

Agriculture Sectors and Its Contribution to National Economy in Nepal

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Abstract

Agriculture is one of the main economic sectors of Nepal that play important role for economic enhancement. In 2020/21 agriculture sectors including fisheries and livestock occupy the around 25 percent in national GDP which was around 32 percent in 2011/12. Contribution of agriculture sectors is decreasing in national GDP; however, the role of agriculture sectors is very important in national production and poverty alleviation. The study analyzes the contribution of agriculture sectors in national GDP through highlighting the data of per unit production of agriculture products and gives suggestions for its enhancement in national GDP. To complete the study, it has been followed both qualitative and quantitative research design. The study is based on secondary source of data and the data were collected through library and internet research. Conclusion of the study was based on data analysis and presentation.

Keyword: Agriculture Sectors, National Economy, Nepal

Introduction

Agriculture sector plays important role in national economic in Nepal; however, the situation of agriculture sectors is not good to reduce poverty from the nation. Lack of modernization and mechanization agriculture sector does lead national economy in Nepal. In this regards, Dewbre (2010) notes, "People in developing countries who depend on agriculture for their living are typically much poorer than people who work in other sectors" (p.3). In recent years, portion remittance and service sector are increasing and contribution of agriculture is in decreasing trend. In 2015 agriculture sector occupied 32 portions of total GDP but now it reduces and

limited around 25 percent (GoN, 2021). It shows that portion of Agriculture is reducing in recent years. There is not only single cause to reduce the contribution of agriculture in national GDP in Nepal, however, urbanization, lack of irrigation facilities; fertilizer facilities and traditional method are the main problems that discourage people to involve agriculture sectors.

Government of Nepal (GoN) has realized and prioritized the importance of agriculture in plans, policies, and annual budget and programs since long ago. The MoAD reports (2021) mentioned:

Every year budget under MoAD has increased substantially. However, the organized development of Nepal started along with the periodic plans after 1996. The first periodic plan has emphasized agriculture both as immediate action and laying of foundation for future progress and allocated Rs. 12 million to the agriculture out of Rs. 330 million (NPC, 1956). It was only in fifth plan (1975-80) which has prioritized agriculture sector and celebrated 2032 BS as agriculture year. (p.)

Above descriptions clarified that agriculture sector is one of the prioritized sectors of Nepalese economy. Agriculture policy of Nepal emphasized on agro-industrialization; however, government effort does not bring positive sign in agriculture sectors and annually thousands of youths divert from agriculture sectors to other sectors. Only limited person utilized the government support and published success story of Nepalese agriculture which is far from the reality (NPC, 1975). Reality is reflected in the contribution of agriculture in national economy which is gradually decreased since long time.

Methodology

The Study has been followed both qualitative and quantitative research design. Numerical data were managed through quantitative research design and qualitative information was managed by using qualitative and quantitative research design. Necessary data were collected from secondary sources through using library research method. Data were gathered from the report of Ministry of finance and national planning commission and other government agencies.

Study Area

Nepal is one of the developing nations of south Asia where around 70 percent populations are involved in agriculture. Except few Himalayans area agro-product can be produced in Nepal on the basis of climate and land situation. In Nepal, the economy is dominated by agriculture because more than 70 percent population is depended on agriculture. Only approximately 20 percent of the total land area was cultivable. Terai is suitable for crops production, mountain and hill is suitable for fruit and animal husbandry.

