

Agricultural Policy and its Impacts in Rural Economy in Nepal

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Introduction

Nepal is considered a high population density developing country and a very high population density per unit of agriculture land. Comparative analysis with the region shows that the Bangladesh and Nepal have the lowest land to labor ratio (0.22 and 0.29 respectively), compared to India (0.61), Sri Lanka (0.51) and Pakistan (0.81). Small holding size of high land fragmentation in Nepal is one of the main reported causes of poverty in rural area.

Nepal combines the status of least developed country, landlocked position between two giant protectionist countries (India and China), with attached castes system, armed conflict since 2002, very small farm size and high land fragmentation. The Agriculture Perspective Plan (1995-2015) defined agriculture as the engine of growth with strong multiplier effects on employment and on other sectors of the economy. In 1995, the Agriculture Perspective Plan (APP) sets the objective of increasing average AGDP from 3% to 5%, and agricultural growth per capita to 3%.

Statement of problem

The agrarian and social structure of Nepal did not evolve quick enough to cope with the increasing demographic density over resources (contrary to India, Bangladesh, Pakistan, and Thailand). Participation for change is too late on several fronts (implementation of land reform, intensification techniques, mechanization, commercial alliance, production and trade groups, niche markets, quality control, minimum farm wage policy and monitoring etc.). Given the deeply rooted caste structure and the weak solidarity mechanisms in rural Nepal, the already highly fragmentation of land and very low farm size, the protectionist measures of India and China

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including subsidy), and the continuous armed conflict since 2002, more negative impacts may be generated than benefits in restructuring agriculture towards significant growth and commercialization, may be very costly for not efficient impact on poverty.

There is a large variation in total household income between the rural and urban income. The household income of rural area is 27% only which is derived by agriculture, wage earning and rural enterprises. The rural agriculture sector in Nepal has been suffering from persistent underinvestment. Modernization of agriculture through technology intervention and linking it to markets through infrastructure, institutions and information are the necessary conditions for which huge investment is required.

Land fragmentation has emerged as another significant constraint. It is considered a structural problem inhibiting the modernization of agriculture. Because of scattered nature of farm parcels and owing to non-viable size, farmers are hindered from adopting productivity enhancing technologies that are otherwise readily available for their benefit.

The government of Nepal has prioritized agriculture development agenda as its instrumental component in national planning process; I decided to choose this topic so that I can explore alternative set of policies, constraints in achieving the stated goals particularly in micro levels. Rural poverty has become a cross cutting agenda in all sectors vis-à-vis agriculture, forestry, industrial, technology, tourism, water resources and trade. Many synergistic efforts are made to reduce rampant poverty through governmental and foreign aid agencies (MoF, Nepal).

Objectives of study

In order to address the above mentioned burning issues with special attention to welfare economics, this paper will try to develop alternative measures of the current policies based on the current resources and constraints including in geopolitical context. The specific objectives are:

1. To review the rural agriculture issues *in micro* level, policy and strategy framework;
2. To examine the reasons for lack of sustained and broad-based rural agricultural growth;
3. To design appropriate agriculture policies responsive to the needs of the rural poor.

Review of literature

Poverty, agriculture and environment have interlinking relationships. The pervasive poverty reduction especially in rural areas is supported by

implementing different projects and activities in agricultural sector. One system depends greatly upon the productivity of the others and if one system is damaged another sector has greater impact. Even though different policies and act has been formulating in practice different problems are associated with implementation. The gap between principle and practice should be overcome.

The policy discussions held at the ministerial levels which are yet to be considered as specific agricultural policy has been referenced. The policy level information is obtained from Ministry of Agriculture and Co-operative. This ministry is the umbrella institution of the Government of Nepal for all agricultural and cooperative policies and development. The Nepal Agricultural Research Council (NARC) is the major agricultural research center and is responsible for improved breeding, productivity, nutritious feeding for fish and livestock. The research information is obtained from NARC. Data and qualitative information are extracted from several donor aided agencies working in agricultural sector. Despite the relative increase of donor aid in agricultural sector, we have significantly low output.

The government of Nepal conducts periodic census in agriculture sector. Economists, agriculturists and environmentalists are consulted to prepare agricultural action plans, agricultural researches and inputs in policies.

Agriculture is by far the largest sector in the Nepalese economy, contributing 40.5% to the GDP (1995/96) and 81.2% to the employment of the 'economically active' population (CBS 1994b). About twenty years ago, these proportions were 71.6% in the GDP (1974/75), 94.4% in employment (1971), and 82.5% in export earnings (1974/75).

The real 'top priority to agriculture' in terms of actual financial resource allocation began from the sixth plan. This was in recognition of the predominant role of agricultural sector and the potentials it offers for broad-based sustainable development and poverty alleviation. Concurrently, a number of new institutions in the form of government departments, schools and colleges were created and expanded.

