

Table of Contents-----Page No.

1. BRIEF ACCOUNT OF NEPAL 2

 1.1.AREA AND POPULATION..... 2

 1.2. URBAN SECTOR BACKGROUND 2

 1.3. NATIONAL SHELTER PLOCY 1997 2

 1.4. HOUSING CONDITIONS. 3

 1.5. BUILDING MATERIALS & TECHNOLOGIES 4

 1.6. BUILDING PRODUCTION AND POVERTY ALLEVIATION..... 4

2. *ASIAN FORUM for the fields of Architecture and Building Construction.. 5*

3. CONCLUSION:..... 6

CHART – 2 7

1. FUNDAMENTALS 7

2. BASIC FACTS..... 8

3. THINKING POSITIVELY 9

4. SETTING THE SCENE..... 10

5. THE BASIC CONCEPT..... 11

6. DEFINING AN ENABLING STRATEGY. 12

7. IMPLEMENTING AN ENABLING STRATEGY 13

1. BRIEF ACCOUNT OF NEPAL

1.1. AREA AND POPULATION

The total area of the country is 147,464, Sq.Km. of which about two third is occupied by high mountains and Hills. Population of the country increased from 15,022,839 in 1981 to 1,86,00000 in 1991 growing at 2.08% annually (1981 to 1991). Ecological distribution of population shows that 8.7 percent, 47.7 percent and 43.6 percent of total population lived in Mountain's Hills and Terai (Plain area) in 1981. Distribution of the population in these ecological zones indicates the population flow from Mountains and Hills to Terai area.

1.2. URBAN SECTOR BACKGROUND

Nepal is one of the world's poorest nations with approximately half the population surviving on less than US \$1 per day. Nepal's economy has been based largely on rural agriculture, but as the country develops towards a more urban economy, the economic growth and sustainable development of its existing and newly emerging urban settlements is becoming increasingly important in enhancing the economic well-being of the nation.

Nepal is divided into five development regions 14 Zones and 75 districts which has 58 municipalities and 3, 919 villages. Although Nepal is still predominantly rural in terms of both population and employment, the place of urbanization is increasing. The population of the 58 municipalities has been growing on average at about twice the national average and is now estimated to be 3.5 million or 15% of the total population of Nepal, which is estimated at 23.2 million. Kathmandu, the capital city of the kingdom of Nepal, has an unsustainable annual population growth rate in excess of 7%, and there is an urgent need for more equitable economic development in urban areas outside the Kathmandu valley to restrain this growth, which is having an increasingly devastating environmental effect on the capital city.

With increasing urbanization, the urban economy is estimated to be growing at a rate of 6.4% per annum, more than double the rural economy and the urban areas contribution to the national economy is estimated to account for around 60% GDP. This implies higher productivity and great employment opportunities in urban areas.

1.3. NATIONAL SHELTER POLICY 1997

The first Nepal's national shelter sector objectives are to facilitate the housing production, ensure self-reliance, clarify the roles of various sectors, facilitate the working of housing and land markets and reduce the adverse impacts on environment. The stated policies are as follows:

- Increase the production of housing units and increase the supply of service plots.
- Provide basic infrastructures, services and facilities.

- Make improvements in the use of building materials and construction technology.
- Increase financial self-sufficiency in the shelter sector.
- Clarify the roles of public and private sector for implementing the shelter policy.
- Ensure cost-recovery of public investments in land, physical infrastructure and other essential services.
- Make necessary institutional arrangements for planning, policy-making, implementation, training, research and development, and evaluation in sectors related to the production of dwelling units.

1.4. HOUSING CONDITIONS.

Housing is more than a finished product. In this process, the people-based resources like their imagination, skills, initiatives, cooperation, determination, personal savings, are made available for the provision of shelter. In the housing process, people want such as a good location, land, building materials, finance, technology, infrastructure & facilities, security.

The difference between the popular housing and governmental housing working principle as follows:

Government housing ⇒ housing ⇒ Land ⇒ Services ⇒ Building ⇒ PEOPLE
Popular housing ⇒ PEOPLE ⇒ Land ⇒ Building ⇒ Services

Increasing of government housing, land is first procured and developed with the provision of infrastructure and services and building are then constructed, then people buy buildings and settle. On the other hand, in popular housing, people come for jobs and grab land. They start building their shelter and provide services gradually and informally.

But housing needs are then restated in the light of human values that must be placed on housing processes. The better approach for acceptable housing can be derived as follows:

Acceptable housing ⇒ Land ⇒ Services ⇒ People ⇒ Building.

Housing standards in particular have been historically used to achieve the broad objectives of public health and safety. They are the instruments of achieving good housing. Mood, in his seminal work on housing codes, outlines the objectives of the minimum housing standards to be "**Necessary to safeguard the health and welfare of the occupants of the dwelling and the persons residing in the vicinity of the dwelling**". Housing standards may be operational through a varying combination of public policy instruments, such as land use, zoning, building codes, health and safety, design standards and other forms of regulatory controls. Housing standards should be based upon the following fundamental criteria:

- (a) Health and safety: Adequacy and quality of space, proper hygiene, security from fire, structural integrity.
- (b) Comfort and convenience and cultural validity: climatic effectiveness, accessible public facilities culturally responsive spatial organization, pleasant environmental and dwelling aesthetics

- (c) Realistic norms and economic efficiency.
- (d) Affordability, feasibility, low cost, acceptability.

Housing standards should be developed with constant awareness of affordability.

