

7. STRATEGIC THRUST TO ADDRESS PROBLEMS AND CHALLENGES IN THE IMPLEMENTATION OF THE APP TO ENSURE FOOD SECURITY AND POVERTY ALLEVIATION

7.1 Framework for Policy Feedback Analysis

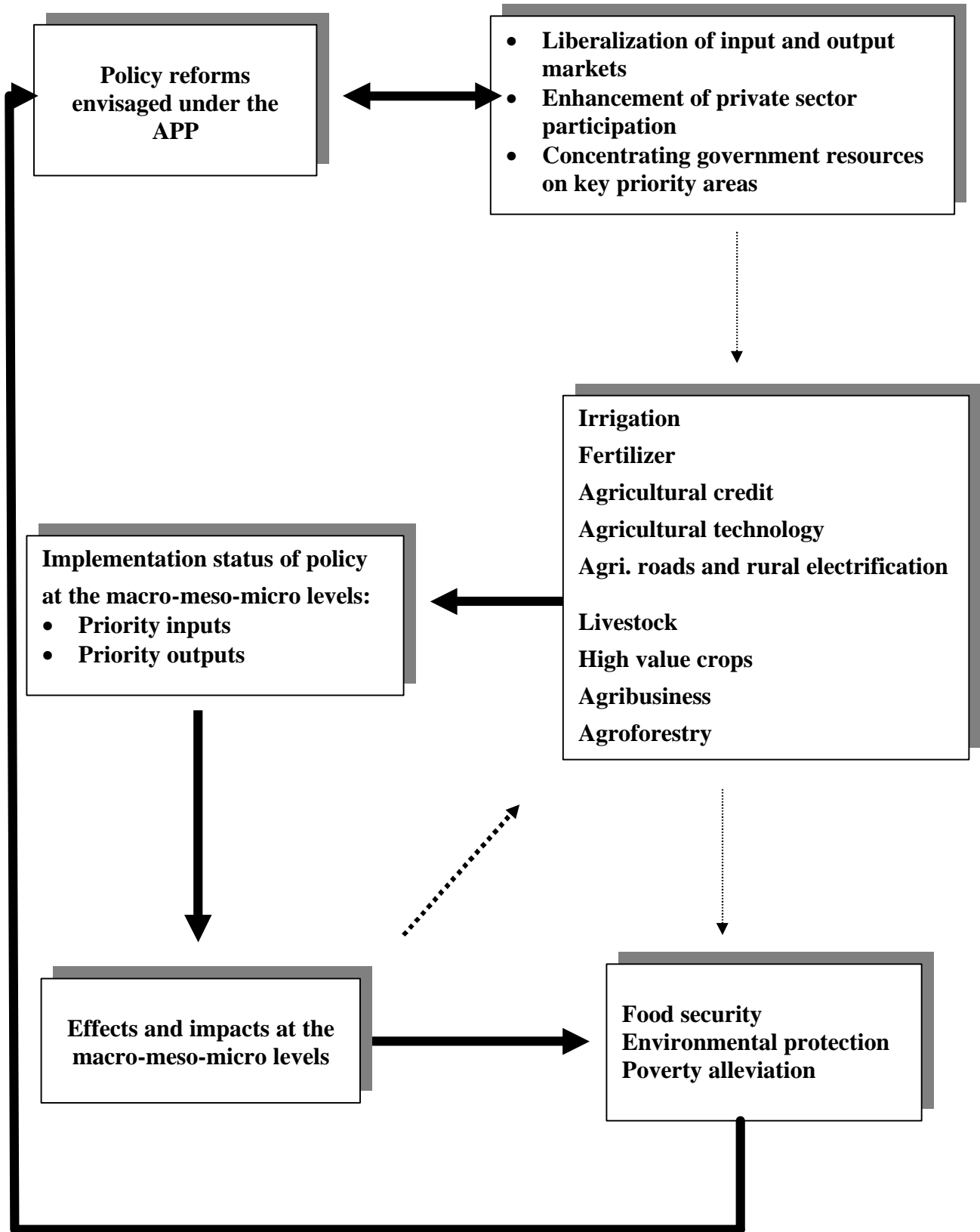
The conceptual framework presented in Chart 1 to analyse the policy feedback system in the agriculture sector is based on the logic that the implementation of the policy reforms at the macro levels reflects into changes in programme content, resource allocation pattern and institutional structure in the agriculture sector at the more micro level. This in turn leads to changes in the composition of inputs as well as outputs with its consequent effect and impact on the attainment of the overall goal of the APP, which is to achieve high and sustainable agricultural growth, ensure food security, reduce poverty and protect the environment. The extent to which envisaged policy reforms have contributed to attaining the goal depends on how the policies have been implemented, how seriously the effects and impacts of policies are monitored at the macro, meso and micro levels as well as how policies are corrected based on feedback mechanism.

