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Youth Entrepreneurship in Agribusiness Bangladesh Country Report

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List of Acronyms

BDT	Bangladeshi Taka
BRAC	Bangladesh Rehabilitation Assistance Committee
BVCA	Bangladesh Vermi Compost Association
CBO	Community based organization
CSO	Civil society organization
DAE	Department of Agricultural Extension
DAM	Department of Agricultural Marketing
DYD	Department of Youth Development
FAO	Food and Agriculture Organization
FBO	Farmer based organization
GBK	Gram Bikash Kendra
GBK-E	Gram Bikash Kendra Enterprise
HVA	High value-added
ICT	Information and communications technology
IFAD	International Fund for Agricultural Development
IGO	Intergovernmental Organization
ILO	International Labor Organization
NATP	National Agricultural Technology Program
NEET	Not in employment, education, or training
NGO	Nongovernmental organization
NYP	National Youth Policy
PACE	Promoting Agricultural Commercialization and Enterprises
PKSF	Palli Karma-Sahayak Foundation
PROMISE	Promoting Incubation Support to Enterprises
SFSA	Syngenta Foundation for Sustainable Agriculture Bangladesh
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
YE	Youth entrepreneur

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Executive Summary

Youth entrepreneurship is identified as an important pathway to harness the demographic dividend. It provides a means for growth and productive employment in developing nations. The agriculture sector in developing countries like Bangladesh has the potential to create opportunities for youth entrepreneurship, but certain key challenges can constrain progress. These challenges include lack of skills training support and poor access to credit, infrastructure, technology, and markets. To address these concerns, a first step is to recognize factors that contribute to the success of youth entrepreneurs (YEs), identify key stakeholders who can create and support entrepreneurial opportunities, and design ways to expand the scale of existing YEs.

This report is part of an international multi-country comparative study on youth entrepreneurship in agribusiness. It uses a conceptual framework on key drivers of the success of youth entrepreneurship. It provides a literature review of the status of the policy, institutional, technological, business, and individual environments that support youth entrepreneurship in Bangladesh. A case study approach is used to understand the support and constraints faced by existing rural and urban YEs. Using the insights from the literature and case studies, key lessons and recommendations are provided to strengthen youth entrepreneurship in the agriculture sector in Bangladesh.

Bangladesh has enacted policies that support youth entrepreneurship and overall growth and development of the agriculture sector. Several programs have also been implemented which promote youth entrepreneurship in the agriculture sector specifically. Notwithstanding the presence of these policies and programs, several challenges remain. Some policies provide objectives but no coherent strategies to accomplish them. Besides, monitoring and evaluation mechanisms to assess progress are lacking. Available programs have financial, technical, and geographical constraints and thus are not able to meet the differentiated needs of all YEs based on their geographical location, nature of business, and scale of operation. Getting sustainable support remains a major concern. Programs may provide inputs, credit, and training at a point in time, but continuous support is weak.

Based on the case studies in the report, some key insights emerge. Most YEs experienced challenges in setting up and running their business. While they all received support, it was not sufficient for them to undertake sustainable future growth. Support from family and community members was extremely useful for most YEs. In fact, a few received land from their family to start the business. Local communities supported YEs by providing advice and buying their products. Institutional support to access markets was weak because of the absence of such institutions in local areas and their focus on only certain types of business, which often exclude small-scale businesses. Most YEs view access to credit as a key constraint to future growth since credit support has been limited and the cost of credit remains high. Skills training support has been useful for all YEs, but certain issues in terms of quality, frequency, and access to training and the absence of training for certain specialized agribusiness topics remain. Access to key inputs continues to be a challenge. Overall, in addition to government support, support from local

nongovernmental organizations (NGOs), development partners, and the private sector was useful to different extents for all YEs.

Overall, significant challenges remain at the policy, institutional, technology, business, and individual level in support for youth entrepreneurship. Efforts are needed to improve access to credit, technology, infrastructure, and training. This is necessary not just to create more opportunities but also to expand the scope for existing YEs who currently have small-scale operations. Multistakeholder collaboration between the government, local NGOs, the private sector, and international donors needs to be strengthened. Industry experts must be involved to build the capacity of YEs in their respective agribusiness fields.

1. Introduction

Youth is a time of transition from dependence to independence, and one marked by critical decisions that affect the future of the individual and society. A successful transition can result in a well-adjusted adult who is able to prosper and to contribute to the economy and society (IFAD 2019a).

Approximately 1 billion youth between the age of 15 and 24 live in developing countries (IFAD 2019a). While the global youth population increased between 1999 and 2019, the total number of young people engaged in the labor force decreased. About one-fifth of young people are currently “not in employment, education, or training” (NEET), indicating that they are neither gaining experience in the labor market nor receiving an income from work, or enhancing their education and skills (ILO 2020). Projections suggest that the youth cohort will reach 1.29 billion by 2030 and 1.34 billion by 2050 (UN 2020).

Since one-half of the youth population resides in rural areas in developing countries, young people can be the driving force for inclusive rural transformation. Yet many face barriers to their participation in the rural economy, especially in the agriculture sector. Inadequate education, training, and knowledge and limited access to financial services, including credit, savings, and insurance, hinder them from venturing into entrepreneurial activities. It is argued that if these issues can be addressed and governments can harness the potential benefits of ICT (information and communications technology) in agriculture, youth entrepreneurship can significantly strengthen rural economies (World Bank and United Nations Conference on Trade and Development (UNCTAD) 2018; IFAD 2019a).

Given this backdrop, this report focuses on youth entrepreneurship in agribusiness in Bangladesh. The following section provides the methodology and the conceptual framework used. Section 3 presents an overview of the nature and status of youth employment in Bangladesh, and specifically in the agriculture sector. It discusses the nature of the policy, institutional, regulatory, technical, and business environments available for YEs in Bangladesh. Section 4 presents seven case studies of YEs working in agriculture. Section 5 gives key findings and lessons learned from the case studies. Section 6 provides recommendations based on the key lessons, while section 7 gives concluding remarks.

2. Methodology

The key research question addressed in this study is “What are the drivers of empowering rural youth through entrepreneurship in Bangladesh?”. This section describes the methodology, including case study selection, conceptual framework, and data collection process.