1.5. Building Materials & Technologies

Nepal is one of the countries, which lie in the active seismic zones of the world. Like many other countries, it has suffered numerous destructive events caused by earthquakes of varying magnitudes during its record history. The recorded damage and destruction in Nepal caused by past earthquakes shown in Table-1. However, the 1988 earthquake drew the attention of government of Nepal, with the assistance of United Nations Center for Human Settlements (UNCHS), has prepared the reports such as the development of alternative buildings materials and technologies, as well as other important report is the Nepal National Building Code. Nepalese government has enforced of National Building Code as well as Building Act-2055 (1997). There are some difficulties to implement the Act according to its norms as well as its details, so that some rectification is required. On this direction, Department of Urban Development and Building Construction has forwarded Building Act 2055 with some rectification for approval to the concerned institutions. With the help of Japan International Cooperation Agency under Japan's Government, has completed the " The study on Earthquake Disaster Mitigation in the Kathmandu valley, Kingdom of NEPAL". The goals are very important and this study is a milestone in term of protecting the life and property of the people, to carry out technology transfer to Nepalese counterpart personnel.

In alternative building materials research, we have focus on the following points:

- Improve traditional materials and technology
- The substitution of materials in the context of Nepal.
- Improve and affordable seismic resistance.

1.6. Building Production and Poverty Alleviation

Poverty, though not a new concept, is seen as an absolute phenomenon in Nepalese society. Two categories of poor exist in Nepal, below poverty line poorest of the poor and above the poverty line-poor. Population and households falling below the poverty line income level have been identified as the poorest of the poor. Those, with above poverty line income but below the income required to meet the national average consumption expenditure, have been identified as above poverty-line poor. Below poverty line poorest of the poor are treated as absolute, while above poverty line poor as relatively poor.

The total investment in building construction in 1991 was 8.4 percent of GDP, now it is more than 12 percent of GDP. Building construction is labour intensive, relies heavily on local inputs and increases demand for goods and services. It can act as a motor for growth in the national economy. It can also stimulates the development of financial institutions which mobilizes savings for productive investment.

Here, I try to explain how development can stimulate by integrating income generation strategies with building constuction programmes. We begin to realize that one of the best ways to help the poor is through employment generation, which in turn provides

income. One of the highest employment generators of all in construction, particularly building construction.

Please look on the attached Tables.

2. ASIAN FORUM for the fields of Architecture and Building Construction.

In the field of architecture and building construction, it is high time and is too essential how the developed techniques of its developed technology is to be disseminated to Asian countries. In this regard **"Integrated working policy on the field of Architecture & Buildings construction "** Should be formulated so that the basic characteristics of the Asian Forum on the field of architecture & Building construction should support the asian countries are as follows:

1. It is most essential to understand the sociological inter-relationship of the country community in order to seek the participation of the people for the know –how knowledge and technology.
2. It seems most essential in order to draw the attention of the country through the delivery messages and applications methods so that the technologies are in right direction.
3. Attempts have been made in order to identify and prepare acceptable technologies to the country development programmes, which may be highly benefited to the nation.
4. Asian Forum exercises on different issues have been carried-out in equity & democratic way explaining that the proposal subject is being executed for the benefits of the people.
5. A fundamental general principle of transmitting a message to the nation to nation is that the goals or messages of the Asian Forum being communicated by the country's institutions must essentially be thought the same in the mind of the users or stakeholders in order to seek positive response from the users.
6. To inform the public of the nations regarding the advantage and disadvantage about the existing technology and expected technology in the field of architecture and building construction.
7. Efforts being made by various nation agencies for sustainable development in more effective through the coordinated and integrated utilization of available resource, manpower as well as appropriate technology within the country.
8. Asian Forum for the field of architecture and building construction system needs to be adapted to incorporate the principles of health, sustainability, capacity building, equity and integration, cooperation, networking, exchange of experiences & know how, partnership programme through various methods.
9. In the field of architecture and building construction aspects at least three technological centers should be established at different nations according to the needs of Asian Forum's objectives.

3. Conclusion:

Urbanization started late in Nepal is still predominantly rural both in terms of population and employment. At present the total urban population of Nepal is now estimated to be 3.5 million, which about 15 percent of total population of Nepal. In recent years urbanization has been taking place rapidly in Nepal, the annual urban growth population is near about 7 percent, is a higher in South Asia. The major challenges in the urban development part are such as uncontrolled growth of cities, emergence of slums & squatter settlements, weak rural-urban relations, shortage of housing stock, low capacity of local authorities, limited participation of the private sector in housing construction, lack of resources.

In housing design that combines the best elements of both the traditional and modern systems is seen to be most suitable. But to have better result, the government should formulated zoning, land use, housing standards and develop effective tools for promoting the proper urban planning system.

Although building work is labour intensive, most of the expenditure is absorbed by materials. Therefore it is an essential to develop the local materials manufacturing industry in order to gain maximum employment generation.

In this new millennium period, the meeting on **ASIAN FORUM** for the field of Architecture and Building Construction is a highly important subject and it is at right time, hope that it will incorporate in main dimensions.

Finally if organizer allow me, I can say that formula for the success of "**ASIAN FORUM** for the field of Architecture and Building Construction is:

$$\begin{aligned} & \text{Member nation Interest} \\ & + \\ & \text{Information Technology} \\ & + \\ & \text{a Favorable Investment Development plan} \\ & + \\ & \text{International Support} = \\ & \text{"SUCCESS OF ASIAN FORUM OF ARCHITECTURE AND BUILDING} \\ & \text{CONSTRUCTION "} \end{aligned}$$

Thank you

Shashi Bahadur Thapa
Director General
Department of Urban Development and Building Construction.
Kathmandu, NEPAL

Email-sharmin@mos.com.np

Tel:- 977-1-278506

P.o.Box No.:- 8856 Kathmandu

Note:-

The views expressed in this paper are those of its author and do not necessarily reflect those of the national Government or other related agencies.