Comprehensive research papers in agriculture have attested that the APP differs from the past plans in that it focuses on a small number of priorities so as to produce a tangible impact and realize scale economies essential for commercialization. Nepal's agricultural research has historically harbored a misconception about what constitutes agricultural research. Research has been treated in a restricted sense to include

biological, physical and mechanical sciences as these apply to plants and animals.

Several papers state that in terms of property rights and entitlements to productive assets and natural resources, the farmers of Nepal have limited access to such resources. Land and land based resources have served as the principal sources of economic surplus generated by the ruling classes. Landless and other chronically resource poor households that are least affected directly by agricultural innovations and growth need special attention as employment opportunities expand on large farms and in non-farm sectors.

Rural agriculture

Agriculture is the backbone of rural economy. Smallholders and marginal farmers predominates Nepalese agriculture with the average holding size of 0.8 ha. Nearly a half of all farms have less than 0.5 ha of land, while those with less than 1 ha of land constitute nearly three-fourths of all holdings. Farms are getting smaller – average size of holding declined by 28 percent between 1961 and 2001.

Landless farmers are gradually leaving agriculture as it is hard to eke out livelihood there without holding land asset. The number of holdings without land has decreased by 16.8 % from 32.1 thousand in 1991/92. The number of permanent agricultural workers declined to 179 thousand persons—down by some 41%

Nepal's agriculture is overwhelmed by subsistence family farms. Seventy-eight percent farm holdings have been reported to be producing mainly for home consumption. The proportion of holdings that produce mainly for sale is not even 1 percent, while little over 21% farm families use their farm produce almost equally for both sale and home consumption (CBS, WB, DFID, and ADB, 2006). For 60 percent holdings the annual farm production was not sufficient to feed their household until the next harvest; 40% holdings were deficient for up to 6 months while 20 percent holdings were deficient for more than half a year.

Growth in agriculture has remained virtually stagnant over a protracted period despite a number of plans and strategic approaches being followed in the past, often with donors' interest. However, such plans failed to address issues relating to land ownership, tenurial arrangement and potential impacts on soil fertility. The efforts are still target-oriented ad based narrowly on increasing production without attention to market potentials.

Suggested alternative policies

Current slow paced growth in agriculture is not mitigating teeming millions needs. Thus it is virtually required to expedite agricultural growth; following interventions are recommended as alternative policies-

Sharpen focus on high value agriculture

A shift to high value agriculture matches the need to taking pressure off the intensively irrigated cereals and enlarging small holder farmers' opportunities to benefit from expanding domestic and export markets. High value agriculture gives more value and has higher employment elasticity.

Encourage ploughing back remittance income into enlarging opportunities for the rural youth

Remittance could be source for enlarging opportunities for rural areas and thereby containing both the remittance and rural youth within rural circuit is linked to the wider economy. Agricultural enterprise advisory services, enterprise schemes, enterprise management and skills trainings could be instrumental for attracting rural youths (including the back-home migrants).

Promoting low external input sustainable agriculture (LEISA) technology

Reliance on external and costly inputs make small holder farmers vulnerable to frequent supply breaks and rising costs, such as in case of chemical fertilizer. On the other hand the promotion of self reliant technology such as organic farming offers more sustainable alternatives.

Promoting innovative institutions and linkages

Institutions may be innovated to facilitate reduction of costs and risks and promote local resource based technology. Institutions that encourage collective action of small farmers, development and spread of grades and standards, responsive R&D effective market information, weather based insurance, etc. are important for high value agriculture.

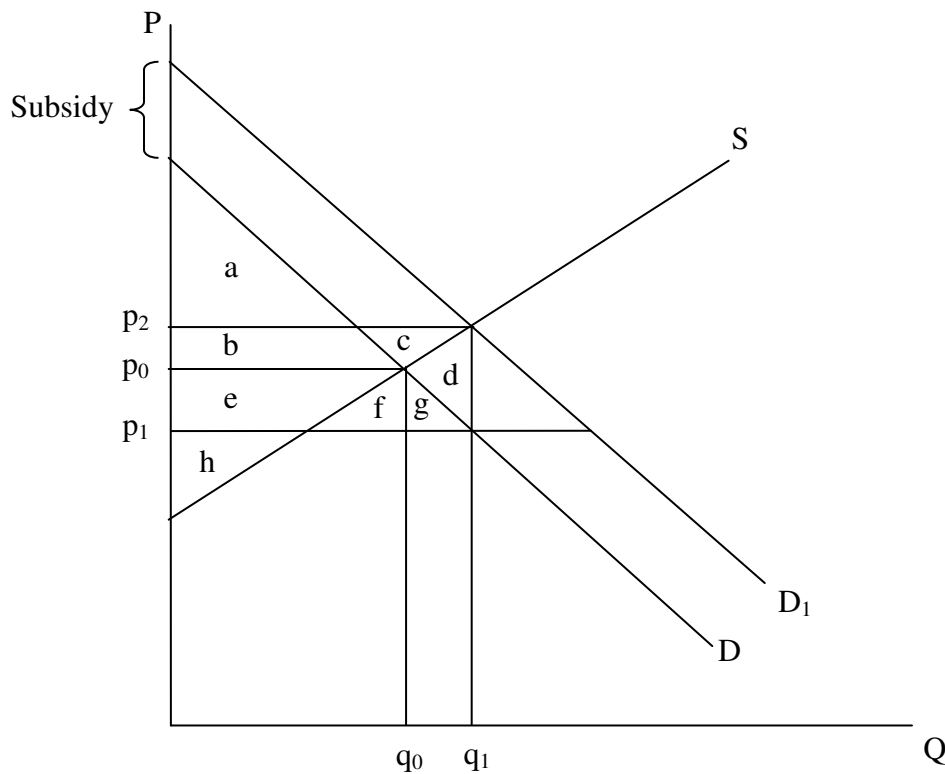
Economic efficiency and market integration in rural areas