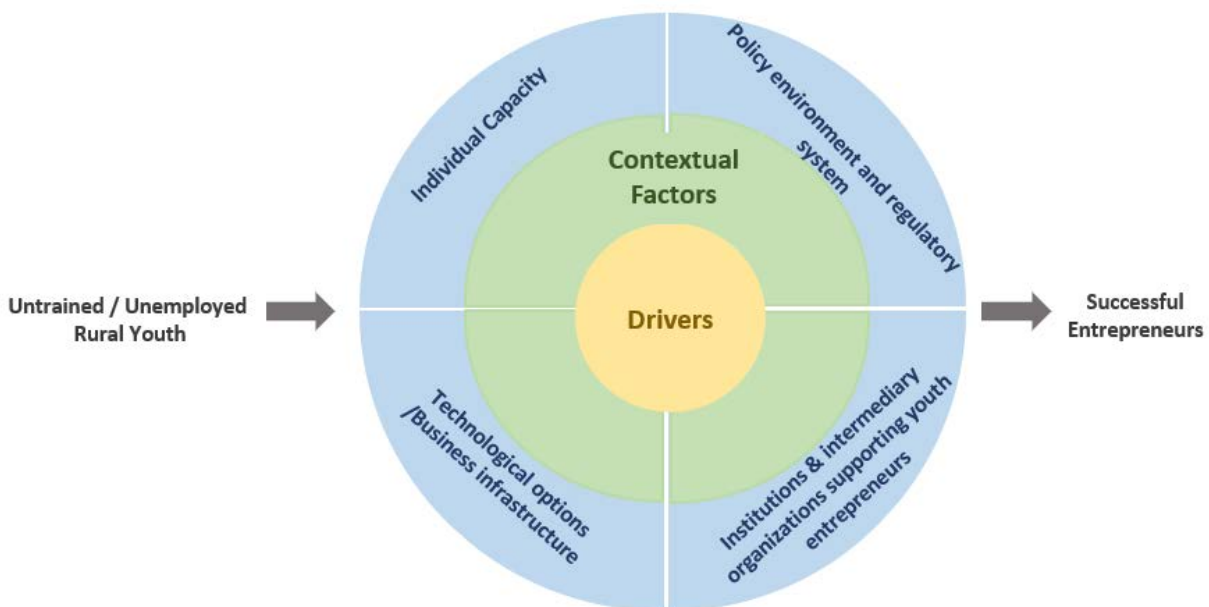
Case Study Selection

To address the question, we begin with a country-level business ecosystem analysis to identify potential youth models in agribusinesses and rural enterprises. Based on the analysis and other selection criteria such as age, type of business, approachability, and primary forms of support received (from the public, for-profit, and not-for-profit sectors), we selected seven YEs for case study.

Conceptual Framework

A set of contextual factors and key determinants of rural entrepreneurship and empowerment have been identified. Figure 1 illustrates the framework applied in the case studies. The model evaluates each case study across four key components: policy environment and regulatory system, institutions and intermediary organizations supporting YEs, technological options and business infrastructure, and individual capacity and skills. Each of these components comprises a set of factors and drivers that encourage rural youth empowerment through entrepreneurship.

Figure 1: Framework for rural youth empowerment through entrepreneurship



Source: Authors' compilation

The advantages of using this framework are fourfold. First, it helps to identify issues at the policy system level in various political economy settings. Second, it can identify and compare individual capacity and skill constraints that youth face in different policy and business environments. Third, it can trace the interventions needed at the institutional and regulatory level where gaps may work for and against youth engagement in agribusinesses. Finally, it is readily amenable to operationalization and application to a broader set of country case studies.

Table 1: Selected key factors and drivers for rural youth empowerment through entrepreneurship

Strategic Areas	Contextual Factors	Drivers
Policy environment and regulatory system	Political environment development for youth / youth migration	National youth policies / social investment / youth development fund
	Public–private partnership opportunities	Harmonized policy system including an established entrepreneurship ecosystem
	Infrastructure for business / access to assets (such as land, markets, etc.)	Agribusiness strategies / policies (across agribusiness value chains)
	Governance and judicial system	Export / market / trade opportunities
	Sound financial system Regulatory environment	Access to credit and insurance Regulatory support
Institutions and intermediary organizations supporting YEs	Enabling business environment / financial services	Multistakeholder approaches to youth and market opportunities Access to finance and credit Access to knowledge and skill development
	Existence of Chambers of Commerce	Support from Chambers of Commerce for youth development
	Existence of technical institutions / skill development institutions / building youth capacity Existence of youth associations – networks and mentorship institutions Development of institutional partnerships in value chains	Farmers’ organizations, etc., encouraging youth development Agribusinesses courses available at technical institutions or post-secondary level
Technological options / Business infrastructure	Telecommunication infrastructure / ICT and its adoption	Connectivity / access to Internet / Cost of mobile phone / data
	Availability of technology and innovation Value chain development opportunities / agribusiness incubators / academic / research linkage	Access to new technology and its adoption by youth Youth are guided by an entrepreneur ecosystem with multistakeholder participation
	Information and knowledge system supporting youth Rural roads, storage/logistics infrastructure	Access to relevant and reliable information Access to input and output markets / processing and storage facilities
Individual capacity / Skills	Working / family business experience	Incentives and motivations
	Professional incubator facilities for youth	Education / aptitude for learning
	Access to knowledge and research	Ability / soft skills exposure
	Mentorship in business, networking and community support	Business attitude and professional outlook and skills

Source: Authors’ compilation

Based on the conceptual framework, each case study has four sections analyzing the driving factors of youth entrepreneurship.

Policy and regulatory environment: This component refers to the policy environment, particularly to the constraints and support it poses for the development of youth entrepreneurship. It highlights potential policy and regulatory changes needed to further

promote youth entrepreneurship in agribusiness. Drivers of successful youth entrepreneurship include effective national youth policies, social investment, youth development funds, agribusiness strategies related to youth, access to credit and insurance, as well as market and trade opportunities. We hypothesize that an enabling policy environment that nurtures an entrepreneurship ecosystem and facilitates empowerment of YEs through multistakeholder participation is essential.

Institutions and intermediary organizations supporting youth: This component focuses on the roles played by relevant institutions and intermediaries in developing youth entrepreneurship. Key drivers include access to knowledge and skills development, support from Chambers of Commerce to pursue entrepreneurship ventures, and the availability of and access to agribusiness courses at technical or postsecondary institutions. We hypothesize that institutional support through multistakeholder approaches for connecting youth to agribusiness opportunities and providing credit, business education, skills development, and partnerships can drive engagement of rural youth as entrepreneurs.

Technological options and business infrastructure: These factors and drivers relate to technological solutions, including access to mobile technology and other infrastructure needed to successfully run agribusinesses. Information and knowledge about markets and prices can be made available to entrepreneurs through ICT. Payment through mobile phones and other infrastructure for online transactions are increasingly important for small businesses in developing countries. The development of cold storage facilities for commodities, as well as logistical support for marketing produce locally and internationally, are also needed. Finally, support for research and development helps adapt technologies to local conditions and ensures continuous improvement so that YEs remain competitive. We hypothesize that the availability of and access to appropriate technologies and infrastructure facilities help engage large numbers of agricultural youth.

