

6. Development Issues in the Bhardeo Community

Despite past attempts by the local community to recognise the linkages between environmental problems and the over-exploitation of natural resources, the inadequacy of forest resources within Bhardeo for the use of the community left them little option but to continue exploitation even outside their own area. But this does not necessarily mean that it will be sustained over time.

The local community's skills and level of motivation for adjustment were inadequate to deal effectively with negative and persistent changes. The problems of Bhardeo have been extrapolated in earlier chapters. Any community's strength is a sum total of the strength of its individual households and that of its local institutions. The strength of any institution lies in its moral, fiscal, and administrative capabilities. The institutions in Bhardeo should also be viewed within this context.

Lack of a mandate and absence of its related tasks destroy any institution. Such a mandate and programme, as well as sufficient resources, keep the morale of the elected body high. The illusion that rural communities can develop without directly participating in the management of fiscal resources and responsibilities is pervasive in Nepal's concept of mountain development.

The Limited Role of Local Government

No local institution, whether of the government or of the community, can be viable without regular income, fiscal responsibility, accountability, and a clear concept of the role they ought to play. The role of the local political unit was limited in the case of afforestation programmes. In Bhardeo, it had been able to specify only the area and plot of land for afforestation. It, however, could not recommend wage scales and employ poor labourers from the area. Even the choice of tree species was not made at local level.

The income of the community is insufficient to carry out development work. In a very favourable year, the community registers an income of up to Rs 5,000 from

local taxes on radio, grinding mills, and application fees and Rs 10,000 to 15,000 as grant-in-aid from the District Fund tied up in construction works such as drinking water programmes, school and cooperative buildings, bridges, tracks, and temples. The choice given by the district body for expenditure is narrow. If we consider the inflation rate, the value of the grants in real terms decreases considerably over the years. The scale, nature, and purpose of the government grants have not changed over the years. The visible inadequacy of available resources is apparently commensurate to the priority given to development of the hilly areas of the Lalitpur district.

The trend in district level resource allocation plans has been to grant special priority to areas with politically active and loyal workers, not necessarily active development workers.

Neglected Government Services

The local community considered the location or the concentration of all services at one end of the district as a decisive factor for the absence of services in the hilly areas. The headquarters of Lalitpur district are at the northernmost tip of the district and Bhardeo is located somewhere in the middle of its hinterland. Communication and transportation facilities are concentrated in a small urbanised area. Bhardeo is a typical mountain farming area and needs additional attention and inputs, both technical and biophysical. The district offices are oriented more towards the urbanised area of the district close to Kathmandu. The lack of livestock protection and animal husbandry services and, for that matter, any extension support, has eluded the attention of the concerned offices.

Credit Scarcity

Cash is in acute short supply in Bhardeo for even a cooperative investment. But, at the same time, there is general apprehension regarding bank loans. Firstly, the household economy is affected if any of the animals, for the purchase of which the loan was taken, dies. There are no

livestock insurance schemes in Lalitpur district as yet. Also in areas where insurance schemes were introduced, it was, at best, the insurance of the bank loans and not of the animals belonging to the farmers. The insurance was terminated once the bank got its credit back, interest being around 16 per cent plus a punitive interest of six per cent for any delay in repayment. Very few farmers in hinterlands like Bhardeo manage to service their debts. One of the farmers in Bhardeo, who took a bank loan and failed to pay, lost cultivation rights over his land and became landless.

Another critical problem concerning credit facilities in Bhardeo is of an administrative nature. Most farmers claim that they do not possess land ownership certificates to use as collateral. Without these, as individual households they are disqualified from credit facilities.

In 1988, a programme to introduce a new breed of buffaloes from the Terai was implemented with the active support of the local veterinary centre set up in 1988. The minimum credit requirement was Rs 8,000 for a female buffalo. Three poor farmers had deposited land-ownership papers and they were persuaded to consider the advantages of the bank loans. The government offices, and particularly the bank, were interested in giving credit without asking for economic collateral. Pawning land deeds for such credit cannot be regarded as conducive to development.

The Small Farmers' Development Programme could be a solution. Does the concept behind the Small Farmers' Development Programme view the groups as a dynamic agent for social and economic changes? The poverty-ridden Bhardeo economy needs individual entrepreneurial initiatives for self-reliant development. Facilities should be introduced for small and rapid turnover credits based on trust and confidence and not based strictly on conditions of collateral.

Underutilised Local Institutions and Services

Jhankris or Traditional Healers

Major sicknesses were treated locally (fever, minor poisoning cases, wounds, cuts, TB cases, and diseases similar to typhoid). It was the *jhankri* (traditional healers) who provided the services. They also treated animals. Out of 40 practising *jhankri*, five were considered effective by the local people. Some of them had gained experience and acceptance in the community over 15 to 20 years. The success quota was claimed to be around 90 per cent in these cases.

