basis. So, private sector involvement in land development and supply is important in our context.

PADCO 1986, p 99 explains about informal land development in Kathmandu valley and process of broker dealing. Informal land development (unregulated), lacking any public involvement is the dominant form of urban land conversion in the Valley. Due to lack of formal development mechanism, informal development deserves both the credit and responsibility for town expansion which has take place. The development of land in proximity to main road is dependent upon some type of access; side-road or footpath. Yet, due to a lack of cooperation among landowners, adequate access to these adjoining lands is very irregular. The result is an extremely insufficient type of growth that is also quite costly to service with infrastructure. The lack of landowner collaboration in land development is due to variety of factors including absentee landowners, lack of acquaintance, different needs and aspiration, personnel disputes, and discouragement by tenants. These impediments to land development are to some degree overcome by the intervention of local real estate agents in the valley who serves as brokers between the landlords, tenants, and prospective buyers of land. In this process, the brokers control the directions of feeder roads and access to other land areas. Their profit is the difference in land price obtained between the landlords' and tenants' sale price and the purchase price of subdivided plots sold to prospective buyers. In any specific potential low cost land, brokers makes long enquiry about its history and weaknesses. Broker sets out to negotiate deals with each of landowners and tenants. Conditions of agreements include a sales price, a time period for payment, and an advance which must be given to each owner in anticipation of the satisfactory completion of the operation (sale of all land at a given price at a time). As an advance 5 to 10 percent of the agreed land price paid to land owner and tenants. Furthermore, if the final transaction is not completed within the stipulated time, the owner is free to sell his property to any one and is entitled to keep the advance. When general agreement completes, the broker purchases the road access plot outright and holds the ownership of road.

Thus real state brokers ie informal land developers play an important role in town extension. They subdivide land based on purchasing ability of buyer. It seems socioeconomic schemes. Government should strive to encourage, improve and support the informal process. Technical support is a must for better alignment, basic planning knowledge and open space concept.

M.Subba , Urban containment policy, P 118 quotes that The private sector involvement in urban land market in the valley mainly consists of

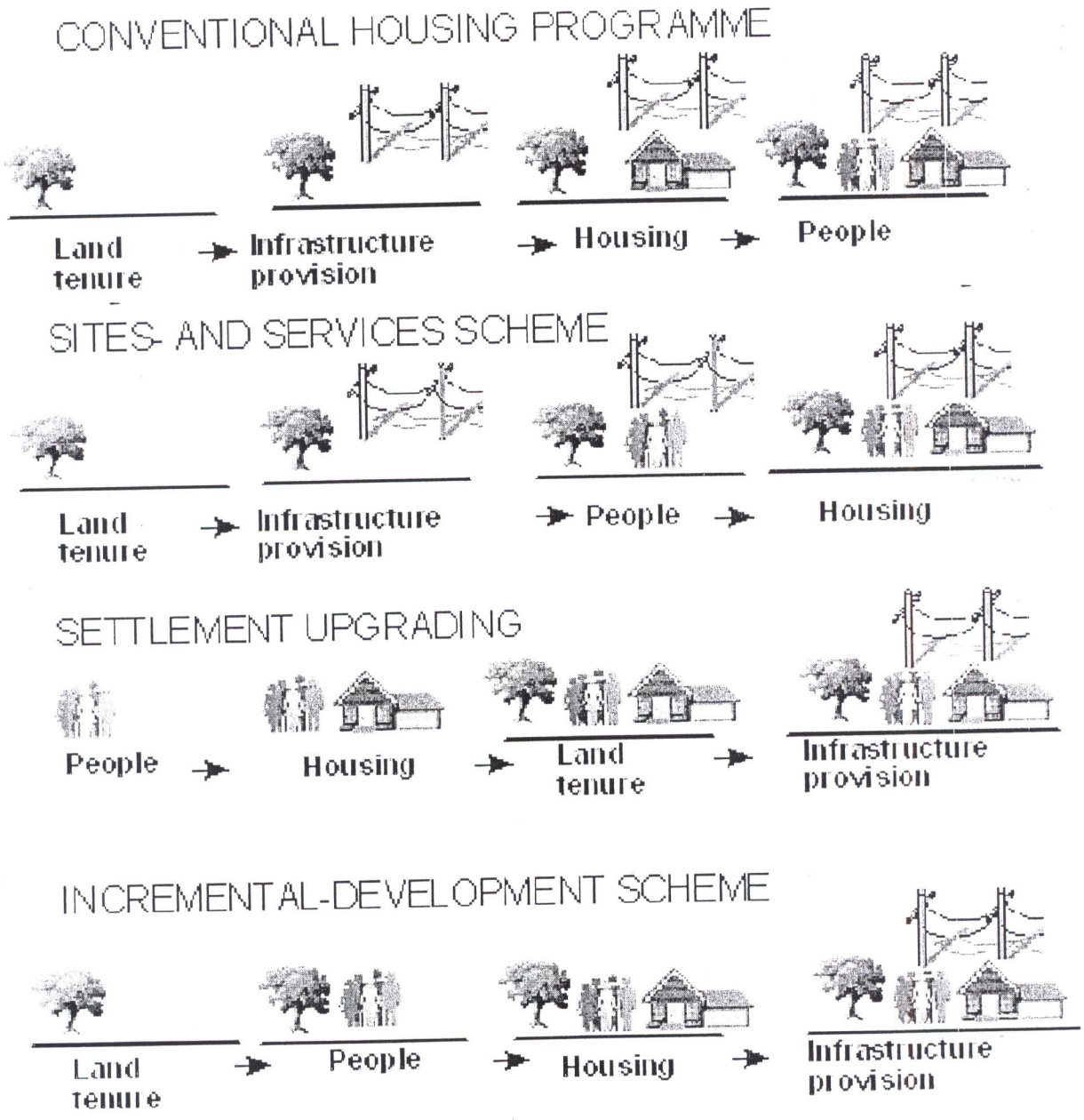
a) Real state developers (registered or unregistered) and

b) Individual landowners (turned sub dividers).

Karki TK (1991) has recorded that 48-land development and housing companies were registered formerly until 1991. His study furter indicates that difficulty in land consolidation, the availability of up-front financing, and land ceiling constraints several of these companies in undertaking large projects. As a result, the companies could only limit themselves generally to small projects of area less than one hectare (10,000sqm appx 19.6 ropani). Of the status of large projects, his study also records that one relatively successful real state company could manage to carry out three projects with area of 8 hectares. The thesis of karki thus indicates that the role of real state developers has been small to meet urban land demand (karki 1991). As a result, most of urban land demand in the valley is filled through informal land development processes mainly confined to individual landowners outside the ambit of formal government agencies and registered private developers. Consequently, informal land development processes have emerged as the dominant sector in the production of space in the valley.

4.4 Approach.

In general public or government sector works in systematic way as selection of site, planning and implementation, providing utilities services and finally returned to original owner and remaining plot selling for building units and occupation. (PSBO APPROACH) Obviously it takes more time and huge cost investment. But the product is more managed and qualitative.

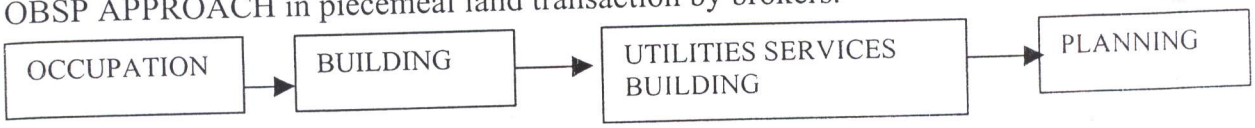


Source: UNCHS (1991)

But in informal private sector services gets less priority in buyer's settlement. People also do like to settle as incremental development approach. After plot buying, services are the burdens of land buyers. There are two types of land development systems in private sector. They may be registered company or real state and individual brokers. Informal groups are found to be active in this business in the Valley. Till date formal private sector has provided serviced land in a very few quantity (within two digits). Thus there is found active role played by the informal sector as brokers or piece meal land developers. They are active and key informant of land market. They do not reserve any legal status. Mutual faith and personnel relation works in the business. The individual piece meal land developers usually deal with the business in terms of personnel relation with buyers and

sellers as intermediate role *(Padco '86 and Karki'91)*. They are supplying to overcome housing land demand on the deficit of public and formal sector , and people depend on them for land parcel transaction.

OBSP APPROACH in piecemeal land transaction by brokers.



However, our attempt should concern with changing and developing in scientific way of the informal land brokers, who are practicing major land development activities. Although image of mediator in our society is poor, but we can't ignore the role of the informal land developers and rather look into improving aspects by sharing experiences for the betterment of planned city. They bear good skill of conflict resolving between landowner and keeps close relation with land administration. They have good knowledge of prevailing land law and regulation. After 2058/59 BS, these informal land developers contributing serviced plots having access and regular in size depending on geography in about two to fifty ropani land. Ultimately these developers also depend on piecemeal brokers for land assembly and selling the plots. So, there is chain relation between developers formal and informal, landowner seller and plot buyer.

To make aware to involved people about urban land problems and prospects, sub-divisions, basic infrastructure and facilities and quality work, it is time to change their perception towards a qualities of a the good city. What we have seen in the provision of services of infrastructure or technical aspect by the informal sector there is often inferior quality. Why it is so? May be financial and legal status are undefined. Government authority did not make effort encouragement and monitoring to improve their role. This issue is to be addressed in the context of urban planning prospect.

But the problem exists of exclusion of needy from getting access to the serviced land. All developed land in land pooling projects by government is supplied back to the original landowners, which excludes the neediest from getting access to the serviced land for housing purposes. It is obvious that less supply of land parcel than market demand impact into rise in land price. The weaker section of society always sidelined from getting access to affordable land. As a result, haphazard sprawl growths, over utilized infrastructure and poor living conditions prevailed.

Chapter-V Existing legislative Provisions.

CHAPTER –V, GOVERNMENT POLICY AND EXISTING LEGISLATIVE PROVISIONS.

5.1 Nepal government policy in the urban growth management;

In the tenth five year national development plan 2002-2007, (page 261 Nepali versions) has also proposed to manage the urban growth in a systematic way. It is based on some indicators regarding urban and land development. Some important indicators are;

a. To launch healthy city programs in 10 municipalities.
b. To launch Urban Environment schemes in 9 municipalities.
c. For Kathmandu valley, to launch Harisiddhi Satellite town plan.
d. To supply 20,000 residential plots within 5 years with a target of 500 hectare of land development.
e. To improve environment of 5 squatter within Kathmandu Valley.

It is obvious that 500 ha is a very small quantity to cope with the demand of serviced land. As per 2020 concept 3600 ha is required for 20 years. Till date government has succeeded to provide 280ha land in 15 years. So, role of private sector, especially newcomers as informal land developers plays a vital role in this regard. They only need encouragement and technical support.

Recently Kathmandu Valley long-term development concept 2020, have some concept in policy level to manage the urban growth,

a. Orderly Rural/Urban Transition

The orderly rural-urban transition is a must for efficient growth management. The development pattern can greatly be influenced with planned transition, which would eventually facilitate a desirable urban form unlike haphazard development pattern of the valley now. This is because the growth can be guided to a targeted area only. This therefore enables to regulate the pace of the growth, which not only helps effective monitoring of the development, but this also helps to efficiently manage the infrastructure provision. The provision of urban reserves, separation of urban and rural land, and preservation of agriculture land are key to orderly transition of rural space into urban use, which are elaborated in detail in the following sections. Besides, other various supplementary policies such as infrastructure investment, housing policies etc. are equally critical to this effect.

b. Urban-Rural Land Delineation

The currently proliferating haphazard metropolitan growth pattern has far reaching physical, social, environmental and economic consequences. The rapid depletion of agriculture land, declining accessibility to job places, the deteriorating environmental quality or infrastructure services are some of the conspicuous examples of many growth externalities that are besieging the Kathmandu Valley, today. It is why the delineation of urban and rural land is expected to act as important policy intervention in order to contain the current urban sprawl and manage the growth of the Valley. It is also expected that significant help to preserve the natural resource such as agriculture land and natural ecosystem such as watershed will be initiated. On the other hand, by discouraging urban infrastructure services in rural areas, outward urban proliferation can be contained so that the metropolitan growth doesn't engulf the entire rural landscape. The separation would further provide useful demarcation as to where, what type, and how much the public or private capital investment should be encouraged. Nonetheless, this necessitates a classification of urban and rural infrastructure services, and accordingly the infrastructure investment should be encouraged and accrued in these areas.

For the present need, the basis of a delineating line to separate urban and rural land can be taken as the edge of the rapidly urbanizing VDCS, which have acquired or on the verge of acquiring urban character. Although, the administrative boundaries of the municipalities and the VDCs may form the tentative basis of distinguishing the urban and rural land, however, due to the rapid urbanization of the VDCs adjacent to the municipalities, this distinction has become increasingly blur. And, residential development continues to proliferate far beyond to the edge of VDCs of the Valley. This poses serious difficulty in delineating the administrative boundary of the municipalities in the Valley to form a rational basis to separate the urban and rural land.

c. Agriculture Land Preservation

The preservation of agriculture land in the Valley is critical for number of reasons,

- Maintain the functional open space that is necessary to provide the life support system primarily filtering polluted air and heat emanating from the built area, recharging the underground aquifers,

- Maintain some level of agriculture production particularly that of green vegetables so that certain degree of nutrition intake is constantly maintained. This is becoming important as Kathmandu Valley continue to become a huge food deficit region,
- Contain the sprawl by disallowing the urban proliferation in agriculture land. This is expected to reverse the outward proliferating growth to inward, and facilitate channelling the growth to desired area,
- And help move towards the goal of sustainable development of the Valley.

However, greater challenge lies as to how we can preserve the agriculture land. The comprehensive resolution of which perhaps requires substantial research effort. For the present immediate need until greater research effort reveals the gamut growth dynamics, the policy to separate the urban and rural land as suggested above, and the policy to discourage the public capital investment in the rural agriculture land can be exercised.

d. The urban reserve land

The future urban expansion should be encouraged only to those areas, which are clearly designated as urban reserves. Such urban reserves should be identified in contiguity of the existing urban area and consistent with the concept of urban hierarchy as well as growth allocating principles. While doing so, areas that are identified as having less agriculture productivity should be prioritized as far as possible. The desirability of urban reserves must also be evaluated from the cost-effectiveness of future infrastructure service provision. The provision of urban reserves will have positive implication in discouraging the haphazard growth that currently taking place in the Valley primarily at the cost of precious agriculture land. This will also facilitate in prioritizing the planned infrastructure investment.

A series of physical plan and programmes have been prepared to make the capital city comfortable and beautiful. Numerous legislative measures have also been taken to support the plans. A look in brief in this list.

1. The physical development plan for the Kathmandu valley 1969. Not adopted by government.
2. Kathmandu valley physical development plan, 1974, by DHPP
3. Report on Land use for Kathmandu Valley, 1974. (Perrry L Nortan)
4. KV physical development concept, 1984. by DHUD/HMG.

5. KV Urban Land Policy study.1986. By PADCO.
6. KV Urban development plans and programs. 1991. by Halcrow fox and partners.
7. Kathmandu Urban development projects. 1994 –ADB.
8. Limits to growth Kathmandu Valley. 1995. NPC, IUCN. And so on……

Some major legislative measures are.

Legislation on Land Use

Five major Acts on regulating protection and use of land are:

- Land (Survey and Measurements) Act 1961 (2018)
- Land Act, 1964 (2021),
- Land Revenue Act, 1977 (2034),
- Land Acquisition Act, 1977 (2034)
- And Local Administration Act, 1971 (2028).

These Acts

- describe land positions including a record of all categories of land
- defines public land, government land, land owner and tenant:
- empower the government to acquire any land for the benefit of general public:
- Prohibits registration of public land and protect public and government land from being encroached upon.
- There is stringent penal provision for people or agency acting in contravention to these Acts.

Legislative competence of Government to enact town planning legislation

Various laws that can govern the growth and development of urban areas of Nepal may be grouped into seven categories. These include:

1. Legislation on urban growth and development
2. Legislation on cultural heritage management
3. Legislation on natural resource use and conservation
4. Legislation on land use
5. Legislation on public health
6. Tax laws
7. Legislation on environment protection

1. Legislation on urban growth and Development :

- ❖ There are ten major Acts aiming at regulating urban growth and development, including waste management and environmental protection.
- ❖ Besides, there are other Acts which also Concern urban environment and management.
- ❖ There are more than 60 statutes which directly deal with the issues of environmental protection.

Eight major acts are:-

- Town Development Act 1988 (2045)
- Kathmandu Valley Development Authority Act, 1988. (2045)
- Local self governance act, 1998. (2055)
- Motor Vehicle and Transport management Act, 1993 (2050).
- Public Road Act 1974 (2031)
- Solid waste management and Resource mobilization Act, 1987. (2044)
- Industrial Enterprises Act, 1992 (2049)
- Labor Act. 1992. (2049)

Concerning urban planning and Management, Town Development Act, 1988, Kathmandu Valley Development Authority act 1988, and LSG Act, 1998 are important to regulate land use and zoning for construction, planned development of the urban areas, pollution control and promotion of health and sanitation schemes which can enhance the quality of life.

The KVDA Act empowers the Kathmandu Valley Development Authority to develop Kathmandu Valley into a principal administrative, touristic cultural and economic centre of the country. This legal provision could declare Kathmandu Valley as" Cultural, touristy and administrative capital region of Nepal. This KVDA Act is yet to come into effect. Besides these, Act also has provision for protection, preservation and development of religious, Cultural and historical heritage in the Kathmandu Valley.

The LSGA Act empowers to protect, preserve and wisely use natural heritage, such as land, forests and water bodies, including drinking water facilities. It is the duty of municipality and VDC to maintain and protect plantation along public roads.

The industrial Enterprise Act regulates the establishment, expansion and modernization of industries in the Kathmandu Valley through licensing and registration systems. It has a provision of economic incentives to enterprises installing equipment to mitigate industrial

pollution. However, the Act does not specify pollution control measures in industries as mandatory.

Acts Concerning infrastructure and service

Traffic management, development of convenient and effective transportation facilities, registration of vehicles and its withholding if the vehicles do not fulfill the required norms and standards, and driving prohibition in certain areas are all regulated through the Department of Transportation and the Transportation Management Committee chaired by Chief District Officer. There is a penalty provision of Rs. 200 - 15000 for any person using any vehicle in contravention to this Act. Public road Act prescribes rules for planned road construction with defined boundaries and road width. The Act prohibits any work on road without their prior approval and empowers the Department of roads to demolish house or structures built within road boundaries. However, the Act is silent over a large number of unplanned roads being developed in the urban areas, the narrow roads 1-3 meter wide, in recently developing residential areas.

The Solid waste management and Resource Mobilization Act regulate collection, recycling and disposal of solid wastes in three cities (Kathmandu, Patan & Bhaktapur) of the valley. The Act has penal provision polluting public spaces, roads. This act, if strongly implemented, could really make city clean and healthy. The Act should be amended to include all urban and rural areas.

The labor Act creates a healthy, safe and secure environment for workers; direct industries or any enterprise to arrange residence for workers. It also prohibits employment of non Nepali Citizens without permission from the Department of labor.

Legislation on Public Health

The residual effects of pesticides and insecticides in agricultural products and undesirable adulteration of food stuff pose substantial health risks to consumers.

Food Act, 1966 prohibits production and supply of adulterated, contaminated and sub-standard food stuffs and it also has penalty provisions for offenders violating the Act.