Individual factors: Involvement of YEs in agribusiness depends on their individual circumstances. Studying these characteristics helps clarify the areas in which youth may need help to develop specific technical skills and gain human, financial, political, social, and material capital for effectively initiating and expanding businesses. Key drivers include incentives and motivation to pursue entrepreneurial opportunities, education and aptitude, ability, soft skills, and business attitude. We hypothesize that factors that contribute to youth's development of individual capacity and skills will help generate numerous agricultural YEs.

Data Collection and Interview Process

Detailed questionnaires were designed based on the conceptual framework. Select rural YEs were interviewed in personal meetings in the business setting. Field visits were made to business locations and operations of YEs. Policymakers, program managers responsible for youth programs in Bangladesh, and other key stakeholders were interviewed.

3. Literature Review

Overview of Youth Population in Bangladesh

Bangladesh is one of the most densely populated countries globally, with a population of over 160 million. This is projected to grow to well over 190 million by 2050 (World Population Review 2021). Youth constitute about one-third of Bangladesh's population. The government recognizes that there is a need to reap the benefits of the country's demographic dividend by empowering the youth population (Ministry of Youth and Sports, Government of the People's Republic of Bangladesh 2017).

According to available data, the share of youth NEET fell from 30.1 percent in 2010 to 26.2 percent in 2019. Similar trends were witnessed for the share of rural and urban youth NEET (Table 2).

Table 2: Share of youth not in employment, education, or training (NEET) (%)

Year	Total	Rural	Urban
2010	30.1	30.8	28.1
2013	30.4	31.2	28.4
2016	28.9	29.8	26.8
2019	26.2	26.8	24.8

Source: ILOSTAT

Additionally, according to the Labor Force Survey 2016-17, the share of unemployed youth in total unemployment was 79.6 percent and unemployment was highest among youth having a secondary level of education (28 percent). This indicates that education is not empowering youth with the right set of skills to be employable in the economy and that the country is unable to fully benefit from its "demographic dividend" (Rahman, Bhattacharya, and Hasan 2018).

Overview of Bangladeshi Youth Employed in the Agriculture Sector

As per the latest estimates, the agriculture sector employs approximately 38 percent of the Bangladeshi population and accounts for approximately 13 percent of its gross domestic product (GDP) (World Bank 2020b). According to the Labor Force Survey 2016-17, the nature of youth employment is another key issue: at the country level, 89.1 percent of the employed youth population between the age of 15-29 is engaged in the informal sector, and in rural area 89.7 percent of employed youth between the age of 15-29 is engaged in the informal sector (Labor Force Survey 2016-17). In addition, an earlier labor force survey stated that a key reason that a large proportion of working population in the rural area is employed in the informal sector is because most rural area activity is associated with agriculture and small business-related services and sales (Labor Force Survey 2013). Thus, it is likely that a majority of rural youth population working in the informal sector are engaged in agriculture and small business-related services and sales. According to estimates, the share of Bangladesh's youth employed in agriculture sector rose from about 44 percent in 2006 to approximately 52 percent in 2010 (Bangladesh Institute of Development Studies 2014; ILO 2013).

In recent years, several steps were taken to stimulate youth interest in agriculture and encourage entrepreneurial activities in the country. These steps include the focus on youth employment in agriculture through the 2017 National Youth Policy (NYP), skills-based initiatives by the government organization Palli Karma-Sahayak Foundation (PKSF), and other organizations such as Gram Bikash Kendra Enterprise (GBK-E) and Syngenta Foundation for Sustainable Agriculture Bangladesh (SFSA).

Current Initiatives Driving Youth Entrepreneurship

Given the backdrop discussed above, the following section summarizes some key existing initiatives on youth engagement and entrepreneurship in the agriculture sector related to our framework's four key indicators.

1) *Policy and Regulatory Environment*

Some key policy initiatives focusing on youth employment, entrepreneurship, and the overall agriculture sector are discussed below.

National Youth Policy (NYP), 2017

One of the key drivers identified for successful youth entrepreneurship is the presence of a national youth policy. In Bangladesh, such a policy exists – the 2017 NYP. The policy targets all young people in Bangladesh, including unemployed youth, youth in agriculture, rural youth, and YEs ((Ministry of Youth and Sports, Government of the People’s Republic of Bangladesh 2017)). Some of the key strategies discussed in the policy document include:

- i. Make the necessary investment and provide incentives for youth to engage in the development of agriculture.
- ii. Ensure food security for the present and future generations by investing in education and research on agriculture.
- iii. Motivate youth toward innovative use of natural resources in the country.
- iv. Engage youth in building social awareness about the best and most efficient use of minerals and all other natural resources.
- v. Provide comprehensive entrepreneurship training for youth who are so intending.
- vi. Create opportunities for youth to grow as drivers of the rural economy by utilizing their endeavor and skill and give them priority in sanction of the lease of Khaas (belonging to the government) agricultural land, ponds and “Jolmohal (natural large water body)”.
- vii. Establish a Youth Bank.
- viii. Bring all young men and women under the banking and insurance system.
- ix. Establish business incubators for giving practical advice to YEs.
- x. Take special measures to showcase and market products by YEs at home and abroad.

The 2017 NYP also focuses on other key policy drivers such as access to credit by creating a youth bank and covering the youth under the banking and insurance system. There is also a focus on creating opportunities for export promotion (Ministry of Youth and Sports, Government of the People’s Republic of Bangladesh 2017). It is worth noting that for several domains, including providing incentives to engage in agriculture, access to credit, export promotion, and skills

development, the policy does not outline any specific strategies for implementation, nor does it specify any targets for the aspects it covers.

National Agriculture Policy, 2018

The policy specifically talks about encouraging youth participation in the agriculture sector. To accomplish this objective, it focusses on activities such as setting up ‘Youth Farmer Clubs’, creating self-employment opportunities for youth by providing easy access to credit, training, and applying value addition techniques in production of crops, promoting high yielding and high value crops, and setting up small and medium agricultural industries. It also talks about taking initiatives to involve youth in activities such as agriculture input marketing, processing industry, fish farming, and animal husbandry. Just like in the case of NYP, the 2018 National Agriculture Policy does not outline any specific strategies for implementing the activities discussed above, nor does it specify any targets for the activities.

Informal nature of the agriculture sector and overall regulatory environment

According to estimates, the incidence of informal employment was very high in the agriculture sector (97.9 percent) in Bangladesh and thus regulation of this sector continues to be a major concern (Rahman, Bhattacharya, and Hasan 2018).