CHART – 1

CHARACTERISTICS OF HOUSING STANDARDS

Housing standards should be based upon the following fundamental criteria:

1. Health and safety. Adequacy and quality of space, proper hygiene, security from fire, structural integrity.
2. Comfort and convenience and cultural validity. Climatic effectiveness, accessible public facilities, culturally responsive spatial organization pleasant environmental and dwelling aesthetics
3. Realistic norms and economic efficiency
4. Affordability, feasibility, low cost, acceptability

CHART – 2

HOUSING PROCESSES

Difference between Government housing, popular housing and acceptable housing.

Government housing⇒ Land ⇒ Services⇒Building⇒People

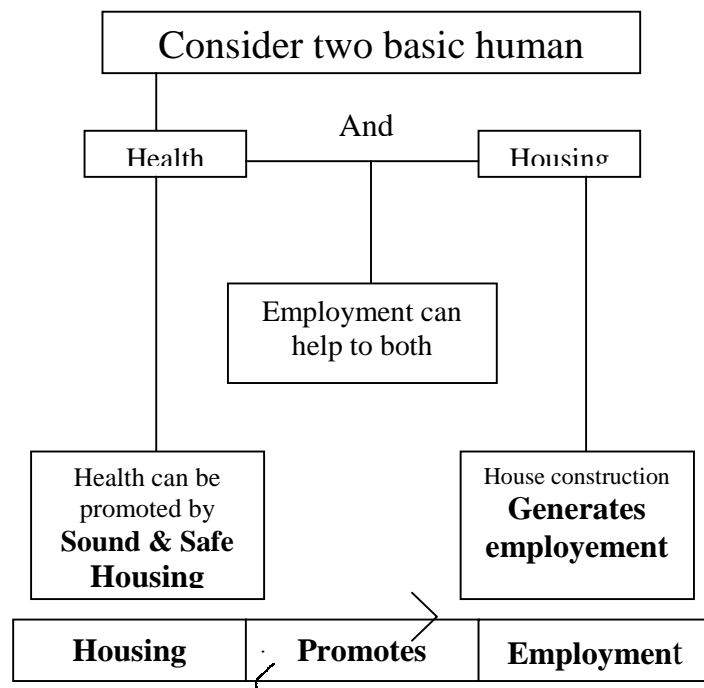
Popular housing⇒People⇒Land⇒Building⇒Services

Acceptable housing⇒Land⇒Services⇒People⇒Building

INTERGRATING INCOME GENERATION WITH BUILDING CONSTRUCTION PROGRAMMES

1. FUNDAMENTALS

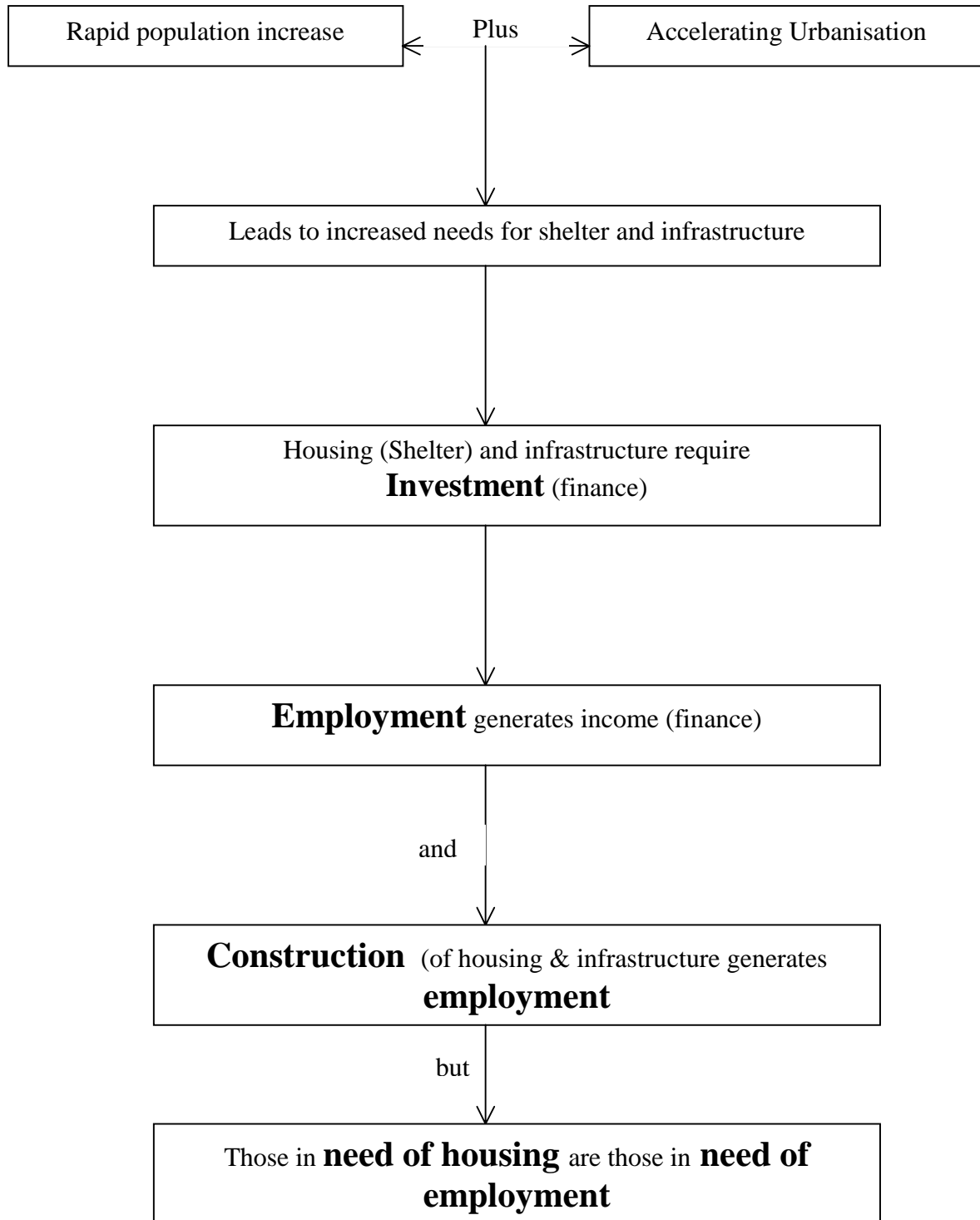
Figure 1.