7.2 An Overview of the Implementation Status of Envisaged Policies

Macrolevel policy reforms envisaged by APP encompass liberalization of agriculture wherein private sector plays an increasingly greater role and entail removal of public interventions that distort markets, thus reserving government resources for key areas with high growth potential. An overview of the implementation status of envisaged policy reforms presented in chapter 4 reveals mixed outcomes.

In the context of liberalizing the agriculture sector, progress in policy has been spotty. While steps taken to remove government interventions that distort agricultural inputs markets have been satisfactory, government continues to intervene in output markets in different forms and at different extents. The monopoly of certain public sector institutions in dealing with agricultural inputs has been broken by bringing private sector into the business while subsidies on fertilizers and shallow and deep tubewells have been removed. Market forces now determine the prices of fertilizers and STWs. In a similar manner, financial intermediaries dealing with agricultural credit have increased with conversion of more SFDPs into SFCLs while there are currently more NGOs and CBOs involved in mobilizing local resources through facilitation of saving and credit schemes. Market forces, to a large extent, now determine rural saving and lending rates of financial institutions. In relation to output, meanwhile, though some government actions such as the removal of interdistrict movement of livestock and livestock products have had a positive impact, delays in the privatization of public sector institutions dealing with agricultural products (e.g. food grains, dairy products and tea) continue to distort markets.

Figure 7.1: Framework for Policy Feedback Analysis



Policy feedback mechanisms and processes

The status of policies intended to create an environment conducive to private sector participation has also been mixed. While government's decision to cut down electricity rates for agro-industries such as those relating to cold storage has opened avenues for increased participation in the agroprocessing sector, slow progress in concentrating state resources on agricultural roads and rural electrification programmes has hampered commercialization of the agricultural sector. As a result, faster market led growth of livestock and high value crops targeted under the APP has been constrained. Government efforts to encourage private sector involvement in the forestry sector have brought about changes in forestry policy. The new forestry policy has redefined community roles in light of the changing nature of community forestry development and has allowed forest plantation on private lands and leasehold forestry on degraded government forests.

Policies aimed at redirecting government resources to key priority areas of agricultural research have reflected changes in the structure of research projects at the NARC, although progress has been far from satisfactory. While research projects focused on APP priorities increased from about 547 in 1997 to 687 in 1998, research work on APP non-priority areas declined from 182 projects in 1997 to 155 in 1998. Similarly, rechanneling of government resources to sectors that support private sector development have been slow. This is particularly true in case of supporting NGOs and farmers groups via programmes designed to strengthen their technical know-how and managerial capacity.

7.3 An Overview of Effects and Impacts

The effects and impacts at the meso and micro levels of the macro policy shift from one of greater state control over inputs and outputs markets to a deregulated regime have also been varied. The deregulated fertilizer market, for example, initially led to an increase in imports as well as to improved availability of the input in accessible areas. However, less accessible locations, particularly in the midwestern and far western development regions and the hills and mountains, suffered due to the lack of capacity of and weak incentives given to private sector for the distribution of fertilizers to these areas. After four years of policy implementation, the positive impact of the new policy initially evident at the macro level and to some extent at the meso level began to erode due to new and emerging problems. Private firms stopped importing fertilizers after government's decision to eliminate the subsidy on urea effective November 1999, worsened by rising international prices, continued devaluation of Nepalese currency against the dollar and the illegal flow of fertilizers from India at low prices. Fertilizer shortages hence resulted at the macro, meso and micro levels in 2000. While this occurrence helped raise the question of sustainability of such a policy at the macro level, it became a challenge to the government to seek new options to deal with the problem.

In like manner, removal of subsidies on shallow tubewells led to a decline in the number of well installations at the farm level. While removal of subsidies increased the effective cost of well installations to individuals, failure of government and public sector institutions that deal with tubewell distribution to reduce the cost⁶⁰ and adopt effective marketing strategies discouraged individuals from installing such

⁶⁰ It was reported in Kailali that obtaining a STW by an individual from ADB/N and Groundwater Development Office.

facilities. Lack of preparedness of the government in dealing with problems that crop up in policy transition has created grounds to question the appropriateness of policies adopted while the absence of a well-defined feedback system hinders policymakers from correcting problems in a timely fashion.

In the agricultural research and extension sector, the impact of the policy shift from one of spreading research resources over a large number of projects to only a few, priority-focused areas has been manifested by the higher number of research projects in APP priority areas at the macro level. Confusion, however, still looms at the meso levels and, mostly among scientists, because of the lack of clear guidelines and criteria in project selection and resource allocation.