The World Bank’s *Doing Business 2020* report ranked Bangladesh at 168 for its overall business environment in the 2019 global ranking, up from 176 the previous year (World Bank 2020a). While the country still ranks low in terms of overall business environment, a key reason for this improvement in ranking from the previous year was that setting up a new business became less expensive with the reduction of registration and name clearance fees and removal of the certifying fee for digital certificates. Additionally, efforts were made to improve access to credit information due to expanded coverage by the credit information bureau. As per the report, Bangladesh also ranks low on “starting a business” indicator which measures the number of procedures, time, cost and paid-in minimum capital requirement for a small- to medium-sized limited liability company to start up and formally operate in each economy’s largest business city. Even for other indicators like “enforcing contracts”, and “getting electricity” and “registering property” Bangladesh is low in rankings (World Bank 2020c).

Some major business regulatory concerns in Bangladesh highlighted by World Bank Enterprise Surveys include political instability, corruption, access to finance, and infrastructure. It is argued that these constraints may explain the propensity of Bangladeshi firms to operate informally and may adversely affect their decision to invest (World Bank 2017). The overall business landscape in Bangladesh is marred by significant financial constraints, especially for micro and small enterprises. According to a recent IFAD study (2019b), about 87 percent of enterprises in Bangladesh are microenterprises, of which 58 percent are in rural areas. Financial institutions have not been able to expand operations to reach smaller enterprises, significantly constraining microenterprises from scaling up. A large gap in scale also exists between small and medium enterprises, with household microenterprises typically employing 2.0 people on average, compared to 5.4 in microenterprises, 7.7 in small enterprises, 99.4 in medium enterprises, and 660.4 in large enterprises.

2) Institutional Environment

Some key institutional initiatives focusing on youth entrepreneurship in the agriculture sector are discussed below.

Palli Karma-Sahayak Foundation (PKSF)

PKSF, an apex development organization, was established by the Government of Bangladesh in May 1990. Since then, PKSF has played a pivotal role in the development of Bangladesh's microfinance system, with its focus on pro-poor microfinance, provision of technical assistance, and microenterprise development. One of its core lending programs is Agrosor, which provides lending to microentrepreneurs (IFAD 2019b; Asian Development Bank 2020).

PKSF in collaboration with the International Fund for Agricultural Development (IFAD) implemented a project titled "Promoting Agricultural Commercialization and Enterprises (PACE)" in 2015 to expand Agrosor. Under this project, entrepreneurs receive financial and nonfinancial technical services and technological support to enhance their productivity and income. One key focus is youth empowerment and entrepreneurship through credit and vocational training for unemployed youth to enable them to have better employment opportunities within agricultural value chain. PACE also aims to introduce proven technologies and products (agricultural and off-farm) from Bangladeshi and international sources to microentrepreneurs (IFAD 2014, 2019b).

Bangladesh Rehabilitation Assistance Committee (BRAC)

BRAC is an international NGO that focuses on providing microcredit and skills training to vulnerable populations in Bangladesh and globally. Promoting Incubation Support to Enterprises (PROMISE) is a project implemented by BRAC that supports young entrepreneurs in Bangladesh to successfully develop their businesses. The project aims to create employment opportunities by the establishment of youth-led enterprises in local communities. It includes activity-based classroom training, tailored mentoring support, and access to finance (UNICEF and Ernst & Young 2019).

Extension System

Bangladesh has a pluralistic extension system that includes public, private, and other extension and advisory services actors. The public extension system involves several government departments and public research institutions, including the Department of Agricultural Extension (DAE), Department of Agricultural Marketing (DAM), and Bangladesh Agricultural Research Council (BARC). DAE employs field-level extension agents. A key weakness of the public extension system is its weak linkage with research institutions, which have more in-depth insights into local conditions. Additionally, DAE extension support mostly focuses on crops for food security, with a lack of support on agribusiness, quality, nutrition, and supply chain topics (Huber and Davis 2017).

Private sector extension actors include agricultural input manufacturers, contract farming organizations, wholesale market dealers, and local traders. A key challenge with the private extension system is that although there are many actors, none of them work at scale; thus the

number of private field-level workers is small. Other extension actors include multilateral and development agency projects as well as international and local NGOs and civil society organizations (CSOs) (Huber and Davis 2017).

Afrad, Wadud, and Babu (2019) found that extension partnerships between the public and private sector and NGOs are dysfunctional, and farmers fail to harvest the benefits from extension services due to their illiteracy and reluctance and also because of low technological competence of extension service agents.

National Agricultural Technology Program – Phase II Project (NATP-2)

The overall objective of the longer-term program NATP is to support the strategy of the Government of Bangladesh to improve national agricultural productivity, market linkages, and farm income, with a particular focus on small, marginal, and female farmers. The Government of Bangladesh and international donors including IFAD, the World Bank, and the United States Agency for International Development (USAID) jointly fund this program. In its second phase (NATP-2), the project aims to increase the agricultural productivity of smallholder farms and improve their access to markets in selected districts. Another key feature of the project is providing Agriculture Innovation Fund (AIF) matching grants to rural entrepreneurs (Government of the People’s Republic of Bangladesh 2017).

3) Technical and Business Infrastructure Environment

The 2018 National Agriculture Policy and the 2012 National Agricultural Extension Policy recognized several infrastructure and technology challenges in Bangladesh’s agriculture sector (Ministry of Agriculture, Government of the People’s Republic of Bangladesh 2013 and 2012, respectively). Some key challenges include inadequate production and supply of quality inputs, insufficient storage and processing facilities, inequality in access to land, and inadequate training for farmers and entrepreneurs. The desired level of mechanization has not been achieved due to the inefficient use of irrigation facilities, limited capital or credit facilities, and high fuel and energy costs. Vulnerabilities due to climate change are also becoming a growing concern (FAO 2016).

The use of ICT could enhance the involvement of youth in the agriculture sector and agribusiness. The 2017 NYP focuses on expanding youth access to ICT and enhancing their skills by training them to use ICT. The policy further proposes establishing Youth Digital Resource Development Centres at local levels. The government has taken steps to improve ICT infrastructure by investing in technologies like optical fiber and 4G/LTE (fourth generation/long-term evolution) mobile technology (Ministry of Science and Information and Communication Technology, Government of the People’s Republic of Bangladesh 2009; Centre for Research and Information 2017). As of April 2020, Bangladesh has approximately 101.2 million Internet subscribers, of whom 93.1 million are mobile Internet users, and 162.92 million mobile phone subscribers (Bangladesh Telecommunication Regulatory Commission 2020).

Bangladesh places low in the Networked Readiness Index (or Technology Readiness Index), which ranks countries on their performance to leverage information and communications technologies

to boost competitiveness, innovation, and well-being. Bangladesh ranked 112 out of 139 countries in 2016 (World Economic Forum 2016), indicating that Bangladesh needs to intensify efforts to considerably improve its ICT environment, particularly as it relates to agriculture. Based on the above review, Bangladesh clearly faces significant challenges in all key technological drivers, including technology, infrastructure, and market access.

