

SALIENT FEATURES OF HORTICULTURE SECTOR IN THE AGRICULTURE PERSPECTIVE PLAN (APP)

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The APP came at such a time, when the contribution of agriculture to GDP was 42 percent with 90 percent of the population still dependent in agriculture. The investment in agriculture was thinly spread. The agricultural yield was low. The very majority of the rural people had very low income. And as a result, the saving was also very low. The investment opportunities are virtually nonexistent. Weak agricultural growth has a direct effect on national economy. The population growth was increasing (2.6%, 1980-90), the rate of economic growth was low (1.89%, 1961-63 to 1991 and 1993) and as a consequence the total poverty was increasing.

The APP has been designed to achieve two percent age points to the country's agricultural growth rate. This increase in agriculture growth combined with a 0.5 percent decline in the rate of population growth would expand per capita agricultural growth six folds, from the current level of 0.5 percent to 3.0 percent per year. Such a rise is expected to stimulate nonagricultural growth in employment-intensive goods and services through out Nepal's depressed villages and market towns.

The objectives of APP are as follows.

1. To accelerate the growth rate in agriculture through increased factor productivity.
2. To alleviate poverty and achieve significant improvement in the standard of living through accelerated growth and employment opportunities.
3. To transform the subsistence agriculture into commercial one through diversification and widespread realization of comparative advantage.
4. To expand opportunities for an overall economic transformation by fulfilling the precondition of agriculture development.
5. To identify immediate, short term and long term strategies for implementation and to provide clear guidelines for preparing plans and programs in future.

The following strategies have been identified to achieve the above mentioned objectives.

1. Accelerating the agricultural growth based on technology.
2. Large and concentrated investment in a small number of input priorities - shallow tube well irrigation in the Terai, agricultural roads, fertilizer, and the technology system of research and extension.
3. A small number of high-value commodities priorities to facilitate intensification of agriculture, especially in the hills. Those priorities are citrus, vegetables and vegetable seeds, apple, apiculture and sericulture.

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4. Strong multipliers from the increased farm income to growth of output and employment in the rural non-farm sector, as the principal means of solving the problems of unemployment, poverty, environment, and dispersal of urbanization.
5. The implementation mechanism that operates at the districts and national levels, and is complemented with an analytical body.

The above statement is the core approach of the APP to activate the stagnant agriculture to enhance the national economy. And, horticulture has a very important role to play in it.

The Outcome of APP:

The APP has been implemented. The institutions are in place. But the needed supports from the different institutions are still weak. The recent attempt of making apple saplings available by the public sector in Karnali Zone to expand the apple plantation is an example how difficult it is to co-ordinate the activities. However, the effort of the private sector has been encouraging. A remote village in the District of Baglung, where cereal grain production could not sustain the food requirement for more than three months, now enjoys full two meals from the sale of off-season vegetables at Baglung market and yet send their children to school. This shows the importance of horticulture in the hills and the mountains to bring food security, poverty alleviation, impart education and ultimately improve the quality of life.

HORTICULTURE

At the time of the formulation of APP, it was seen that 67 percent of vegetables and 85 percent of fruits were imported for consumption. It shows the need for the enhancement of horticultural crops in the country.

In APP, horticultural crops have been put under the High-Value commodities, which facilitated to include the non-horticultural items like apiculture and sericulture. The priority horticultural crops are - Citrus, Apples, Vegetables - Main season, Off season, and Vegetable Seed, Bee Keeping and Sericulture.

The following table gives the glimpse of the horticulture crops, on priority basis that will be concentrated in the Hills and Mountains, with the proposed main Commodity Stations and Regional Stations.

High-value crop priorities, target production environment, and research stations.

Commodity	Land Use categories				Commodity	Stations
	Hills		Mountains			Regional
Citrus	Unirrigated slopes, upland currently orchard	upland slopes under	Unirrigated slopes, currently orchard	upland slopes under	Dhankuta	Pokhara Dailekh Dadeldhura
Apples	Unirrigated slopes, upland currently orchard	upland slopes under				
Main Season vegetables	Upland slopes with year round irrigation				Khumaltar	Pakhribas Kabre Lumle Jumla Baitadi
Off-season vegetables	Valley with irrigation	bottomland year-round	Upland slopes with year round irrigation, bottomland with year-round irrigation		Khumaltar	Pakhribas Kabre Lumle Jumla Baitadi
Vegetable seed	Upland slopes with year-round irrigation		Upland slopes with year-round irrigation, valley bottomland with year-round irrigation		Khumaltar	Pakhribas Kabre Lumle Jumla Baitadi
Beekeeping	All		All		Godavari	Pakhribas Kabre Lumle Jumla Baitadi
Sericulture	Unirrigated slopes	upland			Khopasi	Pakhribas Kabre Lumle Jumla Baitadi

