

CHAPTER VIII

CONSTRAINTS AND CHALLENGES TO FOOD SECURITY AND STRATEGIES FOR IMPROVING FOOD SECURITY SITUATION OF THARU ETHNIC COMMUNITIES

This chapter enlightens existing development program and activities for the support of agricultural development in Nepal and the study area are mentioned. At the end of chapter, perceptions of Tharu community's farmers and different organizations on constraints to food security and proposed strategies for improving food security and livelihoods of Tharu ethnic communities are documented and investigated.

8.1 Existing development program and activities for the support of agricultural development in Nepal

Development programs, in general, and those in agriculture, in particular, designed and implemented for improving the socio economic conditions in the rural poor and socially deprived communities, have met with limited success, in many developing countries like Nepal. This could be attributed to the fact that many such programs, by and large, have been planned and implemented based on the perception and understanding of development agencies. The target communities have not been adequately involved in the overall process of planning and implementation of the programs. The people's needs and aspirations could not be duly addressed, and as a consequence, thereof, the development efforts suffered in respect to some key aspects

like smoothness of implementation, realization of specified objectives and sustainability of programs.

Table 8.1 Existing development program and activities of Nepal

Development sub-sector	Responsible line ministry	Programs and activities carried out by	
		Central level	District level
Agriculture Services	Ministry of Agriculture and Cooperatives	Facilitating availability of production inputs Policy formulation and support Technical advise and backstopping to the districts Budgetary provisions for the district programs National Priority Commodities	Agricultural and Livestock Extension Services District management of production inputs
Irrigation Infrastructure	Ministry of Water Resources	Large scale irrigation projects and its maintenance and repair Policy formulation and support Technical advise and backstopping to the districts Budgetary provisions for the district programs	Small irrigation Micro and non conventional Irrigation projects
Rural access	Ministry of Local Development	Strategic road and large bridges Technical advise and backstopping to the districts Budgetary provisions for the district programs Policy formulation and support	Agriculture road connecting production pockets and markets Rural roads Small bridges and culverts Trails and tracks
Rural energy	Ministry of water resources	Rural electrification Support to the use of electricity for agricultural purpose Technical advise and backstopping to the districts Budgetary provisions for the district programs Policy formulation and support	Micro-hydropower
Forestry	Ministry of Forests and Soil Conservation	Protection of forests Technical advise and backstopping to the districts Budgetary provisions for the district programs Policy formulation and support	Agro-forestry Private forestry All the activities required for sustainable farming systems
Land reform	Ministry of land reform and management	Facilitating the exchange of lands for consolidation purpose without transfer charges Budgetary provisions for the district programs Policy formulation and support	Land certification

Source: Compilation from secondary information, 2007

Public funded development programs can be divided into central programs controlled by central agencies and decentralized programs from the District Development Council headed by presidents of DDC which is implemented by district level line agencies or NGOs or private sectors (Table 8.1). A district where the periodic district development plan prepared and endorsed by the District Development Council; A district where the local government (DDC) has established to approve development programs and activities of all district level sub sectoral line agencies for the development after the Plan preparation. Some of central programs and activities are also done by respective district level line agencies themselves without consent of DDC.

8.2 Existing development program and activities for the support of food security of Tharu community in study area

District Agriculture Development Office (DADO), Dang established under the Department of Agriculture (DOA) and District Livestock Service Office (DLSO) established under the Department of Livestock service (DOLS) provide agricultural and livestock extension services through Agriculture Service Centers (ASC) and Livestock Service (LSC) at the Tharu community level. Apart from the public sector organizations, there are private service providers and some NGOs supporting agricultural extension activities in the study area (Table 8.2). These organizations work mostly with commodity groups either individually, through the funding of donor agencies or at partnership basis. These are primarily involved in the production and marketing of seeds, fruit saplings, fingerlings and supplying of sprayers, fertilizers, pesticides and agricultural tools so and so forth.

Table 8.2 Program and activities from different level in the study area

NGOs/ private service provider	Government organization	
	Local Level	District level
The production and marketing of seeds, fruit saplings	Technical support	Prepare district level program and activities
Supplying of sprayers, fertilizers, pesticides and agricultural tools	Group formation and community based organizations	Farmers visit/tour
Promoting social awareness, to encourage communities	One day training on the spot	Three days to one week training
Identifying local resources and encourage their maximum use.	Launching agricultural extension activities like demonstration and minikits.	Managing transportation facility for production input supply such as seed, fingerlings and saplings from resource center to local level office
Promoting and protecting Tharu indigenous cultures, knowledge and skills	Visit to farmer field	Support for small irrigation
Encourage income generation activities to form community saving groups	Select farmers for farmers visit and district and regional level training	Agriculture road and electricity

Source: Interviews and discussion, 2007

8.3 Constraints to food security

Understanding constraints to food security is a prerequisite for improving livelihood and food security in this community which is important to formulate, design and implement agricultural plan, policy, program and activities. The study has aimed to find out problems which are directly or indirectly responsible for food security of Tharu communities and identify new strategies for improving food security of Tharu ethnic communities.

