

Role of Agricultural in the economy of Bangladesh

Introduction

Agriculture is the methodologies of arts and crafts of cultivating crops, nurturing animals, producing foods. Bangladesh is a delta land with so many rivers which makes the land much more fertile. Agriculture has always been a major factor of our economy. At Least 40% of the employment comes from agriculture(Asian Development Bank, 2023).

Smallholder farmers still control the majority of Bangladesh's agriculture, which is based primarily on rice but is becoming more diversified with high-value crops like fruits, vegetables, livestock, and fisheries as shown in the figure 1.(Asian Development Bank,2021)

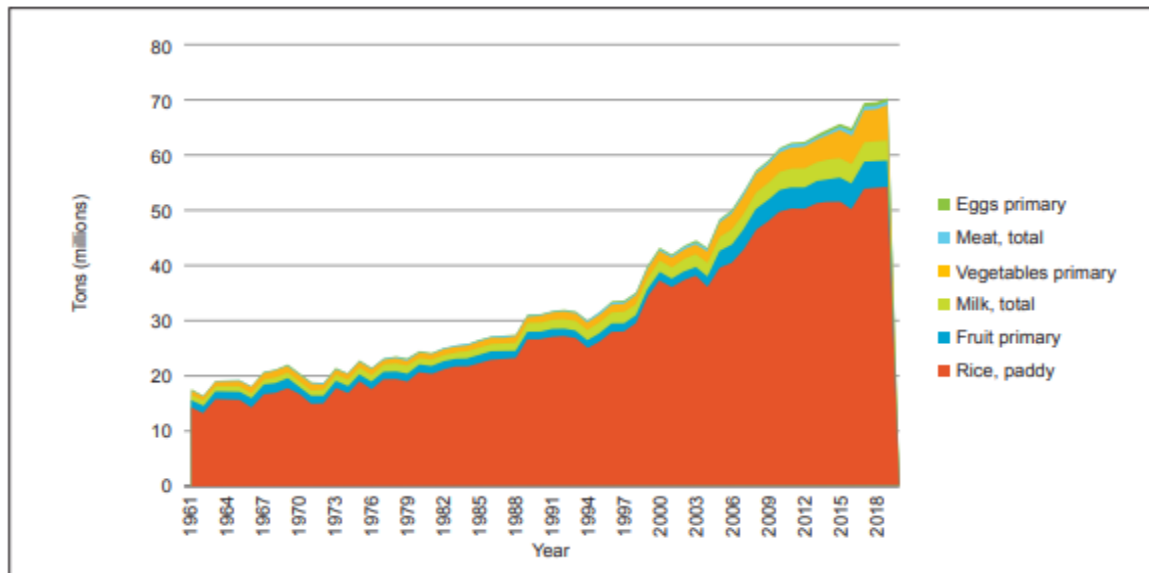
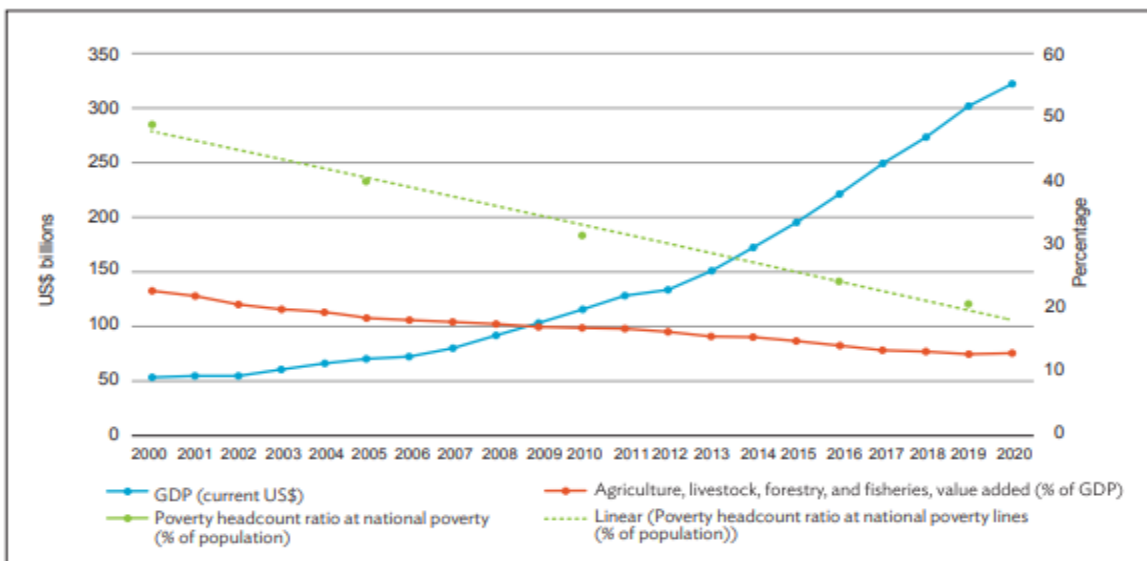


Figure 1: From 1961 to 2018 crops and livestock production in Bangladesh

Meanwhile handmade tools, use of domestic animals and intense physical labor are still main methods of farming today as most of the farmers belong below the poverty line but recent government subsidies and incentives are being introduced to farmers for modernization, greater productivity and more crop diversification.