Development of a market oriented multi cropping system has transformed many small holder family based agriculture in south Asian countries. The major precondition has been the existence of a technically sound research and extension service that is able and work closely with the farmers to help them increase their productivity. Multi cropping systems cannot succeed without-

- (i) Guarantee of fair returns from the efforts and risks undertaken by the farmer
- (ii) Responsiveness through appropriate research and educational institutions by developing new products, technology and productivity
- (iii) Encouragement of strong local farmer organizations that increasingly undertake the responsibility for management of inputs and primary marketing activities.

Supporting farmers to get access for productivity augmentation: an empirical example

(Chemical fertilizer subsidy to farmers by the government of Nepal)



Here,
 p_0q_0 is the equilibrium price
 p_1 is the price support
 D is the original demand curve
 D_1 is the new demand curve
 S is the supply curve
 P is the price
 Q is the quantity

p_1 is the price given the price support
 p_2 is the price producers will be willing to sell output q_1
 q_1 is the quantity demanded by consumers at the price support
 q_2 is the quantity supplied by producers at the price support
 $p_1 - p_2$ is tax

The fertilizer and seed suppliers gain = area $b+c$
Farmers also gain = area $e+f+g$ (due to subsidy)
Tax payers (businessmen in true sense) loss area = negative
($b+c+d+e+f+g$)
Total welfare measured = area (negative d)

The subsidized policy is being opposed by the taxpayers as they constantly put pressure to the government to use the tax to the welfare of the commerce and trading. The subsidized price is taken as an advantage by the large farm holding farmers and they create black market in rural markets. The needy farmers do not get without the privileged supply and hence the real farmers are always in isolation.

Conclusion

Poverty in Nepal is mainly a rural phenomenon where most households have land and livestock. The government's top priority is in agricultural development as it plays a key role in livelihoods of rural areas and is the main source of income. Agriculture remains mostly subsistence oriented; farm home production is the largest contributor to the household income.

Nepal presents a classical case of a country caught in a poverty trap-an economic condition characterized by the persistence of subsistence level of income over a long period of time. It was recognized that new investments would not bring about prosperity immediately because of the need for 'a long period of heavy and seemingly fruitless expenditure prior to the state when further expenditure brings tangible results' but these were considered necessary to facilitate future investments in directly productive areas. And indeed in Nepal, beginning in the mid-1970s, an increasingly larger proportion of the greatly enhanced level of total investment has come to be invested in productive sectors of the economy. However, no comparable shift in the economy's growth performance seems to have occurred.

References

Dahal, K.R. 2000. Kathmandu Nepal: Sustainable of Nepalese Agriculture, a challenge of our time; Environment and Agriculture, Ecological Society

Upadhaya, S.K., April 24, 1999. Agricultural growth linkage: Agriculture Perspective Plan and Poverty Alleviation. *The Rising Nepal* XXXIV (130)

Palikhe, B.R. 2002. Kathmandu: Pesticide and the environment, agriculture and environment (published on The World Environment Day 2002)

Agriculture Perspective Plan 1995. Kathmandu: His Majesty's Government of Nepal

Central Bureau of Statistics 1990. Kathmandu: Nepal Agricultural Census

Land Resource Mapping Project 1986, Land utilization report: Government of Nepal

United Nations Development Programme (NEP/99/023). Kathmandu: Nepal's Agricultural Policy and Strategies for Poverty Alleviation and Food Security, FAO of the United Nations.

Gauchan, D 2008. Agricultural Development in Nepal, Kathmandu: Contribution to economic growth, food security and poverty reduction, Socio-economic development panorama, volume 1 No. 3, p 49-64.

Pradhan, M., Ravallion, M. 2000. Measuring Poverty Using Qualitative Perceptions of Consumption Adequacy, *the Review of Economics and Statistics*, Vol. 82, No. 3, pp. 462-471 the MIT Press

National Planning Commission, Singhburbar, Government of Nepal, Kathmandu, Nepal

Ministry of Finance and Ministry of Agriculture and Cooperative, Government of Nepal

Pudasaini, S. 1981; The Contribution of Education to Agricultural Productivity, Efficiency, and Development in Nepal." Ph.D. thesis, University of Minnesota.