INTEGRATING INCOME GENERATION WITH BUILDING CONSTRUCTION PROGRAMMES

2. BASIC FACTS

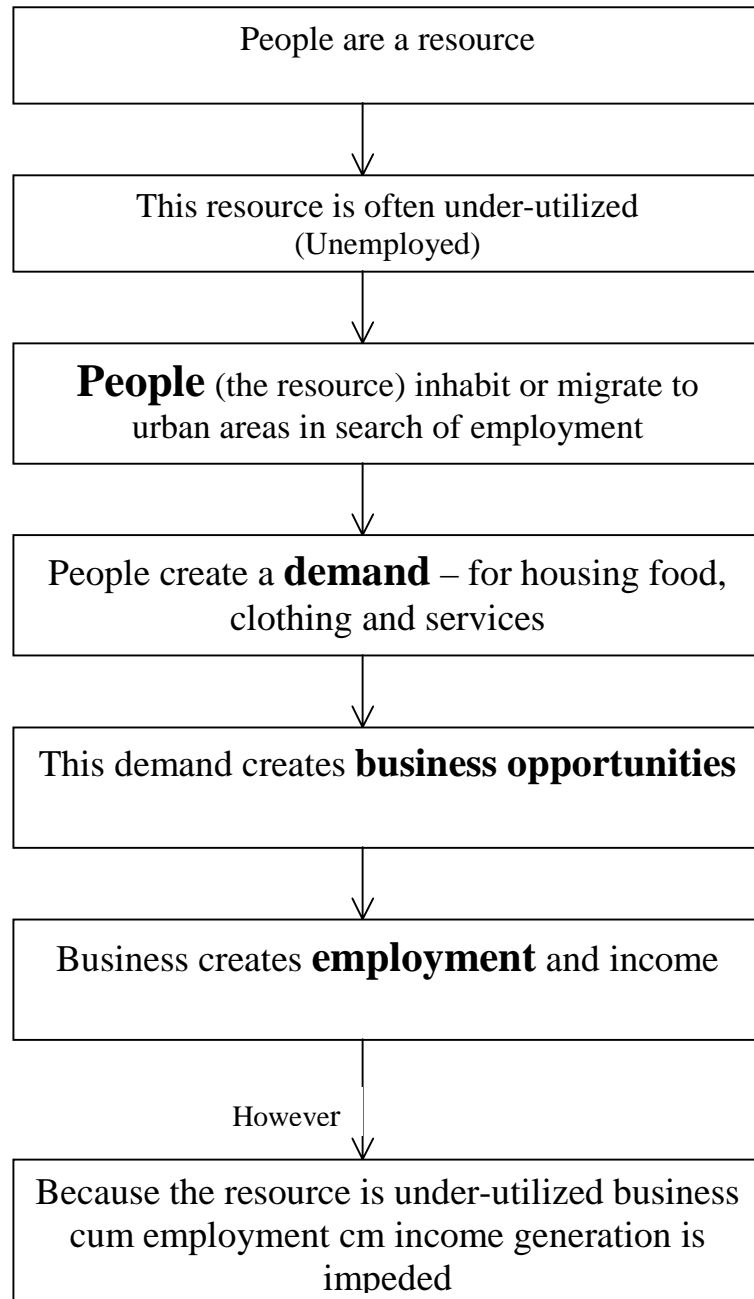
Figure 2



CAN THE VICIOUS CIRCLE BE BROKEN ?

3. THINKING POSITIVELY

Figure 3



Can the Circle be broken?

How can sustainable income generation be stimulated ?