Impact of agricultural on the economy of Bangladesh

Bangladesh is substantially an agricultural nation, and the sector is essential to boosting economic expansion. The agricultural sector employs around 41% of the workforce and accounts for 14.74 percent of the country's GDP, according to the Quarterly Labour Force Survey 2015–16 (Bangladesh Bureau of Statistics, n.d.). Bangladesh has achieved food self-sufficiency and is currently importing a range of agricultural products to the Middle East, the United States, the United Kingdom, and the European Union. This year, Bangladesh exports were \$637 million in the past eight months according to the export promotion bureau(EPB) (Chakma, 2024). As shown in Figure 2, Bangladesh's GDP has grown significantly from 2000 to 2020, while the poverty headcount ratio has steadily declined (Asian Development Bank, 2021).



GDP = gross domestic product, US = United States.

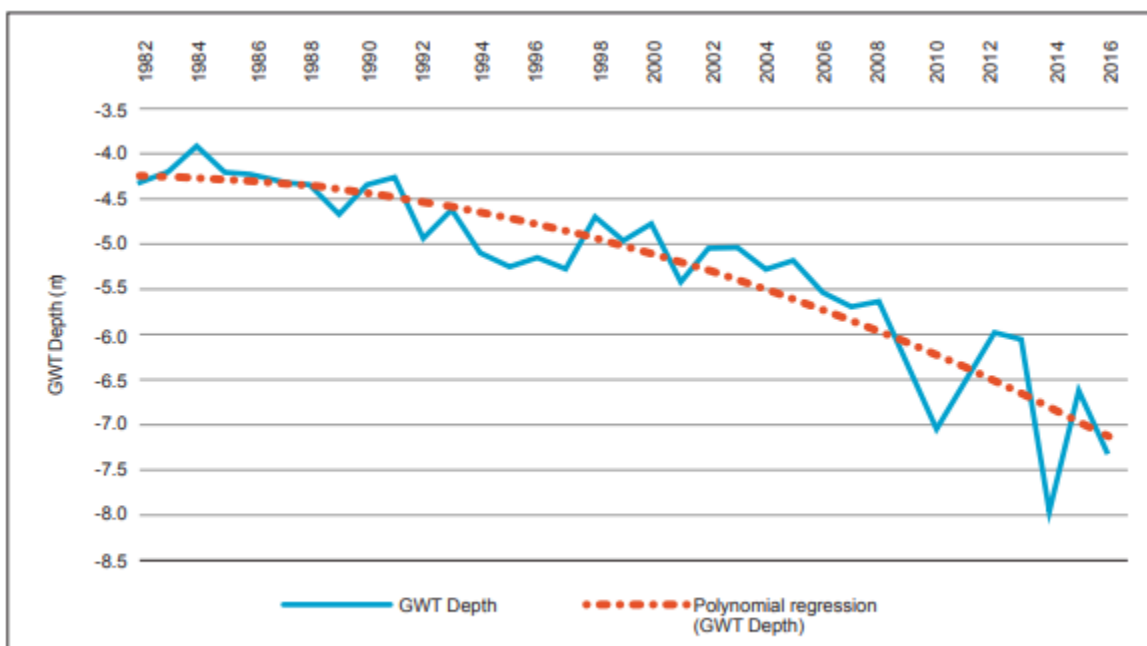
Figure 2: Bangladesh's Gross Domestic Product, Agriculture, and Poverty, 2000–2020

Bangladesh is the 7th largest mango producer in the world and there is a whole industry created based on it(Rahman, 2021). The north-eastern side of the country especially Chapai Nawabganj, Rajshahi area is famous for mango production. In 2021-22, total 18,515 hectares land was used for production and it is increasing every year according to the Agricultural Extension Department. In recent years, exporting mango is growing rapidly. In 2017–18, 310 tons were

exported; in 2018–19, 283 tons were exported; in 2020–21, 1,632 tons were exported; and in 2021–22, 1,757 tons were exported(Dhaka Tribune, 2023).