The Narcotics Acts, 1976 prohibits the cultivation, production, sale or consumption of narcotic drugs. Pesticides Control Act, 1991 regulates all aspects of import, marketing and use of pesticides. However, many pesticides used in vegetable farming in the valley and elsewhere in the country are highly dangerous and banned in the other countries.

Legislation on Tax

There are six major Tax Acts enacted from 1955 to 1990, which empowers the government to issue orders by notification to impose or raise various kinds of taxes like excise tax, vehicle tax, water tax, household tax and property tax in urban areas.

Among all those provisions, it is hard to be successful in implementing. Many unforeseen and anticipated barriers hinder the successful implementation of the projects. According to World Bank report in 1984, (and-verified by Colin 1986,) the failure of plans and programs in developing countries, in which stated in three principle reasons are

a. Unclear policy.
b. Lack of appropriate project design.
c. Lack of institutional capabilities.

In many countries conditions do not yet exist for a closer and more equal partnership between the users, planners and decision makers. Barriers of (Taylor 1982. P 48).

(a) Culture and education.
(b) Highly centralized planning and concentration of power in hands of a few.
(c) Deep gulf between planners and politicians and recipients.
(d) Scarce resources and expertise in short supply are common.

In Nepal, many projects is not completed within stipulated time, which have been resulting in cost overrun. According to Asian Development Bank (ADB) report 1998, the projects in Nepal are lagging behind three years in average. It is also true for urban development projects. Kuleshwore housing projects started in 1977 could be completed only in 15 years. ADB financed Kathmandu Urban development project was delayed by 10 months.

Halcrofox (1991) has reported the governments inability to tackle the problems in a comprehensive way in Nepal is severely constrained by following factors:

- Lack of resources and public support due to non involvement of people in plan making so that willingness to pay necessary cost by people is limited,
- Lack of coordinated plans and programs due to the absence of any comprehensive policies,
- Overlapping and conflicting interest among the present government institutions,

- Insufficient attention was given to how the plans were to be implemented and resourced,
- And lack of trained manpower and poor motivation amongst government staff.

It also applies for the urban growth management of Kathmandu valley. It is very late to correct the mistake of the past. But the problems are additive and more and more pressure is seen in the valley.

Taylor (1982) states " The role of planners and decision makers are very much crucial in planning process, Their relationship should have be harmonized. Their isolation would inherit the major flaws in planning"

Acharya N, in his MSc thesis 2001, writes in Nepalese context

"Planners who are able to win the trust and confidence of political leaders, who in turned helped developed strong constituencies for planning, have achieved remarkable successes. Effective planners realize that successful implementation of planning within a political process requires skill that are technical, conflict resolving, persuasive (convincing), and politically astute (insightful). The modern urban planner must master all these skills.

As urban planning becomes increasingly concerned with implementation within the context of federated, democratic, capitalist system, we can expect great successes. Implementation is now the cutting edge for advances in urban planning, and it will serve as the area for the most interesting new developments in the years ahead. Urban planners are moving beyond planning to implementation with the support and encouragement of both business and government."

5.2 Land tenure ship in Nepal

When we look into the land tenureship history and facts of Nepal, many forms of land tenure exists until 1951 AD. They are raiker, birta, Jagir, guthi and kipat. Raiker is the state ownership land. Raikar land actually cultivated by individuals as direct tenants of the state. Birta land were assigned to royal and Rana families members and their key supporters. It was as private land and could be sold. In 1959 an act named Birta abolition act abolished the birta system. Jagir assignment was usually an assignment of the income from raiker lands to such persons in lieu of a salary. Guthi tenureship comprised land

endowed to the religious and charitable institutions such as temples, monasteries and schools. Guthi Sansthan looks after all guthi land management (1976 act). Kipat represented a communal form of tenure.

Enforcing progressive ambitious land reform program in 1964AD (2021BS), which fixed the ceiling of land holding, protected tenancy rights. It had the goal of fast economic progress and increment of living standard of peasants. It also ensured property rights defining status of land ownership. It had main objective of equitable-distribution of cultivated land. The excess land beyond ceiling was supposed to be redistributed to landless real agrarian people. But it had not been so.

Our societal and cultural tradition, all fixed property Land and house also have to be divided in the separation of inheritance generation. It has negative impact in agriculture production and its modernization. Very small pieces of land fragmentation are meaningless in of production.

5.3 Summary of Existing Legislative Provisions.

Going through existing legislative provisions, some acts have mentioned the role of private sector in land and land related development. Authorized persons have realized dominant role of private sector. This is also obvious. Till now it has not materialized, and discussions as a product of the act or rule and regulation of large-scale land development and public private partnership in land development is going on. In whole provisions, informal land developers' issue is in shadow. In TDC act visualize the involvement of private sector "institutions" in large scale. But it is not practiced and no mechanism exists to proceed with it. **Table-11.** Existing Legislative Provisions.

S. N.	Policy / Law /Regulation.	Major Provisions on Land Development.	Implications on Private Sector Formal/ Informal Land development.
1	The Tenth Plan (2002 -2007)	Development of 500 hectares of land (20000 residential units) through planned land development schemes	Clearly mentions the need of **formal private sector** involvement in large scale land development Schemes.
2	Long-term Development concept of Kathmandu Valley 2020.	Densification of existing urban settlement areas and economic de –concentration in Kathmandu Valley.	Does not mention the involvement of private sector directly, but discusses about the participatory programs.
3	National Shelter Policy 1996.	Extension of urban land development programs and formulation of legislation and regulation for land use plan.	Clearly mentions the need of **private sector** and the community based organizations involvement in the land development process.

5	Town Development Act 1963.	Town Development Committee can takeover any type of public land for development works.	It Does not say anything about the private sector
6	Land related Act, 1964	Land ceiling and rights of tenants.	Nothing is said about private land assembly; large scale land assembly by private sector is hindered due to the land ceiling
7	Land Reform Act, 1964	Tenancy rights	It has caused hurdles in large scale land assembly due to increase number of disputes between landowners and tenants.
8	Land Measurement Act, 1964	Categorization of land & HMG's complete authority to measure or sub-divide the land or to publish maps.	The small sub-division plans prepared by the private sector do not have any merit, making the , process of disposal lengthy and subject to numerous hazards.
9	Town Planning Project Implementation Act (1973)	Authority to acquire of any immovable property within town planning area (the act under which KVTDC was formed & site and services were first launched)	Does not mention private land or area development, all schemes were to implement by public sector.
10	Town Development Act 1988	Land development works like GLD, LP and SS schemes; acquisition of land for these schemes; local bodies or "institutions" can implement LD schemes: power to announce moratorium	**Private sector** could implement large scale land development works under "institutions" after the prior approval of town development committee.
11	Kathmandu Valley Development Act(1988)	Power for announcing moratorium; power to launch LD schemes after HNGN has acquired land; never has been exercised.	Concept is to create Valley wide authority just like those of India; private sector is not dealt with.
12	Land Acquisition Act 1977	Authority to acquire land for public purpose by the chief district officer.	Land can not be acquired for private sector/purpose even if the concept of the project coincides with the state's policies or strategies
13	Local Self Governance Act 1999	Authority to launch land use or land development schemes by local bodies ,	Involvement **of private sector** in local government is mentioned as a policy instrument ;
14	Town Development fund act 1995	Financial and Technical assistance to town development committees ~	No financing policy to private sector working in land development
15	TDC regulations/Bye-Laws.	Building standards; sub-division standards; some outlines of infrastructural standards ~	Land area planned by **private sectors** are not clear, so the standards of development does not match with the regulation

Chapter-VI, Operations of Informal land developers.

CHAPTER–VI, OPERATION OF INFORMAL LAND DEVELOPERS.

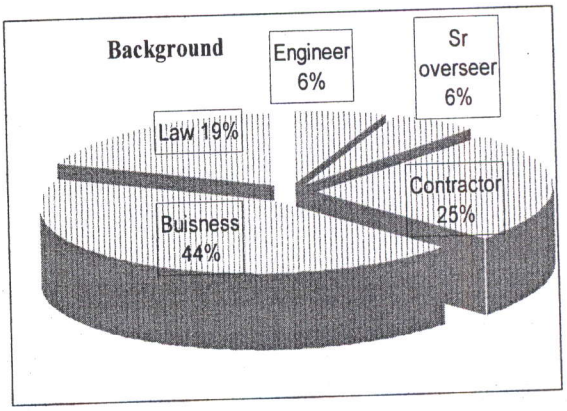
6.1 Data Collection.

The researcher conducted the survey in order to obtain primary information about working procedure, facing problems and constraints by the informal land developers. The interviewer was identified based on the plot selling advertisement in Kantipur (National Daily in Nepali) dated 2060 Chaitra to 2061 Kartik.

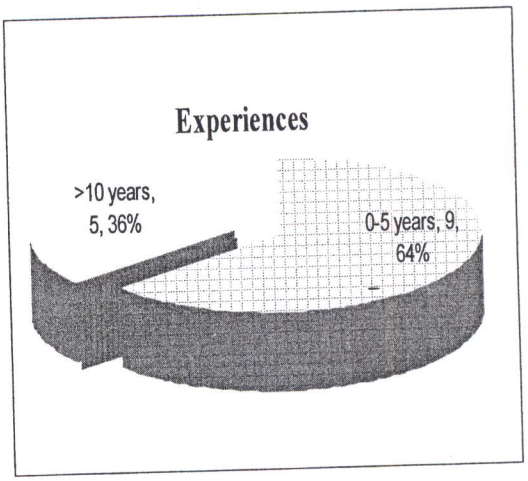
A total of 43 numbers advertisements were collected. Out of 43, 16 numbers are within ring road and 27 are outside ring road. Out of 27 outside ring road, 13 numbers are from vicinity VDCs. Researcher visited total 31 sites, for field verification and photographs. Out of 31, six sites were not mentioned in the list.

Many site location and information was inadequate. Concerned contact person also made confusion about the route frankly speaking; there was not any site based screening of informal land developer. The researcher tried to discuss with land developer at any time, anywhere and anyone. Researcher requested 30 persons for appointment regarding the thesis. More than six fellows missed their appointment schedule three times. It means they want to ignore the meeting. Others did not show their interest claiming their time constraint. As a result only fourteen land developers and seven dwellers granted their valuable time for discussion. Mr Buddhi Narayan Shrestha, well-known land expert, also shared his experiences and knowledge regarding the land development in Kathmandu.

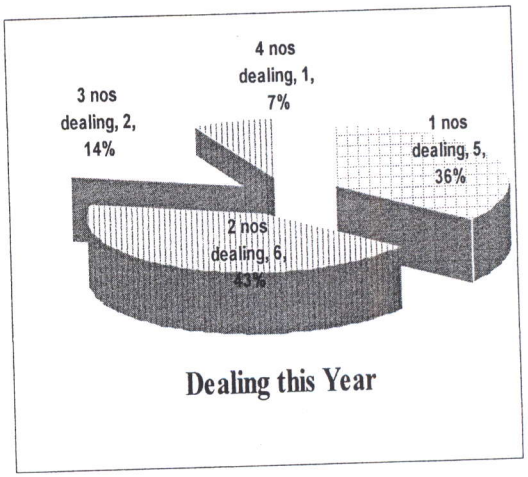
6.2 Informal Land developers, their experience and dealing in this year. *Out of 14 persons, normally aged 30-50 yrs, except Mr Dinesh Lama, have the technical* ***background*** *12%, law 19%, contractor 25% and dominant business (land) are 44%. It appeal a high potential of technical background investor involvement.*



Similarly in ***experience category****, 36% are more than 10 years involvement and 64 % are less than 5 years. Such type of plotting business is emerging and has more potential of competitive business.*



Dealing- *Pie chart shows out of 14 respondent, 5 developēr ie 36% did each one nos, 6 developer ie 43% each did two nos, 2 developer ie 14% each did 3 nos and one developer ie 7% did 4 nos projects. One person and 4 plotting project means a handsome dealing.*



6.3 Land business today.

All 14 ie (100%) respondents have same positive answer. They all were happy answering the question. 2058 BS onward land business of such sub division and selling is good and satisfactory. Buyers are attracted toward such plots slowly. Developers are hopeful that they can cash on the attracting wave.

6.4 Basis of choosing land type and location.

Main task is to choose land location for the project. It is risky game to identify appropriate location. Only cheaper land does not mean more profit. Obviously, the project period must be short. This means the buyer's attraction to the location is most important. Respondents have mix type of answers. Most agree to be cost effective land and minimum development cost. It makes less product cost and more profit margins. Next common point was land should not have double ownership and legal dispute. GLD demarcation in between the land also obstructs the proper planning and extra investment in Gld road coverage land area. Orientation of land (South-East facing) and little bit high land for natural drain is good. Another important common point was direct public transport to workplace and central business districts (*Newroad, Asan, Putalisadak etc*). Buyer level plots demand, nearby infrastructure and utilities services facility also plays vital role. Before assuring the location, developers make comparison of past and present local

land market trend. Some other points are peaceful area, no risk of flood and landslide, and continuous water supply facility. For all of above, more business profit is anticipated. One respondent clearly says that he will buy cheaper and uneven land and develop investing more money. Later on balance will be profitable side than investing more money on land in initial phase.

Briefly summarizing, low investment, more profit, buyer attraction location, local land market trend, short project period, south east facing, no legal dispute, natural slope, direct public transport, basic utilities facility, no flood prone area and peaceful sites are basic points that developers workout before deciding.

6.5 Identification of buyers and sellers.

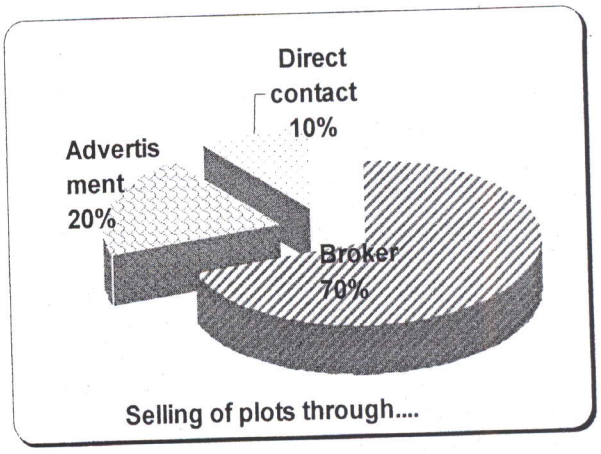
Identification is also an important aspect of this business. Most of respondent believe on advertisement. Direct contact and through active mediator, who does not like to identify himself as broker, and local piecemeal brokers are the main way to search for the land.

For land assembly- Most of the developers use their broker links. More than 66% agree that in any form brokers are involved in the transaction. Three developers like to use local reputed persons for convincing landowner and collecting the land. These people help the developers in the unforeseen problems during implementation. In this whole scenario they do not expose. Classified advertisement and other communication means also plays vital a role.

Commission to the mediator and brokers varies in the nature of dealing. Mediator may get the margin above the average rate fixed of the land. Capable mediator can bargain with landowner in minimum rate. The dealing shall be confidential. Brokers get commission as a percentage. It is also in practice of getting commission from landowner for piecemeal transaction. But in plotting case, broker deals with developers rather than landowner for their secured amount.

Selling of Serviced plots-

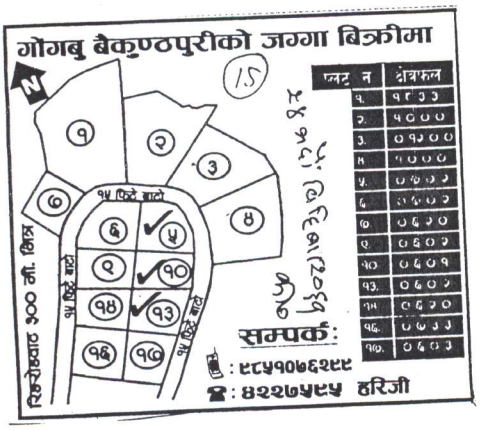
Here we can see important role of advertisement. Brokers play active role to identify and show the plot to the customers. Somehow direct contacts also make some transaction.



Due to the limited time, all involved people do hard work for selling plots. We can see repeated advertisement to disseminate the product. Contribution to selling of plots through brokers about 70%, advertisement 20%, and direct contact is about 10%. Plots booking advance depends on mutual understanding. Generally it is 10-20% for 3 months.

Advertisement for selling.

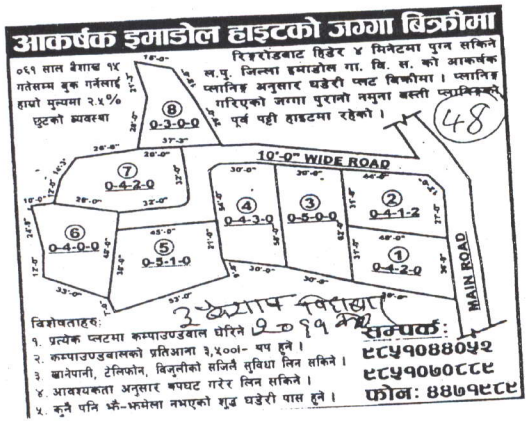
We can get incomplete advertisement. Developers rarely publish complete plan at once. They deal only on remaining plots. The above Teku plot also is a partial one. The way to reach the plot and distance from any landmark is confusing. Name of contact person is missing. A sketch of Baikunthapuri Gongabu, and Bhaisepati height, mentioned 300m from ring road and 700m from Nakhu bridge. But in actual it was 600m and 1200m distance. Similarly Baniyatar Manmaiju, distance was about 2 Km,from ring road. But it was not mentioned in sketch. I went to one completed plotting at Imadol twice, but site could not be found.



Baikunthapuri about 600 m.
partial advertisement.

Baniyatar Manmaiju
2 Km from ring road.

Why they do so? The answer was diplomatic, that they may fall on bureaucratic delaying net.

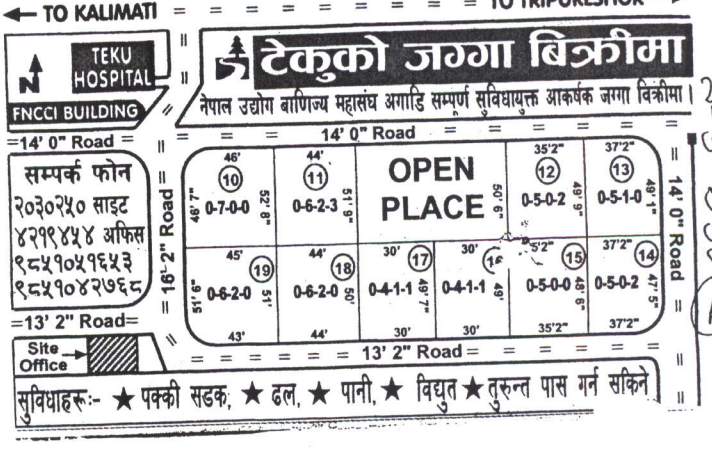


Imadol, Where to go? Which main road?

Case explain 1:

Mr Ramesh Dahal has developed 12 ropani land at Teku, in front of FNCCI (Chamber and commerce) building. He has developed metallic road 13 and 16 feet, each plot has water supply pipe network and electricity pole. Rate has been fixed 7 to 7.5 lacs per Ana. Total cost is about 12 Crore. Last 6 month, only half number plots has been sold. Buyers are local indigenous people. Why is it delaying even in inner area?. Pre-assumption failed. It is neither commercial nor residential area. Ghat, is negative for residence. Cost is high, so hardware and sanitary and motorcycle shops did not show their interest. Buyer pull buyer, their friend and relatives, but here them is none. Rawal commission of ancient archeological property protection seized some land due to unseen stone spout. Environmentalist questioning drainage outfall to Bagmati River. Department of Archeology, also raise the question of nearby temple boundary. When it was the property of Rastriya Banijya bank, and left uncare, For no one asked any things. Mr Dahal confess himself, that he failed to think of such hurdles.

