The contribution of Agriculture Sector in the Economy of Afghanistan

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Abstract:
The purpose of this study is to identify the contribution of agriculture to the Afghanistan economy by examining the experience of 34 provinces as documented in commissioned case studies and various secondary sources (CSO directory, FAO reports, government publications, USAID reports, NGO reports, journals, and websites) for the period 2016 - 2017. Agriculture is the backbone of the Afghan economy, the contributions of agriculture to the country's gross demotic product (GDP) is 23% in 2017, while the labor force engaged in this sector is around 61.6%. The annual growth rate in Afghanistan is predictable 3.6%.Afghanistan produces organic fruits, nuts, grain, vegetables and livestock products including cashmere, skin,wool, and a significant amount of these commodities is moving towards the export market. Agriculturere presents about one-quarter of national GDP and is the second largest sector after services. Over the 70 %of the population are poor living in rural areas, and agriculture plays a significant role in their livelihoods.The most Afghan farms are very small, and their productivity is low over the years that farmers produce to satisfy the food needs of their household, with limited agricultural production entering commercial marketing channels and the trade account deficit overall. The GDP including opium was US$ 20.3 billion with GDP per capita of US$ 697. The agricultural sector is entirely run by private enterprises, including farmers, cooperatives, input suppliers, herders, agribusiness processors, and exporters.

Keywords: Importance, Agricultural, Economy, Contribution, GDP, Afghanistan.

1. Introduction

The majority of the Afghan population lives in rural areas, where poverty and deprivation are the most severe. Since almost all rural households depended directly or indirectly on agriculture and given the sector's large contribution to the global economy, agriculture can be expected to be an essential element of growth and development [1]. The country has not yet met the criteria for a successful the revolution of agricultural and production factor in agriculture lags far behind the rest of the world. Afghanistan's economy has faced widespread devastation over the last thirty years due to war and political instability wiping out the economic infrastructure and institutions across the country. The agriculture sector makes up approximately one-second of GDP and is vulnerable to wide fluctuations depending on weather and policy actions of Afghanistan's neighbors. Despite representing one-second of the economy, agriculture employs an estimated 60 percent of Afghans. The agriculture sector overall is very dependent on cereal and other annual field crop production which accounts for an estimated

23 percent of total agricultural GDP [2]. Agriculture has good growth potential and high influence for reducing poverty and creating jobs both on and off the farm.

"*The most people in the world are poor, so if we knew the economy of poverty, we would know much of the economics that matters. Most of the world people poor depend on agriculture, so if we knew the economics of agriculture, we would know much of the economy of poverty*" [3].

Through the varied geography and topography, out of 652,000 square kilometers of total land area, only an estimated 12 percent is arable, 3 percent of the land is considered forest covered, 46 percent is under permanent pasture, and 39 percent is mountainous, not usable for agriculture [4]. There is cultivation plant by land face water and rainfall also rainfed wheat essential for cereal production. Wheat is the primary crop for production of cereal. Also, wheat uses for consumption 89% comparison too there grins. Fruits including watermelon, melon, apricot, pomegranate, and almond are essential for exports [5].

To rapidly increase the rate of agricultural growth, rather than trying to drive the whole agrarian sector forward at the same time, it may be more sensible to focus attention on a few "first movers:" priority on imported products and export traditional crops, and drive value chains for these hard for growth and creation job in the expectation that the rest of the sector will follow. Such an approach is very similar to that of the Asian Green Revolution, where a first thrust on the substitution of wheat and rice imports in high-potential irrigated areas has led to significant growth in agricultural employment and rural transformation [6]. The study shows that despite recent skepticism, agricultural growth is still vital for most low-income in Afghanistan. The ability of Afghan farmers to find pathways out of poverty and to contribute actively to the growth process depends on improving infrastructure and education, distributing key technologies and inputs, and promoting producer and marketing organizations that link small farmers to new market chains. The challenge is therefore to develop new institutional arrangements between the public and private sectors that foster private sector development without leaving smallholder farmers isolated during the transition [9].