Importance of Sustainable Agriculture

Sustainable agriculture is a new approach to reduce the pressure of natural resources and help the environment. Crop rotation, intercropping, companion planting etc are different methods used to maintain the soil health and water quality. Due to the ongoing usage of dangerous agrochemicals and the depletion of land and water resources, Bangladesh's agriculture is under attack.(LGED, n.d.) shown in figure 3.



GWT = groundwater table, m = meter.

Figure 3: Groundwater Table Depth in Northern Bangladesh, 1982–2016

With continued support, the Bangladeshi government is pursuing sustainable farming methods to increase longevity and environmental safety (Project, 2024).

In Bangladesh, sustainable agricultural methods include water-saving irrigation, agroforestry, crop rotation, organic farming, integrated pest management, and resilient crop types. Such methods serve the environment and ultimately contribute to sustainable agriculture and a balanced ecosystem by improving soil health, conserving water, reducing chemical pollution, promoting biodiversity, and helping farmers adapt to climate change.

Agricultural challenges and their solutions

Bangladeshi farmers face several challenges during the agricultural activities which ultimately have a bad effect on their productivity, sustainability, and even in financial stability.

1. Bangladesh is one of the most vulnerable countries when it comes to climate disasters which include drought, flooding, unpredictable rainfall.

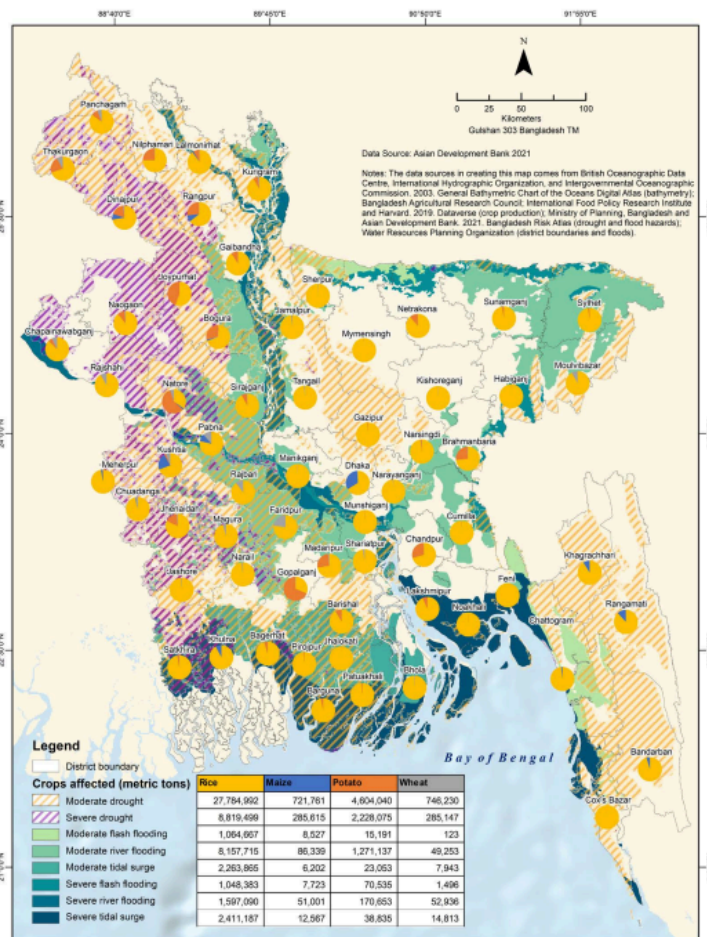


Figure 4: highlights the estimates of crop losses caused by droughts and floods across Bangladesh, showing the severity and distribution of these impacts (Asian Development Bank, 2021)

2. Many Bangladeshi farmers still today use handmade tools for farming. They do not have access to modern farming tools and technologies.

3. Inadequate land management, excessive chemical fertilizer use, and intensive farming have all contributed to soil degradation.
4. Inadequate irrigation infrastructure contributes to water scarcity in many locations.

Solutions to address the above mentioned challenges and long-term support for farmers -

1. Encouraging farmers to use new GM crops which are more resilient to climate change.
2. By offering rental services or subsidies, government initiatives or cooperatives can make machinery accessible, lowering the cost of contemporary equipment.
3. Farmers can use more organic products instead of chemical fertilizers and pesticides which will also help to preserve soil health .
4. Governments can take many different measures for the most affected areas so that the farmers can cope up with the drastic effects of climate change.

Conclusion

In summary, the agricultural sector has come a long way and a long way to go. Being an agriculture focused country, Bangladesh still depends on agriculture in many ways. From economy to livelihood, agriculture plays an important role. Adapting new technologies has helped the country to become self-sufficient in food production. The government's new policies have also played a pivotal role in it.

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