

TOWARDS DEVELOPING A SUSTAINABLE BUILDING
PLANNING PROCESS IN NEPAL

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1. Resume:

This paper focuses on Building Planning aspects, vision for to have appropriate technologies and their relationship with environment with needs of man, it is the examples from the Nepalese experiences, it tries to explain and analyze on how some visions or existing approaches could be interlinked and applied towards a better integration of building management in our (Nepalese) context; also this will help to contribute developing ideas for more healthy and sustainable building Planning Process. Although the scope and method of approaches differ greatly from one country to another.

2. Background:

Nepal is a kingdom of high Himalayan Mountains, artistic monuments, exotic wildlife and diverse culture. Nepal is a land locked country in South Asia, sandwiched between China and India. The geo-physical situation of the country is one of unique on the earth. The topography ranges from tropical plains of the Terai, which is at an altitude of 130 meters from the sea level to the highest on the earth (the Everest) whose altitude is 8848 metres. The country's population is about 24 million people with diverse ethnic and cultural background. Our civilization has flourished on the age-old trade between India and China. The urban and rural settlements were strategically located along the major trade routes that passed through the dense forest of terai and the mid hills and the lofty mountains.

The urbanization level of the country is low compared to other countries of the region. It is estimated that about 3.2 million people live in urban areas, which are divided into 58 municipalities. The urban settlements have increased in terms of size and number due to various reasons. The urban population is increasing at the rate 4.7% whereas national population growth is 2.44%.

The housing situation of the country is relatively better in terms of tenure ship and housing supply. In the country as whole 86% of the household lives in there own houses, 6.7% are in rental accommodation and 7.3% are in sqatters. But in urban areas are as 67%, 24.46% and 8.61% respectively.

Land and housing projects that have been undertaken but have not addressed the issues of poor and venerable groups, especially those in squatter or informal settlements and rental houses. The low quality of the construction materials, inadequate infrastructures and weak engineering design has attributed to poor quality housing. Land and housing remains inaccessible to a large section of the urban population posing a challenge for the government.

3. Review of Building Construction Approaches (After 1ST Asian Forum):

The topographical settings of Nepal in terms of steep and fragile mountains terrain provokes specific hazards. Landslides and floods are the most regular occurring and threatening water induced disaster in the country. Over the last decade the densely populated regions of the country have suffered the brunt of the national disasters (e.g, earthquake, flood, landslides, fire etc). It is realized that this will lead to adopt sustainable Building development to provide adequate housing for the poor and disadvantaged groups.

The government has started number of interventions in the areas of disaster preparedness, disaster response, reconstruction and rehabilitation and disaster mitigation. The activities are concerned with:

- Forming up the national policy on disaster management.
- Collection, compilation and dissemination of hazards maps concerning earthquakes, landslides and flood and debris flow.
- Emergency evacuation plan including information and transportation facilities and post disaster temporary settlement planning.
- Preparation of reconstruction and rehabilitation plan on the basis of damage assessment.
- Active persuasion of mitigation strategies through implementation of building code.

But there is considerable progress has been achieved in the various front of building and construction management at local and national levels as follows:

- NATIONAL BUILDING CODE now is implemented by engineers, planners, and technicians for their purposes at different levels.
- PUBLIC WORKS DIRECTIVES (PWD): The PWD is intended to provide a single source of procedures and reference documents for implementing Public construction works. The main objective is to provide a set of understandable, effective, efficient and practical directives to Kingdom Of Nepal.
- BUILDING CONSTRUCTION DIRECTIVES AT LOCAL LEVEL: This is a simple building construction directives for local technicians at local levels.
- EARTHQUAKE DISASTER MITIGATION IN KATHMANDU VALLEY prepared by JICA: The study report is an important document, which says how to

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cope with future earthquakes, and to measure disasters in the Kathmandu valley can be realized.

There is a need for Nepal to tackle such momentous issues is through a National Disaster Management Plan which attempts to provide an integrated policy and strategy framework for solid effort in the area of disaster management. Disaster prone settlement has to be identified, mitigation measures worked out and remedial works carried out with the participation at all levels-local, national, regional and even international level.

4.LINKING BUILDING PLANNING AND URBAN CHANGE:

Building development and sustainability are intricably linked as an International demand of action of sustainable development a, combination of framework of action that focuses on economic, acceptable design standard, environmental socio-demographic and health factors. Building Development Planning is by definition designed to regulate the norms and the use of land in the public interest. Building planning practices and processes need also to be adopted to reflect a new awareness and to integrate resources, environmental, economic and social concerns in the 21st century. But building designed is to provide safe, secure and durable at the cost that is within the reach of even the communities of world. In fact, building construction planning is one of the instruments to improve land environment and quality that requires a change in attitudes and behavior, training and education methods and role of media.