2. The Methodology of the Review

The main subjects covered by this study include a general outlook of agricultural sector in Afghanistan, contribution to national income, job creation and well-being for rural populations, sectoral contribution to GDP, and present situations of key subsectors (food supply source, livestock, and horticulture). It was aimed to understand their structure, performance, and potential for development. The data of the study collected from various secondary sources, (CSO, FAO reports, government publications, USAID reports, NGOs reports, journals, and websites) for the period of 2016 - 2017. Lack of sufficient time-series data on crop and livestock production, domestic consumption, exports, and their respective prices made the quantitative evaluation of the sector very difficult. There are serious gaps in the data collected during the years of conflict, and many of the data available are of uncertain quality and contain noteworthy contradictions. The years of conflict saw a shortage of field-based studies on critical agricultural issues. Many agricultural activities also failed or were disrupted during the conflicts, leaving few successful models that can be scaled up. Further, the deteriorating security situation significantly limited field trips during the review period.

3. Agriculture Economics Growth

Afghanistan is an agricultural country with 80% of the population lives in rural area. Most of the Afghan economy's output comes from agriculture. Agriculture is the most crucial sector of the economy, as the majority of the population is dependent on crops and has a long tradition in horticulture and livestock production, including for export. A major part of this production is wheat, and more generally cereals, produced for domestic consumption. The agricultural value added is estimated at Afs 316510 million or about 23% of GDP in 2016-2017 respectively. Overall the Agriculture sector has increased compared to last year by 12.4 percent [7]. The reason for this increase was due to enough rainfall in spring, which affected agriculture production. Agricultural production in Afghanistan almost entirely depends on melted snow and spring rains to provide water. The good weather contributed to high cereal production, even in good years. Maximizing growth in agriculture will require investing more in the expansion of irrigated land; improving the conveyance of irrigation water and the on-farm management of this water, and developing services for generating knowledge and disseminating technology. The agriculture sectors share in overall employment in Afghanistan is 60 %. The total officially recorded exports from Afghanistan was USD$ 482 million and imported $3.77B, resulting in a negative trade balance of $3.29B, during the last five years the exports of Afghanistan products have decreased at an annualized rate of -15.486%, from $ 531M in 2011 to $482M in 2016. The major export items were carpets and rugs (17% of the total export of the country), dried fruits 37%, medicinal plants 6%, fresh fruits 5%, skin 2% and other items 33%. Hence, dry fruits constitute an important export item from Afghanistan. The major export country of Afghanistan is India ($220M), Pakistan ($199M), Iran ($15.1M), Iraq ($10.1M) and Turkey ($9.1M). Afghanistan's agricultural products earned a global reputation for excellence, particularly almonds, pomegranates, pistachios, raisins, and apricots. Afghanistan is now re-establishing its place on the international market.
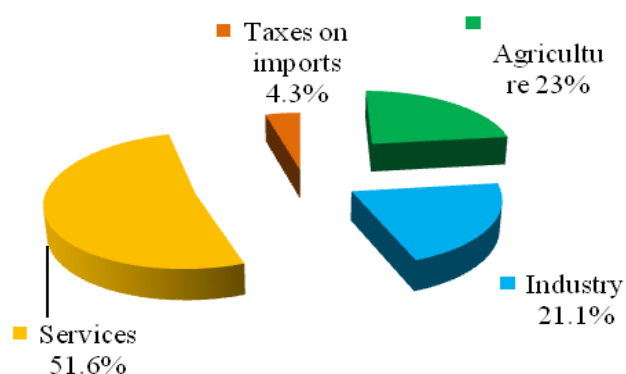
3.1 Contribution to National Income