4) Individual Factors

A significant proportion of youth are engaged in agriculture in Bangladesh. Nonetheless, the sector's contribution to the country's GDP is not commensurate with its employment (World Bank 2020b). The agricultural industry is often associated with hard labor, financial risk, and unstable income (Agrilinks 2019). Another key challenge to pursuing youth entrepreneurship in Bangladesh is the lack of focus on enterprise education at educational institutions (Uddin, Chowdhury, and Ullah 2015).

4. Case Studies of Youth Entrepreneurs

We present case studies from seven YEs (six rural and one urban) from Bangladesh at the individual level. The case studies highlight the YEs' stories, including their struggles, policy and institutional constraints, available opportunities for agribusinesses, and lessons learned. These case studies identify the driving factors that determine the development and success of youth entrepreneurship activities.

Case Study 1 – Sumon Choudhury, Vegetable Hub Entrepreneur

Summary

Sumon Choudhury is an entrepreneur who owns a Farmers' Hub business selling high-quality vegetable seedlings, renting machinery, and providing information to farmers. He was earlier involved in traditional cultivation and transitioned to the Farmers' Hub business due to low return on investment in traditional cultivation. Initially, he faced significant challenges in adopting production technology for his business. The technical training he received in the initial period was insufficient for producing soilless seedlings. He got some direct support from government organizations and NGOs like GBK-E and SFSA. Using mobile and Internet services to access information and cultivating a business network helped him to set up and maintain his business. He feels that more training on using the Internet would be very helpful. He has now become a role model for his young neighborhood community interested in innovative agribusiness. He intends to expand his business. A key challenge he anticipates is access to affordable finance. In the past, Sumon faced political biases in receiving government loans since he was an active supporter of the opposition political party. But things have become better over time, and political bias is not a barrier anymore. He has not received any institutional support on improving/facilitating access to markets/customers.

Background

Sumon Choudhury is 25 years old and holds a bachelor's degree. He is from the district of Nilphamari. His family includes 10 members; one of his brothers is involved in some contract

business and the other works for a private company. Initially, he supported his family in family farming and now runs his own Farmers’ Hub business, producing and selling high-quality vegetable seedlings. He is becoming a role model for the youth community and is asked to give technical advice on crop production.

Occupation before current venture and reason for the change

After graduating, Sumon supported his family farming business instead of entering any formal job. This work yielded low return on investment– his income was not commensurate with his education level. The traditional cultivation work required hard labor, which he was not interested in pursuing being an educated person. He subsequently became an entrepreneur and opened a Farmers’ Hub. A key motivation to enter the Farmers’ Hub business was that it provided a one-stop solution for farmers to get quality seedlings, machines, options for selling their produce, and access to information.

Initial challenges and support

He got to know about Farmers’ Hubs when he visited Nashik, a large nursery situated near Rangpur for high-value quality seedlings. To obtain high-quality seedlings, he reached out to the Farmers’ Hub in his area. He was invited to join a roadshow facilitated by SFSA, GBK-E, and LightCastle Partners, where he learned the steps of starting a business. He faced significant challenges initially as he knew nothing about adopting the new technology, and the initial short training was insufficient for producing soilless seedlings. There was a high risk involved in creating a market for this product and in incurring the huge cost. He received some financial support from his family members. The DAE Sub-Assistant Agricultural Officer gave him advice, and he received demonstration plots on rice, paddy, and wheat from a government project.

Table 3: Case Study 1 – Support received by the YE

From Where?	Financial	Material/In-kind	Technology	Advice/Training/Guidance
Family members	Received financial support from family	Received nursery land from his family	None	None
Community	None	None	None	Received community encouragement to start the business
Direct Government organization and support	None	None	None	Received advice from DAE’s local agriculture office on how to improve his nursery

IGOs/NGOs	None	None	Received technology support on seedling production	Received training on vegetable cultivation
Development project	None	None	Received demonstration plots for rice, paddy, and wheat from a government project	None

As shown in Table 3, he received support from family, community, government, and NGOs but none from the private sector.

Details about the venture: Costs, inputs, outputs, and outcomes

His monthly expenditure is BDT 40,000–45,000 and monthly income is BDT 100,000. His business has led to time savings for farmers as they can get valuable seedlings early in the season and get higher prices. There are also cost savings because of higher productivity than traditional farming. He has new avenues for rental machinery like weeders, seedling transplanters, different crushers for turmeric, and grass cutters. Now farmers can also sell their products to the Hub. The Hub created direct full-time employment for three people, all below 35 years of age, and seasonal jobs for five to seven people. Two female laborers work in the seedling growing business. Demand for female laborers arises during the nursery’s peak time for raising seedlings.

Table 4: Case Study 1 – Inputs, outputs, and outcomes of current business venture

Inputs	Outputs	Outcomes
Quality vegetable seedlings	Local farmers practice with quality vegetable seedlings	Farmers will produce high-quality vegetables, which generates an extra income for them
Agricultural advice, training, and market information	Local farmers can learn about modern cultivation technique and profitable agribusiness operations	Farmers can apply this information for better production and marketing, which increases yield and profitability
Promotional activities like making posters to advertise the business	People will be aware of modern cultivation and Farmers’ Hub services	More people will adopt the Farmers’ Hub services
Machinery rental services	Smallholders get access to farm machinery	Smallholders use modern farm machinery to enhance production and productivity

Opportunity for selling product	The Farmers' Hub provides a nearby market for farmers to sell their produce	Farmers sell their products at the Farmers' Hub and get a good price
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Future prospects

According to Sumon, this business has huge potential locally as there are no competitors within a 4-km radius of his area. He currently satisfies only 5–10 percent of the potential business. Geographical location matters for his business, so over the next five years, he wants to expand the business by investing in mechanization services for local farmers by purchasing a combine harvester, entering the export market, and establishing poultry, livestock, and fisheries business. A key challenge for his expansion plan is financial constraints.

Impact on the community

Sumon thinks that YEs like himself have a significant positive impact on smallholders served by the business as they are getting seedlings (with 100 percent survival) ahead of time, which can lead to early production, in turn lead to getting higher prices. As a result of this business, he is becoming a role model for his area's youth community. Farmers and society respect him for his services and advice. He is often asked to give technical suggestions for crop production by people who have bought his seedlings. Youth view his business as a more profitable alternative to other businesses/jobs, and unlike some other businesses, it does not have any fraud cases.

Institutional and regulatory environment

Sumon does not have access to any institution that facilitates market access. Getting a business license to operate a Farmers' Hub is not challenging with local support. As per government policy, any person starting a business must obtain a business identity from local government representatives, collectively called the Union Parishad. Sumon received his business license from the local Union Parishad.