Teku site.
Total are 12.5 ropani.
Land for road 2.5 ropani 20%.
Road Bitumen.
Electric pole.
Open space – govt land.
Total plots = 23
Plot size = 4 to 7 Ana
Water supply- only pipe in each plot.
Cost per Ana 7-7.5 Lacs.
Road width= 13, 14, 16 feet.

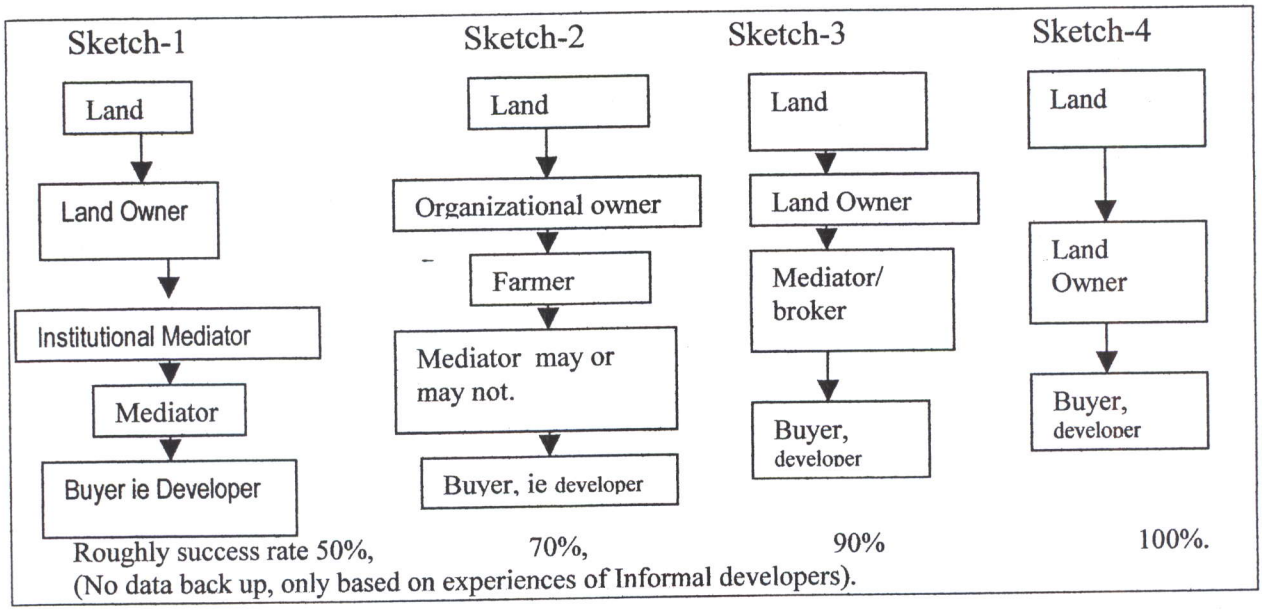


6.6 Land assemblies Procedure and planning.

After identification of location, land assembly is another major task. Step wise procedure as follows.

a. Land demand advertisement or mediator choosing or both.
b. Collection of cadastral map, ownership details.
c. Verification of land dispute and other legal problems (say investigation).
d. Field verification and tentative area checkup.
e. Tentative planning outline in cadastral map and costing compared. If ok then,
f. If possible direct purchase of the land, if not then,
g. Direct Negotiation with mediator/ active local people or brokers.
h. A certain rate is fixed with mediator and allow to work.
   In the case of broker, certain commission is fixed (3-5%). Broker does individual dealing with landowner.
i. Time schedule to assemble the land.
j. Advance payment, 10-25% for 3 to 6 month agreement (Kararnama).
k. When agreement time completes, landowner gets full payment from developer after ownership transfer registration passed. This transfer registration work done at spot paying additional fee (Rs 3000 per kitta within municipalities and Rs 1500 in VDCs, named DOR pass procedure). Registration fee is 6% and 3% in municipalities and VDCs.
l. Developer can make one parcel of all assembled parcels from cadastral map survey office paying additional charge. It make tasks easy for further planning and selling of the plots.
m. Develop the land with planned infrastructure, selling advertisement, activation to brokers for prompt marketing.
n. Cost fixing and booking the plots.

Chart- 4, Land Buying Procedure.



LAND ASSEMBLY PROCEDURE

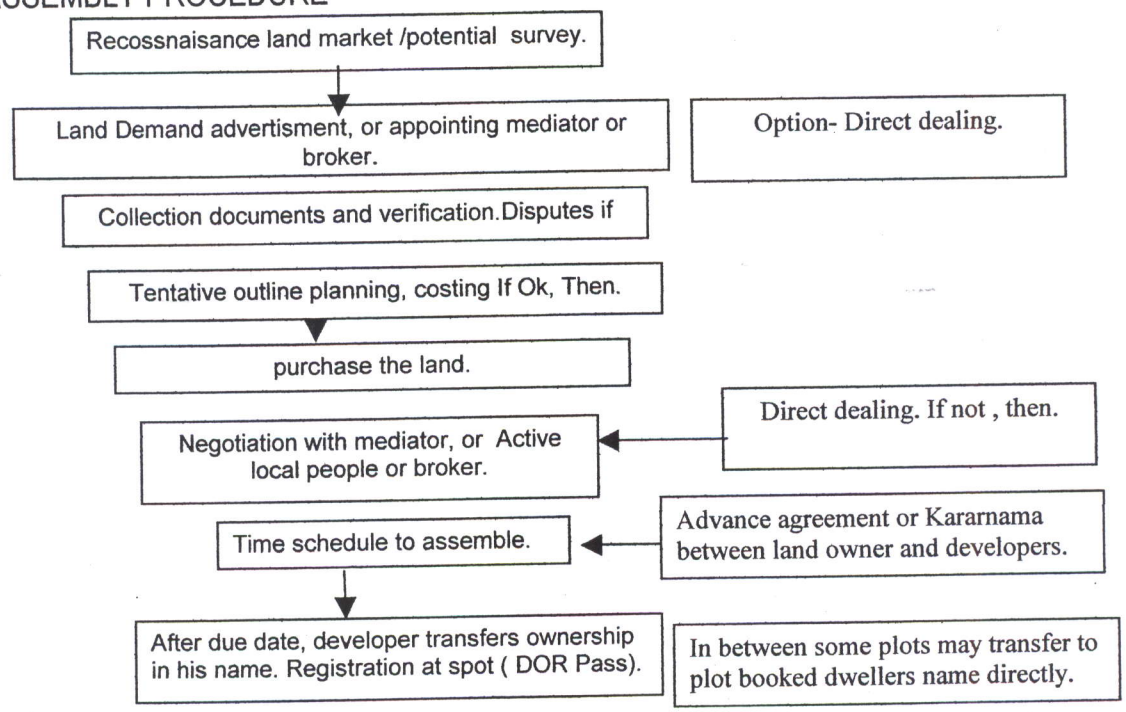
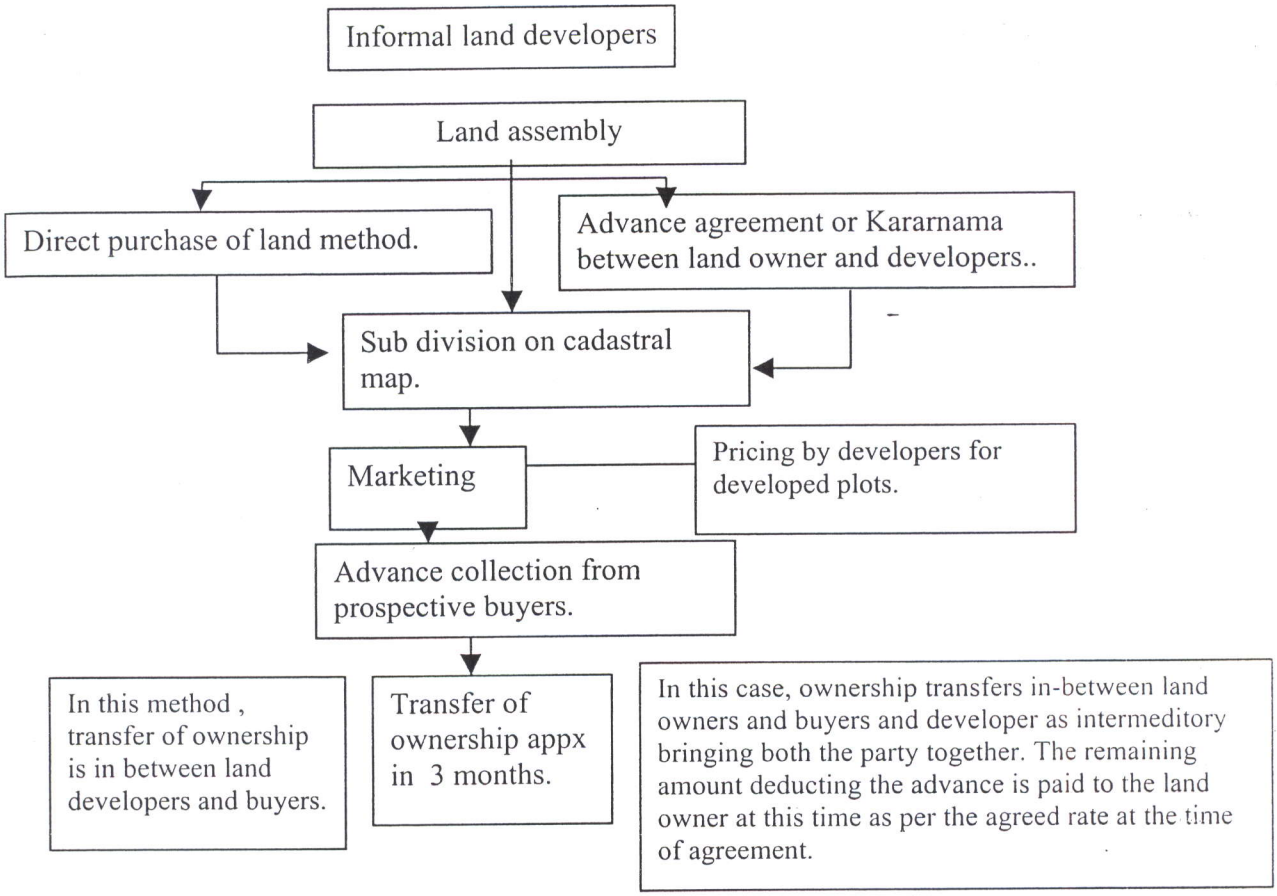


Chart- 5, land development procedure.



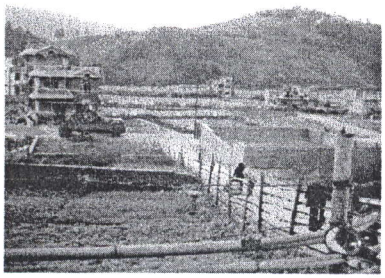
6.7 Developers finance secure.

Simple but important question, was asked to the developers that, in what basis you invest and how you assure your return? Researcher got the answer similar to all. Before investing money on new land, they survey the location on their own experience/ judgment. Self-confidence is major deciding factor in this business. They also collect the prevailing and past market trend record as well. Buyer level and demand pressure are important aspects. They even know that there are risks in land business. But they were assured that at the time being the investment cost would not go down. Some of them have hidden financer getting only share profit and do not interfere in the management. Big houses and Marwadi community are also in the field. But developers do not like to disclose their names. The financial strength and land holding capacity for long period makes more profit. Investment taking bank loan and borrowed amount always creates fear of worsening situations. Bank loan keeping other property as collateral guarantee, is main financial resource. Interest rate is more than 12%. So developers want to sell the serviced

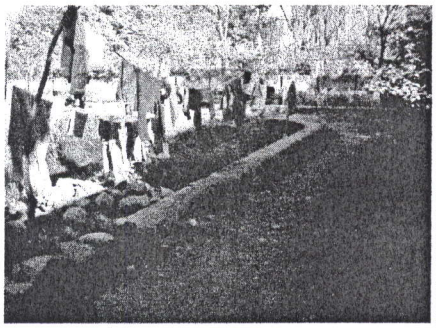
plot as soon as possible. So there is no fixed rate of plot. The final settlement would be in negotiation basis.

6.8 Satisfaction with own work quality.

Respondent shows their hesitation to answer this question. All developers have only deep concentration of wide road using least land. When researcher cross questioned them about other utilities, they agreed that it would be better with more facilities. But, the cost addition goes in per Ana cost. However, more small plots cover more land coverage in road. Generally, 10-12 feet road width is in their mind. They have bitter experience of water supply connection. The already laid pipe network by the developers is not recognized by Nepal Water Supply Corporation. Corporation people harass the dwellers. But do not connect the supply in main inlet line laid by the developers. Developers are thinking of not fitting water supply pipeline in further developments. Electric pole works well for electricity and other communication and entertainment facilities. It was seen that metallic road qualities in two sites were of very poor and deteriorated in the initial phase. Other gravel roads are working well. Two sites at Gothatar planned only of earthen road. They argue that communities will make it as they wishes at their own expense. Developers agree that this type of business is just coming in and quality products attracts more buyers.



Bhaisepati, Jalbinayak marg. road.
12' Deteriorated pitch road.
9.7 rop, 9% road, 1.75lacs/Ana
Plot 4-8 ana . W/s pipe, pole.



Sywambhu, Near military hospital.

12' Gravel road. 2.5 rop, 10% road, plots 5-7 ana.

Gothatar 8 Kha, 12' Muddy

7 rop, 9% road, 2 lacs/Ana.
Plots 3-5 Ana

6.9 Difficulties in informal land business.

Like formal land development sector, informal sector is also facing same problem. The law and other rule and regulation are the same. Government does not differentiate between the two. Difficulties faced by informal land developers are,

Financial – Land development sector is not priority sector of government. The urban land development is being dealt in an ad-hoc basis. Private land development should be defined as a business sector. So the land market is suffering imperfections due to intentional speculation. Only hardy people are playing in the business. Serviced plot demand and supply are in imbalance. So the urban land being more costly, cannot be purchased by low income groups. It is the high time the government to announce policy to declare this sector as priority sector and as an industry. Under this provision, there should be long term soft loan through financial institution. Government also should create a revolving fund for land development. Many banks and financial institution are introducing home loans. This program is helping in flourishing in this business. But, loan for land purchase to the employees is most important in this business. Later on the land can be held as guarantee or collateral.

Double registration- Our prevailing financial system is to collect more and more revenue. Scientific system can get same amount or more even in reducing rate. Same thing applies in land ownership transfer registration. Due to the more rate, and low government land valuation, land cost is quoted as minimum and revenue is low. This is due to lag of scientific land market survey. Governmental institution should start the work for real land transaction in future. It also helps to increase registration revenue even lowering prevailing rate (6% municipality and 3% VDCs, 2061 BS). Informal land developers have to pay revenue twice, when assembling the land and again selling plots. Firstly, listing of informal developers is essential by local bodies. Then simple license to develop land should be distributed. They should get privilege from revenue in similar manner by housing companies. It is noted that housing in flat system pay 2% and housing unit ownership transfer registration fee pay only 3% in 2061 BS.

Co-ordination- All utilities concerned offices (water supply, telecom, electricity and road) and town development office should be under an umbrella unit for such planning development. Their regular monitoring and prompt action helps the project competition in time having high quality. Later on dwellers feel free of those services. Double work, cost and time also saved. Implementation of GLD is very slow and people are not well informed. Map section and land revenue office should check and declare to people before transferring ownership. Slow administrative action is common problem. So developers, hide their profits, due to the complication of tax audit. Government should encourage

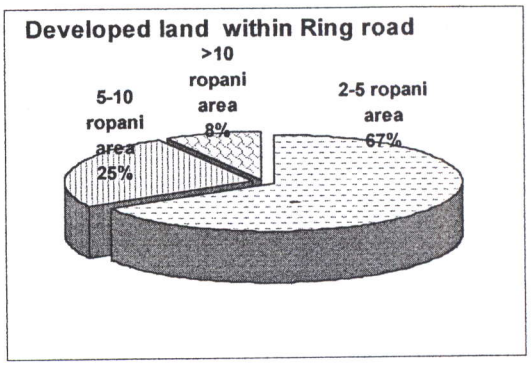
them to make audit, proposing handsome offer. It will develop a good culture of tax paying.

Legal Problems –Land ceiling (upto 25 ropani) is limited in informal sector. A separate provision should be made for informal developers. Rawal commission also has stopped some transaction of archeological importance sites. It is better to transfer ownership to concerned authority of such items and rest land should be free for further activity. Some development potential lands have double ownership. This is another problem. Legal status of advance payment agreement (kararnama) to landowner is not defined. Although it is informal, but government or local body recognition is necessary for monitoring and other administrative dealings.

Maps and records - Our conventional record system is poor. Updated maps and record is important in this business. It is hard to get access by the public in records verification is very tough. Only office employ can do it. Certainly, he expects extra money for this work.

6.10. Technical data and problems.

6.10.1 Developed Land: Among 31 site visited, total 265 ropani (13.5 ha) land was developed in 540 plots. Out of them in all sites small scale plotting (2 to 5) ropani was dominant (48%). It was 67% in inner part and 40% in outside ring road (Table-11).



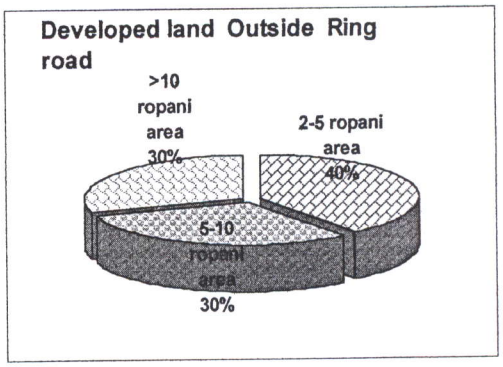


Table-12. Developed land, total	Nos	% result
2-5 ropani area	15	48
5-10 ropani area	9	29
10 ropani area	7	23
	31	100

6.10.2 Regarding the selling price, rates slightly high in inner side (more than 2.5 Lakhs) than outer side. From table 12, we can conclude that outer side, 1.5-2 lakhs per Ana and 3-3.5 lakhs per ana in inner side plotting is more convenient and commercial.