No perceivable changes have been noticed in the integrated delivery of inputs and technical advice following the PPP strategy. Instead, attempts to concentrate extension resources to priority areas in potential commodity pockets have been inappropriately understood. It has thus generated fears among district technical staff that may have an adverse impact on food security at the district level. Such alarm is an outcome of government's direction to spend 60 per cent of extension resources to pocket areas, which at the moment do not exceed 3 per cent of district programme areas. Complaints by district offices about the ill effects of the policy shift have so far been virtually unheard at the centre, where decision-making power resides⁶¹.

With regard to improvement of agriculture roads, the effect has been good at the micro level but such impacts are limited to just a few pockets. Impacts on input and output markets at the meso and macro level are hardly visible due to the meager size of the programme.

The effects and impacts of a policy shift on the output sector have also been diverse. Improvements in the food security situation in terms of increased production of food crops and high value commodities including livestock products have been evident at the macro and meso levels although with variations at the meso levels and without any significant dent at the micro levels. The midwestern and far western areas among the five development regions and the mountains among the three ecological belts have generally lagged behind.

Although the positive impacts seen at the macro and meso levels could have some effects at the more micro levels, such improvements seem insignificant when food security at the four micro study sites is considered. No perceivable mechanism to monitor the effects and impacts of policy or to solicit effective feedback seems to be in place to spur corrective action. The observed positive effects of a change in policy at the macro level have not been significant as to be visible in terms of meso level indicators such as prices of agricultural commodities, relative prices and the structure agricultural imports and exports. This clearly indicates that greater focus is required for the effective implementation of APP policies. Government's initial effort to develop its capacity to effectively monitor implementation of the APP in its first two years, which was assisted by AsDB Technical Assistance (TA), had been eroded after

⁶¹ This direction was observed as being misunderstood at the field level. Government's direction, in fact, meant to expand the PPP to such an extent in the district that absorbs 60 percent of DADO's annual budget. However, DADOs in the district misunderstood this as a directive to spend 60 percent of its resources on the PPP irrespective of the number and size of pocket programmes.

the termination of the TA. Further, whatever experience was gained during TA implementation was also not maximized when the responsibility of monitoring APP implementation was transferred to the MOAC from the NPC in March 2000.

7.4 Major Problems, Challenges and Recommended Actions

7.4.1 Irrigation

7.4.1.1 Major problems

Contribution of groundwater development – mostly through STW development – to total area planned for irrigation development during the Ninth Plan period amounts to about 52 per cent⁶². Attainment of irrigation targets set by the APP thus depends largely on progress made in STW installation. This is because surface schemes prioritized by the APP mainly comprise improvement and rehabilitation of small farmer-managed schemes, a number of which are being implemented with the assistance of donors .

Meeting the APP's irrigation development targets by way of groundwater exploitation depends mainly on the STW installation rate, which has drastically declined in the first three years of APP implementation. Several factors are held responsible for the declining rate of groundwater exploitation in the initial year of APP implementation. These include the high cost of STWs through institutional sources, low quality of STW technology, inappropriate farming practices yielding low returns to STW installation, low coverage caused by excessive land fragmentation, lack of adequate supply of trained manpower for STW repair, inadequate credit supply and shortage of drilling facilities.⁶³

7.4.1.2 Existing challenges

Attaining APP targets for STW installation is a great challenge especially after the subsidy on STWs is withdrawn while that on alternative means of irrigation development is continued⁶⁴. Increasing the uptake rate of STWs in the face of zero subsidies is hence the main challenge.

7.4.1.3 Recommended actions

In view of the gradual decline of STW installation with capital subsidy removal, it is high time for the government to review the performance of its groundwater development programme, in general, and its STW programme, in particular, to identify major constraints. Such information will be useful to policymakers in taking corrective action to mitigate adverse effects of recent policy decisions. More

⁶² This proportion is around 63 percent of the targeted area in the *Terai*.

⁶³ For elaborate discussion, refer to the "JMA/APROSC: Nepal Agricultural Perspective Plan-Implementation Status and Future Actions: Irrigation Sector", IAU/NPC, 1998.

⁶⁴ Surface irrigation, be it in the *Terai* or any other parts of the country, is heavily subsidized. This makes surface irrigation more attractive to the farmers than STWs or DTWs.

specifically, there is a strong need to assess the cost structure of STW installation through institutions such as the ADB/N as well as the groundwater programme of the government, which farmers feel to be very high compared to the installation rate of STWs bought from India. It is logical for anyone to expect a decline in STW installation after subsidy withdrawal. However, this decision was not paralleled by actions by concerned institutions to either reduce the cost of procurement and installation of STWs or pursue aggressive marketing strategies. Equally important is the need to provide financing institutions with adequate funds to provide credit to STW programme. Increasing the efficiency of STW use by adopting modern farming techniques is another area requiring attention. This has to come in the form of a package programme for each of the districts in the *Terai*. It is therefore recommended that districts be immediately prepared and blocks in the *Terai* districts identified for tubewell development and that a long-term plan be prepared and implemented.

