

# **Necessity of Effective Land Management for Sustainable Real Estate Market in Nepal**

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**Key words:** Deed, title, encroachment, land management, real estate

## **SUMMARY**

Land is a basic resource of livelihood for almost eighty percent of the population in Nepal. Population growth, lack of physical infrastructure, scattered small sized land parcels and haphazard subsistence farming practices have resulted low productivity and food deficit. On the other hand high rate of migration from hilly region to urban and plain fertile land (Terai land) has created unplanned settlement and unhealthy real estate market. There are no any controlling measures for migration and this is making the land price sky-rising.

This imbalance and unplanned land use and real estate market has directed towards deterioration of natural setup. Due to landless and jobless people's problem, encroachments on public and government lands (like forests) for squatter farming and settlement have been alarming. The traditional land administration is a handicap for an effective land management, land valuation and sustainable land market.

Real estate marketing Nepal has flourished more from the last two decades specifically in large municipalities and fringe areas. Almost all economic activities in these areas depend on lands and so it is the pivotal for economic development. Although unsystematic and unhealthy real estate market does exist, most of the remittances and local savings are invested in the real estate because of the lack of other investment sectors. The buyers and sellers of land have to search the parties through unreliable or unprofessional brokers which would result in land disputes and many fraud cases. The land price sometime has huge difference from the market value and the utility services are also very poor in the developmental areas due to lack of land development planning. All these facts have resulted serious problems and has deteriorated the reliability of the brokers and the land administration offices. The land records (cadastre) for land administration in the country is based on graphical "cadastral maps" with general boundary principle and "deeds registration system". It has been realized that this traditional cadastre base could not fulfill the present social demands. Therefore there is a high need for effective land management based on reliable land records, efficient land administration, smart land professionals and service driven real estate institutions.

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## 1. INTRODUCTION

Nepal covers an area of 147,181 square kilometers having population of 25 millions. Two-third of the country is hilly and mountainous. Land is prime resource of livelihood for almost eighty percent of the Nepalese people. Majority of the population are living in the rural areas and are surviving with inadequate basic infrastructures and services. The subsistence farming and lack of industrialization are the major barriers of economic development of the nation.

There are hardly few families who could survive on their own agro-production for the whole year. It is therefore natural that there is heavy pressure on finding the alternative means of livelihood. A natural consequence is the growth on poverty and accelerated trend of migration from the higher and less fertile rural mountains to the more fertile plains and urban centers in search of land for tilling and job for livelihood. This results in encroachment on government and public land and the growth of slums which caused many settlements problems like job scarcity and environmental degradation.



*Figure 1: Squatter settlement*

Most of the young human force goes to foreign countries in Middle East, South East Asia and developed countries like USA, Japan etc and to India as well for employment. Almost all their earnings are invested in land either directly or indirectly through financial institutions.

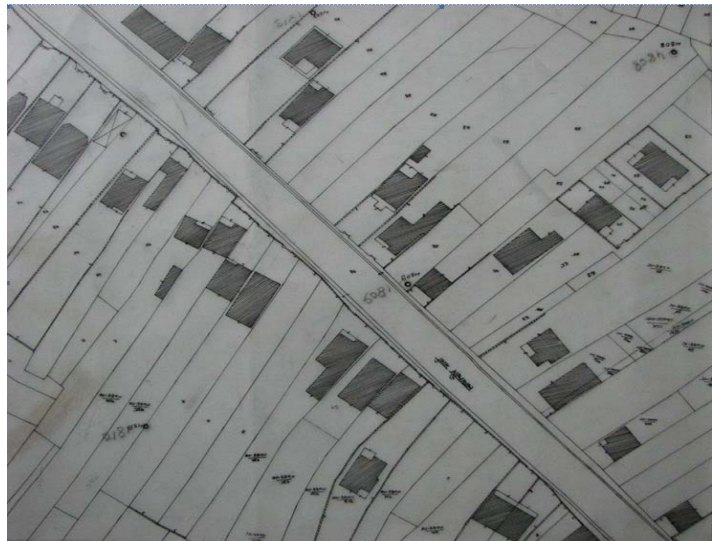
Above mentioned are the two main reasons that the real estate market has been flourished and emerging as an Industry around urban areas in Nepal. Land price is increasing day by day. The state now makes annual revenue of about 5000 millions Nepalese rupees (70 millions USD) only by land transaction fees alone. Almost all industries, small or large including private schools, hospitals are financed by financial institutions on land collateral. These realities are well known to all concerned. In view of these facts, a Land and Housing Transaction Related Bill is under process of formulating an Act to keep pace with socio-

economic development including progress of land market. It will help to some extent in resolving the complicated issues of systematic land development by creating publicity and transparency in land management facilitating the development of sustainable property market.