By instituting an integrated shelter/income generation programme

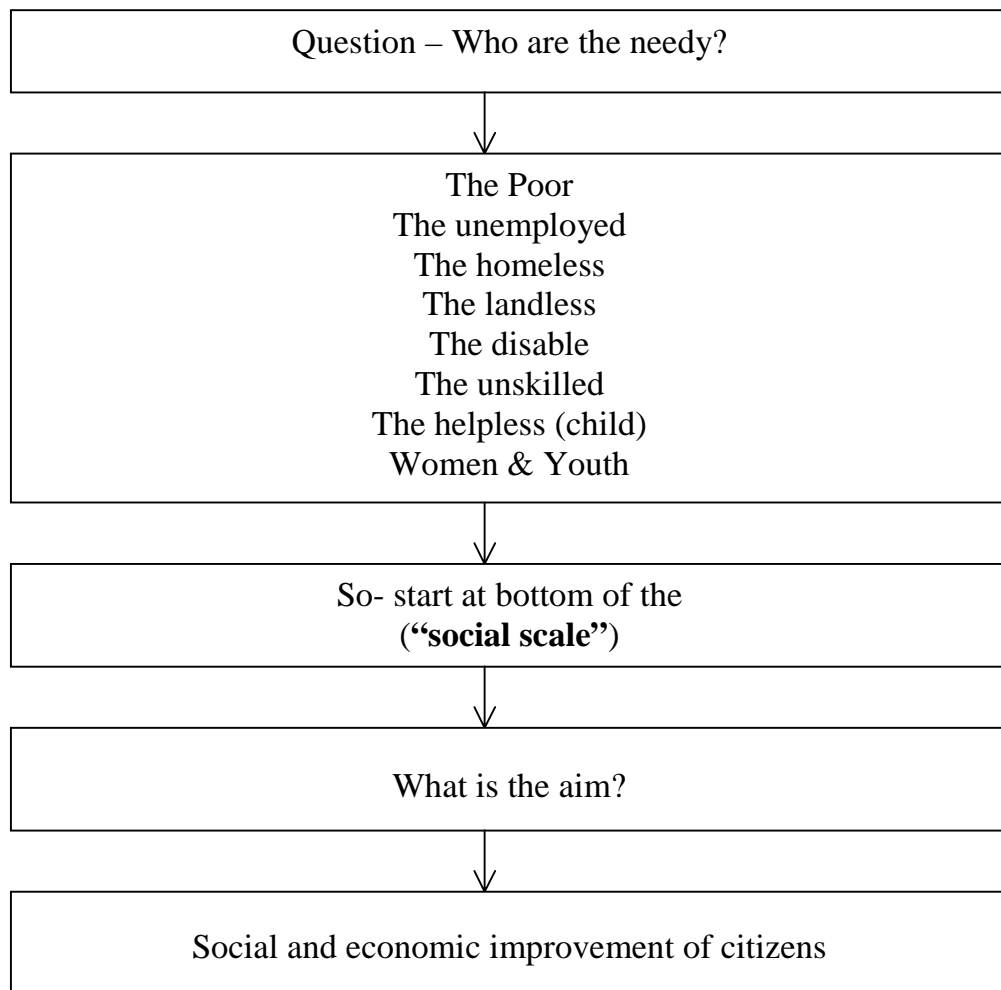
How would this?

In what context ?

What would be the main feature?

4. SETTING THE SCENE

Figure 4



Are there positive attributes among the needy?

Yes- the needy contain human potential they have aspirations, ability **to work, to learn**; they desire **their own improvement**

What then is required to release this potential?

Answer: an **enabling strategy**

5. THE BASIC CONCEPT.

Figure 5

The objective of the enabling strategy is **social and economic** improvement
*
through income generation integrated **with** housing construction programmes.

Concept

*
Communities can and do help themselves. They build shelters and try to generate income this income generation is usually done from or in the home.
*

It is know as the "**Informal**" or **the small business**" sector.

However, the informal housing and business sector is often considered to be undesirable.

*
It sometimes operates outside official rules and regulations, many avoid paying taxes, license fees or conformity required standards.

*
But
*

The informal sector is frequently the sole means by which the needy can provide for themselves.

*
and so, governments now acknowledge its existence and its potential to provide income-generating opportunities

6. DEFINING AN ENABLING STRATEGY.

Figure 6.

Government and International agencies recognize the precept that

The needy	This potential leads to development of
*	*
Constitute an enormous resource	the informal or small business
*	sector of the national economy
with potential for self development	*
	with further potential for income
	generation

Recognition leads to adoption of a **policy** by government and international agencies to develop a **strategy to enable** the informal /small business to **exploit** and **expand** its **income generation** potential.

THE ENABLING STRATEGY

*

Will **integrate** efforts to support **income generation** with housing construction programme

*

It will have the following feature:

*

Modification of **government policies**, legislation, institutional arrangements and financial frame work.

*

To enable formal & informal business sectors, N.G.O and stakeholders, C.B.O's to make optimal contributions to national developments.