7.4.2 Fertilizer

7.4.2.1 Major problems

The government has been exerting effort to free fertilizer trade for almost three years and has achieved some results. The private sector is now allowed to import fertilizers from the world market while subsidies have been removed completely on all fertilizers. Prices are now determined by the market, and government intervention in fertilizer trade has been discontinued. The AIC is treated equally as any private entity in the business and its role in the agricultural input trade has been redefined. With this trade liberalized, the importation and distribution of fertilizers has improved.

However, with the liberalization process underway for four years, several issues have already surfaced in the fertilizer sector. Four major problems confront the fertilizer sector at present. First, despite the fact that the government has shown its commitment both in policy and action towards full liberalization of fertilizer trade, the private sector still lacks full confidence in the government. This has been the result of government's past actions that contradict the policy (e.g. the case of DAP in 1993) and its indirect influence in distorting the fertilizer market even after November 1997 (i.e. by influencing AIC prices). The second problem, which surfaced more visibly after 1997, is the unauthorized flow of low quality fertilizers from across the Indian border⁶⁵. The third problem is that fertilizer prices in the international market have increased after November 1999, a time when government completely removed the urea subsidy. The rising trend of fertilizer prices in the international market also coincided with the continued devaluation of the Nepalese currency, raising the cost of fertilizer imports. The fourth problem that has emerged is the weak supply of fertilizers in remote areas in the hills and the mountain districts where government provides transport subsidy, which so far has been managed by AIC. All these developments might result into a decline in private sector participation in the fertilizer trade.

⁶⁵ Laboratory analysis of fertilizers imported by the private sector from different sources indicates that urea imported from India has low nitrogen content (but not spurious) while all DAP samples of Indian origin were spurious and substandard (Basnyat, 1999).

7.4.2.2 Major challenges

The APP identifies fertilizer as a prime priority input essential to realizing the targeted level of growth in the agriculture sector⁶⁶. To achieve the plan's objectives, the major challenge thus lies in developing full confidence of the private sector in the government, which must display full commitment both in spirit and action towards fertilizer trade liberalization and provide constant monitoring of fertilizer imports for quality assurance.

7.4.2.3 Recommended actions

For continued participation of the private sector in fertilizer trade, it is imperative that government regain the confidence of the private sector and convince the latter of its commitment to the deregulation policy. This would require involving the private sector in major policy decisions and demonstrating through concrete actions that the private sector is indeed given equal treatment as public sector institutions (e.g. AIC and the National Trading Limited). Every effort must be made to adopt strict measures that control the illegal flow of fertilizers from India. It is also urgent that the Nepalese government negotiate with the government of India to formalize these fertilizer imports. To deal with the problem of quality, the fertilizer unit in the MOAC should be strengthened to enable it to strictly implement the Fertilizer Control Order (1999) and its first amendment 2000.

Given the problem of a possible decline in private sector participation in the local fertilizer trade, government must take immediate action as regards importing fertilizers from India through government-to-government negotiations involving all interested parties. To address the problem of poor fertilizer supply in remote hill and mountain areas, meanwhile, the state should continue to support farmers by making required fertilizers and inputs available through launching of special agricultural development programmes as it is doing presently. In a similar manner, every effort should be exerted to reduce import costs by providing fertilizer importers information on domestic demand and international prices and by supplying other incentives such as tax concessions on income from fertilizer trade and easy access to institutional credit. Likewise, the government must launch intensive training programmes for farmers to increase the efficiency of fertilizer use and should come out with a policy that can convince the private sector of government's commitment towards fertilizer deregulation. A fertilizer act to deal with the fertilizer quality problem is also very much needed.

7.4.3 Agricultural credit

7.4.3.1 Major problems

Lack of funds with the lead bank – the ADB/N – is a major constraint to financing APP priorities⁶⁷. Despite improved financial performance after implementation of its 1997 reform programme

⁶⁶ Targeted fertilizer growth during the APP period is expected to account between 33 to 44 percent of agricultural GDP (AGDP) growth.

⁶⁷ Credit disbursed to APP priorities has fallen short by almost 35 percent in the first two years of APP implementation.

(Shrestha, 2000), the ADB/N has not been able to obtain external resources. Unless ADB/N is provided with such funds, it will not be able to disburse the volume of credit targeted by the APP. In addition, there is no lead agency at present to oversee the overall aspects of STW installation. The ADB/N, which had played a pioneering role in popularizing STWs, has now been relieved of its role as lead agency for STWs. So far, no other agency has come forward to fill this gap. No other single agency has the combined technical, managerial and financial capability to launch an aggressive STW programme, which is the prime focus of APP strategy for the *Terai*.