## 2. LAND RECORDING SYSTEM IN NEPAL

The history of land recording system of Nepal is old. It shows the gradual changes in procedures but not in technical aspects. The beginning of land recording was about 3<sup>rd</sup> century. During 13th century the changes were made in land measurement instrument, units of measurements, classification of arable and urban lands, and separate profession for land measurement. In 1907 land adjudication procedures, introduction of land registration forms, land boundary descriptions, publicity, Witnesses to be involved in land registration and consent of the owner with thumb prints were defined and introduced. The first Land (Survey and Measurement) Act 1963 was introduced for compulsory land registration system whereas the informal or unregistered deed system was abolished by law only since 1976. The systematic and compulsory land registration system based on cadastral map was started since 1965. The rational behind these records is to introduce a uniform basis throughout the country for levying land tax and implementing land reform policy. This system was introduced district-wise at local administrative level. The system is still functioning with few changes in technology.

The land recording system as of 1965 is based on graphical cadastral maps with general boundary principle and deeds registration system. It was adopted with the limited purpose of reference of arable land for launching land reform campaign to setup land ceilings and to raise land revenue. However, due to non-existence of other reliable land records, these new records of fiscal purpose became gradually used as legal and multipurpose land documents. The concerned professionals and decision-makers could not visualize the future aspirations and needs of the users which could not improve the then land recording and land administration system.



*Figure 2: Graphical Cadastre*

The graphical cadastral mapping by plane-table survey with general boundaries and without coordinated monuments on the corners of the land parcels could not fix the exact location of

the land parcels on the ground and to provide precise dimension and area of the land parcels as required by the users of today. It has become difficult to stop the customary practice although the land parcel should be defined and demarcated by fixed boundary principle or with geodetic co-ordinates at least in big city cores. The people in city cores are asking accurate information for less than a brick-width which is not possible from the existing system. They are suffering from the court cases where as courts also have no other accurate information to settle such disputes. The decisions therefore may not always fall in right place. Not only the land survey and land revenue offices are facing this problem but also the private land developers or real estate professionals are being harassed. These problems ultimately affected the general public and suffer them.

### **3. LAND MANAGEMENT**

Land Management (LM) is the process by which the resources of land are put to good effect. It covers all activities concerned with the management of land as a resource both from an environmental and from an economic perspective. It can include farming, mineral extraction, property and estate management and physical planning of towns and countryside. (UN, 1995).

Land management controls the general concept of national development and serves common structural users as infrastructural services (utilities and other public interests), zoning and regulation for the protection of environment. Therefore, the above definition of land management implies everywhere in the earth since the problems concerning planning of sustainable land management is very crucial all over the world. Many developing countries have not yet respected the significant implication of sustainable land management in national development. The remedies of poor land management are often difficult to develop and still more difficult to implement.

In Nepal where various geographical diversities represent different land use, population groups clustering in the urban centers and creating unplanned settlements or slum, it is imperative to formulate appropriate land management plan and implement it to support general economic and social aims within the framework of national agenda. The objective of land management plan has to be directed towards minimizing land resources but maximizing long term benefits. Lack of commitment in formulating land policy, implementing legally binding land use zoning and people's participation for envisaged land management, has always remained in shadow.

Land transactions specifically dedicated to land transfers are highly increasing but modern land administration system to support changing nature of real estate markets, sustainable development and spatial enablement of society is lacking. The emerging demand, trend and evolution of land markets will stimulate different approaches to use cadastral information. The objective of land administration must focus on access to land and security of tenure, supporting sustainable development, the promotion of effective land markets, protection of vulnerable groups, e-land administration, e-governance, up to date land registration, land valuation and taxation, environmental protection, food security, poverty reduction and modern cadastral surveying and mapping.



*Figure 3: Unmanaged Urbanization*

#### **4. LAND ADMINISTRATION**

Land Administration in Nepal is based on Parcel-Based Deeds Registration System since 1965. Land records prepared before 1965 were in verbal description in a defined area within the district. The land records were handled by the village or area chief for recording, registration and transfer of land and it was assigned by the district land revenue head office. The system was sporadic and was not uniform throughout the country. The systematic official registration of land or compulsory land registration system was introduced since 1965. Since then land registration and administration is based on cadastral maps with unique real estate identifier (parcel number) and landownership certificate are distributed to the owners. Those basic cadastral data became very much useful and gradually indispensable for civil administration, judiciary, planning, valuation and taxation, local governance and banking or economic activities. The reason of using these land data or information significantly was because there were no other better information bases. Although the cadastre system was focused to fiscal purpose in the beginning, it was gradually used as legal and multipurpose cadastre. It is felt that the system looks forward towards improved deeds registration system. The land administration is dedicated only for land registration and land transfer as explained above. The importance of land administration for e-governance, sustainable development and environment conservation has not yet been realized.