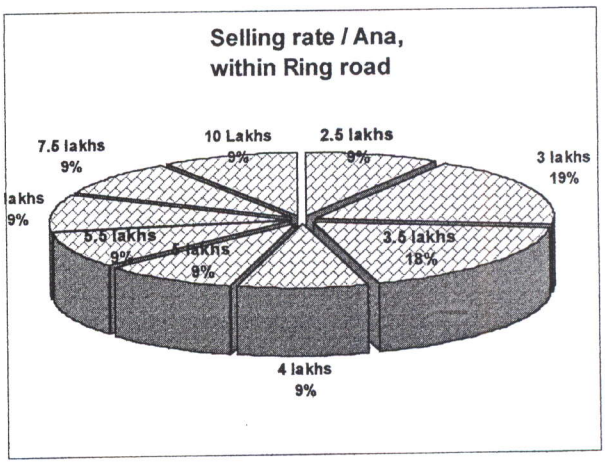
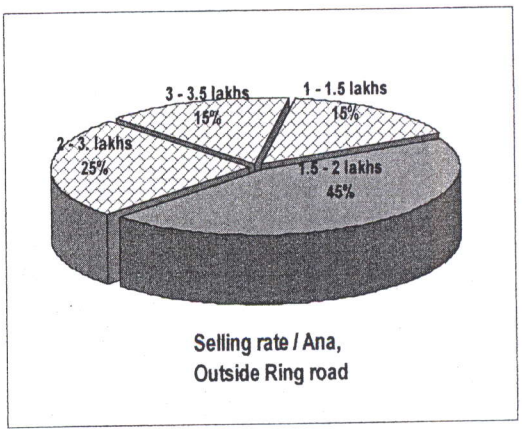
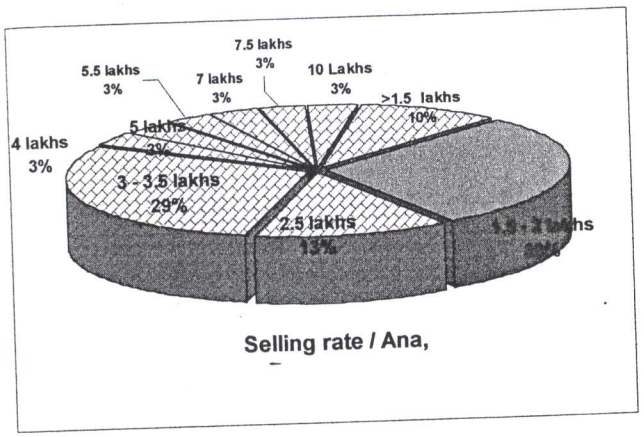


Table-13.
Selling price per Ana, Total

Amount	Numbers, developed area	% result
1.5 lakhs	3	10
1.5 - 2 lakhs	9	29
2.5 lakhs	4	13
3 - 3.5 lakhs	9	29
4 lakhs	1	3
5 lakhs	1	3
5.5 lakhs	1	3
7 lakhs	1	3
7.5 lakhs	1	3
10 Lakhs	1	3
	31	100





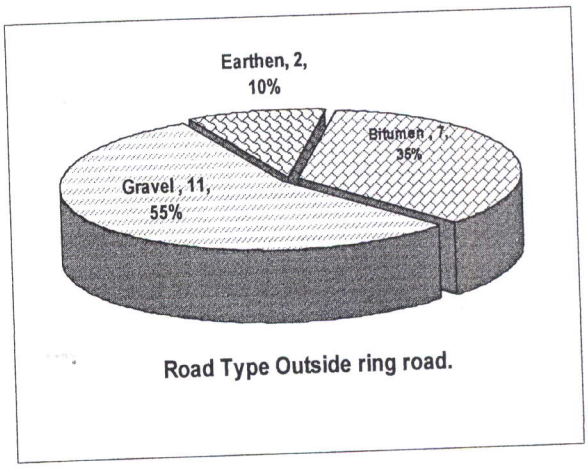
Outside ring road it is 3-3.5 lakhs maximum and in inner side rates are up to 10 lakhs per Ana. It is due to commercial importance location. Businessman and indigenous people do like to stay in their peripheral of business and proximity of working place.

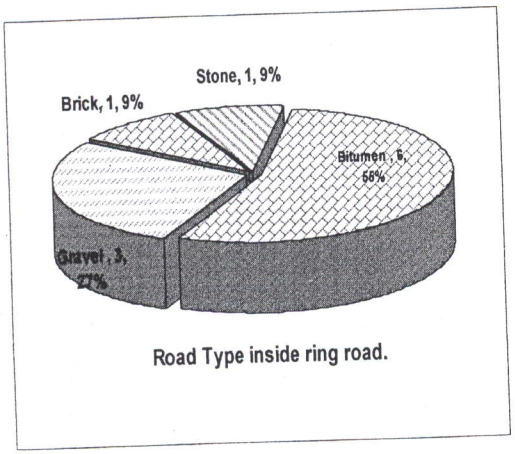
6.10.3 Road type:

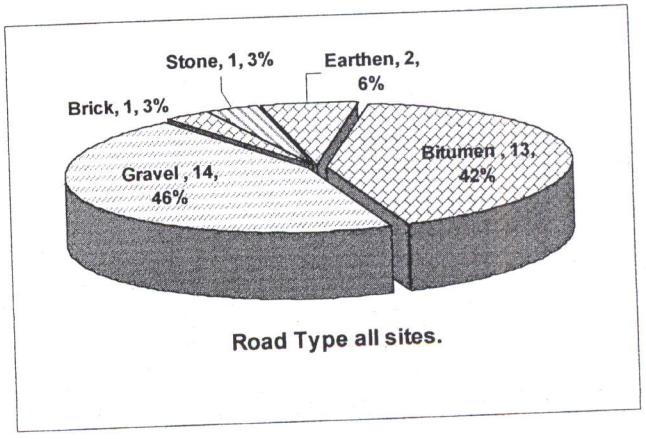
Researcher got five types of roads; some of them were completed and rest in process. Inside ring road about 55% covers bitumen, 27% gravel, each of 9% of brick and stone roads. Outside ring road, 55% gravel and 35% covers bitumen road. In average bitumen 42% and gravel 45%. It is seen that bitumen-paved road has been selling faster than others.

Table-14.

Road Type, all sites	Total	
	Numbers	% result
Bitumen	13	42
Gravel	14	45
Brick	1	3
Stone	1	3
Earthen	2	6
	31	100



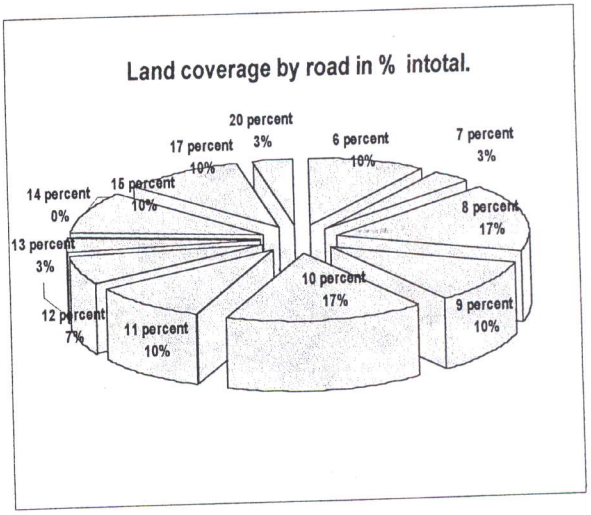




6.10.4 Land Coverage by Plotting Road.

From table it is clear that land allocation for road in inside ring road is 10% coverage has 30% weight age, and outer side 8% coverage was about 20% sites. In average, 8 and 10% land coverage have about 17% each. Minimum road coverage 15% of total land fulfilled by only 10% sites. **Table-15.**

Land Coverage by Road in %	Within ring road, nos	– % result	Outside ring road, Nos	% result	All sites.	% result
6 percent land	2	20	1	5	3	10
7 percent	0	0	1	5	1	3
8 percent	1	10	4	20	5	17
9 percent	0	0	3	15	3	10
10 percent	3	30	2	10	5	17
11 percent	1	10	2	10	3	10
12 percent	0	0	2	10	2	7
13 percent	0	0	1	5	1	3
14 percent	0	0	0	0	0	0
15 percent	1	10	2	10	3	10
17 percent	1	10	2	10	3	10
20 percent	1	10	0	0	1	3
Total	10	100	20	100	30	100



Till now we do not have separate rule, regulation and byelaws for purely land developers only. Refer to ***Building byelaw, Planned residential sub area (sub-4)****, minimum criteria are:*

a. Road width.

Width of road that join main road. Min 7m.

Connector road block to block, Min 6m.

Connector road plot to plot, Min 4m.

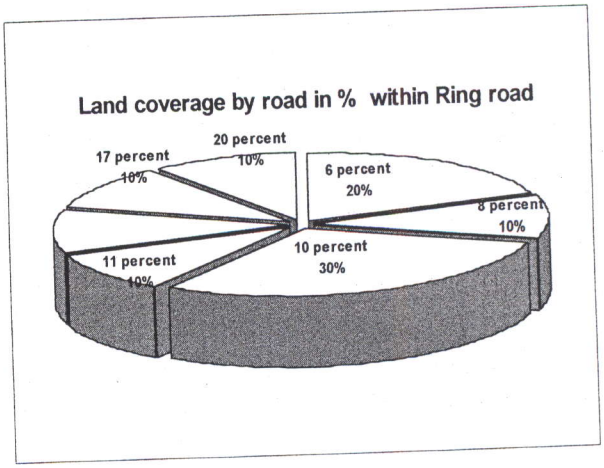
Cul De Sac , Max 60m in length.

b. Plot size

Width of plot	*Min 6m.*
Area of plot	*0-2-2-0*

c. Plot depth.

0-2-2 to 0-4-0	*2* width.*
4 Ana-8 Ana	*1.75*width.*



8-12 Ana *1.5 * width.*

d. Public open space.

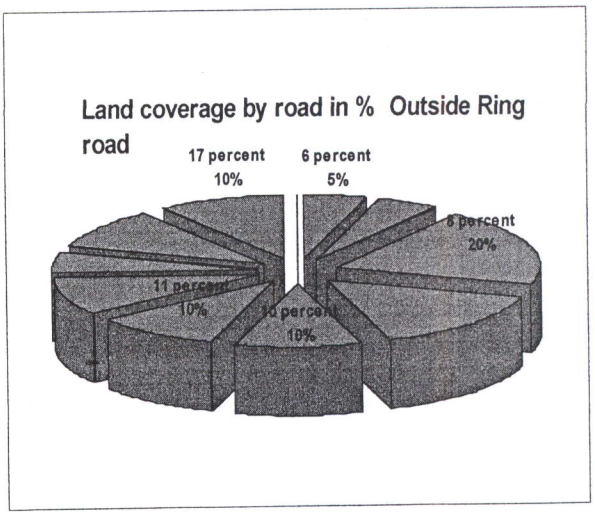
5-10Ropani- 5% of total land.

10-25Ropani- 4% of total land

25-100Ropani-3.5% of total land

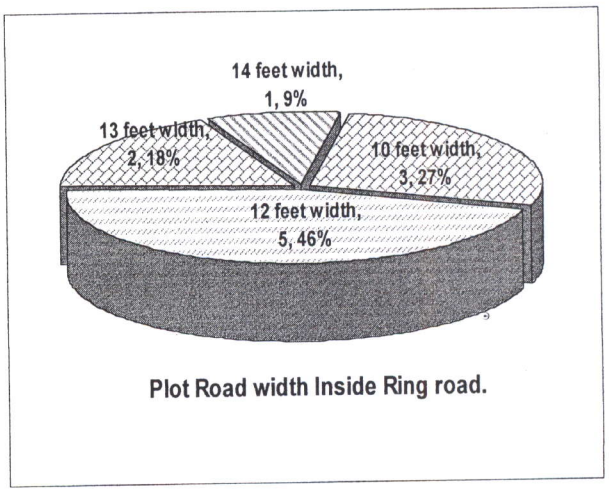
>100Ropani- 2.5% of total land.

Road coverage-appx 15% of total land.



6.10.5 Plot road width.

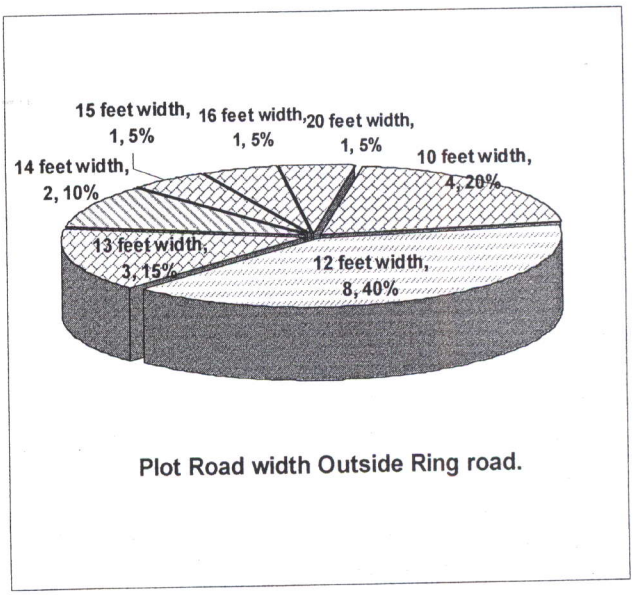
Such type of plotting work has a basic concept of 10 to 12 feet road. It is little bit better from 4' wide track in piecemeal transaction. Here in our study also, inside ring road 45% developments have 12 feet road. It does not fulfill even minimum requirement of 4m widths. Dead end and Cul de sac are very common problems. Inner side and outside of ring road, 13 feet road and more width road are 27% and 40% respectively. In average of both, only 35% developers made 13 feet and more width road.



Plot Road width Inside Ring road.

Table-16.

Plot Road Width. All sites.	Numbers	% result
10 feet width	7	23
12 feet width	13	42
13 feet width	5	16
14 feet width	3	10
15 feet width	1	3
16 feet width	1	3
20 feet width	1	3
	31	100



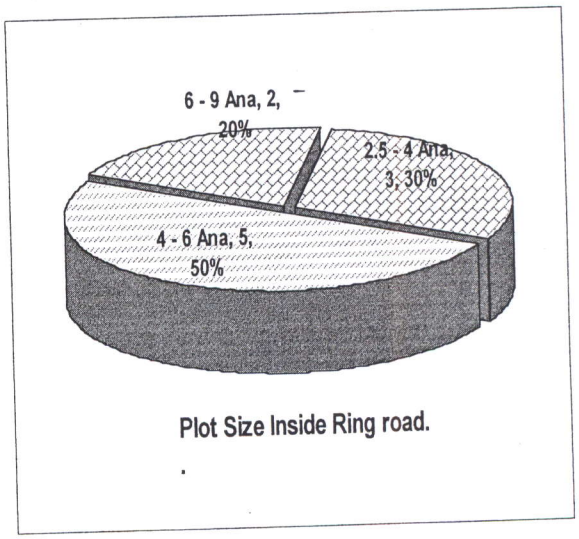
Plot Road width Outside Ring road.

6.10.6 Plot size.

As per our building byelaw standard minimum requirement of *Plot depth is .*

For 0-2-2 to 0-4-0 is 2 width. 4 Ana-8 Ana is 1.75*width and 8-12 Ana is 1.5 * width.*

Now a day's around 5 ana plot is most popular. Developers also made subdivision of 5 ana size more than 50% in both sides. But generally, plotting is made square in size or near to it. Basic requirement of *depth=1.75*width* are rarely made. If they exist anywhere is a coincidental. Qualified engineer or planners are not involved in subdivision work. Junior surveyor (called Amin) was the main technician of subdivision. In fact developer himself becomes an engineer and planner. Concerned authority never interacted with the developers in this regard. It is time to monitor and train them for qualitative work in future.

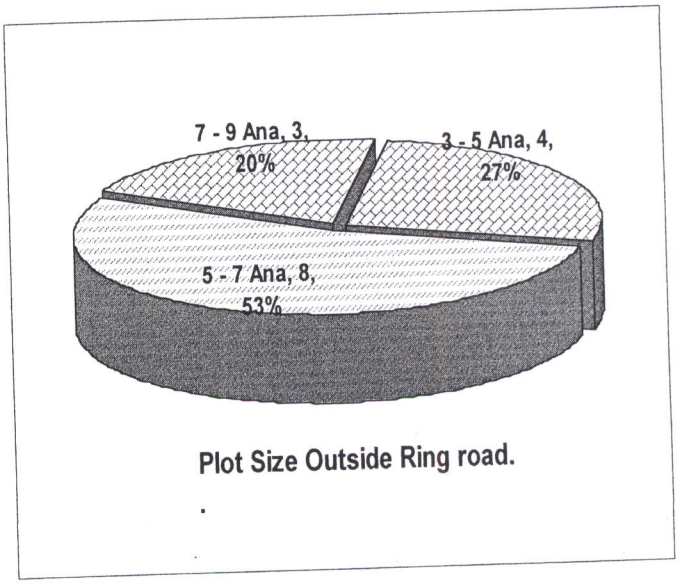


Plot Size Inside Ring road.

Table-17.

Plot Size Inside of Ring road.	Numbers	% result
2.5 - 4 Ana	3	30
4 - 6 Ana	5	50
6 - 9 Ana	2	20
	10	100

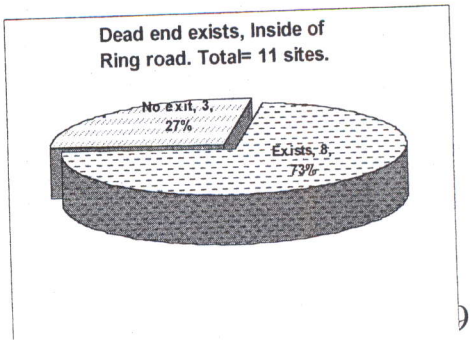
Plot Size Outside of Ring road.	Numbers	% result
3 - 5 Ana	4	27
5 - 7 Ana	8	53
7 - 9 Ana	3	20
	15	100



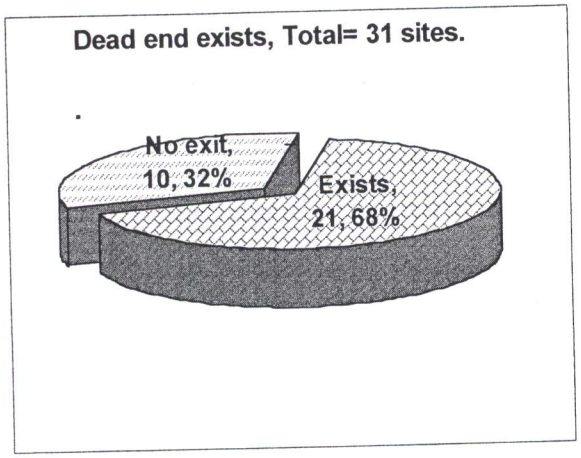
Plot Size Outside Ring road.

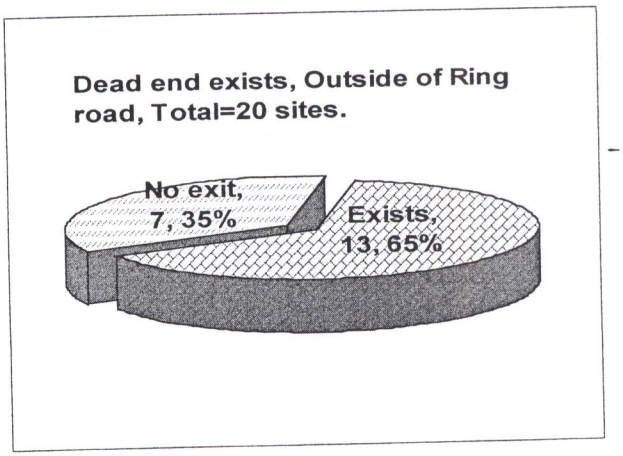
6.10.7 Dead end, open space, Drain system, Electric pole and water supply.