7.4.3.2 Existing challenges

Provision of adequate institutional credit to finance APP priority input and output sectors remains a difficult hurdle. Equally challenging to financial institutions is the need to find ways to reduce the cost of STW loans, which may require aggressive promotion campaign to counter the likely adverse impact of subsidy elimination.

7.4.3.3 Recommended actions

The government should facilitate the provision of external resources to the ADB/N so that it can fulfill the credit requirements of APP priorities. This implies that the bank continue improving its performance to convince prospective donors that it is independent of the government when making development and business decisions. At the same time, the bank has to find strategies to reduce the cost of credit through improved performance and efficient marketing. To be competitive, the bank has to bring down the cost of STW installation to levels almost at par with that in India. Since most of the STWs are financed by loans, it is urgent that the bank be made lead agency in the STW programme. For this, the bank has as its advantages its long term experience and wide network.

7.4.4 Agriculture research and extension

7.4.4.1 Existing problems

The existing system of classifying research programmes under the NARC makes it difficult to match research topics with APP priorities. Research projects are often classified based on commodities and disciplines, not interdisciplinary themes. The nature of the project is sometimes ambiguous and the contents too broad to relate with APP priority areas. This points to ample scope for improving the contents of research proposals to conform to the APP priorities⁶⁸. There is a strong possibility of including research projects not related to APP priorities under a broad category simply defined as "high value commodities," which may include fishery, pig, poultry, sheep, mushroom, spices and other items not on the APP priority list. This is a major problem in agricultural research as far as APP priorities are

⁶⁸ The classification of research projects into APP priorities and others in Table 3.7 is a tentative list created by counting the projects related to APP priority areas. There is no system as yet for classifying research projects as APP priority project and general projects.

concerned. Another problem of system is that coordinated networks and interdisciplinary teams of scientists do not exist at the regional research facilities of NARC except at Lumle and Pakhribas.

In the extension front, the APP strategy for technology development and dissemination follows the lead of the PPP in directing priority inputs towards priority outputs. Although the government has adopted this scheme, the strategy has several flaws. First, the participation of stakeholders has not been sought in the process of delineating the pocket areas. Second, the programme has not been backed up by full commitments from concerned line agencies dealing with priority inputs and outputs. Third, pockets selected have in many cases been very small and highly variable. Fourth, comparative advantages due to agroclimatic conditions have not been considered in defining programme components. Fifth, associated programmes (particularly those related to soil fertility, intensification of production systems, pest management, on-farm demonstration and farmer's training) have not been properly linked to the pocket programme. Redirecting the efforts of the NARC and the MOAC to correcting these lacunae in the programme is but another major challenge that must be confronted to achieve the targets of agricultural growth envisaged by the APP.

7.4.4.2 Major challenges

The major challenges in streamlining agricultural research and extension system are many. Primarily, these involve matching NARC's priorities with APP priorities through a shift in the existing system of research planning, promoting a coordinated approach by forming multidisciplinary teams of scientists and overcoming shortcomings associated with the present PPP planning and implementation.

7.4.4.3 Recommended actions

The NARC should prepare a long-term plan for agricultural research by classifying research topics as either APP priority projects or general research projects. This would then facilitate other programmes supporting the NARC such as the Hill Agriculture Research Project (HARP) funded by the Department for International Development (DFID) and the Hill Maize Research Project of the International Maize and Wheat Improvement Centre (CYMMIT) funded by the Swiss Development Corporation (SDC) and allow streamlining of competitive research programmes to APP priorities. As part of the long-term research programme, the NARC should gradually create coordinated networks of interdisciplinary teams of scientists at its regional research stations. Similarly, all the districts should prepare their long-term agriculture plan and identify programme areas to facilitate the determination of research as well as extension priorities. This would then provide the DADOs a strong basis to demand required resources and help the MOAC plan and seek the required external resources to finance APP priorities.

7.4.5 Agricultural roads

7.4.5.1 Major problems

The newly created DOLIDAR under the Ministry of Local Development (MLD) is responsible for implementing all projects related to rural and agricultural roads in the country. Though at first glance the rural and agricultural roads appear to be similar in nature, there is a subtle difference between the two not fully appreciated so far. While rural roads can be constructed anywhere in the district upon demand of political leaders and or local people, agricultural roads are technical in nature and can be built only in areas that meet a set of well-defined criteria. This fact is not recognized in practice and the two types of roads are mostly treated as belonging to the same category.

7.4.5.2 Major challenges

Differentiating agricultural roads from rural roads and proper identification of agricultural roads in each of the district are the two major tasks the newly established government agency, the DOLIDAR, must accomplish.

