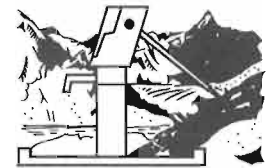




WATER, ENVIRONMENT AND MANAGEMENT

Infrastructure provision in housing

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The paper deals with the provision of infrastructure, water and sanitation in particular, for housing development in Nepal. The management of shelter infrastructure and services with active involvement of the people for better living environment is the major area of focus. The existing condition of shelter infrastructure is first presented. Some of the recent experiences of community involvement in the provision of infrastructure and services are then critically examined. The next section points out the advantages and relevance of community based programmes. Recognising the need to fully utilise community level resources and initiatives, the paper suggests for integrating such efforts with the total infrastructure network and concludes that community actions led to be encouraged at different levels in order to facilitate infrastructure provision.

Shelter Infrastructure

Shelter infrastructure is more needed than shelter itself in most cases in Nepal. Many housing efforts ended in the provision of better sanitation facilities and hygienic designs. Generally it takes a long time for people to get infrastructure and services even in good residential areas. It had never been the primary responsibility of the government to provide services. Most housing areas do not have adequate environment nor services. Although the percentage of the urban population served with piped water supply is high, water supply is intermittent and quality is not good. Toilet facilities are new. Roads are not maintained well. Health is related with poor sanitation conditions.

It is difficult to identify the relative position of shelter infrastructure in low-income residential areas which in most cases are not physically discernible or isolated. The coverage of the 1987/88 urban population is below 50 percent for the infrastructure like sanitation, stormwater drainage and solid waste, while coverage for water supply and electricity is above 70 percent. As of 1987, there was no stormwater drainage in the towns of Nepal. The poor drainage condition exists particularly in low income areas. In case of solid waste, the percentage of population served is estimated at 18 percent. This is extremely inadequate in urban areas. With regard to sanitary facilities for human waste disposal, there is low percentage coverage. Only for the Valley Towns there are piped sewerage removal systems available to a limited core area. For others, individual on plot septic tanks and pit latrines serve a portion of the population. 47 percent of all household and 67 percent of the low income households do not have latrine facilities.

The management and financing of shelter infrastructure

and services with active involvement of the people for better living environment is the major area where something could be built up cashing in on the traditional ways. It is necessary to decide to what extent households and communities can be made responsible for the shelter infrastructure. Allocations from government budget are insufficient and must compete with demands from other sectors. Nepal has a good tradition of community maintenance and sharing of common premises and public spaces. There are many small water sources used traditionally.

The private sector is not interested in the unprofitable segments of the utility services, while it is the unprofitable and more difficult services which the government wish to privatise to reduce the financial strains on public expenditure. Some areas can be identified where unprofitable public undertakings could be made profitable through privatisation but there remains a vast area which neither the government nor the organised private sector will be able to manage. This has to be solved by the household and community sector.

Recent Experiences of Community Involvement

There are recently many experiences of community involvement in the provision of infrastructure and services in Nepal. Some of the projects and activities towards this direction are evaluated below.

Dhalko Urban Community Development Project: Dhalko is situation in Ward No 17 of Kathmandu Municipality where sweeper community lives. The project is financed by Redd Barna, Nepal. The project was approved in 1988. Durga Pariwar Club, a local organisation is implementing the project.

The project assists the community in improving their social and physical environment. Street sweeping and clearing the garbage and solid waste have been their main occupation and they are considered the lowest caste in the Nepalese society. The speciality of the project is to involve the community in fulfilling the objectives. The project office including Red Barna and Durga Pariwar Club played the role of a facilitator. The key activities were identified and prioritised with the help of the community. Different line agencies such as Department of Roads, Water Supply Corporation, health and educational institutions, helped in the implementation of specialised works. The community contributed labour and played a significant role in the supervision. Users groups were formed to implement the programmes.

The project has already provided new sewage and drinking waterlines with connection to each and every house. A school building has been reconstructed demolishing the old one. The project has launched health, family planning, nutrition and literacy programmes. It has provided income generation (Mushroom cultivation, piggery training etc) opportunities to the people and first aid training to the community members.