Dead end- Data shows inside and out side of ring road 73% and 65% site exist dead end having no any turning facilities for vehicles. In total for all sites it is 68%. Only 32% have provision of through road in

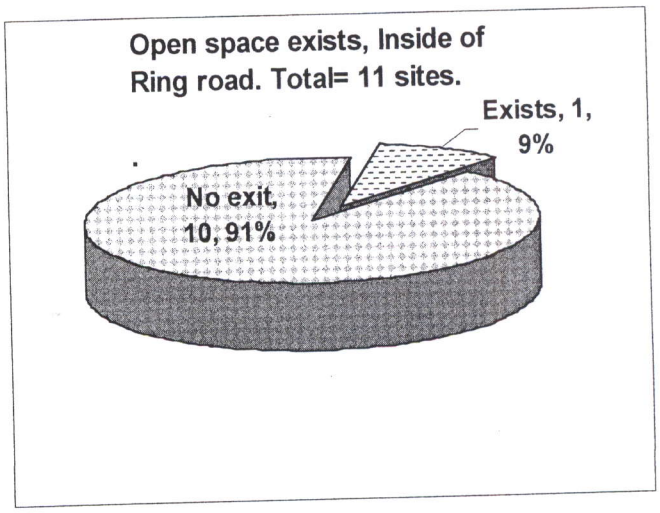


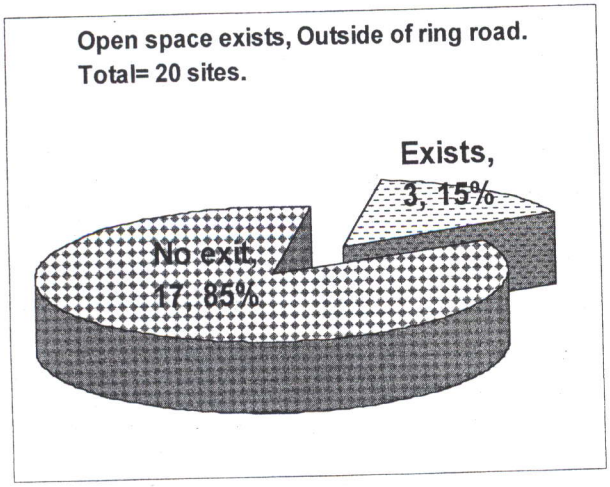
plotting area. Only providing road without design and engineering standards create many problems of vehicle movements. Building bye law permits cul de sac for maximum 60 m length road.

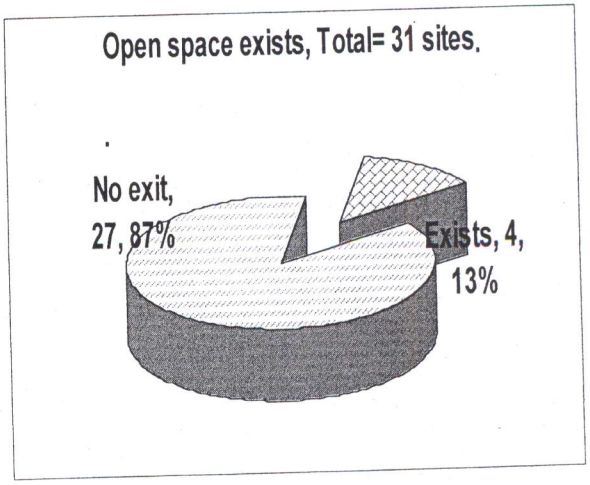




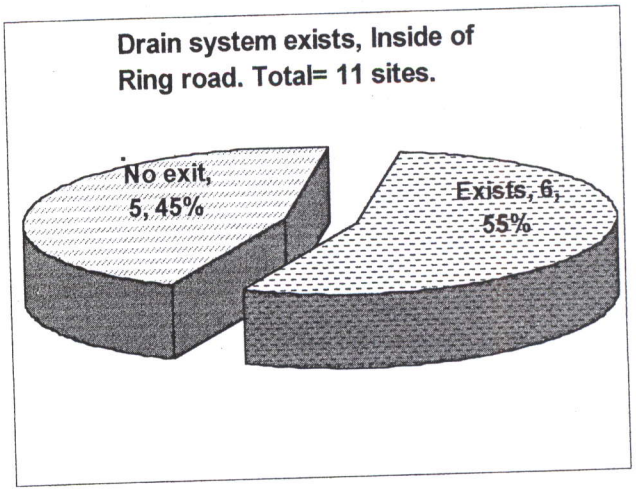
Open space, - As per our building bye law minimum 5% open space must be allocated for 5-10 ropani land plotting. This study shows very poor figure about open space. Very few developers want to make open space due to cost of land. Data shows inside and outside of ring road only 9% and 15% sites have open space provision. In total it is 13% site. But it is 2-3% of total land (less than 5% bye law rule). It is s also noted that there is no distinct criterion for land developers less than 5 ropani. Open spaces, they rarely think in this issue.

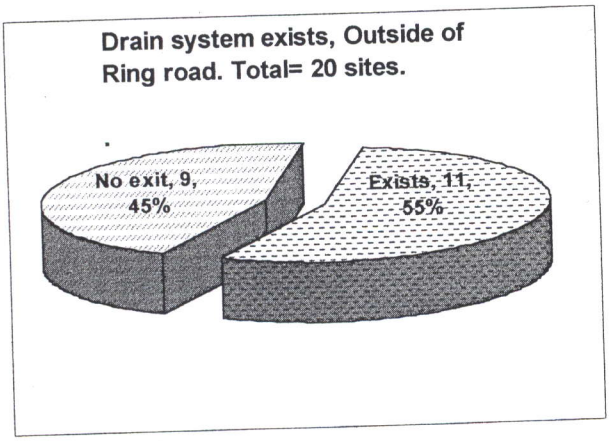


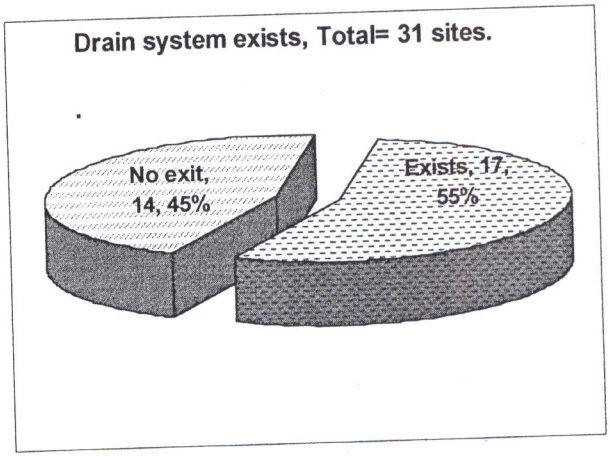




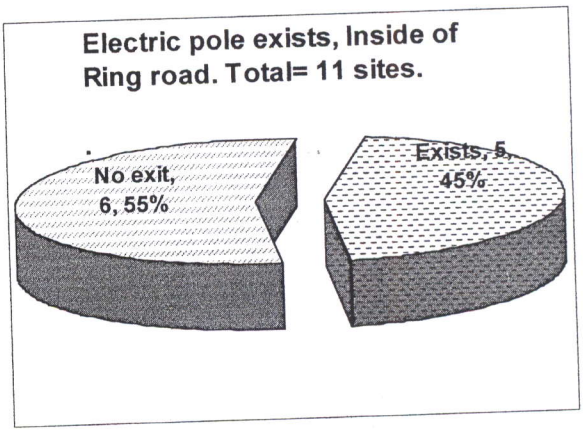
Drain System- The work is mainly profit motive. Plotting has been done in a small chunk of land. Main problem of drain system is undefined outfall destination. Some site has taken benefit of existing system. No one has checked carrying capacity of existing drainage size. No sites have sewage treatment provision. In total 55% sites have provision of drainage system.

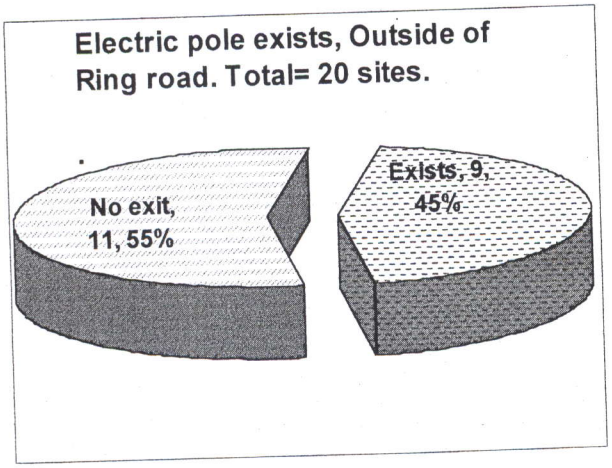


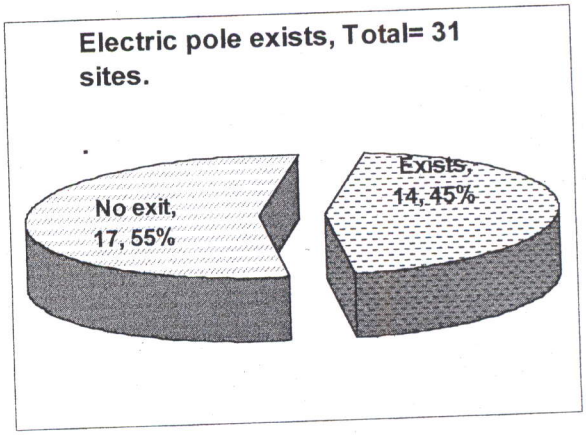




Electric pole- Developers mainly erect the pole in important turning nodes of plotting for electric line and other communication and entertainment facility. In total 31 sites, 45% sites have the provision of electric pole. Dwellers are responsible for connection of electric line in their houses.



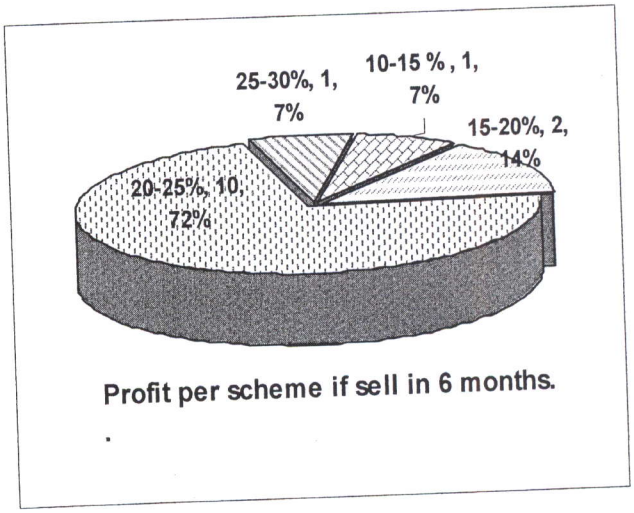




Water supply pipeline- Due to lack of coordination and work recognition by line agency, water supply is the main problem in the developed area. About 11 out of 31 sites (35%) have laid distribution pipeline network to minimize the disturbance after completing pavement. But dwellers have to pay again the laying charge to Water Supply Corporation

6.11 Profit per Scheme and investment risk.

Like other business, this business is also full of risk. Time management and searching buyers, convincing them and making negotiation is hard work. The scale of profit depends purely on time taken for development and selling. Generally the project closes within six months from the date of initiation with anticipated profit. Up to one year, the overhead increases, and fear of handling next project with profit marginal difficult. This marginal profit is mainly due to no tax burden. But the investment is in urban land, so it is believed that in our culture and saying "*Money does not sink, if invested in land*".

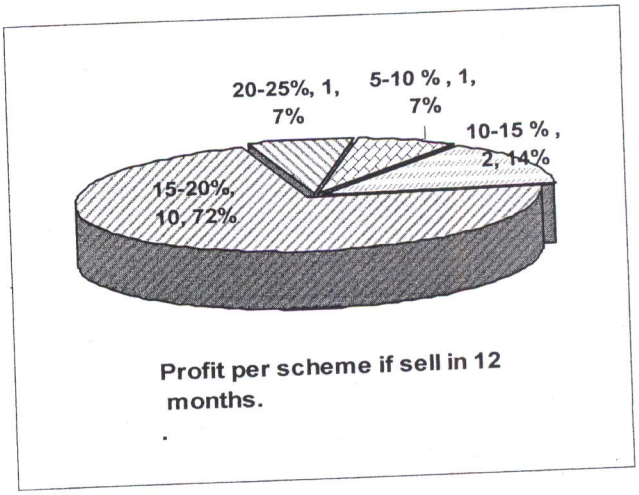


Profit per scheme if sell in 6 months.

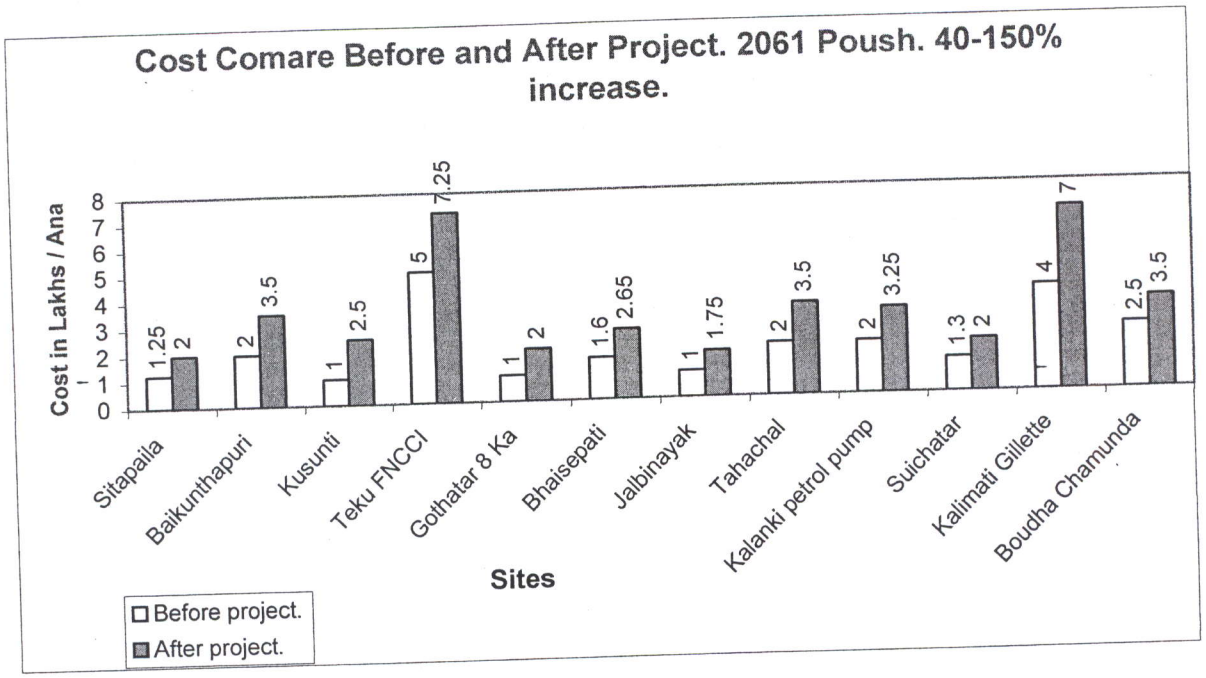
Table-18.

Profit per scheme if sell in 6 month.		
Profit	Numbers	% result
10-15 %	1	7
15-20%	2	14
20-25%	10	71
25-30%	1	7
	14	100

Profit per scheme if sell in 12 month.		
Profit	Numbers	% result
5-10 %	1	7
10-15 %	2	14
15-20%	10	71
20-25%	1	7
	14	100



Profit per scheme if sell in 12 months.



Graph-4

6.12 Suggestions made by the Informal Developers.

Informal land developers are mostly new faces having 2 to 3 years experiences. Even they have not studied about land use plan, byelaws in detail and 2020 development concept. It is found during discussion that they are much more experienced in land revenue office bureaucracy and ways to overcome from these hurdles. They were less serious about the updated cadastral map and land record. They seem always busy with their mobile and dealings dialogues of transactions. My discussion was interrupted many times with most of the people. During discussion, I guess that most of them can manage money for big projects also. Some of them explained the situation. At the time being, they are backed by hidden investor. Other sector, (industry and trade) is sluggish, and no alternation to use money. Shares invest and bank deposit is not profitable. Land is said a safe area for investment.

More plots and quality improvement-

- All developers demand recognition from local body.
- This business invests huge money at their own risk. This should be declared as an industry.
- Land related residential development works should be done through land developers (formal and informal listing in local authority).
- All land related development work and official dealing (cadastral, record, ownership transfer, license, GLD, monitoring etc) should be under one umbrella system.
- Slow and harassing administration procedure should be curtailed and improved.

- More and more investment should be done through financial institution soft loan in competitive basis. Government policy must be positive and clear in this regard.
- Basic physical infrastructure requirement rule must be cost effective and practicability. (*At Teku, existing main road is 5m width, then what is the sense of 7m road in informal plotting inner area?*).
- Rule and regulation for road width and open spaces should be specified according to existing entry facility and location fact.
- Land double ownership issues should be ended as soon as possible.
- This profession should not be addressed by one of the brokers only, and should be made a respectable job.
- Updated cadastral map is most important factor. Other relevant records, details and certificate authenticity verification and access should be easy.
- Land acquisition authority to formal developers or partnership development should be initiated for effective (cost and time) product.

What informal land developers expect from government?

- Listing and records in local authority.
- Government should play an active role as a facilitator.
- No double registration fee and fee as same housing development.
- Legal status of advance money paid to land owner and its security.
- Under one umbrella dealing with governmental institution.
- Strong, regular monitoring and its official record should be maintained.
- Prompt comments and response should be given in written to minimize weaknesses.
- Mechanism should be adopted, land development and transaction through land developers.
- Land market survey and periodic update mechanism in government authority.
- Regular training packages to informal land developers and concerned personnel.
- Regular workshop and interaction between authority, land developers and professionals.
- Land ceiling, should be reconsider for land development works.
- Warning, penalty and reward provisions should initiate in fair.
- Tax imposing should be under as a social industry. (Till now no profit tax dealing by informal land developers).

How can informal land developer's performance be improved?

- Land market survey and its periodic update are important. Such mechanism should be formed and work started. It minimizes cost speculation. It should be kept in web site with collected date and location detail.
- Awareness program. Government policy, rules and regulation and current decisions should be disseminated to developers. Training is better way to do so.
- Workshop and interaction program between authority, developers, and experts be fruitful to improve the performance.
- Presently the dealings are mostly verbal. Small office, scientific record keeping and prompt response to genuine buyers give a good image. It also creates employment.
- Developers were positive for involvement of urban planner or experienced engineer. The product becomes more qualitative and easy dealing with authority in technical matter.

6.13 Dweller's basis of site selection and suggestions for improvement.

Total 7 people granted discussion time. They are teacher, mechanic, driver, farmer, computer technician and businessman. Main base of choosing the location was proximity to their work. Second base was planned area and no dispute in wide road. People know the problems of access to purchase through broker in piecemeal land. Third priority was to live together with intimate friends and good neighborhood. Cost implication was in fourth rank.

They purchased land knowing through advertisement two numbers, through friend's pressure two, direct two and rest are through broker. Dwellers were not fully satisfied. Mainly road alignment and gradient does not follow engineering standard. Drainage outlet is disputable. No water supplies connection, although some of developers committed to connect it. Road quality is poor. They have only open space, usually that was kept for parking.

Suggestion- their request was to follow government rule and standards. It should be full package development, not only road and plotting. Authority should do regular monitoring and impose penalty and reward. Production cost should be competitive and affordable. Whatever developers commit that must be fulfilled.

Chapter-VII, Summary of findings.

CHAPTER –VII. SUMMARY OF FINDINGS.

Informal land development work through plotting and selling having minimum road facility is an emerging business in Katmandu today. Involved developers are aged 30-50yrs and 64% have less than 5 years experience. All the developers are ambitious to their favorable business. While selecting the land they mainly focus on cost and project time. Dealings are mainly made through brokers (>70%). Direct purchase of land is more fruitful, and can sell in affordable price. They decide based on their experience, self-confidence and business risk.