5.NATIONAL SUSTAINABLE BUILDING STRATEGY:

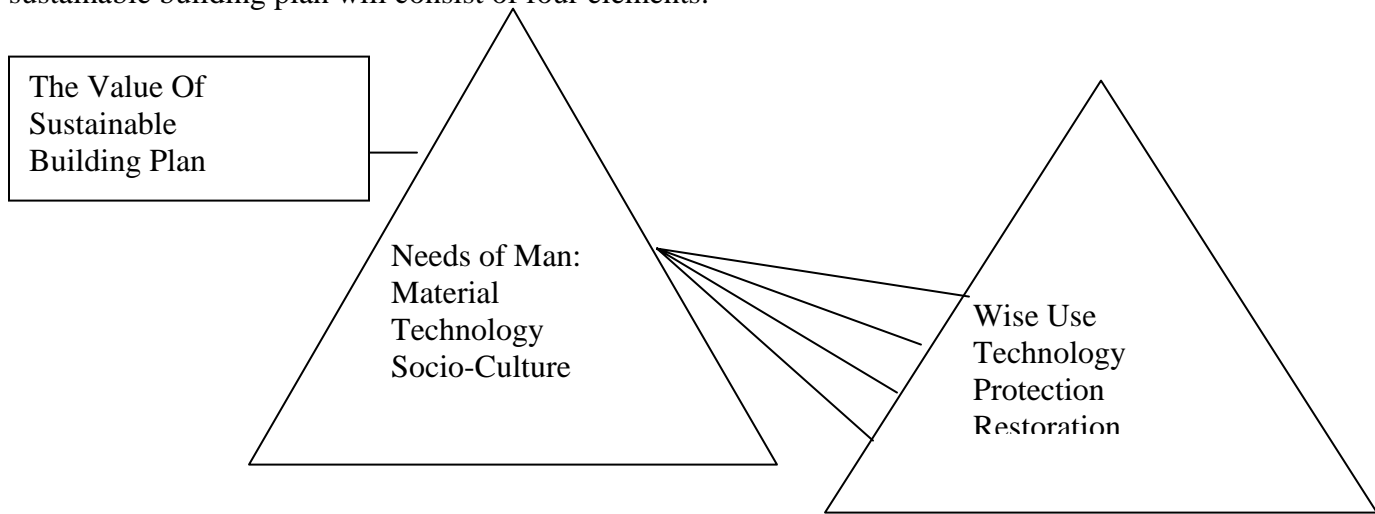
In Nepal, economic growth has long been emphasized as a core element of its development strategy. Despite sustainable efforts to build the development of infrastructure to stimulate economic growth, but still the country is in a vicious cycle of poverty and underdevelopment. Land use has been changing rapidly in Nepal to meet increasing demands for shelter, food, fuelwood and security. Now it is dire need to have the national sustainable building strategy. The following objectives are somehow useful for the coming years as follows are:

- Satisfy the basic building materials, technologies and socio-cultural needs of the people of Nepal, of both the present and future generation.
- Ensure the sustainable use of Nepal's land and renewable resources.
- Maintain the essential ecological and life support systems and process such as building material regeneration, material recycling and promotion of alternative energies; energy saving and protection and cleansing water and air.

The strategy is therefore based on sustainable building principles, which reflect the real value of the building technologies expressed in terms of human needs.

4.

If one considers the value of sustainable building planning, the guidelines for developing sustainable building plan will consist of four elements.



Elements

Guidelines

Wise use	Manage the use of building Location, land values, material use and building products to ensure they're productive on a sustainable basis.
Technology	The applied technology must be acceptable to the community and benefit to the nation. It must be sustainable, effective, affordable and manageable.
Protection	Maintain quality of essential ecological and human life support system to prevent environmental Values.
Restoration	To protect land, forest and water, air in order to maintain or enhance their normal level of Productivity and also restore human related Buildings with help of mass participation.

6. ONE HAND PACKAGE OF SEVEN OBJECTIVES TO 2ND ASIAN FORUM:

As a one of the participants of the 2nd ASIAN FORUM, I strongly recommended that the following objectives should be useful for the conference. If we can implement these objectives during the running decades of the 21st Century, hope that something will be achieved in the field of sustainable building development.

1. Creation of friendly partnership between private public partners to promote sustainable building development.
2. To develop blueprints (strategy) for the sustainable infrastructure activities and sustainable building.
3. Develop information and resource database for implementing strategies.
4. Develop model projects.
5. Create research centers to promote sustainable developments.
6. Always rethink that sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs.
7. Sustainable building development should be a set of inter-related strategies for development including Land-Building-Infrastructure-Environment-Finance-Technology and Institutions.

7. Conclusion:

The rapid growth of population in the Asia region and especially the concentration of population within the cities with heavily built environment has lead to ever-increasing level of problems. Each nation has to be serious about how to develop the sustainable building in a physical, social, behavioral and ecological context. For a sustainable building development needs fundamental components such as: peace, shelter, technology, a stable eco system, sustainable resources, social justice and equality.

Sustainability can be achieved as long as some very basic issues are examined, developed and implemented. Prior to the modernist movement, the majority of planners, architects, engineers, artisans etc had a national understanding of relation ship between the built form and the natural environment. To achieve sustainability, smooth amalgamations of traditional practices and modern technologies can be developed and implemented. Of course, this is a difficult task but the at the same time, there are some basic guidelines and issues from which some thoughts could be developed, that could form the foundation of sustainable development. Create public awareness on environmental and sustainable building management issues are indispensable for sustainable development. For a successful implementation of appropriate development issues, it is essential to educate public, governments, social and technical institutions, private groups and business groups about appropriate sustainable development issues.

6.

Therefore it is essential to ensure that future generations are constantly made aware of sustainable development issues in their decision making process. The subject must be introduced into the basic educational curriculum.

To ensure consistent sustainable development at all levels; long-term strategies must envision the **Process of Manufacture, Creating Viable Livelihoods, Appropriate Technologies, Appropriate Planning and Appropriate Thinking.**

The opinions expressed in this paper are those of its author and do not necessary reflect those of the National Government and the other institutions.

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