*

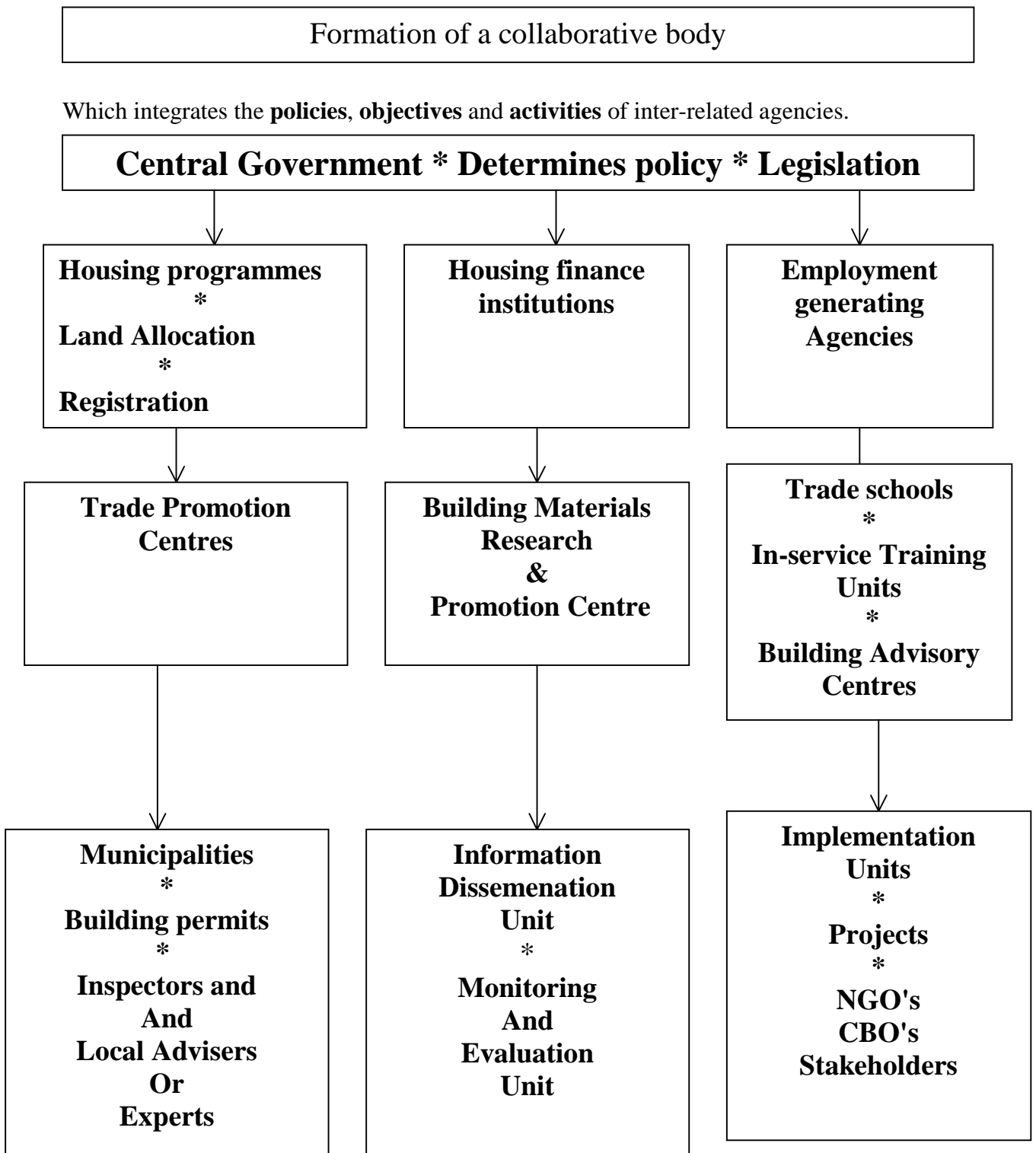
It will **increase market demand** for products produced by small-scale entrepreneurs.

*

And render support through **low-cost credit, tax reductions, to provide security** and **skill and management training.**

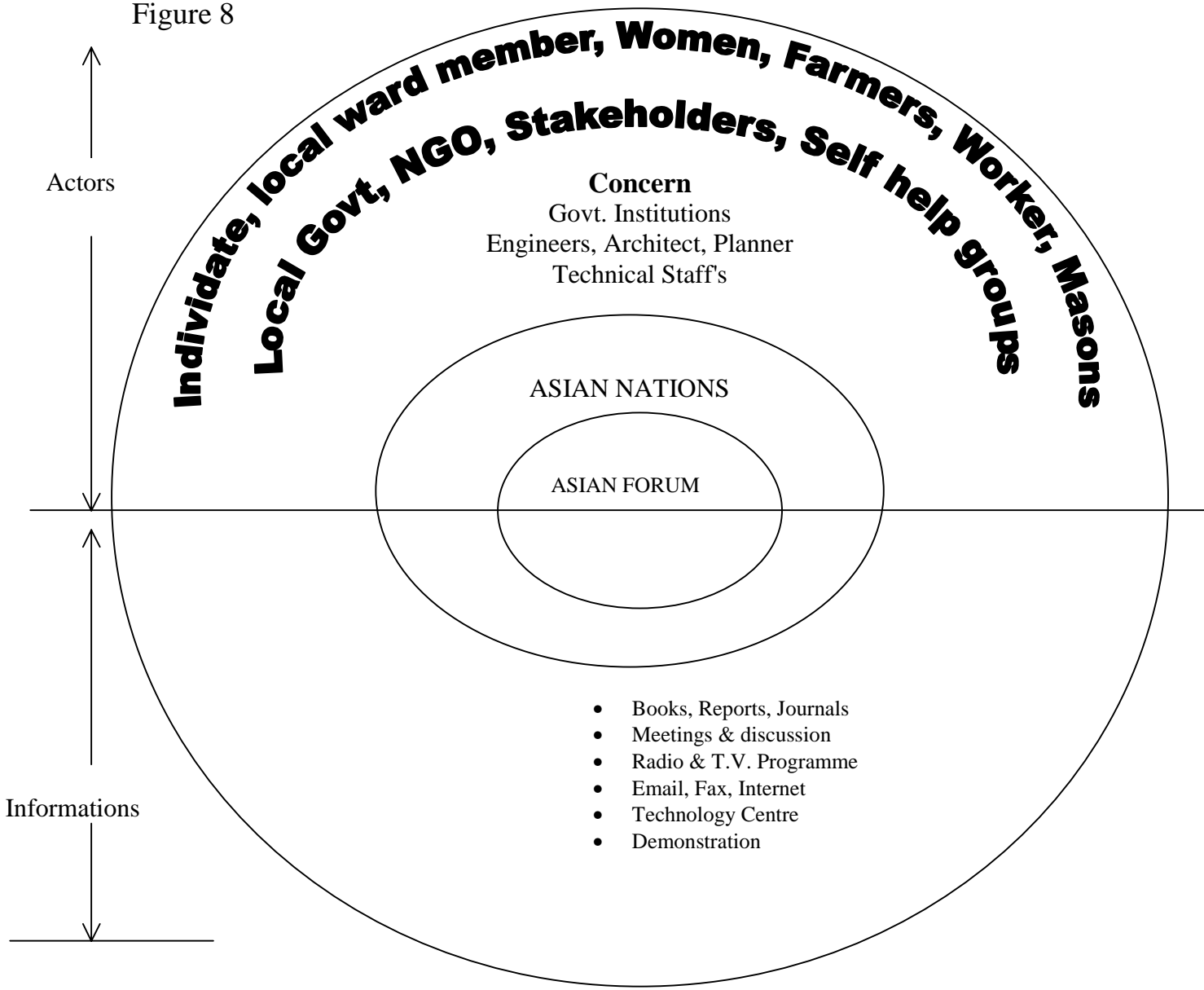
7. IMPLEMENTING AN ENABLING STRATEGY

Figure 7.