Among randomly visited 31 sites, totaling 265 ropani (13.5ha), 540 plots were delivered to the land market this year. About 48% of the developer selected 2-5 ropani and sold after plotting. Buyer's demands dominantly of selling price 1-2lakhs/Ana inside of ring road and 3-3.5lakhs/Ana in outside of ring road (both>29%). Cost increments after developments are 40% to 150% per Ana. Developer's profit per scheme depends on selling period. If Plots sold within 6 months, 71% developer agrees on 20-25% profit. It reduces to 15-20% in selling within 12 months. Buyer's top preference in choosing location is proximity to workplace and more than 50% people choose the size of plot is 5 Ana.

Going through the **technical aspects**, road type total are 45% Gravel and 42% Bitumen pavement. But the quality seems poor. Pavement quality and alignment are not proper. Land coverage by road according to byelaw standard is 15% of total area. Only 10% sites fulfilled the byelaw standards. Byelaw, minimum width is 4m (13'). But only 35% site, with 13' or more width road is. Popular plot size inside ring road is 4-6 Ana and outer side 5-7 Ana. Byelaw width and depth ratio rarely followed. If there exists, that is coincidental. Most of the plots have dead end problem (68% sites) and only 13% sites have the provision of open space about 2-3% of total land (bye law 5%). Drainage outfall destination and route is one of the major problems. Some sites have existing urban facility. About 55% have drainage provision, but pipe size and slope is ad hoc. About 45% site has electric pole at turning points. Developers have laid water supply pipe distribution network (35% sites), especially under the metallic pavement. But such pipeline is not recognizing by concerned line agency.

In technical aspect there is sever problems in quality and sizing. It shows the importance of monitoring by concerned authority.

During discussions developers mentioned their problems in this business. Financial and legal problem is briefly explained below. There is no specific policy and act to address the informal land activity. This sector seems a less priority sector of government and is running in ad-hoc basis. No periodic and information dissemination mechanism of land market. Intentional speculation increases imperfection due to. So, only hardy people are involved in this business. Serviced plot demand and supply are in imbalance. Due to less serviced plot supply urban land is becoming more expensive. It does not cater to low-income groups. Developers are not getting long-term soft loan through financial institutions. Personnel approach is not enough to develop this sector. Till date no policy exists to declare it as an industry. Another way to support financially is revolving fund of government. Some financial institutions have initiated the home loan program. This is helping in flourishing the business. But, loan for land purchase has not been introduced as yet. Developers have to pay double registration fee during land assembly and selling time. The rate is also high (3%VDC's and 6% municipality) than for housing company, flat system pay 2%, and housing unit only 3% in 2061 BS. Registration fee should be waived to some extent to promote this business. Administrative problem of co-ordination among concerned utilities offices also delays the work. Developers should be convinced and encouraged to pay tax. Penalty and reward provision for worst and best work each year is necessary in between informal land developers.

There also are some legal problems. Guided land development demarcation in between the proposed plotting area wastages more land in road. No compensation provision for GLD roads. Land ceiling (up to 25 ropani) is obstacle for informal land development. There is no legal provision for informal developers. Suspension of land transaction in the area of archeological importance sites by Rawal commission is also creating problems. Double ownership problem has not been solved yet. It also squeezes the development potential of land. Developers pay advance to land owner, but there is no legal status of advance payment agreement (kararnama). Local body listing and recognition is necessary.

Maps and records - Our record system of map and records is very poor. Access by the public in records verification is not easy. No act and rule and regulation addresses Informal sector in land development.

Developers want regular monitoring, recognition, easy access to soft loan, training technical and legal, booklets distribution, workshop and interaction with authority and experts. Informal developers are less aware of rule and land laws. Land market information is poor and hard to access actual cost investment. Government should play an active facilitator role. In profit sharing basis private developers can be involved in the task with government. Clear concept, rules and legal backup are necessary to implement in this sector. Single window entry system for related administrative procedure would be fruitful. Provision of qualified engineer's input is necessary in any land development. Informal land development is a different kind of dealing. Working freedom is their effort and character. Which will gain more efficiency. Without disturbing the spirit of the work, a separate legal provision is required to manage in the activity.

Chapter-VIII, Conclusion and Recommendation.

CHAPTER –VIII: CONCLUSION AND RECOMMENDATION.

8.1- Conclusion-

Land development in Kathmandu Valley is a fundamental issue of urban development. Urbanization in greater Kathmandu is rapid due to mainly influx of people from outside the country, as well as spatial shift from core traditional areas to periphery and fringe areas. As a result there is high demand of serviced land plots for residential building construction. In recent years it is increasing due to insurgency also. There has been an intense pressure to acquire land for building because of hundreds of households forcefully to leave their existing places from rural areas.

There exist several agencies including government and private sectors. In private sector are formal and informal sector. Formal sector are land developer and housing companies. Government and formal sector contribution is about 15%, and informal sector contributes to rest of the plot supply transaction. Growing plot demands is met through informal sector. Main contributor is a traditional land broker. They deal in piecemeal basis without providing any basic infrastructure. Informal land development work through plotting and selling having minimum road facility is an emerging business in Katmandu today. Informal land development is a different kind of dealing. Working freedom is their character and does full effort in business. They gain more efficiency. This informal sector inputs their work in the urban land development in Kathmandu. It is argued that such informal land developers offers serviced plot land as the need of people and within their desired capacities.

Importance and contribution of Informal land developers is appreciable. But we can say there are many difficulties in this business. Financial, legal and technical problems and suggestions made by developers are mentioned in above chapters. Although it is an emerging business, we have gone through many technical shortcomings in chapter VI. Regular monitoring, training, workshop, and interaction can minimize such shortcomings. Clear policies, rule and regulation and administrative simplification plays a major role to curtail many of the problems. Rapid pace of urbanization in sub urban fringe area alerts us to do serious homework in this respect. Informal investment concentration in urban fringe area bears high potential. Government may suffer later due to their sub- standard work. Improvement can be done by providing access to finance, training and exemption on land registration taxes to those who try to meet the byelaw subdivision standards.

Effort made by the informal land developers without any government support is measurable in urban development. Legal and financial as well as technical backup will

boost the business and production of plot in affordable rate is anticipated. There are many rooms for improvement and can be achieved by awareness and training. Overall, the works are mainly quantitative in nature, and needs to be improved in qualitatively.

8.2 - Recommendation-

Main objectives of the study, researcher has to look into operational procedure, product quality, and technical, financial and legislative problems of informal land developers. Our urban land management is weak and no specific course for land use development. Stakeholder of urban land development seems to be in confusion about the role of private sector. Formal private sectors are registered companies and have direct role in land management contribution. Land developer and brokers play an important role in town extension as well as infill of urban areas. Informal developers are emerging, and doing land development works in individual ground.

Procedural –

- Provision for legal status of advance payment to the landowner.
- Single window system. All land related services should be provided through single office. It saves time, money and helps to keep records updated.
- Listing in local body. (Strength to be shown). – Listing and providing license for land development work from local body is essential for bank loan and other authorized dealing.
- Updated maps and records should be easily available.
- Land ceiling should be increased for informal land developers.
- Government can impose the involvement of qualified engineer in the development plan and implementation.

Financial-

- Government should play active role as facilitator in this business. Concerned authority should have strong monitoring mechanism
- Easy loan receiving provisions. After legal backup and listing in local body, they should allow getting loan from any financial institution. It is better to form a revolving fund in town development office for such purposes.
- Waive in registration fee. No double charge. Waive same as granted facility to housing companies.
- Encourage paying tax. Penalty and Reward. Regular monitoring exposes the investment cost and profit. Although they are informal, government has to convince them to pay minimum tax. After evaluation of work, best developer

should be announced once a year and rewarded. It will give a competitive feeling among them and the quality of product will impose.

- Updated land market price record means actual cost investment. It discourages the speculation intention and more unproductive land holding practice. Valuation of land by the government would be more scientific. It also helps to collect more revenue. So, a unit to survey land market should be established by the government.

Technical-

- Technical training, land market information and interaction program should be held on a regular basis. Informal developers are less aware of rule and land laws. Technical training may help them to do better in the field. So regular training and interaction program, booklets distribution is a must.
- Strong and effective monitoring mechanism should be established in government authority.
- Legislative protection. No any act speaks about informal land developers. It is different kind of dealing. Working freedom is their character and does full effort in business. They gain more efficiency. Without disturbing the spirit of work, a separate legal provision is required to manage this activity.

8.3 Further Research.

Due to the limited scope and time, very detailed of problems and solutions are not addressed. It is an emerging business, having huge investment. All investment is done on an individual risk. No specific legal backup exists to secure the money. How much of it addresses, the general law provision. So monitoring and instruction is necessary to fulfill minimum criteria. Although this has many problems, business future seems bright. In coming days the main serviced plot supplier will be the informal sector. At present piecemeal transaction is more, but people's attitude is diverting and they are going more for planned plots.

For further research,

1. Does informal land development sector demand separate nature of legislative provision? If so, what modals?
2. What modals should be adopted to develop and sell land by private sector in profit share basis, if government makes land banking and provides the land?

THE END

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Annexes

Table-20

a sheet : Interview with Dwellers..

Contacted Persons	Back Ground	Year of living	Basis to choose land type and location.	How do you identify sellers ?	Are you satisfied with developer's dealing ?	Are you satisfied of quality?	Suggestion to improve such development.
Shanker , Pingaisthan Gaushala.	Mechanic	Under construction	Proximity to my workshop.	Local, so direct contact.	Yes	Only gravel road.	Development should be in full package. Competitive cost. Provision of open space.
Mr....., Chabhil water tank.	Buisness	only land	Planned area.	Through friend.	Yes	Yes	Govt regular monitoring. Competitive cost.
Babukaji Maharjan, Tahachal	Farmer/ tourist driver.	Under construction	Near by own house. Proximity to city.	Direct contact.	Yes	Poor road quality.	To be provided assured quality work. Open space provision.
Kamal Chaulagai, Sitapaila	Retail shop/ Driving	Under construction	Proximity to city and potential to keep retail shop.	Advertisment.	Partial	Road quality and gradient is poor.	Basic engineering standards. Open space. To fulfill commitment.
Raj Kishore, Sitapaila	Computer technicial.	Just completed.	Proximity to city and potential to keep retail shop (rent).	Advertisment.	Partial	Road quality and gradient is poor.	Basic engineering standards. Open space. To fulfill commitment.
Mr....., Thankot.	Transport buisness	Under construction	Easy to up and down and truck parking.	Direct contact.	Fair	Yes , as per investment	Govt quality monitoring.
Mr....., Jalbinayak Marg Bhaisepati.	Teacher	Under construction	Proximity to my working school.	Through broker.	Yes	Yes, Drainage outfall where?	Road curve minimum radius. Govt monitor. Proper drainage system.

Data sheet : Published in Kantipur Daily, (2060 Chaitra-2061 Ashoj) Table-21

Sr No	Code	Date	Plot Nos	Location	Land Area	Existing Main Road, Attached		Plotting road width & type. Proposed			Plot Size (Anna)	
					Ropani	Width	Type	Maximum	Minimum	Type	Minimum	Maximum
Kathmandu, Inside Ring road.												
1	1	061-6-9	23	Teku FNCCI	12.50	16	Bitumen	14	13	Bitumen	4	7
2	2	061-6-21	8	Gaushala, Maiti Nepal	2.80	26	Bitumen	12	12	Gravel	4	7
3	3	061-6-21	14	Tahachal Rupees school.	4.25	16	Bitumen	10	10	Bitumen	2.5	6
4	11	061-5-18	9	Tahachal-13, back of museum	2.50	10	Brick	Used public road.		brick	4	6
-5	19	061-11-13	4	Baluwatar, PM quarter	3.87	16		16	13	gravel	9-1	16
6	20	061-3-10	9	Gaushala, pingalsthan	3.00	26	Bitumen	10	10	gravel	2-2	6-2
7	21	061-03-10	4	Nayabaneshwore, Thapagaon	1.54	16	Bitumen	10	10	gravel	3-1	7-2
8	25	061-1-5	10	Soaltee hotel staff gate	8.00	16	Bitumen	13	13	Bitumen	4	6
9	35	060-12-14	4	Baneshwore height	1.50	16	Bitumen	11	11	gravel	3-0	6-3
10	39	060-11-30	12	Tankeshwari Bhimsensthan	2.90	16	Bitumen	10	10	gravel	2-2	4-0
11	40	060-10-10	6	Soaltee mode Grand Hotel	4.00	16	Gravel	12	12	gravel	4-0	5-2
12	41	060-10-6	11	Kalimati Gillet Boarding	8.00	16	Gravel	12	12	Bitumen	3	4
13	56	061-6-9	6	Bhotebahal height	1.20	10	Gravel	10	9	gravel	2-2	3-2
14	57	061-2-10	11	Minbhavan S nagar	3.00	10	Gravel	10	10	gravel	4	6
Kathmandu, Outside Ring road.												
15	7	061-6-9	45	Chabahil Pani Tanki	21.50	26	Bitumen	10	16.5	Bitumen	4-2	8
16	8	061-6-2	10	Jorpati (Chamunda Hall)	4.60	16	Gravel	13	13	Bitumen	4-2	8-0
17	9	061-3-18	11	Kalanki Dhunge Adda	4.00	16	Gravel	13	13	Gravel	3-2	5-1
18	10	061-2-19	13	Siuchatar	5.00	16	Gravel	14	16	Gravel	3-1	7-2
19	15	061-5-24	17	Gongabu Baikunthapuri	8.00	15	Bitumen	15	15	Bitumen	6	12-0
20	16	061-11-15	10	Baniyatar	4.00	12	Gravel	12	10	Gravel	3-1	5
21	18	061-2-24	12	Chabahil Chuchepati	3.50	22	Bitumen	-	-	Gravel		
22	23	061-5-10	9	Kalanki Chowk to 150 m west	2.00	22	Gravel	14	14	Gravel	3-3	5-0
23	24	061-1-5	16	Kalanki Chowk to 100 m	5.50	12	Gravel	10	10	Gravel	3	6
24	26	061-1-12	21	Baniyatar ward 3 kha	7.00	22	Gravel	10	10	Gravel	3-2	6-1
25	27	061-1-12	11	Mahankal-6, Kapan way	4.60	14	Bitumen	10	14	Gravel	5-0	7-1
26	28	061-1-12	7	Sitapaila Dandapauwa	1.60	16	Gravel	Used public road.		Gravel	3	4
27	29	061-1-3	8	Kapan Ward-1"Gha"	2.00	10	Gravel	10	10	Gravel	3	4-3
28	31	061-2-9	5	Tinchule, Mahankal	3.53	12	Gravel	12	12	Gravel	10	13-3
29	32	061-4-28	20	Dhapasi 4 kha- Tokha road	20.70	18	Gravel	14	16	Gravel	10	15-2
30	34	061-3-5	56	Thankot, Balambu	32.00	24	Bitumen	16	16	Bitumen	5-2	9-0
31	37	060-12-11	25	Manbhaiju ward no 8	11.70	?	Gravel	?	?	Gravel	5	10
32	38	060-12-11	10	Jorpati Kumari college	3.20	12	Gravel	12	12	Gravel	4	7
Lalitpur Inside Ring road.												
33	4	061-6-21	14	Kumaripati	5.00	26	Bitumen	13	13	Gravel	3-2	7-2
34	17	061-2-30	12	Ekantakuna	3.60	26	Bitumen	12	12	stone	3-1	4-2
Lalitpur Outside Ring road.												
35	30	061-2-9	7	Milanchowk, Lahachowk way.	3.25	20	Gravel	?	?	Gravel	4-0	8-0
36	42	061-7-21	7	Bhaisipati	5.00	22	Bitumen	13	15	Bitumen	7	3
37	43	060-12.29	48	Bhaisipati Height	30.00	20	Gravel	20	13	Gravel	13	3
38	44	061-1-4	15	Harisiddhi	7.60	16	Gravel	12	12	Gravel	4	6-1
39	45	061-1-18	21	Bhaisipati, Jalbinayak marg.	9.70	16	Bitumen	12	12	Bitumen	4	8-2
40	48	061-1-3	8	Imadol Height	2.50	14	Gravel	10	10	Gravel	3-0	5-1
41	49	060-12-29	7	Little Angle School Height	3.75	16	Gravel	?	?	Gravel	4-2	15-0
42	50	061-6-2	10	B & B Hospital	2.50	14	Gravel	12	12	Gravel	3	5
43	51	061-5-3	9	Kusunti Lalitpur	4.00	14	Gravel	12	12	Gravel	4	12-3
		Plots =	595		280.39							

Code	Date	Plot Nos	Location	Land Area	Road area	road area	Selling Cost	Existing Main Road, Attached		Plotting road width & type. Proposed			Plot Size (Anna)		Contact person /office	Remarks.
				Ropani	Ropani	%	lacs/Ana	Width	Type	Maximum	Minimum	Type	Minimum	Maximum		
thmandu, Inside Ring road.																
1	061-6-9	23	Teku FNCCI	12.50	2.50	20	7-7.5	16	Bitumen	14	13	Bitumen	4	7	98510-42768 Ramesh Dahal,	
3	061-6-21	14	Tahachal Rupees school.	4.25	0.44	10	3.50	16	Bitumen	10	10	Bitumen	2.5	6	Ram P. Humagai 4275410	
11	061-5-18	9	Tahachal-13, back of museum	2.50	public	0	3.00	10	Brick	Used public road.		brick	4	6	98510-68585 Dinesh Joshi.	
20	061-3-10	9	Gaushala, pingalsthan	3.00	0.45	15	3.00	26	Bitumen	10	10	gravel	2-2	6-2	98510-40182, Chandra Poudyal	
25	061-1-5	10	Soaltee hotel staff gate	8.00	0.50	6	3.50	16	Bitumen	13	13	Bitumen	4	6	98510-20746 Sanjoj Man Shrestha	
40	060-10-10	6	Soaltee mode Grand Hotel	4.00	0.25	6	5.00	16	Gravel	12	12	gravel	4-0	5-2	98510-54417 Moti Dahal	
41	060-10-6	11	Kalimati Gillet Boarding	8.00	0.60	8	7.00	16	Gravel	12	12	Bitumen	3	4	98510-54417 Moti Dahal	
59	new	6	Swambhu, military hospital	2.50	0.25	10	2.50	16	Bitumen	12	12	Bitumen	5-2	7-2	4240823 Kalu gurung	
60	new	15	Kalanki watertank	8.00	0.80	10	4.00	16	Gravel	12	12	Bitumen	3	5	98510-54417, Moti Dahal	
thmandu, Outside Ring road.																
7	061-6-9	45	Chabahil Pani Tanki	21.50	2.20	10	3.25	26	Bitumen	10	16.5	Bitumen	4-2	8	98510-36335 Bhagawan Pandey	
8	061-6-2	10	Jorpati (Chamunda Hall)	4.60	0.40	9	3.50	16	Gravel	13	13	Bitumen	4-2	8-0	2140015, Dinesh Lama	
9	061-3-18	11	Kalanki Dhunge Adda	4.00	0.30	8	2.00	16	Gravel	13	13	Gravel	3-2	5-1	9841-338833 Chandra Tandukar	
10	061-2-19	13	Siuchatar	5.00	0.40	8	1.9-2.3	16	Gravel	14	16	Gravel	3-1	7-2	98510-51653, Surendra Karki	
15	061-5-24	17	Gongabu Baikunthapuri	8.00	0.60	8	3.50	15	Bitumen	15	15	Bitumen	6	12-0	4411093 Kapil.	
24	061-1-5	16	Kalanki Chowk to 100 m	5.50	0.71	13	2.75-3.5	12	Gravel	10	10	Gravel	3	6	98510-62305 Mohan Shrestha	
26	061-1-12	21	Baniyatar ward 3 kha	7.00	0.40	6	1.6-2.5	22	Gravel	10	10	Gravel	3-2	6-1	98510-26944 Deepak Kunwar	
27	061-1-12	11	Mahankal-6, Kapan way	4.60	0.70	15	3.00	14	Bitumen	10	14	Gravel	5-0	7-1	9851070879 Ratna,	
34	061-3-5	56	Thankot, Balambu	32.00	3.50	11	1.3-1.6	24	Bitumen	16	16	Bitumen	5-2	9-0	98510-79947, Uttam Bhattarai.	
61	new	38	Satungal at Balkhu bank	12.00	2.00	17	1.60	10	Gravel	12	12	gravel	3-1	6-1	98510-37681 Toya nath poudyal	
62	new		Sitapaila	15.00	1.50	10	2.00	16	Bitumen	12	12	Bitumen	4	7	98510-22855 Min Man Shrestha.	
63	new	22	Gothatar 8 Ka	7.00	0.60	9	2.0-2.1	14	Muddy	12	12	muddy	3-0	5-0	9841-246954 Keshar purkoti.	
64	new	34	Gothatar 8 Ga	12.00	2.00	17	1.4-1.5	14	muddy	12	12	muddy	4	6	98510-87133, Nav raj KC.	
litpur Inside Ring road.																
4	061-6-21	14	Kumaripati	5.00	0.55	11	10.00	26	Bitumen	13	13	Gravel	3-2	7-2	98510-53348	
17	061-2-30	12	Ekantakuna	3.60	0.6	17	5.50	26	Bitumen	12	12	stone	3-1	4-2	98510-22855 Min Man Shrestha.	
litpur Outside Ring road.																
30	061-2-9	7	Milanchowk, Lahachowk way.	3.25	0.25	8	1.5-2.0	20	Gravel	?	?	Gravel	4-0	8-0	98510-42083,	
42	061-7-21	7	Bhaisipati	5.00	0.56	11	2.4-2.9	22	Bitumen	13	15	Bitumen	7	3	98510-82850, Badri Bhandari.	
43	060-12.29	48	Bhaisipati Height	30.00	3.5	12	1.5-2.0	20	Gravel	20	13	Gravel	13	3	98510-55766 Shree Ram,	
44	061-1-4	15	Harisiddhi, main road	7.60	0.5	7	1.4-1.5	16	Gravel	12	12	Gravel	4	6-1	5542320, Gyanu Lama	
45	061-1-18	21	Bhaisipati, Jalbinayak marg.	9.70	0.85	9	1.75	16	Bitumen	12	12	Bitumen	4	8-2	98510-37903 Bhattarai	
50	061-6-2	10	B & B Hospital	2.50	0.3	12	2.75	14	Gravel	12	12	Gravel	3	5	98510-58377 Kedar karki,	
51	061-5-3	9	Kusunti Lalitpur	4.00	0.6	15	2.0-3.0	14	Gravel	12	12	Gravel	4	12-3	98510-63550 Hem	