In Bhardeo, the medicines and healing materials were mainly obtained locally from plants and minerals. No commercial medicines were used by traditional healers. No fees were accepted except for some drinks and tips. Such services cannot be expected from the government office which has limited resources and lack of motivation. The traditional healers were eager to add to their skills, particularly the younger ones. No formal or informal contacts were established between the *jhankri* and allopathic circles. The local healers had a store of knowledge of local diseases, social problems, and psychological cases which were underutilised. Local healers should also be given due recognition and commensurate facilities.

Labour Sharing (Parma)

The existing labour-sharing system (*parma*) was being weakened by the pressure of poverty. A kind of dependency syndrome had overtaken it which indicated a declining household economy, on the one hand, and, on the other, the compulsion to buy food from outside for which money was essential. Compared with the earlier *khai garne* system (not dependent on wages for daily food) based on a strong, individual household economy, the local people had to adopt the undesired system of *gari khane*, which meant working first to earn a living outside of one's own farm. This implied a preference for wage labour over reciprocal free labour contributions between neighbours.

Retail Businesses

Local trading and commercial activities were limited to low value consumer goods such as cigarettes, kerosene, maize, mustard, salt, and crude tobacco. Most of the sales were of cigarettes and tobacco. The volume of local trade was limited in value and kind. There were seven private shops with daily turnovers ranging from Rs 100 to 800. The profit margin of these small shops was 15 to 20 per cent. There was one *Sajha* cooperative. The major turnover of the cooperative was in kerosene, maize, rice, and chemical fertilisers on a cash only basis. The cash crunch was felt by all the households. This was one of the reasons why people preferred to buy from private shops, although the goods were more expensive. The major reasons for setting up the *Sajha* cooperative in the area are mentioned below.

- o Essential consumer goods (oil, maize, salt, sugar, and rice) could be sold at much cheaper prices than in the local shops if these goods were brought from Kathmandu and not from the wholesalers in Lele, only a few kilo-

metres away to the north. The small local shops could not compete because of technical difficulties (transport, costs, etc).

- o Commercial fertilisers and grains could be purchased in bulk and on time as required locally, compared to the practice of individual farmers going to the nearest market in Lele (which was tedious and more expensive).
- o The co-op was recognised as a credible institution and as acceptable collateral by banks, eligible for large-scale credit, so that other investments, such as new goats, could be realised. The business was running on an average profit margin of only five per cent. The business was conducted mostly in the mornings and evenings for sale of chemical fertilisers and other essentials.

The number of shareholders was 52, out of which 47 were from Bhardeo with a share value of Rs 100 each. The major shareholder was the *Sajha* Central Cooperative Organisation with shares of Rs 20,000. There were 20 to 25 interested potential shareholders in Bhardeo, but they lacked the minimum investment capital of Rs 100 per share.

Although the customers were relatively disadvantaged, one of the major comparative advantages of the small shopkeepers over the *Sajha* Co-op was cash-free purchase or barter of scarce commodities such as mustard, maize, eggs, or potatoes, which benefitted the community. More often, however, this had created a liquidity problem for the shopkeepers and there was a cash flow problem in the community at large. The repayment took place up to seven months. People would prefer to buy cheaper goods. Since cash incomes were rare locally, there was a loss of 10 to 20 per cent on every purchase made on a credit basis from small shops.

There was an inherent problem that *Sajha* could jeopardise the survival of smaller commission shops. Both types of business needed to adjust their business practices in order to have adequate specialisations and an adequate volume of transactions within such a small area.

The importance of small commission shops for the local economy was considerable in terms of small cash-free purchases and in terms of maintaining the mutual support, trust, and confidence present in a traditional society. Once local, regular businesses become too dependent upon cash transactions, then many of the local values, such as the self-help system, may disappear. One of the early victims has been the labour-sharing system (*parma*).

The extent to which these small entrepreneurs will be able to respond to developing marketing facilities, deal with the export of local produce, and cater for diverse inputs needs to be studied and monitored.

Lack of Commercialisation

Marketing facilities, especially for slaughtered animals, are vital for the local economy. At present the traders from Chapagaon and Godavari, which thrived in the past at the cost of their hinterlands like Bhardeo, collect slaughtered animals from the former *Panchayat*, charging a disposal fee of 10 per cent. In most cases, the determination of live weight, judgement of the animal's condition, and pricing are done on an *ad hoc* basis and this is disadvantageous to farmers. The question of marketing fern (*niuro*) vegetable, mushrooms, and medicinal plants on a better economic footing is as yet unaddressed. To change the roles played by the traditional markets will be difficult in the foreseeable future.

Mountain farmers without other means of income, unlike the affluent and clever traders who have access to the growing urban centres and markets, are forced to exert exploitative pressure on their environment with an unfavourable impact on the mountains. Organised marketing is a necessary and realisable goal. A cooperative or a local trade system, established by the farmers themselves, could go a long way towards bringing money to those who need it and who have rightfully earned it. In short, a commercialised approach to production is an issue deserving attention.

The necessity of commercialisation, as understood generally, is debatable. But regarding the potential products and the resource base, as well as the economic condition of the mountain farmers in question, it can become a viable alternative to a subsistence economy which otherwise threatens the environment in the mountains.

