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Federalism and Natural Resource of Nepal-4

Which District is Rich in Agriculture?

Author's Photo

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Agriculture productions and benefits in Nepal are very low compared to other natural resources. Nepal's agriculture production cannot compete with the Europe or US markets. Therefore, investment in Nepal's agriculture sector is to support food security and local level unemployment.

(Agriculture Farming Photo of Rural Nepal)

Nepal has been an agrarian economy for long and it is said that the country's development is possible only through the development of the agriculture sector. This is in fact true in some perspectives. It is seen that the government annual budget allocation is indicative to the priority it has given to the agriculture sector. But the results have not been as expected. Questions have been raised whether investments in the agriculture sector harm investments in the other sectors? Questioning on the importance of 'agriculture development,' which is considered as the backbone of the country's development, might hurt agriculture sector experts, and those

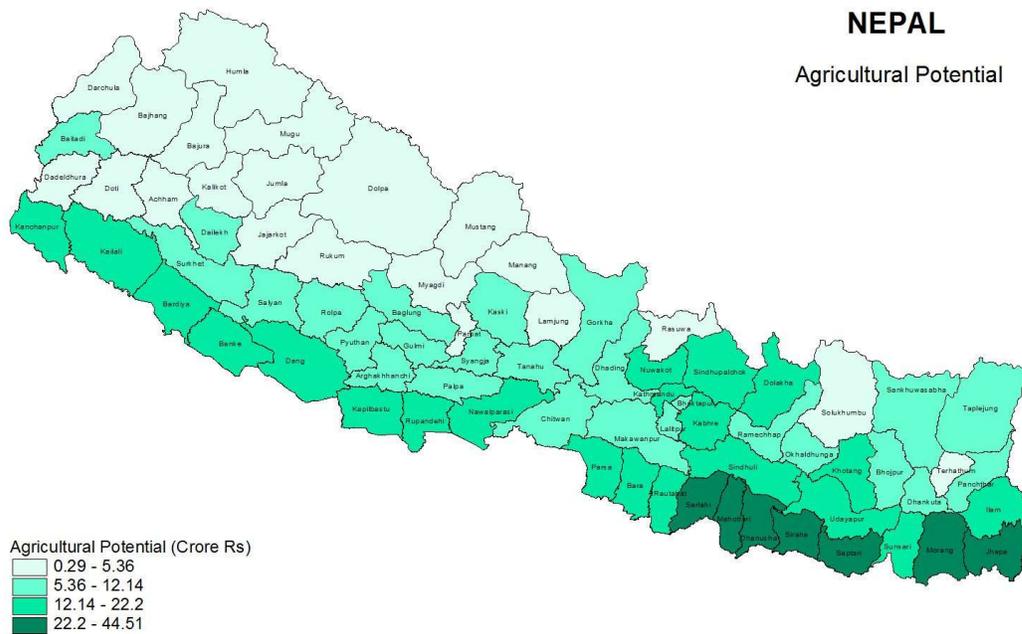
politicians who believe “agriculture is only the major sector for the overall development of the country.” However, the truth is that the country is not being able to take advantage from agriculture as per the investment and prioritization poured into it.

Investments in any sector have two major bases: first, to fulfill the social responsibility and second, to receive the comparative benefits. Generally, investment in agriculture is social responsibility to minimize unemployment at the local levels and also to become independent in food as well as food security. But the agriculture sector of Nepal does not have comparative advantages with the agriculture sector of India, Denmark, Germany, Netherland, America and other countries. In other words, it is not easy for the agriculture sector of the country to compete with these developed countries which have high yield in agriculture production. So, it has become important to change in our traditional mindset regarding the agriculture sector development.

The reasons behind Nepal’s weak agricultural productivity compared to other South Asian nation and developed countries of the world are due to lack of critical infrastructure such as irrigation facilities and agriculture roads alongside inadequacy of hybrid seeds, fertilizers, technology, etc. The lower demand for traditionally produced agro products and high cost of production has been the main reasons for low level of production. Nevertheless, a huge possibility exists in agriculture production of Nepal if the above mentioned problems are solved.

In a bid to get rid of continuous famine and food insecurity, India during the 1960s started the ‘Green Revolution’ campaign with an aim to increase the agriculture sector productivity. The

‘Green Revolution’ campaign transformed agriculture sector of some states in India and make the highly rich. The maximum positive impact was seen in Punjab and Haryana. The states that were producing 3.5 tons per hectare started producing 8 tons. But the current production of many states in India still hovers around 4 tons per hectare.



Basis of the study

This study is centered on the size of agricultural productivity and direct/indirect income to the state from agriculture sector if issues (problems) related to necessary investment and subsidy in agriculture sectors such as in land reform, fertilizers, insecticides material, irrigation supply, seeds subsidy, market assurance, and security are resolved.