The financial value of all the finished goods and services produced within the borders of a country during a given period. Although GDP is generally calculated on an annual basis, GDP includes all private and public consumption, government outlays, investments, private stocks, paid construction costs and the foreign trade balance (exports are added, imports are subtracted). Simply put, GDP is a broad measurement of a nation's overall economic activity (Anonymous, 2017). In order to show economic condition in the country, GDP for Afghanistan is compiled into two categories; GDP includes opium and GDP exclude opium. GDP including opium was 1373275 Million Afs) US$ 20.3 billion (with GDP per capita of Afs 47030 equal to US$ 696. GDP excluding opium was (1333812 Million Afs) US$ 19.7 billion (with GDP per capita of Afs 45678 equal to US$ 676. [8]. Table 1 shows the agriculture contribution Gross Domestic Product (GDP) in Afghanistan from 2013 – 2017, while cereals crops contribution is 8.5%, Fruits 3.3 %, livestock 2.9 and others agriculture production is 8.4% in the year of 2017. **Table 2** shows the agriculture % GDP growth rate at the constant price from 2015 – 2017, whereas the GDP growth rate in cereals crops is –4.7%, Fresh Fruits 32.1%, livestock 0.2 and others agriculture production is 6.3% in the year of 2017. Table 3 shows the Gross Domestic Product (GDP) Agriculture Activity in Current Price 2015 -2017, as the agriculture production is 316510 million Afs (Afghanistan currency) in 2017[14].

3.2 Sectoral Contribution GDP

The agriculture sector in Afghanistan contributed 23% to the Gross Domestic Product (GDP), while industry contribution is 21.1%, Services 51.6% and tax on imports 4.3% as shown in Figure 1[5].

Figure 1. Sectoral Contribution GDP

3.3 Food Supply Source

Agriculture is the essential source of food supply for all countries, whether they are underdeveloped, developing or even developed in the world. Table 4 shows the quantity of cereals crops production (tons), the total average cereals crops production was 6.189 million metric tons in Afghanistan between 2013 -2017. In 2017, cereal production for Afghanistan was 5.525 million metric tons. The deceleration in growth was primarily driven by the decline of the agriculture sector. Wheat is a major crop for food. Every year cultivated on irrigated and rainfed area the average wheat production in 2013-2017 was4.96 million tons. The average of rice production was 0.463 million tons which decreased in 2017 by 13.03% compared to the previous year. This decrease in production was due to a reduction in the area of cultivation. The average production of barley was 0.448 million tons compared to last year decreased by 25.09%, and maize production was 0.313 million tons. The production of both rain-fed and irrigated wheat, which account for almost 80 percent of Afghanistan's entire output of cereals, fell, mainly due to low rainfall. By contrast, the fruit output increased by around 7 percent. In 2017, the production of cereals declined by an additional 2.1 percent, with the per hectare yield of wheat falling by 8 percent due to crop diseases and pests. Table 5 shows the crop yield of agricultural products (Kg/Ha), the total average wheat production is 2067 Kg/Ha, rice 2646 Kg/Ha, barley 1442 Kg/Ha, maize 2229 Kg/Ha, potato 12894 Kg/Ha, sugar beet 9184 Kg/Ha, sugar cane 16963 Kg/Ha and almond 1779 Kg/Ha in Afghanistan between 2015 -2017.

3.3.1 Livestock

The livestock sub-sector is another key component in Afghanistan's economy; livestock currently contributes about 15 percent of agricultural GDP. Afghanistan exports some livestock products mostly skins, wool, and cashmere. Livestock Products such as wool, milk, meat, skin, and fat are an important source of income for the farmers and a good food source for the farmer households. Based on the last three years reports by the ministry of agriculture, irrigation, and livestock, the average numbers of animals are cattle's 5.2 million, sheep 13.3 million, goats 7.4 million, camel 0.17 million, horse 0.17 million, ass 1.4 million and chickens 11.9 million.

3.3.2 Horticulture

Horticulture subsector plays a vital role in providing livelihood to the farmers; horticulture contributes 34 percent of agricultural GDP. The major fruit varieties are apple, pomegranates, apricots, mulberries, grapes, and almonds. Fruit cultivation area was 181 thousand hectares. However, orchards products are the major source of income for farmers in many areas of the country, and the majority of large and medium-sized orchards are exclusively for markets. According to the ministry of agriculture, irrigation, and livestock, the fruit production in the year of 2017 was 1.2 million tons, whereas production of vegetables was 427.9 thousand tons, Potato and onion are major vegetables they are specially used for food in the country [12].

3.3 Job Creation and Well-Being of Rural Populations

In Afghanistan, more than 60% of the total labor force is dependent on agriculture. Agriculture provides large-scale employment opportunities for rural people in underdeveloped and developing countries. It is an important source of livelihood. Typically, landless workers and marginal farmers are engaged in non-agricultural jobs such as handicrafts, furniture, textiles, leather, processing industries, and in other service sectors. To raise the agricultural surplus caused by increasing agricultural production and productivity tends to improve social well-being, particularly in rural areas [13].