7.4.5.3 Recommended actions

It is urgent that the DOLIDAR together with the DOA prepare a set of criteria to define agricultural roads and identify in each district a number of such roads to be constructed over the APP period. This implies the need for a long-term agricultural development plan for each district. Without such a plan, it would not be possible to identify agricultural roads at the district level.

7.4.6 Rural electrification

7.4.6.1 Existing problem

The rural electrification programme under the APP is designed to promote groundwater irrigation in the *Terai*. Lack of information on areas for DTW and STW development over a period of time is a major problem in diverting government rural electrification programme to match APP priorities.

7.4.6.2 Major challenges

One major challenge faced by government to meet stated objectives involve identifying and delineating areas in each of the *Terai* districts with potential for groundwater development in the form of surface irrigation, DTW irrigation and STW irrigation. Another entails diverting resources under government's rural electrification programme to these areas.

7.4.6.3 Recommended action

As part of its district-based long-term agricultural development plans, the government must first identify areas in each district suitable for DTW and STW development and then proceed to concentrate the rural electrification programme towards these areas.

7.4.7 Livestock development

7.4.7.1 Existing problems

Five major problems confront livestock sector development as per APP targets. First is the absence of much-needed credit facilities for poor farmers and tax waivers on livestock and livestock products. This has affected the pace of commercialization of cattle and poultry farming and feed production. Second, progress has been slow in the growth of livestock feed sector. This has compelled farmers to opt for traditional feeds such as straw and rice bran. Third, the limited capacity of the government to produce improved livestock breeds has rendered the sector dependent on foreign countries for improved breeds of livestock. Often, importing improved breeds from nearby countries is disallowed, as is the case with India, which does not allow export of buffaloes. Fourth, despite government's effort to involve the private sector in the provision of livestock health services in rural areas, the level and quality of services provided are inadequate and low. This problem coupled with ineffective livestock insurance services has made private sector investment in the sector risky thereby affecting commercialization. Fifth, livestock extension and training have always remained below the level required for rapid commercialization. This is due primarily to lack of trained manpower.

7.4.7.2 Major challenges

While increasing public sector investment to the level planned for the Interim APP period is an imperative, realigning livestock sector investments towards APP priorities in the livestock sector is also required.

7.4.7.3 Recommended actions

Due emphasis on APP priorities for livestock development can only be given when district-based long-term agricultural development plans are prepared and implemented. Once such plans are prepared, the five major problem areas in the livestock sector are automatically addressed.

7.4.8 High value crops

7.4.8.1 Major problems

The increased pace of commercialization of HVCs involves an integrated approach to production, post-harvest operations and marketing. These three must be dealt with simultaneously as isolated efforts

in one sector not only leads to wastage of resources but also leaves serious doubt on the part of actors regarding the success of the HVC programme prioritized under the APP. Despite considerable progress made in the implementation of the HVC sector programme in the first three years of APP implementation, several constraints in the areas of production, post-harvest operation and marketing impede full-scale attainment of APP vision.

A number of constraints are apparent in the production front. First, development of production blocks remains weak in terms of both size and alignment along major highways. Unless sizable blocks are planned, one cannot take advantage of scale economies to maximize commercialization efforts. Second, hardly any irrigation schemes have been planned and implemented so far to meet the requirements for vegetable and fruit crops, indicating problems in targeting irrigation development for HVC promotion. Irrigation projects planned are generally based on cereal grain production⁶⁹. Third, the DOA lacks a specific HVC focus on districts. As before, the attention given by the DADO to the HVC programme is limited merely to paper. There has been no significant effort made to actually allocate additional manpower and budget to any of the potential HVCs in the district. Fourth, farmers groups formed to take up commercial scale production of HVCs are weak in terms of technical knowledge, skills in post-harvest operations and marketing management. Their capacity to manage production inputs in package form and link production with markets is at the moment poor and clearly require external support. Poor packaging systems, lack of proper means of transportation and bad road conditions in addition to poor cold storage facilities are major constraints in terms of post-harvest activities. In the marketing front, absence of an efficient markets information system both for domestic and export markets, lack of quality consciousness and poor transportation conditions are what hamper progress.

7.4.8.2 Major challenges

Addressing the above-mentioned constraints in the production, post-harvest and marketing sectors in a timely and well-planned manner is the key to making the HVC programme envisaged under APP a reality.

7.4.8.3 Recommended actions

An integrated plan of action for the development of the HVC sector over the APP period must be prepared and implemented for each of the district. These must integrate production, post-harvest and marketing programmes.