## 5. CADASTRAL SYSTEM

Although the land recording system (cadastral survey and land registration) in Nepal is old, the development of cadastral system is very gradual. The sporadic cadastral survey was carried out earlier than 1965 was not executed. The uniform cadastral system was executed since 1965 and rudimentary system was replaced throughout the country and as a result a detailed systematic cadastre system was established. The procedure for cadastral survey is systematic and people participatory.



*Figure 4: Record keeping System*

Cabinet decides the district or area to be surveyed and it is notified in the gazette and published by newspapers, radio, television and other media. Then the survey party moves to the assigned area for cadastral survey and start working according to Land (survey and measurement) Act, Rules and Circulars. It prepares Cadastral Maps, Field Books, Land Register and Land Ownership Certificate including other relevant Registers.

The graphical Cadastral Maps are prepared in the different scales like 1 inch:100 ft, 1:500, 1:1250 and 1:2500 depending on the nature of terrain and land value. It consists of unique land parcel, geodetic controls, administrative boundaries, buildings and objects within the parcels, walls, fences, roads, railways, telephone line, power lines, water bodies (rivers, canals, wells, streams), vegetation (forest, plantation), public services, parks, schools, hospitals, post office, etc as prescribed in the cadastral specification.

The next second major component of cadastral system is Field Book. It identifies the landowners of each parcel based on legal evidence and the land is registered. Field book consists of:

- Unique Parcel number and the address of each land parcel (including locality name of the land parcel if possible)
- Name, address and date of birth of owner and tenant
- Father's and/or husband's name and address
- Description of the legal evidence of registration of land
- Land type, land use, crops, irrigated or non-irrigated and Land classification
- Area of the land parcels

The third component is Land Register (official copy) and Land Ownership Certificate (owner's copy). The official copy (Land Register) is called *Srestaa* and the owner's copy (Land Ownership Certificate) is called *Purja* in local language.

The other registers as mentioned above are Loose Sheet (information sheet register of unregistered land parcels), Restrictions Register and Statistics of land. Land disputes are also settled during the cadastral survey. After the completion of the land survey and measurements, the Land Register and Cadastral Maps are handed-over to District Land Revenue Office and District Land Survey office for continuous updating.

## **6. INSTITUTIONAL ARRANGEMENT**

Survey Department under Ministry of Land Reform and Management is responsible for cadastral survey and preparing land records or establishing Cadastre. Updating of the cadastral maps is undertaken by district survey offices of Survey Department, whereas Land registers are updated by district land revenue offices of Department of Land Reform and Management under the same Ministry, The Ministry of Land Reform and Management. The Department of Land Information and Archive is responsible for the automation of land records and maps which is also under the same Ministry. Beside this, Trust Corporation exists to handle the administration of Trust land. Therefore, there exists some kind of institutional duplication or overlap for similar work nature.

Private sector consulting firms sometimes perform cadastral mapping, however the documents have to be legalized after checking and inspection from Survey Department. So the private sectors feel uneasy and are not motivated in this field. Land (Survey and Measurement Act revised in 1999 has made a provision of Licensing to qualified Surveyors, but is not fully implemented yet due to lack of adequate regulations, adequate qualified surveyors and few other reasons. It is expected that the system will start soon. There are two professional associations namely Nepal Surveyor Society and Nepal Surveyor's Association. They also are not so active in the professional development.

There is one Land Management Training Centre under the same Ministry. Surveyors are trained in three levels namely: Basic Survey Training (after school) for one year, Junior Survey Training (I.Sc. candidate) for one year and Senior Survey Training (B.Sc. candidate) of 16 months. Land Management Training Center has commenced academic degree course of BE in Geomatics Engineering since August 2007 in collaboration with Kathmandu University. There is slow promotion of education in this sector, by virtue of which this profession may face crisis in human resources.

## **7. LAND PROFESSIONALS**

There are many tasks to be performed by the land professionals within the Geomatics discipline such as land management, cadastre, land use, land valuation, spatially related information. As land professional a Surveyor can perform those tasks and some of them are

listed here which are termed in many words as: Land Surveying, Building Surveying, Construction Surveying, Property or Real Estate Surveying, Quantity Surveying, Management Surveying, Valuation Surveying, Geodetic Surveying, Topographic Surveying, Facility Surveying etc. and a Surveyor is defined as:

"A surveyor is a professional person with the academic qualification and technical expertise to practice the science of measurement; to assemble and access land and geographic related information; to use the information for the purpose of planning and implementing the efficient administration of the land, the sea and structures there on; and to instigate the advancement and development of such practice" (FIG, 2002).