8.3.1 Perceptions of Tharu community's farmers on constraints to food security

Rural problems are complex, interrelated and multidimensional. Farmers often become hesitant to articulate these problems clearly to outsiders. The design and delivery of effective programs requires a good diagnosis of rural problems within the general framework of agricultural development. Problem analysis is the diagnostic part of the whole agricultural development process. Besides this, our

experiences have repeatedly shown that farmers need to own “problems” and “activities” meant for them if they are to be sustainable. Problem analysis is a great challenge for extensionists. The basic need at present is to diagnose the problems, interest and concerns of the farmers and translate those into extension programs. For this, extension should tap farmers’ resources and utilize the rural farmer’s indigenous knowledge and traditional practices to plan and implement agricultural development programs.

Table 8.3 Perceptions of Tharu community’s farmers on constraints to food security

Constraints	Different perception by communities’ farmer												Aggregate Rank
	A	B	C	D	E	F	G	H	I	J	K	L	
Land tenancy	8	1	4	1	4	6	8	2	1	4	2	1	I (42)
Higher input price	2	3	5	2	2	5	7	3	3	6	3	3	II(44)
Unavailability of inputs	4	6	2	4	6	2	3	5	4	2	4	5	III(47)
Lower price of output	3	5	1	5	1	7	1	4	6	3	7	6	IV(49)
Inadequate irrigation facility	1	2	8	3	8	9	6	1	2	5	1	4	V (50)
Insect and pest	8	9	6	6	9	1	4	6	7	8	6	2	VI(72)
Political instability	5	10	7	8	7	3	5	8	9	1	10	9	VII(82)
Low wage labor	9	8	9	7	3	8	9	7	5	9	5	7	VIII(86)
Lack of technical knowledge	5	4	10	9	5	4	10	9	8	10	8	8	IX(90)
Land fragmentation	10	7	3	10	10	10	2	10	10	7	9	10	X(98)

Note: A= Satbariya, B=Shreegaun, C= Sisaniya, D= Falkapur, E=Ambarpur, F= Kachila, G= Syanigaun, H=Dibicahaura, I= Motipur, J=Surkedangi, K=Jhigne and L= Budhagaun

Source: Workshop, 2007

The researcher conducted community workshops and ranked constraints in the community together with the community. The frequency of problem on each problem was summed up to rank these constraints based on priority based constraints. The frequency of constraints in each community was added by priority scale from one to ten (one being the most important, 10 being the least important) and aggregated score to identify priority wise constraints.

Based on above constraints ranking method, land tenure, higher price of production input, unavailability of inputs, lower price of output, inadequate irrigation facility, insect and pest, political instability, low wage labor, lack of technical knowledge, land fragmentation respectively were ranked major constraints to food security in study sites (Table 8.3).

The majority of the farmers were found to have inadequate own land holding who have no land or lack of land for farming and rent land from land owner in the study sites. Owned land holding is not sufficient land for their subsistence. Consequently, it reveals that 79 percent of farmers need additional land which makes them dependence on others' land which can be one of the most important constraints in study area.

Production with respect to inputs, the government of Nepal formulated the National Fertilizer Policy 2002 building and sustaining private sector confidence in fertilizer deregulation and the government's commitment to the broader macroeconomic reform program. Developing and strengthening the required policy and legislative measures to support fertilizer deregulation, including the fertilizer policy and fertilizer control order, the government withdrawn price subsidy on all fertilizers. So farmers are feeling higher price of inputs now a days and applying low dose of fertilizer affecting production which is considered as most important constraint to food security. The Tharu farming communities are facing problems of shortage of chemical fertilizer in peak period of planting times. Due to unavailability of chemical fertilizer during peak period of rice planting time creates problem not to apply fertilizer in rice is less production of rice which is main sources of foods for those communities.

In the term of infrastructure, farmers who want to sell their crops face a poorly developed road and market infrastructure, limited storage capacity, and high transaction costs. Net returns from rice production are very low, and the marketing strategies of households earn little profit. Selling of crop especially rice was found immediately after harvest to pay the cost of production inputs to their land lords by tenant farmers. The cost of production inputs are shared by half by tenant farmers after harvest of the crop. The price of outputs is lower during harvest period of crops.