⁶⁹ Irrespective of whether irrigation projects are planned for cereals or for other purposes, areas linked with road and markets get easily converted into vegetable pockets provided that efforts are made to package other essential inputs such as along the Pokhara-Baglung Road where a local NGO-CRDC has been operating (Pradhan, 1998).

7.4.9 Agribusiness

7.4.9.1 Existing problems

Apart from the general constraints faced by HVC producers, major constraints confronting the agribusiness sector involve the lack of an institutional framework as well as capacity to promote and constantly support agribusiness. The newly formed APD within the MOAC, which was later merged with MOAC's statistical division, for instance, lacks both manpower and facilities. Other major problems are the inadequate project development facilities both at the centre and in districts, low level of managerial skills among prospective entrepreneurs and absence of training facilities.

7.4.9.2 Major challenges

Given the inadequacies of the institutional framework, it is important to strengthen the APD both in the centre and outside to enable it to provide required technical, managerial and financial assistance to the private sector. This a very important task in the context of promoting the agribusiness subsector and is vital for the successful implementation of APP priorities (i.e. HVC and livestock programme).

7.4.9.3 Recommended actions

The APD within MOAC needs to be reestablished as a full-fledged division and reinforced in terms of both manpower and financial resources. An APD should be created in each of the regional agriculture and livestock directorate. The division should be provided with a pool of qualified officers in production, post-harvest and marketing management supporting Agribusiness Promotion Officers posted in districts with high potential for both HVC and livestock development.

7.4.10 Forestry

7.4.10.1 Existing problems and challenges

Great strides have so far been made in community forestry in Nepal. Recent progress, however, has been slow due to lengthy handover procedures and weak post-formation and institutional support provided to FUGs. Efforts of the government and others working in communities have mostly been concentrated in activities leading to handover of community forests with very little support and assistance provided to strengthen and empower FUGs. This traces to limited staffing at DFOs as well as the lack of facilities and incentives offered to employees to render proper monitoring of community forestry activities. Another problem with the community forestry at present concern the gaps in policy. Current forest policy does not provide FUGs with adequate authority to penalize non-FUG offenders. It does not limit the forestry area and number of households within FUGs. It also does not allow dissolution of FUGs based on poor performance. To make community forestry a successful means of forest management, the major challenges to government lie in strengthening DFOs both in terms of additional staff and facilities and meeting policy gaps.

Poor extension facilities and reluctance of DFOs to register private forests are the major obstacles to the growth of private forestry. The dilemma resulting from the present forest policy, which still provides enough incentives to people to continue their dependence on national and community forests, is another major hindrance. As such, the Ninth Plan does not have any specific policy and strategy on private forestry while the government's forestry department has not set programme targets for private forestry development. Instead, it is seen as a supportive programme of community forestry. Inadequate social mobilization, the absence of regular institutional and technical assistance by line agencies and lack of monitoring and evaluation systems also constrain rapid growth and expansion of private forestry. The major challenge of government in developing a strong private forestry thus lies in the formulation of an effective forestry policy and implementation of this policy with proper institutional support.

In the leasehold forestry sector, major problems have to do with lengthy procedures for identification, selection and approval of areas. The existing legal framework for leasing forest land is suitable only for industries or institutions. The legal provision relating to lease approval is very cumbersome; the application must pass through long bureaucratic procedures starting from getting community consensus at the village level, to the DFO's scrutiny and finally to approval from the MOFSC. Also, existing forest rules are not clear and do not provide any format for the preparation of an operational plan for leasehold forests. In addition, no mention is made about renewal of such an operational plan. Hence, in the absence of clear policy guidelines, acceptance or rejection of lease application by the MOFSC depends largely on the wishes of government officials. As with private forestry, inadequate social mobilization of leasehold groups, lack of regular institutional and technical assistance offered by line agencies and dearth of monitoring and evaluation systems have led to ineffective implementation of intended programmes. Poor understanding of the leasehold concept by the community as well as programme staff and unnecessary political and social interference have further exacerbated the problem. Government's major tasks thus entail formulation of an appropriate policy and legal framework and strengthening of DFOs and other related agencies such as the ADB/N and livestock offices to enable them to provide coordinated support.

In the soil and water conservation sector, major problems again relate to legal provisions supporting government policy. Although there is a clear strategy to involve local people in soil conservation activities, this has not been duly incorporated in the existing Soil and Watershed Conservation Act and Rules. As a result, conservation committees are registered in district offices as NGOs. The District Soil Conservation Office has no control over the process and registration is often a time-consuming process. Given that the concept of people's participation in soil conservation and watershed management is a new concept, inadequate social mobilization coupled with poor institutional and technical assistance are major deterrents to the programme concept. An appropriate legal framework to facilitate effective people's participation and technical assistance provision must clearly be developed.