Source: APP Table 9-4

Lead and Subsidiary Commodities for demand led Commercial Growth by Ecological Planning Unit, Potato seed. Beverages - tea and coffee, Spices - cardamom, ginger have also been considered as the subsidiary commodities along with the lead commodities stated above (APP Table 14-1).

Horticulture contributes to 13 percent of the agricultural growth rate. It shows great potential as a provider of off-season vegetables, and thereby illustrates the strategic complementarity between the Terai and the Hills and the Mountains. The production of summer vegetables in winter in Terai and the production of winter vegetables in summer in the Hills and the Mountains could help supply of vegetables round the year develop and sustain the domestic demand, and increase human nutrition through the country.

As the per capita income increases and with the income elasticity of demand of 0.8 for vegetables and 1.0 for the fruits, the demand for the commodities increase and can be met by an increase in supply.

During the course of APP, the income from the high value crops will accelerate from 4.8 percent to 5.8 percent, and the income is expected to triple. It could be even higher, given the prediction of strong export potential. Such growth has to come from the private sector.

From APP:

Vegetables are obvious priority because they are much more important than any other high-value commodity (a small number of vegetables dominate the group). They are less risky to grow than fruit because they are annual crops. And since twice as many as women men participate in vegetable production, they provide women opportunity to increase their income (in terms of marketing and incomes). Citrus is also an obvious choice because it is by far the most important fruit in Nepal and is grown throughout the Hills. Apples are much less important, but have great potential in the Mountains, and their relative importance will increase substantially when roads begin pushing back into the mountain area (particularly Jumla). Beekeeping (honey) is currently inconsequential (only Rs. 14 million of output), but it is complementary to horticulture and represents an economic opportunity for very small farmers. Sericulture is also inconsequential now (only Rs. 54 million of output), but it offers a special opportunity for women and seems to be particularly well suited to Nepal's hills.

Thus, the APP emphasizes the need - to strengthen the research and management, to try to meet the self-sufficiency, to take into consideration of the situation of comparative advantage and to look favourable exchange rate with India.

Also, APP cautions, that the horticultural crops are the risky crops, given the small size of holding in Nepal. But this could be overcome with a strong support from research - NARC, infrastructures - Roads and Power, support services - marketing and credit program - ADB/N.

Infact, the APP has emphasized the FOUR PRIORITY INPUTS in the context of overall agricultural growth, which are equally important or even more in some of the input for the growth of the horticulture. These inputs are irrigation, fertilizer, technology, roads and power.

With these inputs, the high-value commodity, offer an opportunity for high income per hectare in areas of acute land scarcity with favourable income generation, poverty reduction, and environmental improvement, especially in the Hills and the Mountains. Hence, high-value commodities are very important for the rapid growth of Hills and Mountains. With the increase in the production of high-value commodities, it helps to expand the potential of secondary employment also. The high income per hectare from the high-value commodities will help to withdraw from the cultivation of the marginal land, and will help to reduce erosion and landslide improving the environment.

Gender plays a vital role in the production of the high-value commodities. It was stated that 67 percent of labour force in vegetable production were women, and in vegetable seed production 55 percent. It was stated that Nepal Agriculture Research Council - NARC should be able to address the problems faced by women in vegetable and vegetable seed production. Similarly, Department of Agriculture Development - DOAD should involve women extensionists in the extension program. And, Agriculture Development Bank - ADB/N should direct the credit to women.

Investment for the priority outputs that includes high-value commodities has been projected. That should be taken as a guideline in the given situation of fluid economy.

APP suggests:

Nepal needs to choose its priorities now in order to direct the necessary institutional development; but the decisions can be gradually modified over time as changing comparative advantage reduces the potential of some commodities and increases that of others in the final analysis, the market must determine the priorities. When a clear error of omission (or commission) has been made, recognition of that mistake by the market must be quickly noted and the appropriate complementary institutional investments made.