Sumon received technical and business knowledge from GBK-E. GBK-E and SFSA also provide training on quality control of the commodities. This training helps him maintain the quality of seeds, seedlings, and inputs required to raise vegetable seedlings. He has an agreement with GBK-E and receives inputs from them. He applies all the regulatory rules as per the agreement. He also received training from LightCastle Partners and Venture Investment Partners Bangladesh Limited, which jointly provide technical support for business skills.

He communicates with the Youth Development Department at district and upazila (an administrative region in Bangladesh that functions as a subunit of a district) level. To contribute to youth development in his area, he volunteers for UNICEF, which deals with advocacy against early child marriage.

Table 5: Case Study 1 – Skills training support received by the YE

	Business skills	Marketing skills	Technological skills
Self-Made	Learned through his education	Learned from his brother, who provides marketing information	None
External Formal Training	Learned through GBK-E and joint training by Venture Investment Partners Bangladesh and LightCastle Partners on business skills	Learned through GBK-E training on marketing skills	Learned through GBK-E training on technical knowledge
External Formal Training (Institutional)	None	None	Learned through training from the Youth Development Department of the government

Based on Table 5, Sumon received external formal training and gained some skills through his education and interaction with other family members.

Technology and market access

The use of technology has significantly benefitted his business. He uses the e-Farmers' Hub app (a mobile Enterprise Resource Planning System (ERP)) to help him with financial management of his business and communication with other Farmers' Hub owners. Daily, weekly, and monthly reports are available on this app, which also provides a reminder for collecting dues from customers. YEs use this application to share their stories and help each other in developing their businesses.

With a mobile phone connection, he can communicate with farmers and traders and manage his business financials. He has access to the 3G network, but the connection is not very strong. He feels that low-cost data would help him learn more, using applications like YouTube and other Internet sources. More training on better utilization of mobile phone and Internet facilities would also help. Adequate institutional support for access to the market or access to consumers and clients for this YE has been limited. He points out that institutional support is provided only to businesses with high volume.

Individual factors

Sumon feels that his business is successful because he has taken risks, understood local demand, built technical expertise to advise his customers, and contribute to support young people in the community. Community people agree that Sumon's hub has helped in generating opportunities for local farmers. It has led to an increase in farmer income through productivity improvement.

Other community members would like to start such a business but feel that access to seedling production technology could be a constraint.

CASE STUDY 2 – Mamunur Rashid, Vegetable Nursery Owner

Summary

Md. Mamunur Rashid (Mamun) owns a nursery selling vegetable seedlings. He initially started with a pesticide retail shop and eventually expanded to a nursery. Other than family members, the only support he got was from NGOs like GBK-E, and SFSA in training on different vegetable cultivation. He sees great prospects in this business and may expand into rice seedlings as demand for quality seedlings is huge in his area. Access to a mobile phone has helped him create a network and get updated information about the market and technology. One major constraint to the future growth of his business is the lack of access to financial resources. Over time, due to his business's success, he has gained acceptance in the community and is invited to community social programs to contribute to the community's betterment.

Background

Md. Mamunur Rashid (Mamun) is 27 years old and has a bachelor's degree in commerce. He has five family members. When he just started the business, he communicated with local farmers to understand how to recognize his vegetable seedlings' quality. He established trials of different vegetables in front of his nursery to attract others. GBK-E provided some ideas like horticulture saplings for the expansion of his business. With the increased demand for quality vegetable seedlings in the area, Mamun's business is expanding. For Mamun, this success is leading to financial gains, income security for his family, and recognition in his community.

Occupation before the current venture and reason for the change

He used to cultivate vegetables with assistance from his father. He did multiple jobs in between, and then in 2014 started selling fertilizer and pesticides. He was once invited by a GBK-E field staff who provided him with technical knowledge to grow soilless vegetable seedlings. This interaction paved the way for Mamun to set up a nursery and sell vegetable seedlings.

Initial challenges and support

He pursued potato contract farming for a while. But due to unavoidable circumstances, his business failed, and it demotivated the farmers. Thus, it took time to start his new business. Table 6 provides details of the support he received.

Table 6: Case Study 2 – Support received by the YE

From Where?	Financial	Material/In-kind	Technology	Advice/Training/Guidance
Family members	None	Received land for establishing nursery from father	None	None
IGOs/NGOs	None	None	Received technical training on seedling production	Received training on vegetable cultivation

According to Table 6, he received some support from family and NGOs like SFSA and GBK-E. He did not receive any support from the government, community, private organizations, or development partners.

Details about the venture: Costs, inputs, outputs, and outcomes

His monthly expenditure is BDT 18,000–20,000 and monthly income is BDT 30,000. He currently does not have a permanent employee in his business. The benefits for farmers include time savings due to early access to seedlings, and cost savings because the damage from soilless vegetable seedlings is less than that from traditional vegetable seedlings.

Table 7: Case Study 2 – Inputs, outputs, and outcomes of current business venture

Inputs	Outputs	Outcomes
Inputs for producing Quality vegetable seedlings	Quality vegetable seedlings	Farmers will get extra income by producing and selling high-quality vegetables
Technical training on crop cultivation, business, and marketing	Enhancing knowledge on crop cultivation, running the business, and marketing the produce	Community farmers get advice on new technology for crop cultivation
Promotional activities like making posters to advertise the business	Creating awareness about the business	Greater awareness, leading to more people setting up this type of business

Current challenges

A key challenge he currently faces is the lack of credit access, which has limited his ability to expand the business. Given his business's nature and size, especially since he manages different business portfolios, time management is a major challenge. Maintaining the quality of his products is another challenge. He wants to spend more time ensuring that his products' quality is maintained since that is the key value proposition of his business.

Future prospects

Due to rising demand for quality seedlings, he wants to expand his business. He plans to purchase a combine harvester and rice transplanter and use them to grow rice seedlings. To accomplish this, he will need financial support.

Impact on the community

Smallholders are benefitting greatly from this business due to the uninterrupted supply of seedlings early in the season, enabling them to get higher prices. Other youth in the community view this business as more profitable than other businesses. This business creates opportunities for youth employment, has a quick return, and does not have any fraud cases. Women are still not involved as employees, but his family members help him during seedling production.

Institutional and regulatory environment

As per government policy, he received a business license from the local Union Parishad. He has not received any institutional support for market access and networking. He received technical training from DAE on different crop cultivation technologies. He also received training from GBK-E and SFSA on quality control of the commodities and information on high-value crops.

None of the youth development programs in Bangladesh have contacted him yet, nor is he a member of any CSO or farmer-based organization (FBO) encouraging youth development in the region. He signed an agreement with GBK-E to receive inputs. GBK-E also provided him with some ideas on horticulture saplings for the expansion of his business.