Irrigation as an input has made significant impact on agricultural productivity as well as in increasing cropping intensity in irrigated area. Irrigation is available especially in low land of study areas. The irrigation facility has full access only on 51 percent of land even though good sources of water in every community of the study area.

Most of farmers were found unaware about insect and pest due to less contact to extension offices. This problem was resulted to reduction on production. Political instability of country affected those communities due to lack of mobility and many days strike in the market. Vegetable farmers mainly affected due to lack of selling time in markets.

Most of Tharu people have lack of mobility to search good job outside the urban areas. Most of Tharu people have no vocational training and no technical skill so that they only do labor work. Wage labor is available within communities during season and outside community during off season period that has less wage rate as compared to other skilled worker. Some of the farmers are using local agricultural practices due to lack of technological knowledge which is one of constraints to food security on these communities.

Land resources are divided into different parcels of land due to land property inherited from parents to sons. The members in Tharu households are higher in members than other caste and ethnic groups. Through time, land is divided into parcels. This could be one of major constraints in those communities.

8.3.2 Different perceptions of organizations on constraints to food security

Based on ranking method mentioned earlier, the perception of four NGOs, four local agricultural extension offices, personnel of district level office and the central level office was identified and ranked. The government authorities' negligence (from local to central level), poverty, lack of infrastructure development, lack of people's participation and movements, lack of employment opportunity were ranked major constraints to food security in study sites from perception of staff of NGOs. Lack of awareness, low adoption of technology, low participation in development activities, conservative agricultural practices (technology plus consumption), lack of interest for group formation and poverty were ranked major constraints to food security in study sites from perception of staff of local level office where as lack of program and budget for marginalized community, poverty, lack of coordination for development activities, less personal contact to development agencies, lower production and lack of awareness were ranked major constraints to food security in the study sites from perception of staff of district level office. Finally, lack of allocation of budget on agriculture, poverty, education, lack of coordination with irrigation, lack of implementation and lower production were ranked major constraints to food security in the study sites from perception of staff of central level office.

8.4 Current challenges and opportunities for improving food security of Tharu communities in Nepal

The government has adopted agricultural extension strategies from group approach to disseminate improved technology. This approach has not been able to cover satisfactorily the very poor and very rich Tharu farmer due to lack of interest for participation in group which is one of the main constraints for improving food security of Tharu communities. Very poor Tharu farmers have no sufficient time to involve in group due to lack of enough time because they invest their more time for off farm activities to meet their basic needs and rich Tharu farmers do not like to involve in a group due to many rules and regulations. Some of the Tharu farmers have no interest to involve in groups due to low level of education and awareness toward new technology. The pocket package strategy adopted by APP focus only those farmers who have more land and other resources toward commercialization of agriculture so that this strategy could not cover most of Tharu farmers who have less resources and using subsistence farming.

Subsistence farming, and skewed land distribution with very small land holdings, poverty, lack of sufficient funds are also identified as constraints for agriculture development in Tharu communities. The development of infrastructure related to agricultural development such as irrigation, road and electricity through collective action by a number of stakeholders is also challenges in Tharu communities.

In the case of decentralization, the challenge is to show that more efficient and effective provision of agricultural services and facilities to Tharu farmers can be achieved if an increased number of programs are planned implemented and reached to

the hand of Tharu communities at the local level. The dangers are twofold: on one hand, programs might become the tool of local politicians to gain favor rather than contributing to agricultural development for target beneficiaries; on the other hand, coordination between local and central level in line agencies might be more difficult to achieve.

The weak implementation of act, plan and policy are also great constraints and challenges for improving food security of Tharu ethnic communities. In order to efficiently design and implement appropriate program and activities, well trained and experienced staffs are needed. As the main public funded development agencies, district level offices have had to face the challenge of attracting and retaining trained scientific staff, a deficiency which has affected the continuity and rigour of agricultural development programmes. The challenge for policy body is to mobilise, co-ordinate and guide human research resources.

In the case of participation, the challenge is to give voice to stakeholders, ensure accountability of implementation agents, and transparency of decisions, so that improvement in the livelihood of the Tharu communities' participants may result.

The danger is that the capacity in the government sector for effectively promoting a participatory approach is limited. Moreover, lip service to participation might result in ineffective programs and dissatisfied participants, thus negating the overall purpose of the approach.

Creation of realistic and appropriate opportunities is a key challenge of the extension system. Experiences have shown that the agricultural production and productivity of small farmers reached high levels when the necessary inputs and services were provided. In Tharu communities about 79 percent of the farmers are

small, with less than one hectare land holding size. Unless special attention is given to these small and marginal farmers, the extension system cannot succeed. Therefore, extension messages and programs should be adjusted or designed to match the needs of different target groups (small, medium, large or commercial farmers) and their corresponding resource endowments (high potential vs. low potential).