bservation sheet : Site Visited , Infrastructure. Table-24.

	Plot Nos	Location	Land Area	Road area	road area	Dead end	Open space	Drain	E.pole	Water supply	Plotting road width & type. Proposed			Plot Size (Anna)	
			Ropani	Ropani	%						Maximum	Minimum	Type	Minimum	Maximum
athmandu, Inside Ring road.															
1	23	Teku FNCCI	12.50	2.50	20	No	govt land	yes	yes	yes	14	13	Bitumen	4	7
2	14	Tahachal Rupees school.	4.25	0.44	10	Yes	No	yes	No	No	10	10	Bitumen	2.5	6
3	9	Tahachal-13, back of museum	2.50	public	0	No	No	yes	No	No	Used public road.		brick	4	6
4	9	Gaushala, pingalsthan	3.00	0.45	15	Yes	No	No	No	No	10	10	gravel	2-2	6-2
5	10	Soaltee hotel staff gate	8.00	0.50	6	Yes	No	No	No	No	13	13	Bitumen	4	6
6	6	Soaltee mode Grand Hotel	4.00	0.25	6	Yes	No	yes	No	No	12	12	gravel	4-0	5-2
7	11	Kalimati Gillet Boarding	8.00	0.60	8	No	No	Yes	yes	yes	12	12	Bitumen	3	4
8	6	Swambhu, military hospital	2.50	0.25	10	Yes	No	No	No	No	12	12	Bitumen	5-2	7-2
9	15	Kalanki watertank	8.00	0.80	10	Yes	No	No	yes	yes	12	12	Bitumen	3	5
athmandu, Outside Ring road.															
0	45	Chabahil Pani Tanki	21.50	2.20	10	No	12 Ana	Yes	yes	yes	10	16.5	Bitumen	4-2	8
1	10	Jorpati (Chamunda Hall)	4.60	0.40	9	Yes	No	Yes	No	No	13	13	Bitumen	4-2	8-0
2	11	Kalanki Dhunge Adda	4.00	0.30	8	yes	No	Yes	yes	No	13	13	Gravel	3-2	5-1
3	13	Siuchatar	5.00	0.40	8	Yes	No	Yes	No	No	14	16	Gravel	3-1	7-2
4	17	Gongabu Baikunthapuri	8.00	0.60	8	No	No	Yes	yes	yes	15	15	Bitumen	6	12-0
5	16	Kalanki Chowk to 100 m	5.50	0.71	13	Yes	No	Yes	No	No	10	10	Gravel	3	6
6	21	Baniyatar ward 3 kha	7.00	0.40	6	Yes	No	No	No	No	10	10	Gravel	3-2	6-1
7	11	Mahankal-6, Kapan way	4.60	0.70	15	No	No	No	No	No	10	14	Gravel	5-0	7-1
8	56	Thankot, Balambu	32.00	3.50	11	No	yes	yes	yes	yes	16	16	Bitumen	5-2	9-0
9	38	Satungal at Balkhu bank	12.00	2.00	17	Yes	No	yes	No	No	12	12	gravel	3-1	6-1
0		Sitapaila	15.00	1.50	10	No	No	yes	yes	No	12	12	Bitumen	4	7
1	22	Gothatar 8 Ka	7.00	0.60	9	Yes	No	No	No	No	12	12	muddy	3-0	5-0
2	34	Gothatar 8 Ga	12.00	2.00	17	Yes	No	No	No	No	12	12	muddy	4	6
alitpur Inside Ring road.															
3	14	Kumaripati	5.00	0.55	11	Yes	No	No	yes	yes	13	13	Gravel	3-2	7-2
4	12	Ekantakuna	3.60	0.6	17	Yes	No	yes	yes	yes	12	12	stone	3-1	4-2
alitpur Outside Ring road.															
5	7	Milanchowk, Lahachowk way.	3.25	0.25	8	Yes	No	No	No	No	?	?	Gravel	4-0	8-0
6	7	Bhaisipati	5.00	0.56	11	Yes	No	No	yes	yes	13	15	Bitumen	7	3
7	48	Bhaisipati Height	30.00	3.5	12	No	Yes	Yes	yes	yes	20	13	Gravel	13	3
8	15	Harisiddhi, main road	7.60	0.5	7	Yes	No	yes	yes	No	12	12	Gravel	4	6-1
9	21	Bhaisipati, Jalbinayak marg.	9.70	0.85	9	Yes	No	No	yes	yes	12	12	Bitumen	4	8-2
0	10	B & B Hospital	2.50	0.3	12	No	No	No	No	No	12	12	Gravel	3	5
1	9	Kusunti Lalitpur	4.00	0.6	15	Yes	No	No	No	No	12	12	Gravel	4	12-3

Background.	Numbers	% result
Engineer	1	6
Sr overseer	1	6
Contractor	4	25
Buisness	7	44
Law	3	19
	16	100

Experiences.	Numbers	% result
0-5 years	9	64
5-10, years	0	0
>10 years	5	36
	14	100

Dealing this year	developers	% result
1 nos dealing	5	36
2 nos dealing	6	43
3 nos dealing	2	14
4 nos dealing	1	7
	14	100

Selling of Plots Throu	Numbers	% result
Broker	9.8	70
Advertisment	2.8	20
Direct contact	1.4	10
	14	100

Selling price per Ana, Inside Ring road.

Amount	Numbers deve	% result
2.5 lakhs	1	9
3 lakhs	2	18
3.5 lakhs	2	18
4 lakhs	1	9
5 lakhs	1	9
5.5 lakhs	1	9
7 lakhs	1	9
7.5 lakhs	1	9
10 Lakhs	1	9
	11	100

Developed land	Within Ring road, N	% result
2-5 ropani area	8	67
5-10 ropani area	3	25
>10 ropani area	1	8
	12	100

Developed land	Outside Ring road, N	% result
2-5 ropani area	8	40
5-10 ropani area	6	30
>10 ropani area	6	30
	20	100

Developed land, tot	Nos	% result
2-5 ropani area	15	48
5-10 ropani area	9	29
>10 ropani area	7	23
	31	100

Selling price per Ana, Outside Ring road.

Amount	Numbers developed	% result
1 - 1.5 lakhs	3	15
1.5 - 2 lakhs	9	45
2 - 3. lakhs	5	25
3 - 3.5 lakhs	3	15
	20	100

Selling price per Ana, Total

Amount	Numbers developed	% result
>1.5 lakhs	3	10
1.5 - 2 lakhs	9	29
2.5 lakhs	4	13
3 - 3.5 lakhs	9	29
4 lakhs	1	3
5 lakhs	1	3
5.5 lakhs	1	3
7 lakhs	1	3
7.5 lakhs	1	3
10 Lakhs	1	3
	31	100

Road Type	Inside Ring road	
	Numbers	% result
Bitumen	6	55
Gravel	3	27
Brick	1	9
Stone	1	9
	11	100

Road Type	Outside Ring road	
	Numbers	% result
Bitumen	7	35
Gravel	11	55
Earthen	2	10
	20	100

Road Type, all sites	Total	
	Numbers	% result
Bitumen	13	42
Gravel	14	45
Brick	1	3
Stone	1	3
Earthen	2	6
	31	100

Plot Road Width. Inside Ring road.		
	Numbers	% result
10 feet width	3	27
12 feet width	5	45
13 feet width	2	18
14 feet width	1	9
	11	100

Plot Road Width. Outside Ring road.		
	Numbers	% result
10 feet width	4	20
12 feet width	8	40
13 feet width	3	15
14 feet width	2	10
15 feet width	1	5
16 feet width	1	5
20 feet width	1	5
	20	100

Plot Road Width. All sites. Nos.		% result
10 feet width	7	23
12 feet width	13	42
13 feet width	5	16
14 feet width	3	10
15 feet width	1	3
16 feet width	1	3
20 feet width	1	3
	31	100

Plot Size Inside Ring road.		
Plot Size	Numbers	% result
2.5 - 4 Ana	3	30
4 - 6 Ana	5	50
6 - 9 Ana	2	20
	10	100

Plot Size Outside Ring road.		
Plot Size	Numbers	% result
3 - 5 Ana	4	27
5 - 7 Ana	8	53
7 - 9 Ana	3	20
	15	100

Profit per scheme if sell in 6 month.		
Profit	Numbers	% result
10-15 %	1	7
15-20%	2	14
20-25%	10	71
25-30%	1	7
	14	100

Profit per scheme if sell in 12 month.		
Profit	Numbers	% result
5-10 %	1	7
10-15 %	2	14
15-20%	10	71
20-25%	1	7
	14	100

Cost Increment Before and After project.

Sites	Before	After
Sitapaila	1.25	2
Baikunthapuri	2	3.5
Kusunti	1	2.5
Teku FNCCI	5	7.25
Gothatar 8 Ka	1	2
Bhaisepati	1.6	2.65
Jalbinayak	1	1.75
Tahachal	2	3.5
Kalanki petrol pump	2	3.25
Suichatar	1.3	2
Kalimati Gillette	4	7
Boudha Chamunda	2.5	3.5

Dead End, Inside of ring road.		
Location	Numbers	% result
Exists	8	73
No exit	3	27
Total	11	100

Dead End, Outside of ring road.		
Location	Numbers	% result
Exists	13	325
No exit	7	175
Total	20	500
Dead End, Total.		
Location	Numbers	% result
Exists	21	68
No exit	10	32
Total	31	100

Open space exists, Inside of ring road.		
Location	Numbers	% result
Exists	1	9
No exit	10	91
Total	11	100

Open space exists, Outside of ring road.

Location	Numbers	% result
Exists	3	15
No exit	17	85
Total	20	100
Open space exists, Total.		
Location	Numbers	% result
Exists	4	13
No exit	27	87
Total	31	100

Drain system exists, Inside of ring road.		
Location	Numbers	% result
Exists	6	55
No exit	5	45
Total	11	100

Drain system exists, Outside of ring road.		
Location	Numbers	% result
Exists	11	55
No exit	9	45
Total	20	100
Drain system exists, Total.		
Location	Numbers	% result
Exists	17	55
No exit	14	45
Total	31	100

Electric pole exists, Inside of ring road.		
Location	Numbers	% result
Exists	5	45
No exit	6	55
Total	11	100

Electric pole exists, Outside of ring road.		
Location	Numbers	% result
Exists	9	45
No exit	11	55
Total	20	100
Electric pole exists, Total.		
Location	Numbers	% result
Exists	14	45
No exit	17	55
Total	31	100

Land Coverage by Road in %.

Land Coverage by Road in %	Within ring road, nos	% result	Outside ring road, Nos	% result	All sites.	% result
6 percent land	2	20	1	5	3	10
7 percent	0	0	1	5	1	3
8 percent	1	10	4	20	5	17
9 percent	0	0	3	15	3	10
10 percent	3	30	2	10	5	17
11 percent	1	10	2	10	3	10
12 percent	0	0	2	10	2	7
13 percent	0	0	1	5	1	3
14 percent	0	0	0	0	0	0
15 percent	1	10	2	10	3	10
17 percent	1	10	2	10	3	10
20 percent	1	10	0	0	1	3
Total	10	100	20	100	30	100

Checklist interview questions.

Brokers (Informal Land Developers) who also make plotting and selling

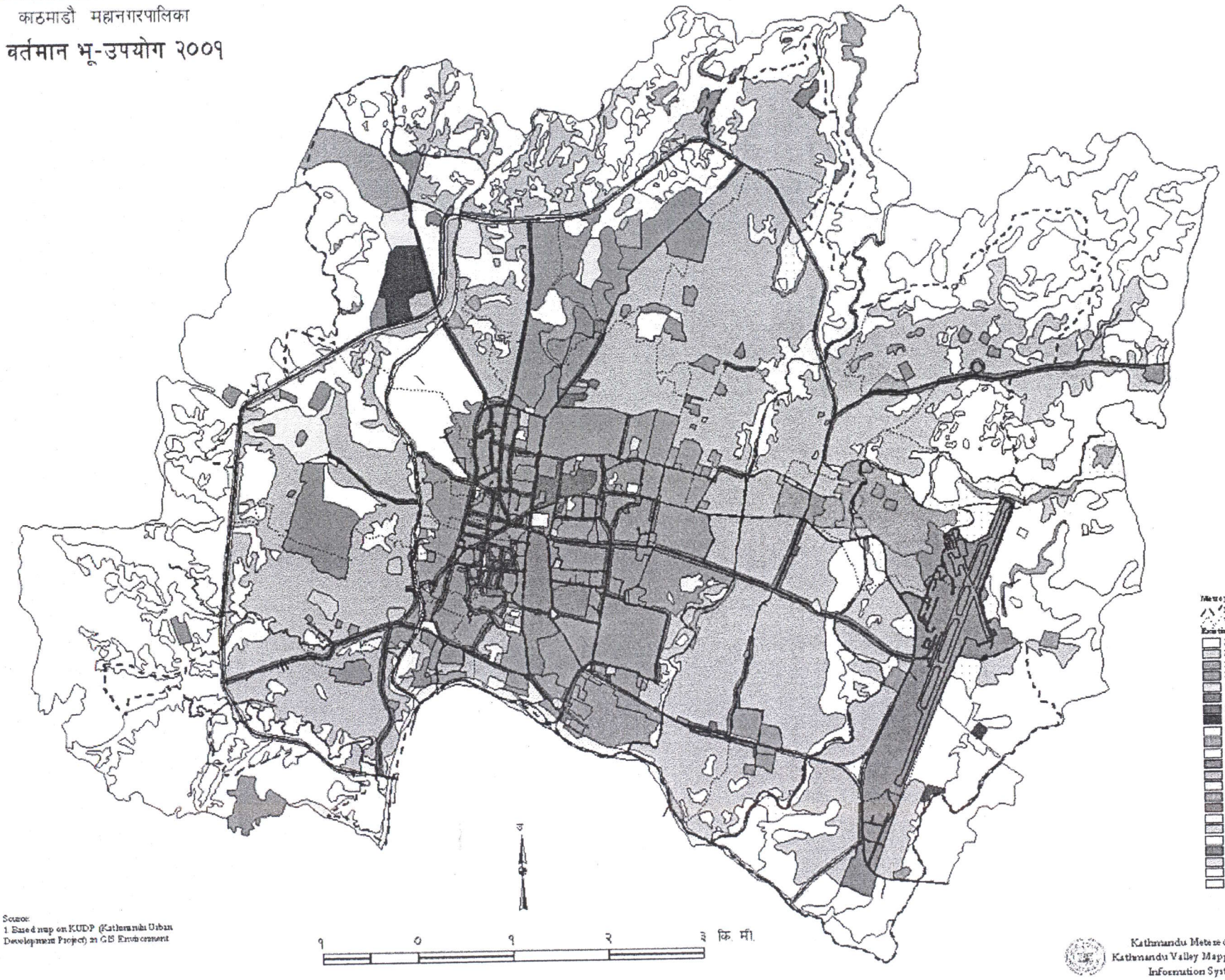
1) What is back your background?
2) Since how many years you are in the business?
3) On What basis did you chose land type and location?
4) How is land business today?
5) How do you identify buyers and sellers?
6) How many deals you have done this year?
7) How do you purchase or make agreement on land for plotting and selling (initiation and procedure)?
8) How do you secure finance?
9) How or who makes plotting on the map (technical support)?
10) What is your comment and satisfactions on the quality of you're plotting (road, open space, dead ends, drains etc)?
11) What are the difficulties in doing the business (legal, financial etc)?
12) What is your suggestion in increasing more supply or quantity of plots in the valley?
13) What is your suggestion to improve your performance?
14) What is your expectation from government to improve your performance?
15) What is your profit per scheme and investment risk?
16) How do you see on the trend of land price increase or decrease over the last ten years?