There are some improvements in the existing unsafe electricity network and improvement of the main access and the lanes. because of the project, social relations have improved and there is a marked difference in the environment.

This is a god experience in terms of community building, people's involvement and replicability. It does not involve huge financial commitment. 1800 people were benefited.

Courtyard rehabilitation programme: when Solid Waste management Project started waste handling and disposal, it was found that the solid wastes from the courtyards started to come to the streets but after some time, the people dumped up the wastes again in the courtyards. This led to courtyard rehabilitation programme and the inhabitants themselves were encouraged to clear up the wastes.

The project broadcast the programme objectives and details over Television and Radio along with general information and rules and regulations for cooperation. On hearing the announcements interested communities apply for launching the programmes and the project approves the programme. Technical support and advice are provided by the Project and the rehabilitation of the courtyards and other works such as the connection of their kitchen outlet to drainage. The labour cost is borne by the residents themselves. The main objectives of the Programme are:

- to improve sanitary living conditions in and around courtyards through the removal of waste and their rehabilitation whenever deemed necessary.
- to motivate courtyard residents to regularly clean and maintain their courtyards after rehabilitation and to acquire maximum amount of people's participation in the programme.

Drainage and sewerage system of the houses surrounding the courtyard was rehabilitated first as per necessity eg, by providing drain pipes for individual kitchens, building manholes, providing facilities for the connection of toilets to the sewerage manhole or even to main sewer. The project provided materials like paving stone, pipes and other building materials where as the community contributed labour or labour cost.

During the period 1986 - 1988, 174 courtyards were rehabilitated with the total cost of Rs. 6,458,000. Out of the total cost about Rs. 5,400,000 was contributed by the Project (U>S> \$1 = Rs 42.60). The courtyard rehabilitation programme became so popular that the demand for rehabilitation grew rapidly.

The hygienic condition around the courtyards was improved. A good response from the applicants demonstrated the popularity of the programme. It is an experience of good community mobilisation, motivation and participation. The cost involved is not much and such programmes can be relivated. The contribution of these activities are enormous in the improvement of urban environment and use of potential open spaces (courtyards).

Urban basic services: UBS programme, is a programme jointly launched by UNICEF and the government to address the need of the urban poor. UBS programme was initiated as it became increasingly difficult for the urban poor especially the women and the children to live in urban areas.

The overall objective of HMG/UNICEF co-operative is to provide basic services for children and women, especially those in the greatest need. The specific objectives are to

- a) reduce infant and child mortality and
- b) improve the situation and well-being of women through an integrated delivery of basic social services. This will involve the development of specific programmes in response to locally identified needs.

The programme is already implemented in five important towns showing high growth rate of population. These are Dhangadi, Nepalgunj, Lalitpur, Pokhara and Biratnagar.

Relatively disadvantaged wards of the town are selected by the municipality in collaboration with the ward chairmen and UNICEF. Criteria set for the inclusion of a particular ward in the programme include:-

- a) evidence of sanitary problems
- b) lack of access to adequate drinking water,
- c) low nutrition level among the children and
- d) participating population among the poorest and most disadvantaged groups as defined locally. Town level planning and implementation committees are headed by the Mayors. The committee is responsible for policy development and periodic reviews. All the activities were carried out by the municipality through sectoral agencies and local communities. the official appointed as programme co-ordinator works in close collaboration with the major and has an operational responsibility for co-ordination, planning, programme implementation, monitoring and evaluation. The programme helped to:
 - increase people's awareness on health and hygiene
 - improve the sanitary condition in the area
 - provide basic services to the deprived community
 - to motivate the community and revive their age-old community organisations.

The effect of the programme was noted by the beneficiaries and the organisers. Both the government and UNICEF have realised the importance of the programme and have decided to expand it to other towns during the period 1992-1995.

The programme has a good promise. Though the financial involvement is not much now, it will increase when other towns will be covered. This will also be complemented by economic upliftment programmes to make the people able to pay.