Contribution of Agriculture in National Economy

Agriculture sector covers only around thirty percent GDP but more than two third portion of population involved in agriculture sectors. They involved in the sectors due lacking

of other option so that agriculture sector is closely tied with the livelihood of majority people. Livelihood, employment and economic and social transformation which have also been a major sector of Nepal's economy cover by the agriculture sectors. Agriculture sector can be the foundation of a productive economy only through modernization and commercialization of agriculture. Economic Survey (2021) notes:

In fiscal year 2011/12, the contribution of agriculture sector (agriculture, forest and fisheries) to GDP was 32.7 percent whereas it has been gradually decreasing in recent years and is estimated to remain 25.8 percent in fiscal year 2020/21. (p.4)

The population depending on the agricultural sector is gradually decreased due to the expansion of services in non-agriculture sectors. According to the Nepal Labor Force Survey of 2008, 73.9 percent of the population was engaged in agriculture sector, but in 2017 the proportion has decreased to 60.4 percent (GoN, 2018). In ten-year, period around ten percent population shift from agriculture to other sectors whereas government bring various program on agriculture sectors.

In the context of Nepal, agriculture sector covers various activities related to livestock, farming, commercial farming, poultry, bee-farming, dairy farming etc. Agriculture sector cannot create mass employment in Nepal. It is limited on household sectors because government has not prepared policy to create employment in agriculture sectors. Government hardly determines the minimum price of agriculture product. Most of the time broker plays role on price determination. Minimum support price of paddy, wheat and sugarcane has been fixed for the fiscal year 2020/21 with the objective of increasing the attraction of common people towards agribusiness by making provision of getting fair price of their products based on the production cost. This provision is expected to ensure the sale price of agro-products of farmers and also help discourage the role of middlemen in the agricultural sector. The following table shows the situation of per unit support price that has fixed by the government in fiscal years 202/21.

Table: 1 Agricultural Goods and its Minimum Support Price

Agricultural Goods	Per Unit Price	Minimum Support Price 18/19	Minimum Support Price 19/20	Minimum Support Price 20/21
Sugarcane	Per qut.	536.56	536.56	544.33
Coarse Paddy	Per qut	2331.22	2532.80	2735.0
Medium Paddy	Per qut	2460.57	2673.16	2885.0
Wheat	Per qut	-	3015.00	3111.0

Source: Economic Survey Report, 2021

Above table shows the minimum price that has been fixed by the government in fiscal years 2020/21. The minimum support price for coarse paddy is 2735 in fiscal years 2020/21 whereas, Rs 2885 is fixed for medium paddy. Like that Rs. 3111 was fixed for white and Rs. 544 for sugarcane. In fiscal years 2019/ 20 also government had fixed minimum support price of main Agriculture product like paddy and white. Government could not be fixed minimum support price of other products like maize, lentil and other cash crops. Government has no capacity to purchase agriculture product so that government minimum support price has no value in practice. The following table shows the status of crops production in Nepal.

Table: 2 Status of Crops Production

Name of Crops	Area in hector	Production MT	Productivity per Hec.
Food	3440138.9	10926033.8	3.2
Cash	453837.3	3574255.2	7.9
Industrial	105433.0	333776.2	31.7
Plus	336474.0	397143.0	1.2
Species	73086.0	58547.8	8.0
Vegetable	284875.0	2846208.0	14.7
Honey hives	244680.0	4062.0	0.02
Fruit	122555	1305210.8	10.7

Source: Ministry of Agriculture and Livestock Development, 2021 *Till mid-March

Crops like paddy, wheat, maize, millet, barley and buck wheat are included in food crops. Potato and oilseeds are included in cash crops. Sugar cane, jute, tea, coffee, and cotton are included in industrial crops. Under pulse variety lentils, gram, pigeon pea, soya bean, grass pea, horse gram and other pulses are included. Cardamom, ginger, onion, turmeric, chilly is included in spice crops. Status of Food Crops Production 8.25 The total area of food crops has increased by 0.5 percent in fiscal year 2020/21 as compared to that of the previous fiscal year. The food crops have increased by 1.0 percent in fiscal year 2020/21. During the time the production of paddy has increased by 1.28 percent. In fiscal year 2019/20, the area of paddy crop was reduced by 2.2 percent and the productivity was reduced by 1.1 percent. Due to the favorable weather and the adequate supply of human resources the productivity of paddy is estimated to have increased by 0.4 percent in this year.