Land professionals are concerned with land management that means it stimulates and promotes real estate markets. Effective land management and administration supports healthy and sustainable land markets which eventually helps in the economic growth of the country.

The World Summit for Sustainable Development (WSSD) has also quoted the sustainability and the status of Geomatics education. "In Rio Conference 1992, sustainability has been the central principle of international development. The WSSD August 2002, held in Johannesburg has unconditionally recognized Geomatics as a significant part of the solution to making the world more sustainable". In the final WSSD Plan for Implementation there are many references, which will need Geomatics input, including the need for: Land Reform, Land Management, Monitoring of the environment and Planning for sustainable new developments.

If we look behind, the real estate business infrastructure is leaping forward into an age of high technology because of changing social trends and technological developments. Furthermore, the present demands and aspirations are driving the technology and market in user's driven models. Therefore, the institutions, professionals and producers of real estate are heavily dependent on the reliability of the sustainable partners among government and private sectors.

## **8. REAL ESTATE MARKETS**

Societal needs and priorities are changing dynamically. At present our social-change priorities are Restructure, Reconstruction, Rehabilitation, Restoration of peace and Relief. Poverty reduction is the national agenda focusing social justice, good governance and equity on accessing land and natural resources.

It is only possible through the management of land and natural resources in the framework of sustainable development strategy by strengthening rural development, promotion of land markets, food security, rural-urban balance and disaster mitigation. It should be kept in mind that the use of land and natural wealth should be based on the principle of ecological sustainability and without unnecessarily harming the environment.

In the light of above, we can as well look upon Nepalese context. The real estate business is successful and has future potential as well.



However due to lack of awareness among diverse stakeholders and professional institutions, this discipline could not be geared in a structured and transparent way. The major part of the problem now is how to transform the tradition of "Land Selling Business" to "Real Estate Markets for national development". Land, Property and Construction affect everyone. The built and natural environments contribute, for better or for worse, to our quality of life and to the economy of our nation. Therefore, the wise use of land wealth should be a prime goal. In this context, cost effective and reliable land information is necessary for physical planning and infrastructure building.



*Figure 5: Unmanaged planning*

There is an increasing recognition of Geo-information science and land administration in government as well as in society. Therefore we cannot avoid talking about real estate markets for social and economic development of the people. Property markets will lack the confidence without accurate cadastral survey and effective land administration which will only lead to sustainable land management. Therefore it requires a high degree of precision in adjudication and boundary measurements.

## **9. CONCLUSIONS**

The land market is being flourished because the financial institutions are using land as collateral for loans and are making economic focuses. Due to unskilled brokers and lack of spatial planning people are suffering from land disputes. The unskilled or illiterate land developers are damaging good fertile agri-land for residential plots without any spatial planning and are making easy money. The provision of utility services in the planning area is very poor due to unscientific land development planning. Land administration seems weak because of the non-priority to improve them seriously. The emerging real estate industry is not functioning in a systematic way so it has to be streamlined as priority. Land development is progressing in urban areas but not in rural areas that has created a long gap between rural and urban life.

In order to address these issues, effective land management with accurate, reliable and timely land information is an essential prerequisite. The reliability and accuracy of data/information depends upon the method of data acquisition, equipments and quality of the person involved in the process. The other fact is that the land data status is scattered diversely in different organizations. The government has to recognize the importance of sharing land data/information in a structured way so that it results in a National Spatial Data Infrastructure.

It will ease to access land data to all diverse users and end-users within their domain and real estate professionals will not remain beyond this mechanism. Therefore we need to promote the land or real estate professionals in public and private sector through:

- Training to the concerned people for real estate business
- Preparing clear guidelines and directives
- Work hand-in-hand with land administration and management institutions, town and village development authorities and planners-developers.

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## BIOGRAPHICAL NOTES

Mr. **Babu Ram Acharya** has a Master of Science degree in Cadastre and Land Information System from ITC (Netherlands) and a Bachelor of Law degree from TU (Nepal). He has more than 32 years experience in the field of Surveying, Cadastre, and Land Administration. He worked as the Director General of Survey Department Nepal and as the Secretary of The Ministry of Land Reform and Management. He has published more than 20 papers in the national and international seminars. He is a nationally acclaimed expert in the field of land administration and is currently working as the Secretary in the Office of the Prime Minister and Council of Minister.

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