Table 8: Case Study 2 – Skills training support received by the YE

	Business skills	Marketing skills	Technological skills
Self-Made	None	None	He has technical skills for operating a horticultural nursery
External Informal Help	Received from GBK-E	Received from GBK-E	Received from GBK-E

Technology and market access

The use of technology has helped him run his business effectively. Using the e-Farmers' Hub app, he can conduct his business's financial management and communicate with other Farmers' Hub owners. He has made independent efforts to access the market. For example, he established a shelf/rack for demonstrating vegetable seedlings in a nearby market that attracted other farmers. He is working on expanding his business by communicating with local farmers to understand about the quality of his vegetable seedlings. He does varietal trials of different vegetables in front of his nursery to attract others.

Individual factors

He has a positive attitude and understands the value of his business and its impact on the community. He has already acquired the soft skills required for running this business – confidence, understanding market demand, and customer relations. Due to his success, his community members have expressed interest in pursuing this activity as well.

CASE STUDY 3 – Jamal Uddin, Vegetable Nursery Owner

Summary

Jamal Uddin has a nursery business selling vegetable seedlings. Besides his family, he got support from the government, NGOs, and development projects in the area. He sees great prospects with continuing this business due to farmers' high demand to receive seedlings ahead of time. He anticipates access to inputs and finance to be key challenges in expanding his business.

Background

Jamal Uddin is 30 years old and studied until class 8. He has seven family members. Since childhood, he helped his father to transact agricultural products. He used to cultivate bitter melon in his crop fields. His prior business did not do well, and he eventually established a nursery. This led to financial gains and income security for his family and helped him gain respect in his community. He received training from DAE, GBK-E, and SFSA, which helped him grow and expand. A key area where he has not received adequate support is market access; instead, he has had to work independently to get market access. He has become a pivotal member of his community—people rely on him for technical support, connections, and general guidance.

Occupation before current venture and reason for the change

Jamal used to help his father in transacting agricultural commodities like vegetables and rice. He faced economic hardship, uncertainty, instances of fraud, and hard labor in the work with his father. He cultivated good-quality seedlings in the past but could not sustain the business due to heavy rainfall after plantation in the main field. Subsequently, he received an invitation from GBK-E and SFSA. This invitation led him to establish a nursery on his own land, for which he received financial support from his father.

Initial challenges and support

A key challenge he faced initially was the lack of technical knowledge, resulting in damage to many seedlings.

Table 9: Case Study 3 – Support received by the YE

From Where?	Financial	Material/In-kind	Technology	Advice/Training/Guidance
Family members	Received support from his father	Received land from his father to set up nursery	None	None

Community	None	None	None	Community people respect him and promote his seedlings
Private organizations	None	None	None	Receives information from private companies that deal with seed, fertilizers, and pesticides on their new products, but he is not dependent on them
Direct Government organization	None	None	Received sapling of different fruits, seeds of onion, and fertilizers for demonstration plots	Received training on cultivation technologies of different crops
IGOs/NGOs	None	None	Received credit for crop cultivation Received demonstration plot on onion cultivation	Received training on cultivation technology for different vegetables and crops

Jamal received support from the government, private organizations, and NGOs.

Details about the venture: Costs, inputs, outputs, and outcomes

His monthly expenditure is BDT 20,000–25,000 and monthly income is BDT 45,000. Additionally, time savings accrue as he can grow the seedlings in the prior season and get a higher price. Due to the technical, business, and managerial skills he has received, he has been able to add value to his business. He presently employs one person.

Table 10: Case Study 3 – Inputs, outputs, and outcomes of current business venture

Inputs	Outputs	Outcomes
Inputs for producing Quality vegetable seedlings	Local farmers are using these quality vegetable seedlings for production	Farmers will produce high-quality vegetables, which creates extra income
Technical training on crop cultivation, business, and marketing	Enhancing knowledge on business management, marketing, and crop cultivation	Farmers receive technical advice on new crop cultivation

Current challenges

Jamal mentions that affordable and easy access to credit is a key challenge. Additionally, uncertainty due to natural disasters may hamper his business. Recently, a storm and heavy rain destroyed the nursery infrastructure and seedlings. Insurance covering such businesses is lacking. Another key challenge is getting good-quality inputs to grow healthy seedlings.

Future prospects

He plans to expand his nursery business and build capacity to earn capital amounting to BDT 50 00,000 in the next five years. He anticipates facing certain risks/challenges, including not getting access to credit and inputs like growing media, tray, and seeds, which are currently supplied by GBK-E. Additionally, natural calamities also pose a risk.

Impact on the community

According to Jamal, huge potential exists in this business as the demand for good-quality seedlings is expanding significantly. Jamal thinks that because of his business smallholders can transplant or cultivate earlier than they could under the previous practice of soilborne seedlings. He emphasizes that this business has the potential to create productive and profitable jobs for youth.

Institutional and regulatory environment

Jamal states that getting a business license to operate a Farmers' Hub is not challenging with local support. He received his business license from the local Union Parishad. He found it challenging to get institutional support to access the market.

Jamal received technical training from DAE, the only technical institution in the locality. DAE provides training on different crop cultivation technologies by establishing a demonstration of specific crops. In the context of skills training support, GBK-E and SFSA have been very supportive. He received training on quality control of the commodities and information on high-value crops such as horticulture crops. He also receives inputs from GBK-E. To attract customers, he created a shelf/rack for demonstrating vegetable seedlings in a nearby market and conducts varietal trials of vegetables in front of the nursery.

Table 11: Case Study 3 – Skills training support received by the YE

	Business skills	Marketing skills	Technological skills
Self-made	None	None	He has technical skills for operating a horticultural nursery
External Informal Help	Received from GBK-E	Received from GBK-E	Received from GBK-E

Technology and market access

The e-Farmers' Hub app has been a useful tool for him. He uses it to conduct financial management for his business, access market information, and network with other Farmers' Hub owners. He uses a mobile phone to communicate, manage finances, and get updated information on the latest technology.

Individual factors

He is now a well-respected vegetable seedling provider. He is a source of information for community farmers, local traders, and vegetable producers. He attributes his success to his risk taking ability, understanding of local market conditions, networking, providing technical expertise to his customers, and having access to market knowledge. His success has influenced other members of his community who want to pursue this profession now.

CASE STUDY 4 – Kobbad Hossain, Fruits and Vegetables Grower and Trader

Summary

Mr. Kobbad is an entrepreneur who grows and sells imported vegetables, seedlings of fruits, and other high-value plants and trees. He wants to develop his business, but lack of adequate land availability, risk of syndication, and inadequate transport facility are possible obstacles in his pathway. People in his community, especially farmers, look up to him for guidance and support. He has found negligible technical support through any institutions. He invested his own resources to travel abroad and get the necessary knowledge and expertise. He expressed an interest in establishing a technical institution in the community.

Background

Mr. Kobbad Hossain, 35 years old, lives in South Meitka village near Dhaka in the Savar upazila. He completed higher secondary school. He has five sisters and four brothers. He left his education in 2003 when his father died. He used to help his father in cattle rearing and vegetable production. His brother helps him in his current business.