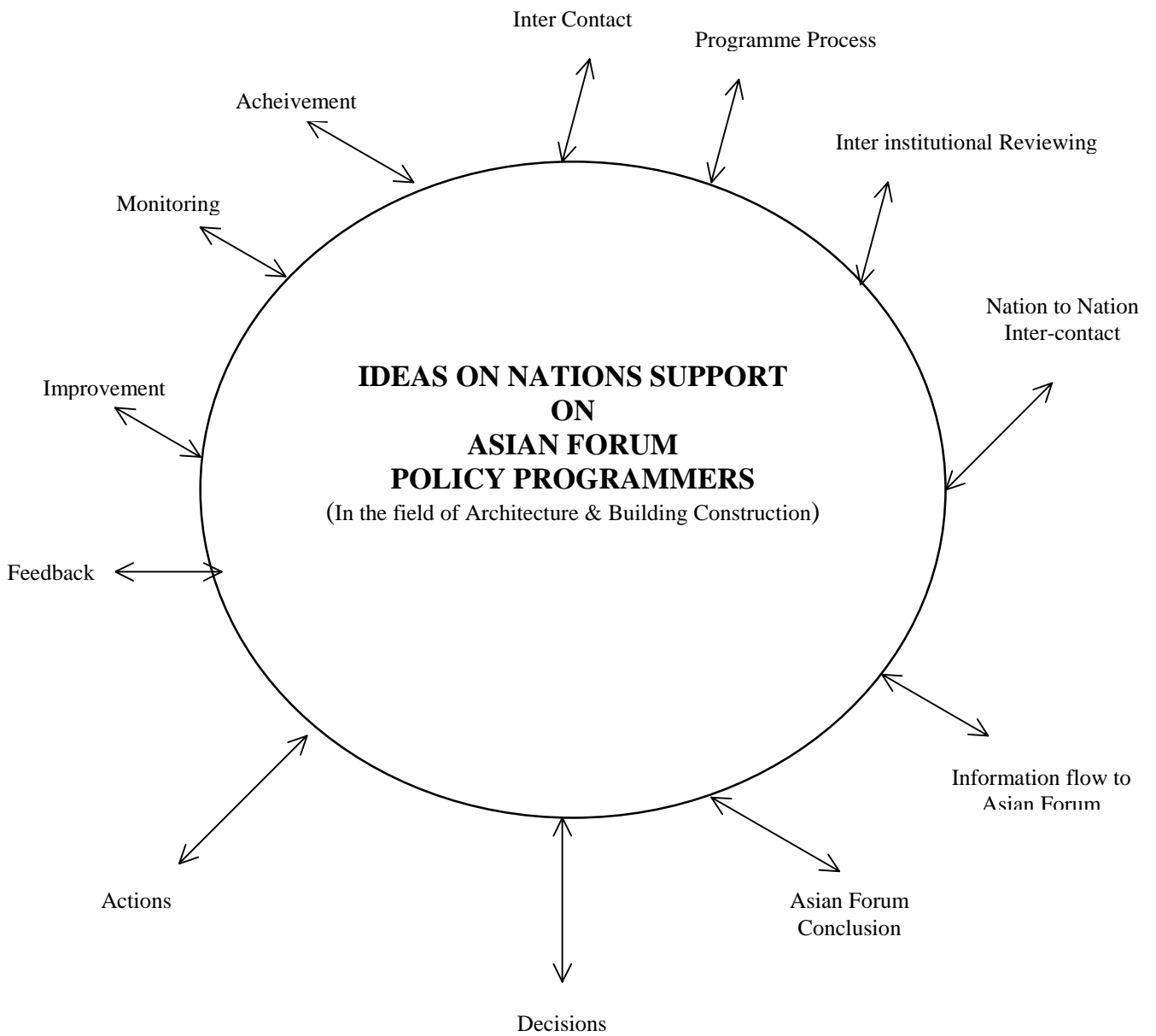
**"INTEGRATED WORKING SYSTEM ON THE FIELD OF ARCHITECTURE AND BUILDING CONSTRUCTION"
(ASIAN FORUM)**