Balaju squatter settlement improvement programme:

Women in Environment, an NGO took interest in Balaju squatter settlement and studied the area in detail. UNICEF approved the proposal in 1990 after making necessary amendments. The squatter settlements in Balaju is located along the western bank of Bishnumati river north east of Balaju bridge in Kathmandu. There are altogether 68 dwellings with six persons per dwelling. The community lacks basic services like water, electricity, toilets. The quality of dwellings are very poor. Some of the achievements made so far include the following:-

- running informal education programmes for women
- training for literacy facilitators
- provision of a stand water-post
- community motivation
- management of kitchen gardens
- river bank stabilisation
- greenery development along the river banks
- primary health care
- toilet construction etc

Action Committee comprising of Community members was formed for decision-making and implementation of the programme. Committees of beneficiaries were also formed for implementing different programmes. Technical works were implemented through the line agencies with joint approach by WE and the community. Line agencies were mobilised to provide necessary materials and technical help. For example, Ministry of Education provided books, the project provided materials while the community contributed labour for all the programmes.

Advantages of Community Based Projects

Based on the recent experiences, it becomes clear that projects based on community involvement enormously help to create local institutions which are better placed in the provision of services including water and sanitation. Projects should not be judged on its physical target only. While in the initial stages, the physical targets are likely to be not significant, there are lots of other advantages when viewed with a long term perspective. The advantages of such activities are:-

- they help towards empowerment of the local government
- they create communities
- they exert pressure on government agencies
- they create awareness in the field of sanitation and water supply
- gives new hope to most slum dwellers and squatters
- through action, the methods of integrating their activities with the formal network could be worked out.

For the development of shelter infrastructure for low-income people, it is necessary to adopt a planning process capable of generating resources through action. There are other advantages specific to the Nepalese case:-

a) People in Nepal do not know till recently how to get access to institutions responsible for infrastructure provision. There are lots of inhibitions to effective dialogue. Just because they do not know how to approach institutional resources remained untapped and institutions continued to be liabilities rather than assets.

b) Still now, cities of Nepal have rural characteristics although we can see that these are fast disappearing and if timely intervention is not made, it will be more difficult to exploit community based resources as the city network becomes more complicated.

c) The activation of local institutions depends on their interaction with the people at large. Unless the accessibility could be increased, the institutions will remain redundant. The only way to increase accessibility is through action at the grassroots level.

d) Nepal has a unique opportunity to devise ways and means to use community based resources along with the urbanisation process where new approaches need not be thrust upon as in the case of cities of other more urbanised developing countries. With the cultural changes, these rural characteristics can be integrated with the urban system and more people can be accommodated in the towns and cities.

The Need for Integration

Recognising the need to fully utilise community level resources and initiatives, it is necessary to find ways and means to integrate these efforts with the total infrastructure planning with urbanisation and modernisation, it will otherwise be increasingly difficult in future to appreciate the importance of such efforts. When the city network becomes complication, and technical standards increase, it will be more difficult to include them as extensions to the total network. Encouraging community participation in infrastructure planning will help to utilise such resources.

When we assess the contribution of community based projects towards building local institutions, replicability of activities become a point of crucial importance. As projects are generally judged by their physical performance, emphasis is generally laid down upon the resources to be mobilised in advance, systematic preparation of the planning documents, already designed nature and extent of participation of the beneficiaries and so on. On the other hand, if the process is of any importance, it is the process which has to be sustained, augmented and integrated with the urban community. Only this approach will provide a solution to infrastructure provision in housing for the poor in a sustained basis.

References

Culpin Planning Ltd. Nepal Shelter Section. Background Report, Kathmandu: MHPP/UNCHS, 1992

Development, Communication & Research Consultancy Group, Urban Basic Services: Baseline Survey Report, Biratnagar Nagar Palika, Kathmandu: HMG of Nepal/UNICEF, Oct 1990

Joshi, Jibgar. Housing and Urban Development in Nepal, Kathmandu: Lajmina Joshi, 1991

Red Barna. Redd Barna - South Asia, 1990

Solid Waste Management Board, Report on Courtyard Rehabilitation, 1985

Solid Waste Management Board, report on Courtyard Rehabilitation, 1986

Urban Basic Services Programme for Lalitpur Nagar Panchayat, inter-office memorandum, 30/11/1990

Women and Environment, A Progress Report on Slum Improvement Programme at Balaju Squatter Settlements, Nov 1990- Feb 1991.