In fiscal year 2020/21, maize crop has been planted in 959,655 hectares of land. The area under maize crop has increased by 0.21 percent this year. Maize production and productivity are estimated to have increased by 3.22 percent and 3.0 percent, respectively.

In fiscal year 2020/21, the area of production of pulse crops including lentils, gram, pigeon pea (arhar), horse gram (gahat), black gram, soya bean is estimated to have decreased by 1.2 percent and its productivity by 1.7 percent compared to that of the previous fiscal year. In total pulse crops lentil production is estimated to be 65.0 percent in current fiscal year. During this period

the production and productivity of lentil is estimated to have decreased by 1.5 percent and 0.4 percent, respectively. During this period, production of soybeans and black gram is estimated to have increased by 0.8 percent and 0.5 percent, respectively. All the pulse crops, productivity of soybean is the highest, 1.3 metric tons per hectare in current fiscal year. Vegetable Crops 8.35 In fiscal year 2020/21, the production of vegetables is estimated to have increased by 5.9 percent to 4.196 million metric tons compared to that of the fiscal year 2019/20. In the context of fruit production, government only focuses on apple garden in mountain and Himalaya region. Economic Survey 2020/21 notes the situation as:

In fiscal year 2020/21, the production of fruits is estimated to have increased by 4.4 percent to 1.305 million metric tons. Such production was increased by 6.1 percent in fiscal year 2019/20 8.37 Agreement has been reached with the farmers to plant 30,000 Fuji apple saplings under the area expansion program in the zone / super-zone areas as of mid-March of fiscal year 2020/21. 8.38 The price of apple sapling has been fixed at Rs. 1,000 per sapling and Rs. 500 per sapling grant has been provided to the farmers on the basis of saplings purchased and planted by the farmers. Demand for 9,230 saplings has been collected in Mustang while 13 beneficiaries from Lamjung have been selected and contracted for supply. (p.1)

Above lines indicate that government only focus on apple farming in Himalaya region. Government gives less priority on terai region's fruit like mango, jack fruit, watermelon. In some cases, government provides support on orange and junior farming, however, other types of local fruit farming cannot prioritize on government policy.

Status of Livestock and Poultry Related Production

Through livestock also agriculture contributes in national economy. In total national GDP livestock covers around 3 percent and it covers around 31 percent GDP from agriculture sectors so that livestock product like chickens, pigs, dairy cows, buffaloes etc and its products also play significant role on national GDP.

As of mid-March, of current fiscal year, the number of livestock including chickens, pigs, dairy cows, buffaloes is increasing whereas the number of livestock including rabbit, he-buffalo, yaks (mountain cows)/ naks (female of yaks), ducks that lay eggs, has declined. The following table shows the situation of production of livestock.

Table: 3 Per Capita Meat and Eggs Availability

Fiscal Year	Milk ('000 MT)	Availability of Milk Per Person (KG)	Eggs (In 10 Million)	Availability of Egg per Person
2015/16	1854	65	120.81	43

2016/17	1911	67	135.23	47
2017/18	2085	72	151.23	52
2018/19	2168	74	154.97	53
2019/20	2301	79	162.00	55

Source: Calculated from statistics of Ministry of Agriculture and Livestock

Development

During the mid-march of the current fiscal year 2020/21, milk production has reached to 1623,000 metric tons. In fiscal year 2019/20, such production was 2301,000 metric tons. Per capita milk and eggs availability has remained 79 kilograms and 55 pieces. The minimum per capita annual requirement of milk and eggs set by Food and Agriculture Organization of the United Nations (FAO) are 91 kg of meat and 48 pieces of eggs. In fiscal year 2019/20, the production of meat has increased by 54.6 percent to 552,000 metric tons due to the increased effectiveness of breed improvement, artificial insemination and commercial livestock rearing programs. During the fiscal year 2018/19, meat production was increased by 3.2 percent to 357,000 metric tons.