4. Conclusion

From the explanation of above conclude that the agriculture plays an important role in the economic development of a country. It has already made an important input to the economic prosperity of advanced countries and its role in the economic development of the least developed countries is the essential importance. "The increase in agricultural output and the rising per capita income of the rural community, as well as industrialization and urbanization, leading to an increased demand for industrial production" [11] Agriculture provides employment opportunities for rural people on a large scale in underdeveloped and developing countries. It is an essential source of livelihood. The agriculture sector development would tend to increase the farmers purchasing power, which will help the growth of the non-agricultural sector of the country. It will provide a market for increased production.

Investment in research, extension and irrigation infrastructure is key to transforming the agricultural sector in Afghanistan. The role of the government is to improve research stations, which play a significant role in the development of new varieties to increase productivity, shelf life, and marketability. The extension is the key to disseminating new technology among farmers through field days and demonstration programs. Improving irrigation infrastructure and on-farm water management will help farmers achieve self-sufficiency and productivity.

4. References

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APPENDICES

Table 1. Agriculture Contribution as % of GDP

Sector	2013	2014	2015	2016	2017
Agriculture	**25.4**	**24.7**	**24.1**	**21.8**	**23.0**
1. Cereals	10.6	10.6	11.0	9.7	8.5
2. Fruits	2.4	2.1	2.6	2.5	3.3
3. Livestock	3.1	3.0	3.0	3.0	2.9
4. Others	9.3	9.1	7.5	6.6	8.4

Table 2. Agriculture % GDP Growth Rate at Constant Price

Sector	2017	2016	2015
Agriculture	**12.4**	**-16.9**	**3.7**
1. Cereals	-4.7	-14.2	3.7
2. Fresh Fruits	32.1	7.2	18.9
3. Livestock	0.2	0.4	0.1
4. Others	6.3	-2.2	-14.9

Table 3: Gross Domestic Product in Agriculture Activity in Current Price Figures in Million Afs

Sector	2017	2016	2015
Agriculture	**316510**	**274103**	**294038**
1. Cereals	116568	121693	134306
2. Fruits	44654	31556	31822
3. Livestock	40102	37629	36580
4. Others	115186	83225	91329

Source: Afghanistan Statistic Organization Yearbooks, 2017.

Table 4. Cereals Crop Production Tons

Indicator	2017	2016	2015	2014	2013	Average
Total cereal	**5525177**	**5802040**	**6744259**	**6507329**	**6364000**	**6188561**
Wheat	4555110	4673040	5370259	5169235	5050000	4963529
Rice	356565	410000	537000	512094	500000	463132
Barley	301856	403000	521000	514000	504000	448771
Maize	311646	316000	316000	312000	310000	313129

Source: Ministry of Agriculture, Irrigation, and Livestock

Table 5. Crop Yield of Agricultural Products Kg per/ Ha

Indicator	2017	2016	2015	Average
Cereal				
Wheat	1980	2196	2024	2067
Rice	2996	2500	2441	2646
Barley	1377	1429	1521	1442
Maize	2052	2146	2488	2229

Table 6. Livestock by Type of Animal Figures in Thousand

Animal	2017	2016	2015	Average
Cattle	5234	5261	5349	5281
Sheep	13265	13218	13485	13323
Goat	7448	7723	7059	7410
Camel	170.5	170	171	170.5
Horse	171.2	173	171	171.7
Ass	1472	1481	1441	1464.7
Mule	24.9	24.5	24	24.4
Chicken	11899	11863	11098	11620

Table7. Fruit Production and Area

Nuts	Products (ton)	Area (hectare)
Peach	15306	3110
Almond	32843	19481
Pomegranate	99871	9721
Apple	140903	19365
Grape	874541	82450
Walnut	6515	3949
Potato and beet	429499	96946
Potato	427917	35699
Sugar beet	1582	202
Sugarcane	17364	1333

Source: Ministry of Agriculture, Irrigation, and Livestock, 2017