7.4.10.2 Recommended actions

The DFOs should be strengthened in terms of additional staff and facilities, and policy gaps should be met particularly in terms of limiting the community forestry area and households within community forestry areas. Likewise, FUGs should be provided with adequate authority to penalize

offenders that are not part of the group. DFOs must also be reinforced to effectively plan and implement the private and leasehold forestry programme in the country's districts.

REFERENCES

- APROSC/JMA. 1995. *Nepal agriculture perspective plan*. Agricultural Projects Services Centre. Kathmandu, Nepal and John Mellor and Associates, USA.
- AsDB. 1997. *Nepal second agriculture program loan*. MOU of the Appraisal Mission. Asian Development Bank, Manila, Philippines.
- AsDB/HMF-N. 1982. *Nepal agricultural sector strategy study: Volume II. Detail sector review and analysis*. Asian Development Bank, Manila, Philippines and His Majesty's Government of Nepal, Kathmandu, Nepal.
- Basnyat, B. B. 1999. *Meeting the fertilizer challenge: A study on Nepal's fertilizer trade liberalization programme*. Winrock International, Kathmandu, Nepal.
- CBS. 1994. *National sample census of agriculture Nepal, 1991/92 highlights*. National Planning Commission. Kathmandu, Nepal.
- CBS. 1996. *Statistical pocket book-Nepal*. National Planning Commission. Kathmandu, Nepal.
- CBS. 1998. *A compendium on environmental statistics*. National Planning Commission. Kathmandu, Nepal.
- CEPRA. 1998. *Nepal: Public sector expenditure review of the agriculture and the rural development sector*. Centre for Policy Research and Analysis. Kathmandu, Nepal.
- DFAMS. 1986. *National farm management study*. Department of Food and Agricultural Marketing Services, Ministry of Agriculture. Kathmandu, Nepal.
- DOA. 1999. *Agricultural marketing information bulletin-Special issue*. Marketing Development Directorate. Lalitpur, Nepal.
- FAO-Bangkok. 1999. *Selected indicators of food and agriculture-Asia Pacific Region*. FAO Regional Office. Bangkok, Thailand.
- Ghayur, Sabur. 1994. *Employment generation and poverty alleviation in South Asia: Existing situation, issues and suggested measures*. In Gayur, Sabur, ed. *South Asia Employment Generation and Poverty Alleviation*. Friedrich Ebert Stiftung, Islamabad, Pakistan.
- HLHFFDP. 2000. *Annual report of hill leasehold forestry and fodder development project*. Department of Forest. Kathmandu, Nepal.
- HMG/N and Government of Canada. 1986. *Land utilization report*. Land Resources Mapping Project. Kenting Earth Science Limited, Canada.
- ICIMOD. 1997. *Districts of Nepal, indicators of development*. International Centre for Integrated Mountain Development. Kathmandu, Nepal.
- JMA/APROSC. 1997. *Nepal interim agriculture perspective plan*. John Mellor and Associates, USA and Agricultural Projects Services Centre, Kathmandu Nepal.

- MOF. 1997-2000. *Economic survey 1996/97-1999/2000*. Ministry of Finance. Kathmandu, Nepal.
- MOAC. 1995-1999. *Annual reports 1995-1999 (different issues)*. Ministry of Agriculture and Cooperatives, HMG/N. Kathmandu, Nepal.
- MOAC. 1995/96-1999/2000. *Statistical information on Nepalese agriculture (different issues)*. Ministry of Agriculture and Cooperatives. Kathmandu, Nepal.
- MOAC. 2000. *Status of agro-enterprises in Nepal*. Ministry of Agriculture and Cooperatives. Kathmandu, Nepal (In Nepali).
- MOF. 1995-999. *Red book (budget details)*. Ministry of Finance. Kathmandu, Nepal.
- NARC. 2000. *Assessment of NARC project proposals: An exploratory study*. Nepal Agricultural Research Council. Lalitpur, Nepal.
- National Planning Commission. 1998. *The Ninth Plan (1997-2002)*. National Planning Commission. Kathmandu, Nepal.
- NPC. 1993. *A survey of employment, income distribution and consumption pattern in Nepal*. National Planning Commission. Kathmandu, Nepal.
- NPC. 1996. *Nepal living standards survey*. National Planning Commission. Kathmandu, Nepal.
- NPC. 1999. *Nepal labour force survey*. National Planning Commission, Kathmandu, Nepal.
- NSAC. 1998. *Nepal human development report*. Nepal South Asia Centre, Kathmandu, Nepal.
- Pradhan, Tika. 1998. *Nepal agriculture perspective plan: Implementation status and future actions-high value crops*. JMA/APROSC. Kathmandu, Nepal.
- Tamrakar. 1998. *Consultants report on fertilizer policy in Nepal*. FADINAP. Bangkok, Thailand.