The maintenance and development of infrastructures, organizing local community, timely supply of seeds, fertilizers and pesticides, support to capacity building of the farmers, market support for the farm produces etc strategies can improve food security of Tharu communities. It is seen that extension service without the support for input supply services would not be valued by farmers. That is why this responsibility needs to be entrusted fully to the private sector. Government is now initiating this approach either through private organizations or companies or farmers groups / farmer's cooperatives.

Existing production systems of Tharu communities in the study area is in transition from subsistence to market oriented production. An extension marketing information program can help change farmers perspective as to the type of crops to be produced, enterprises to be taken up, post harvest practices to be followed, and the quality of goods to be produced. In this connection, extension has an important role to play for access to market information and identifying marketable products by Tharu farmers.

If the agricultural program and activities can be planned according to the need and demand of majority of people living in the district, such district level decentralized programs would be helpful to improve food security situation of those people who are food insecure. The root causes of food insecurity should be addressed

considering three components production, access and utilization by those programs and activities. Subsistence farmers must be mobilized to help identify, develop and adopt suitable technologies as well as to implement institutional reforms. Effective implementation of APP and NAP can play important role for improving livelihoods and food security situation of Tharu communities. Appropriate programs and activities should be identified and implemented to those communities which have less access to benefits from programs. To facilitate this, the district should be divided into clusters and sub-clusters covering whole marginalized communities based on definite, clear and transparent criteria, district agriculture development strategy should be formulated to identify and support poor, vulnerable and disadvantaged groups like Tharu communities.

8.5 Proposed Strategies for improving food security of Tharu communities

The analysis of farming systems, resource uses and livelihood pattern of Tharu farming communities and Tharu's household was done through household and community level survey. Key factors affecting food security situation of Tharu household was identified and analyzed. Different perceptions on constraints to food security were gathered among multi stakeholders (farmer level to policy maker) through community workshops and interviews. The following strategies were built upon the past achievements, the present constraints and recommendations for future.

The fundamental principles of the proposed strategies are the participation (leading to improved status of marginalized communities), decentralization (leading to effectiveness and efficiency on needy target population) and multi-sector approach (leading to infrastructural development by line agencies). These components are divided into following proposed strategies, programs and activities (Table 8.4).

Table 8.4 Proposed strategies for improving food security and livelihoods of Tharu ethnic communities

Constraints	Objectives	Strategies	Programs/Activities	Responsible agencies	Outcome
Lower productivity	Adoption of new technology	Effective group formation through involvement of community leader	Agricultural extension programs and activities Training	Ministry of Agriculture and Cooperatives and line agencies	Higher productivity
Higher price of production input	Provide input subsidies to marginal groups Provide credit facility at lower interest rate	Support marginal groups for input purchase Credit facility	Rural credit Subsidy for marginal group	Nepal Rastra Bank Ministry of Agriculture and Cooperatives	Credit available Fertilizer available
Lower price of output	Reasonable price of output by government	Fixing price of output by government	Guaranteed price of output by government	Ministry of Industry, Commerce and Supplies	Higher price of output
Unawareness	Enhance awareness	Develop community development facilitators from community	Develop community leader as community development facilitators	Indigenous institution and local office	Awareness about development and technology
Misuse of cereal for alcohol making	Discourage alcohol making	Initiate local community leader and institutions for reduction	Launch such programs from local community leader and institutions	Indigenous institution and local office	Reduction of alcohol making from cereal
Inadequate irrigation facility	Promote year round irrigation facility in irrigable land	Strengthen community based irrigation system Strengthen new irrigation facility Establish coordination with irrigation line agency	Enhance maintenance and rehabilitation of existing former irrigation systems Develop small surface irrigation facilities and ground water irrigation facility	Ministry of Water Resources, Department of Irrigation, Department of agriculture	Year round irrigation increased Additional irrigation facility increased
Low income	Commercial agriculture	Focus on high value crop	Off season vegetable program Spice production programs	DADO, DDC	Higher farm income
Land tenancy	Protect land right to tenants in future	Complete abolition of dual ownership replacing it with formal contract farming	Make legal contract with tenants	Ministry of Land Reform and Management, Parliament	Contract farming
Less participation in development programs and activities	Increase participation in different development activities	Group formation in different development activities Increase community contact to development activities through community leader	Face to face program among stake holder Focus on addressing development issues of communities	District level development line agencies	Higher involvement in development programs and activities
Low wage labor	Increase employment opportunities	Diversify employment opportunities	Vocational training Foreign employment Skill development programs	Development line agencies	Higher employment opportunities