In fiscal year 2020/21, the production of spices like cardamom, ginger, garlic, turmeric, chilly etc. is estimated to increase by 0.1 percent. During this period the area used in the production of spice crops, production and productivity is estimated to increase thereby increasing the total production to 585,478 metric tons. During the fiscal year 2020/21, the production of fish is estimated to remain 103,000 metric tons. In fiscal year 2019/20, such production was 99,000 metric tons. The production of fish is increasing with the efforts of private and public sectors

Contribution of agriculture sector is not sufficient in Nepal because only 30 percent portion of GDP occupy from the agriculture sector whereas government has given high priority on agriculture sector. In some cases, government provide large amount of money invest in agriculture sector. Not only government sector international non-government organization also invests on agriculture sectors like Animal husbandry, irrigation project, rural road construction.

To enhance the situation of agriculture in Nepal, government gives top priority on irrigation project. By mid-March of fiscal year 2020/21, irrigation facilities are estimated to have reached to a total of 1,503,367 hectares of land including the added 15,508 hectares of irrigated land, which comprises 10,843 hectares surface and 4,665 hectares underground irrigation facilities. Government has been built large size of irrigation projects like Sikta Irrigation Project, Rani Jamara Kulariya Irrigation Project, Bheri Babai Diversion Multipurpose Project, Mahakali Irrigation Project (III phase), Sunkoshi Marin Diversion Multipurpose Project.

Without proper management of livestock agriculture sector cannot sustain its' legacy so that government allocate certain budget for livestock project. With hard effort of the government

and public sector some degree of enhancement can be seen in livestock sector which indicates in Economic survey as:

As of mid-March, of fiscal year 2020/21, agriculture and livestock products equivalent to Rs. 212.81 billion is being imported whereas the import of such products was equivalent to Rs. 252.89 billion in fiscal year 2019/20. Likewise, during the mid-March of current fiscal year, agriculture and livestock products equivalent to Rs. 46.30 billion has been exported whereas such export was of equivalent to Rs. 55.19 billion in the last fiscal year. As of mid-March, of fiscal year 2020/21, meat, fish and prepared fish meat worth of Rs. 1.24 billion has been imported. In the previous fiscal year, the amount of such imports was of Rs. 1.93 billion. 8.69 As of mid-March of fiscal year 2020/21, the import value of spices including cardamom, ginger, and turmeric and chilly is Rs. 6.0 billion. The import value of such products in previous fiscal year was Rs. 11.38 billion. Similarly, as of mid-March of current fiscal year, the export value of such products has reached Rs. 5.53 billion whereas such export value was 4.68 billion in the last fiscal year. (p.56)

Situation of livestock production is being a little bit increase during the years 2020 / 21, however, COVID pandemic which began in Nepal in 2020 create serious problems and the sector including other sectors bear the loss and previously achieved success cannot be sustained. To reduce the COVID effect on agriculture. The Prime Minister Agriculture Modernization Project has been started in Nepal with certain purpose but the purpose could not be fulfilled. The project focused agro-based economy into agro-based industrial economy through modernization and commercialization of agriculture. Under the program government of Nepal has launched specially agro zone. Economic survey 2021 mentions the provision as:

In fiscal year 2020/21, there are 106 zones and 16 super-zones in operations in 77 districts under the 58 project implementation units. The small scale production (Pockets) programs and blocks development programs (business production centers, Blocks) are currently being implemented by the local levels and the province, respectively. There are 569 Custom Hiring Centers in zones and super-zones under the Prime Minister's Agriculture Modernization Project established with the objective of promoting agricultural mechanization and reducing the costs of agricultural activity, meeting labor deficiency and attracting and inspiring the youths in agriculture. Commercial Production and Processing Center (Zone) and Large Commercial Agricultural Production and Industrial Center (Super Zone) are being implemented by the federal level. The number of post harvesting centers has reached to 366 which have supported to maintain price chain as per the benefit of the farmers. As of mid-March, of fiscal year 2020/21, a total of 4,263 hectares of land is being irrigated through the addition of 952 small irrigation schemes. The scheme has provided irrigation