Following information and assumption below have been taken the basis for the study:

1. This study is prepared based on the National Sample Census of Agriculture 2001/02. Thereafter, no government-level survey having detailed information of agriculture has been carried out yet.
2. The agriculture achievement statistics has been calculated based on coefficient of the rate of cultivation of major crops, cash crops, vegetable and fruit farming and livestock, data of which has been obtained from certain districts, achieved from discussion with Dr Shiva Sharma, Agriculture Expert of Nepal Labor Academy. Agricultural production in the Terai region ranging from fruit to vegetable is around 20 percent. It generates an around 15 percent additional income in the Himalayan region. In the meantime, the situation of livestock farming has been observed just the opposite as 20 percent additional income is generated in the hilly and Himalayan region and 15 percent in Terai districts.
3. Of the total arable land of 26,540,371 hectares, 60.52 percent is irrigated with partial or complete irrigation while the remaining 39.48 percent arable land has no irrigation facility.
4. It is assumed that around 90 percent of agricultural land in Nepal can be provided with irrigation facility by some means.
5. It is assumed that with appropriate management of irrigation facilities along with by increasing treatment of plant diseases, making seed available to farmers easily, reducing

investment cost and by increasing farmers' access to market, etc. to the 90% areas of the agriculture sector of Nepal can reach to same level of Punjab and Haryana states of India.

6. The agricultural production in Punjab and Haryana is 8 tons per hectare while it is 4.5 per hectares in the hilly region of India. This calculation is based on the possibility of production capacity to harvest three crops by connecting each other. The harvesting capacity multiple crops of farmer, who has less than 0.5 hectare are having greater capability compared to those who have more than 5 hectares.
7. Generally in agriculture sector in developing countries, the wages of workers have not been counted because the unutilized workforce has been used in activities including plantation and harvesting. But if calculated, then it covers 80 percent of the share of the cost of production.
8. No country in the world has provisions to levy taxes on agricultural production. People in underdeveloped countries are dependent on agriculture; hence the share of agriculture in GDP is high in such countries. With the development of industrial and services sector, the contribution of agricultural production has declined. The contribution of agricultural sector to Nepal's GDP used to be 50 percent a few decades ago now hovers around 25 percent. Though the government does not get direct taxes from agricultural production, indirect taxes are levied on food processing activities such as biscuit, processed agro foods production, etc. which uses wheat produced by farmers who make money by selling their farm products. This way, the indirect taxes have also been calculated here.

The calculation has been done considering 80 percent of production as production cost and the remaining 20 percent available for barter in the commodities market.

9. Considering 20 percent of agricultural production as 100 percent, 15 percent of it is calculated as tax the government receives.
10. The economic analysis of agricultural products in all districts of Nepal has shown that country's agricultural productivity will reach to the levels of Punjab and Haryana if the current production is increased by 248 percent.
11. This analysis is based on productivity of different districts of our country and productivity of Punjab and Haryana states of India. This can be calculated by increasing or reducing it.
12. Based on this analysis, Sarlahi is seen as the district with highest advantage from agriculture sector. The government can generate highest agriculture income from the same district. From the point of view of comparative advantage from agriculture, Sarlahi is followed by Dhanusha, Siraha, Saptari, Morang and Jhapa with Dopla, Mustang and Manang lying in the end of the list.
13. The highest possible total income from agriculture sector from all districts of the country amounts to Rs8.8 billion.

14. Comparing the budget of fiscal year 2008/9, the agriculture sector contributes around 3.5 percent to government revenue.

According to the table given below, it requires huge investment to achieve the district-wise agricultural income. However, it needs to be evaluated if the return of such investment will be correct based on comparative advantage. It also needs to be assessed if it is more benefitting to invest the money in other sector of comparative advantage. To answer above question let's discuss on the two examples below.

(Table describing the probable revenue from each district from agriculture production including cash crop, vegetables, and fruits) retrieved from National Agriculture database Nepal 2001/02, Government of Nepal, Central Bureau of Statistics.

Talking about Tomatoes!

We are happy when 10 to 12 kgs of tomatoes annually are produced from a single tomato plant in Lalbandhi, Sarlahi district, the highest tomato producing area in Nepal. But in countries such as Netherlands, Germany and Belgium, a single plant produces 300-400 kgs of tomatoes annually. The tomato plants in these countries are not cultivate in soil like in our country but in artificially built special types of porous stones having 6x6x3 inches dimension. A computer-controlled system supplies essential fertilizers in required amount on the basis of weight of the tomatoes that are picked daily. Metal nets are used as support as the plants cannot sustain the

weight of the tomatoes. Such plants can grow a single cluster of 5 or 7 in big size or 40-50 as small tomatoes.

How much a cow can give milk?

Most of the cows after giving birth to calves give 1-2 liters of milk daily for a year. If a cow gives 10-12 liters of milk daily, then we call the cow that gives good amount of milk. While in countries like Denmark, Germany, Netherland and other European nations, the return on investment from a cow is considered right only when the cow gives 80-90 liters of milk daily. Cows giving milk less than 40-50 liters daily are not kept for commercial milking purpose and it is sell for meat production.

The examples could be difficult for us to believe, but this is the reality. So, does the agriculture sector of Nepal that has high cost of production will be able to earn so that it can contribute to the country's industrialization or development of physical infrastructure competing with India or European countries? This is the main question of the hour.

This does not mean the agriculture sector should be neglected. It only means that the objective of investment in the agriculture sector should be clear. The main objective of the investment in the agriculture sector of our country should be to fulfill the domestic food demand, support food security and to provide employment in rural areas which eventually plays roles in maintaining local power structure and reduce conflicts. In view of comparative advantage, the country already has tourism and water resources as lucrative areas.

Reference Materials:

1. Monograph: Agriculture Census 2001/02, Government of Nepal, Central Bureau of Statistics
2. National Sample Census of Agriculture 2001/02, Government of Nepal, Central Bureau of Statistics
3. Land Reform in Nepal: Where it is coming from and Where it is Going? Liz Alden Wily, Dr. D. Chapagain and Dr. Shiva Sharma, DFID

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