Mountain areas with a traditional system of agriculture are under constant stress. If the resource base is to be improved, then commercialisation is unavoidable. Commercialisation does not come so easily, unless higher value products are produced. When the production base is in a weak state, as in the case of Bhardeo, the investments too do not come easily. A whole range of linkages and adjustments needs to be established between the producers and the consumers, e.g., from the potential of the rural areas to the demands of the urban settlements.

People talk about accessibility of markets, in terms of the farmers' approach to urban markets. The hardships would apply equally to urban traders and planners trying to reach the production areas, and this means an additional set of questions needs to be answered. Institutional support could go a long way towards identifying potential areas within the farming systems to improve the production base (livestock, farmlands, forests, and *kharbari*). A question of skill improvement arises when the nature of product use has to be changed, e.g., diversifying the production system, for which the existing administrative structures are ill prepared.

The Question of Commercialisation

Would commercialisation of mountain agriculture lead to expansion of cultivated land, particularly in Bhardeo? First of all, it depends upon whether the land is available, then upon other factors, for example, the product itself, the market culture, the usefulness of the product in question, and price determinants. We need to consider whether the majority of the poor will benefit from commercialisation or only a few more affluent people. In the case of Bhardeo, land resources are limited as is the cropping intensity. The needed commercialisation has to come through better use of the existing farmland and human resources. The nature, practices, and proximity to markets of the farming system (livestock dominant? horticultural dominant? subsistence or affluent systems? incentives, market, inputs, storage, and transportation, etc?) are strong factors that influence the commercialisation process.

Deteriorating Natural Resource Base

Mountain farmers would manage their natural environment provided they were motivated, and this depends upon whether they draw benefits (major and side benefits such as water) and possess the required skills. There have been no economic improvements during the last few decades, thus pressure on the natural production base has not been discernible. The production base has not been sustainable in terms of fertility, productivity or quality of products; be they biomass, livestock products, crop yields, or *kharbari* biomass.

Biomass

The dependency on areas outside Bhardeo for biomass could be reduced by over 50 per cent within the next 12 years. A positive development could take place on farmlands where

crop improvement measures could turn over higher crop residues as winter roughage, thus reducing further pressure on forest sources.

Farmlands

Since the maize deficit prevailing in the area is over 50 per cent, even if the productivity of the farmlands increased by 100 per cent it would not help the people to raise their living standards. It would be a waste of time trying to increase the production of maize under the present land use system, because the continuous loss of soil fertility could hardly sustain productivity even at the current low rate of production. The mixed cropping of maize and potatoes opens up a new base for improvement. The practice, though not unique here, is of great significance for securing an adequate supply of food for the community.

Livestock and Fodder for an Increasing Number of Animals

This is one of the critical areas of livestock management that should be examined. The present population is not large, considering the average number of animals per individual household. However, seen from other resource perspectives, the situation is serious.

The degree and scale of fodder deficit, both in quantity and quality of fodder, could be measured from the milk yield during the same period. It showed a seasonal fluctuation related also to the dry period and to the shortage of green fodder and forage as such.

Although the leaf fodder available during the dry period was that of *Quercus* sp., which is deemed to be nutritive, the quantity available to the ruminant was low (6-12kg DM or 40kg FM for 2.71 LSU per household, equivalent to 2-4kg DM/LSU which is low for production and maintenance). The bulk of the fodder available in the form of maize stalks and husks, mustard straws, etc is not nutritious enough.

The increasing difficulty in getting green fodder from the farmlands, together with the lack of good materials for quick collection in forests that are easily accessible, would make it even harder to sustain the present livestock population, unless efforts are geared towards improvement of the fodder production base. The primary issue concerning livestock management is whether or not unproductive animals can be replaced by better breeds.

Improvement of Breeds

Livestock forms the most important link in the economic-ecological chain. Cattle and buffaloes consume large quantities of fodder and forage; risk is concentrated on one or two animals and is very high; and cash returns are relatively low compared to those for small animals such as goats. In view of the rapidly increasing fodder shortage, difficulties in the marketing of milk and milk products (transport, markets, etc), and the problems linked with the disposal of old cattle, the trend is towards partially replacing the buffaloes and cattle (large livestock units) by an improved breed of goats. There is already a tendency among farmers to prefer buffaloes to cattle. The productivity of individual households could be enhanced by introducing a better breed of buffaloes (22% of the households are planning to take this step) and supporting the others' (49%

of the farming households) plan for bringing smaller animals (an increase of 37%) to replace 57 head of buffaloes (19%) by a better breed of goats, thus reducing the number of large livestock.

Conclusion

Under the existing bi-polar conditions of weak institutional responses and the weakening natural resource base, the terms of Bhardeo's development priorities have to be considered within the context of its own realities. The priority should not be limited to understanding the local bio-physical process. The problems are easy to comprehend and can be solved if the local people participate in decision-making for initial economic development. It is the management of existing local resources and exploitation of their potentials which are crucial for sustainable development.