facilities to 9,378.6 hectares of additional land. Solar irrigation facility has extended to 62 places and has been providing irrigation facility to 279 hectares of land. Under the Prime Minister Agriculture Modernization Project, 2,249 hectares of fish ponds have been constructed. The number of high-tech fruit nurseries has reached 26 and the number of semi-high-tech greenhouses has reached 95. (p.45)

Above statistics show the government effort which seems benevolent and sufficient for the enhancement of the portion of GDP that covers by the agriculture sector but total GDP is in decreasing trend and mass of the population are ready to escape from the agriculture sector. The situation of food crops production is horrible because nation invest around two billion (NRs) for food crop import from different nation. Now Nepal has lost its capacity to fulfill food to the citizen without import. These can be seen scenario of starvation and malnutrition in the nation if the tradition is continued in upcoming days.

Findings

Key findings of this study are as below:

- In the one hand government annually brings new policies and programs for the enhancement of contribution of agriculture in national GDP, however the situation is opposite.
- Annually the portion agriculture in national GDP is decreasing
- Large portion of population are involved in agriculture sectors but achievement is not found good
- Agriculture sector is going to out from the access of poor and marginalized community because they have not sufficient land for cultivation
- Decreasing trends of the contribution of agriculture in national GDP shows that agriculture sector is going to damage from its previous situation.
- The situation of livestock production is in increasing trend whereas crops production is in decreasing trend.
- Big farm house and dairy industries are increasing and the contribution of livestock in national GDP is increasing.
- Situation of cash crops is not so good in Nepal. Contribution of cash crops is nominal; however, government claimed that cash crops are one of the main sources of foreign currency.
- Irrigation is the main problem of Agriculture sector which is going to solve through huge irrigation project like Babai-Veri diversion, however, the problem of market, labor, chemical fertilizer and support price of the government also create problem on agriculture sector.
- Ongoing programs cannot bring positive impacts on crops production because farmers annually face the problems of fertilizer and irrigation

- Situation of cash crops production like sugarcane, tobacco, jute, ginger production including off season vegetable production cannot be satisfactory. Government hardly announces support price of cash crops.
- Cost of agriculture productions high in Nepal. So, Nepali production cannot completion with Indian or other nations productions.
- Lack of brand Nepali agriculture product unable to create international brand.

Conclusion

Agriculture sectors is the main economic sector of Nepal that covers livelihood of around 70 percent population. Nepal is known as agricultural nation but there are existed various problems in agriculture sectors. Lack of fertile irrigated plain land is the main problems of Nepal. More than 90 percent area is covered by mountain and hill so that Nepalese agriculture main crops production is limited in little land. In hill and maintain crops production is difficult and costly so people of hill area escape from agriculture. In hill and mountains some pain land also changes into barren land, however, some people run agro farm and livestock farm in this area. Fertile land of pain area are changing into residential area e.g. fertile land of Kathmandu, Pokhara, Chitwan, Butwal are converted as city area. Such practice is one of the big challenges for agriculture. Except lack of irrigation, lack of fertilizer, problem of support price, access of market also create problem on agriculture that discourage people to involve in agriculture. With facing such problems agriculture covers around 30% portion of national DGP.

Recommendations

Based on the above findings and discussion, the study ad made following recommendations:

1. To enhance the contribution of agriculture in national GDP, government should bring new policy on agriculture sector
2. Sustainable agro policy is needed in Nepal to create job in agriculture sector
3. Government should manage land for crops production because situation of crops production is not satisfactory
4. Poor and marginalized people are unable to take benefit from government so that government should provide support to poor and marginalized people whose livelihood only depend on agriculture and livestock.

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