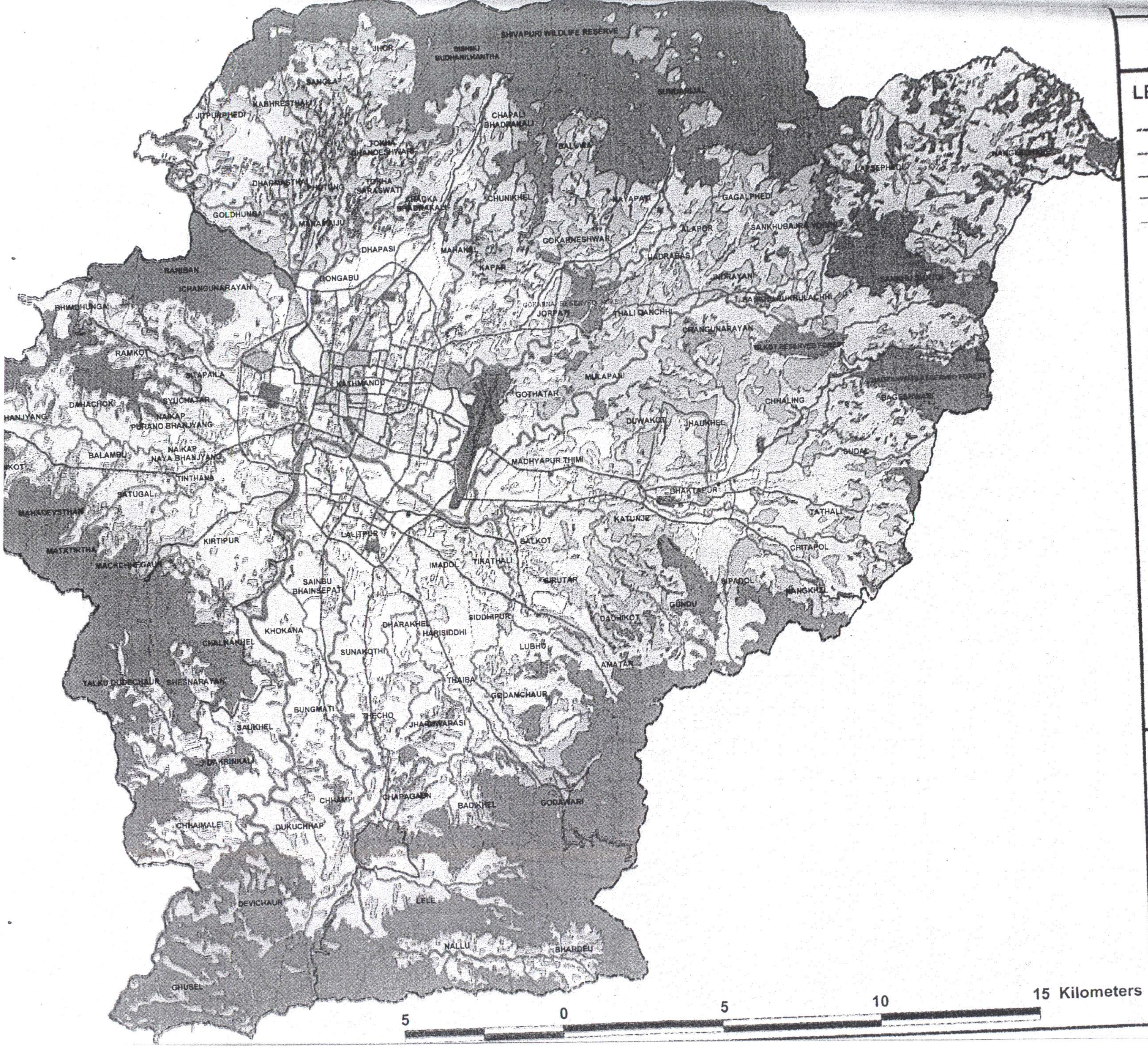
Interviews with local dwellers who purchased the developed land.

1) What is back your background?
2) Since how many years you are here?
3) On what basis did you chose this plot and location?
4) How did you identify seller?
5) Are you satisfied with the dealing of the seller?
6) Are you satisfied on the quality of plotting (road, open space, dead ends, drains etc)?
7) What is your suggestion to improve such development?

काठमाडौं महानगरपालिका

वर्तमान भू-उपयोग २००१





EXISTING LANDUSE 2000

LEGEND

- Valley Boundary
- Watershed Boundary
- Road
- River
- Trail

Landuse Type

- Residential
- Mixed Residential/Commercial
- Commercial
- Institutional
- Agricultural
- Industrial
- Rural Settlement
- Recreational (Parks/Open Space)
- Forest
- Transportation
- Public Utilities
- Military
- Special Area
- Water Body

Data Source: Survey Department
Aerial Photographs 1998
Base maps KVUDP 1998.

H.M.G.Kathmandu Valley
Town Development Committee
Anamnagar, Kathmandu, Nepal.

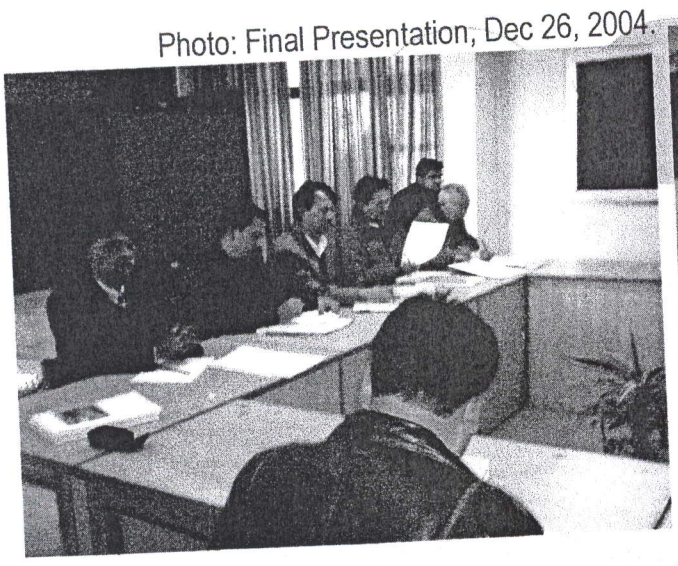
Approved by: S.B. Sangachhe
Member Secretary

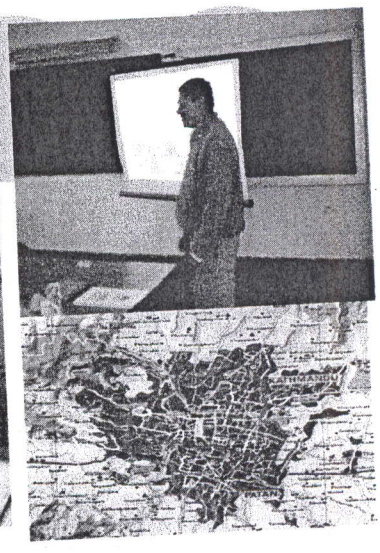
JANUARY, 2000

MAP NO. 2

Photo: Mid term Presentation, Nov 28, 2004.

Photo: Final Presentation, Dec 26, 2004.





Bhaisepati

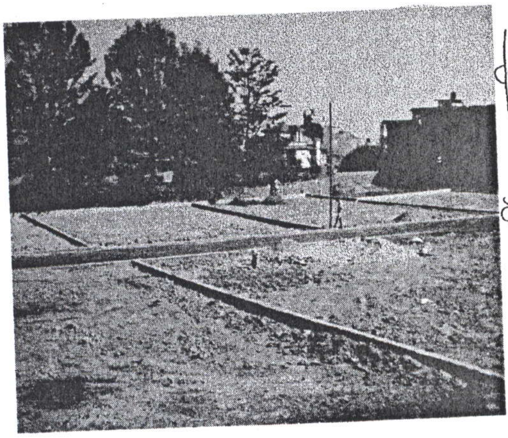


Photo-Location at gentle slope and high land at Jal binayak, Bhaisepati. (area 30 ropani, road area 3.5 ropani ie 12%), Bhaisepati, 5 rop, road 11%, cost 2.4-2.9laks/Ana, 3-7 Ana plots. Bitumin 13-15' road i.

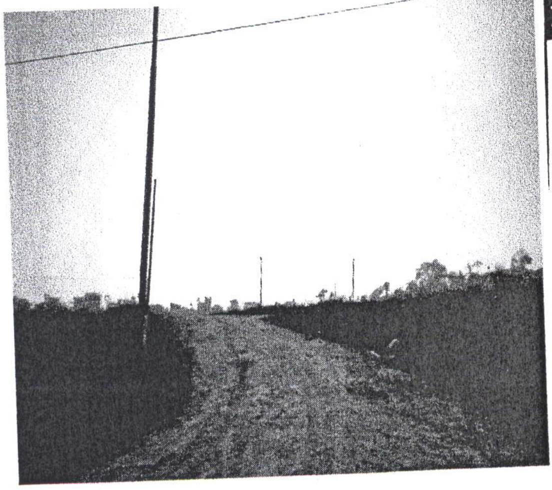
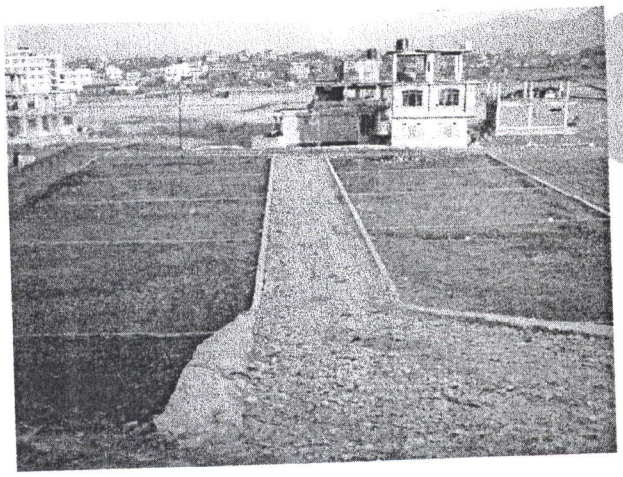
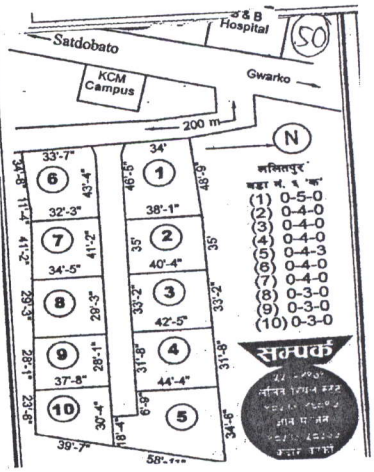
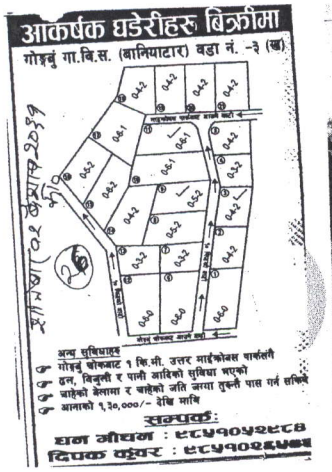


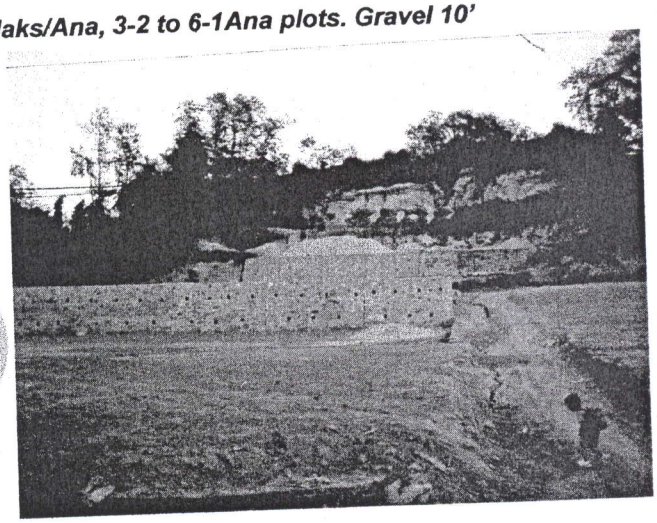
Photo-Opposite of B and B Hospital, Steep slope road. Outside of Ring Road, 2.5 ropani, 12% road coverage,3-5 Ana Ring Road Back of KCM College..



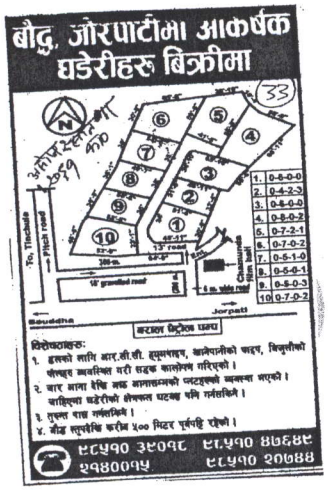


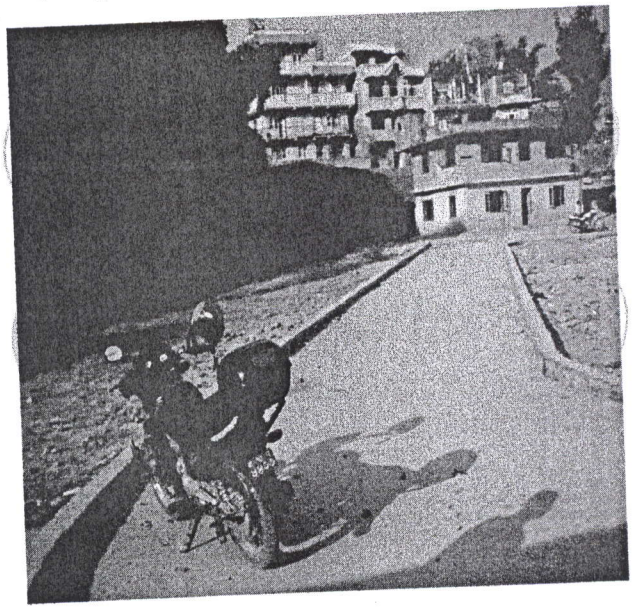
Baniyatar, Manmaiju 2 Km from Ring road (not mentioned). 7 rop, road 6%, cost 1.6-2.5 laks/Ana, 3-2 to 6-1Ana plots. Gravel 10'



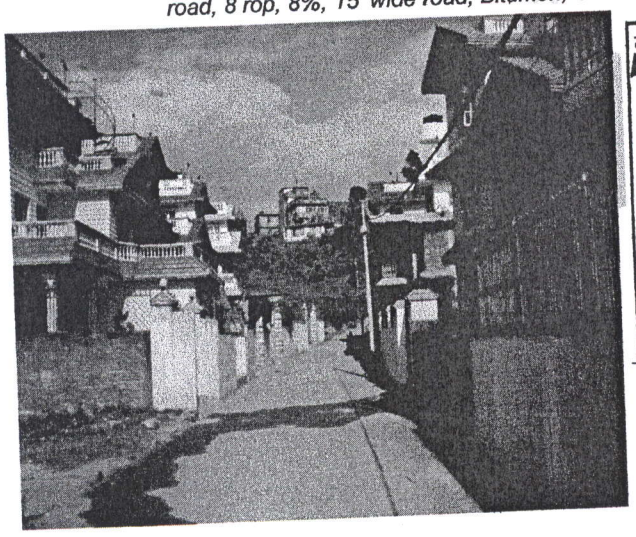


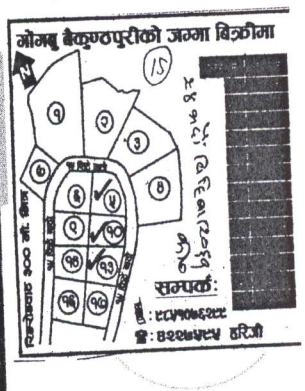
Near Chamuda film hall, Jorpati.



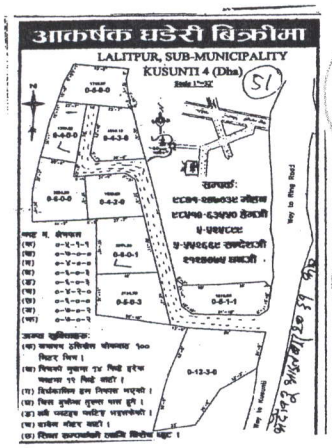


Baikunthapuri Gongabu, VIP area, 3-3.5 lakhs/Ana. *600m from Ring road, 8 rop, 8%, 15' wide road, Bitumen, 6-12 Ana plot*



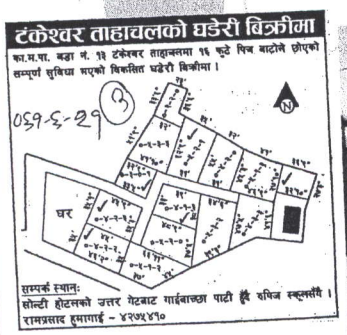


Kusunti, Lalitpur.



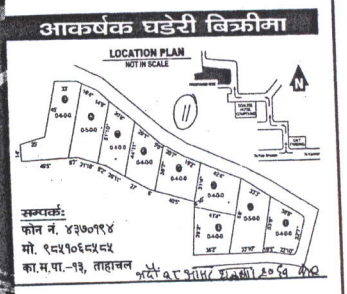
Harisiddhi, Lalitpur.

Tahachal ward 13,Near Rupees school.

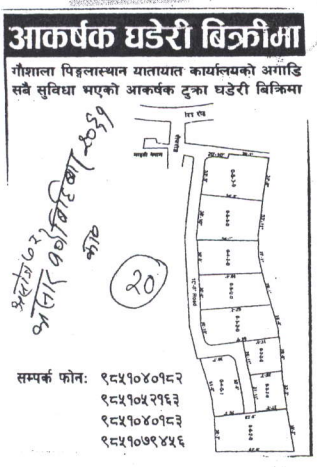


Kalanki, Dhugeadda Land Plot.

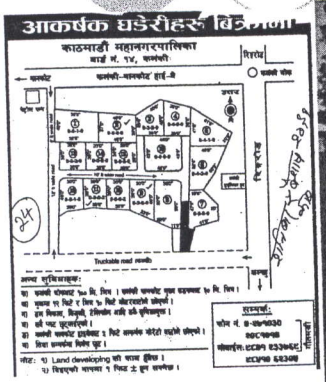
Tahachal Soaltee back gate,



Gaushala Pingalsthan. Land Plot.

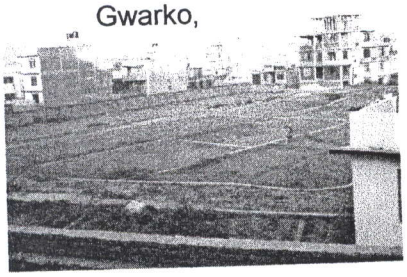


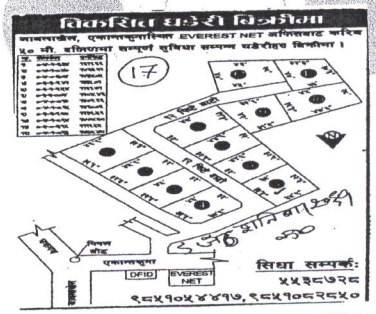
Kalanki Petrol pump Land Plot.

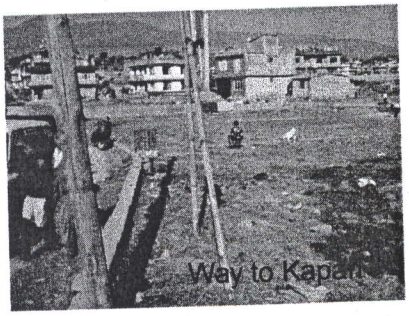


Gwarko, Kapan Way, Ekantakuna Land Plot.

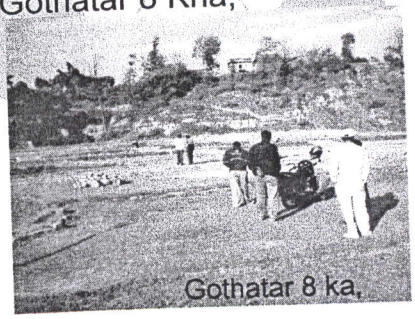
Gwarko,







Gillete Kalimati, Gothatar 8 Ka, Gothatar 8 Kha,



Kumari pati, Sywambhu near hospital, Near Grand hotel.