Figure 8



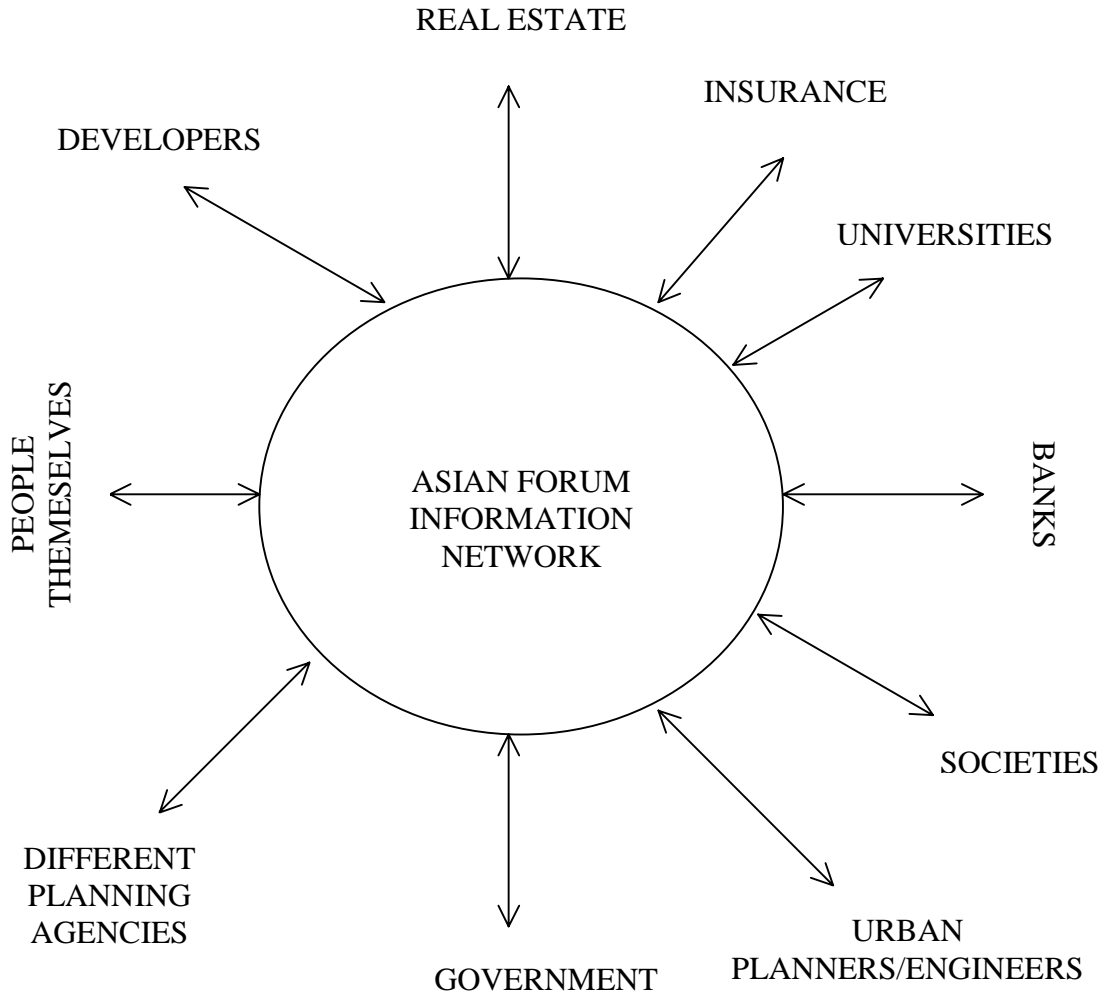
VISION ON ASIAN FORUM PARTICIPATION CYCLE

Figure 9



ASIAN FORUM INFORMATION NET WORK

Figure 10.



SUCCESS OF ASIAN FORUM

Figure 11.

MEMBER NATION INTREST
+
INFORMATION TECHNOLOGY
+
A FAVOURABLE INVESTMENT DEVELOPMENT PLAN
+
INTERNATIONAL SUPPORT=
SUCCESS OF ASIAN FORUM OF ARCHITECTURE AND BUILDING
CONSTRUCTION.

BIBLIOGRAPHY

- Abrams Charles :- Man's struggle for shelter, Cambridge;
The Technology press-1964
- Becke Hansen o:- Planning for Better Housing strategy
In Kathmandu – 1985
- CEDA :- Regional Development study Nepal - 1975
- S.B.Thapa : " Analysis of Urban Land use Policy" in 1977.
- Mayo.s and D. Gross :- Shelter strategies for urban poor in developing countries, in the
World Bank,Research observer Vol. 1 & 2 July 1986
- Mood . E :- Housing code standards: Three critical studies,
The national commission of urban problems – 1969.
- ODM :- Third World Urban Housing, Building Research Establishment for
overseas Development Mission (ODM), Watford , 1977.
- Pajne.G.:- Low Income Housing in the Developing World,
John wiley and Sons Avon U.K. 1984.
- World Bank:- Housing Sector Policy paper, the World Bank,
Washington DC, 1975.
- American : Public Health Association (APHA), Housing: Basic Health Principles and
Recommended ordinance,Washington Dc, 1971.
- Dahal.M & D.Dahal, Environment and Sustainable Development:- Issues in Nepali
Perspective, Nepal – 1993.
- DHBPP : A Physical Development-Plan for Kathmandu Valley, Department of
Housing , Building and physical Planning, Kathmandu, 1969.
- Eckaus.R.S. :- Appropriate Technology for LDCs, NAS
Washington DC, 1977.
- Halcrow, Fox, PPK, Cemat consultants, “Kathmandu Valley Urban Development
Plans and Programmers”, Kathmandu, 1991.
- Kansakar.Vidya.B.Singh:- Housing conditions of the Urban poor in the Kathmandu &
Pokhara center for Economic Development and
Adminstration, Tribhuvan University, Kathmandu, 19988.
- S.B.Thapa:- Country status Report on Social waste management of Kingdom of
Nepal in 1989, this report prepared for SEARO WHO, New Dehli in
1989.

- JICA: - The study on Earthquake Disaster mitigation in Kathmandu Valley, Kathmandu , 2002.
- S.B.Thapa:- Citizen participation and education for solid waste management: this report prepared for United Nation& center for Regional Development, Japan Dec. 1990.
- ADB.:- Final Report on Urban and Environment Improvement Project Nepal, 2001 by Nippon Jogesuido. Sekkeico, Ltd, Japan in association PADCO inc., Nepal consult SILT Consultants (P) Ltd, METCON Consultants & P.P. Pradhan & Co in 2001, Kathmandu.
- S.B.Thapa:- “Institutional Aspect of Land Readjustment and Urban Development in Nepal.” 10th International Seminar on Land readjustment & Urban Development (Nov. 6 to 7), 2000 at Bali, Indonesia.