Occupation before current venture and reason for the change

He used to help his family rear cows and grow corn. Due to his father's untimely death, he discontinued his studies and started working to support his family. While his family used to grow sweet corn, maize, and other agricultural crops, he decided to venture into vegetables from China, which were in demand from the Chinese restaurants in Dhaka.

Initial challenges and support

Initially, he started growing vegetables from China and faced significant challenges. He did not receive any support from his community because they lacked knowledge about these vegetables. Another problem was the availability of land, most of which was fragmented. He got his first land plot and financial support from his family. He received market knowledge through his visits to the markets with his father and networked with traders and Chinese restaurants in Dhaka. Training received from the local agricultural extension office was also helpful. He also received some seed and fertilizer support from the extension office, but that was neither regular nor adequate. In 2019, he got some financial assistance as a grant (BDT 586,000) from National

Agricultural Technology Program-Phase II (NATP-2), a government-run project component under DAE, to set up a grading room. Presently, he grows and sells mainly imported vegetables and seedlings of fruits and other high-value plants and trees.

Table 12: Case Study 4 – Support received by the YE

From Where?	Financial	Material/In-kind	Technology	Advice/Training/Guidance
Family members	Received some money from family	Received family-owned land	Learned the basics of agriculture and the value of exceptional crops like sweet corn from his father	Learned about demand for imported vegetable from Chinese restaurants in Dhaka through visits to market areas with his father
Community	None	None	None	Supported by a local politician to get access to markets like Karwan bazaar
Private organizations	Received a loan from a bank for his covered van	None	Received technical knowledge from Dr. Sheikh Siraj, a prominent agriculturist in the country	Received support from foreign cuisine restaurants in the capital that assured steady demand and good prices
Direct Government organization & support	Received financial support from NATP-2	Received some seeds and fertilizers from the upazila office	None	Received training on agricultural production practices, like doses of fertilizers and use of machinery Received training from DAM on high value-added (HVA) products
Development project	None	None	None	Attended workshops on different topics and issues given by local extension offices (DAE) and DAM
Others	None	None	Uses the Internet to learn about technology	None

According to Table 12, he received support from the government, private organizations, family members, and community, but none from NGOs.

Details about the venture: Costs, inputs, outputs, and outcomes

He has a monthly expenditure of around BDT 0.75 million and earns around BDT 1 million on average per month. Land and labor cost are a major contributor to his monthly expenditure (around BDT 0.6 million), followed by fertilizer and seed cost, which is around BDT 0.1 million. In comparison to importing high value agricultural products from other countries, his products are available locally and thus are transported a shorter distance after harvest. This creates time savings for customers. Additionally, cost savings arise as the production is local, so sourcing prices are significantly reduced for sellers, ultimately leading to significantly lower costs for customers. The local produce is fresher than imported varieties. He now employs around 60 people, of whom 6 are women, and 20 of whom are below 35 years old.

Table 13: Case Study 4 – Inputs, outputs, and outcomes of current business venture

Inputs	Outputs	Outcomes
High-Value Agricultural production	High-value agricultural products	Providing locally grown alternatives to imported items at lower cost, which ensures timely availability of fresh agricultural products
Role model among local farmers	Other farmers are motivated to grow High value agricultural products	Enhancing the volume of High value agricultural products from local sources and increasing the efficiency of the value chain
Marketing support to the neighboring farmers	Assured sales of neighboring farmers’ products	Contributing to higher income for neighboring farmers
Employment of local youth and women	Increased employment of local youth and women	Creating better livelihood outcomes for employed youth and women

Current challenges

There is a risk of syndication as some businessmen, particularly in the Gulshan Market and Karwan bazaar, have cartelized to control the price paid to farmers. Though these businessmen are selling at a high price, they do not pay a fair price to growers. Transportation is a challenge; traffic jams on the roads hamper the timely distribution and supply of his produce to the markets and customers, and there is also a hidden toll in the market. He stated that the cost of taking credit from any formal financial organization is high and collateral is needed.

Impact on the community

Over time, he has become a role model in his community. Mr. Kobbad believes that his business has positively impacted smallholders in the community as he provides advice, seeds, fertilizers, and most importantly, marketing services. His sustainable supply of imported vegetables incentivized some small businessmen to sell imported vegetables.

Future prospects

He feels that ample potential exists in his current business, and he aims to establish an industry where he can supply High value agricultural products in both local and foreign markets. He anticipates key challenges in the pathway to accomplish this goal. He needs more than 3 hectares of land to scale up but cannot find this in one plot. He also needs to catch up quickly with the export market or he will lose opportunities. He anticipates a risk of syndication due to cartels in Gulshan Market and Karwan bazaar. If the syndication persists for a long time and he cannot find a new market, he may lose interest in this profession. Transportation may continue to be a challenge. He needs support to maintain the freshness of produce by transporting it in a cool/freezer van.

Institutional and Regulatory Environment

Mr. Kobbad took a loan from a private bank alongside a car loan from another private bank to buy a covered van. He did not face any problem in obtaining his license. He did not receive any market support from any association/Chamber of Commerce. No technical institution is present in the locality to access up-to-date technology and related information and support. He expressed interest in establishing a technical institute someday. He is not aware of any youth association working to develop an institutional partnership in the HVA value chain. He is not related to any CSO, community-based organization (CBO), or FBO, but he expressed his intention to establish an agricultural organization. He has not needed any regulatory or institutional support, although he faced challenges in getting the import permit from DAE, Khamarbari, to import seeds.

He attended a seminar arranged by DAM on fresh-cut and HVA products where he gained some insights on the market and its potential. Moreover, for some technological knowledge, he received some help from the Block Supervisors of DAE and private companies' representatives selling insecticides.

He invested a substantial amount of time and money in visiting India, Malaysia, Thailand, Singapore, and China to acquire knowledge and related skills on seeds, fertilizers, insecticides, farming techniques, and technologies from those countries through observation and communication.

In the context of market knowledge, he depends on his own network and networking skills to keep up to date about the business. He believes that knowledge of timing, market price, and demand is vital for successfully running the business.

Table 14: Case Study 4 – Skills training support received by the YE

Business skills	Marketing skills	Technological skills
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Self-Made	Learned on his own after his father's demise	Got basic orientation to marketing skills from visits to markets with his father	Received basic farming technology knowledge from his father and local extension office
External Informal Help	None	Local politician helped him get market access	None
External Formal Training (Institutional)	None	None	Received agricultural training from local extension office
With own Finance got formal training	Frequently visited other countries to learn from them	None	None

Technical environment

The use of technology, especially the Internet, helps him run his business effectively. He spends around BDT 1,500/month on Internet use. He follows programs on agriculture and particularly watches programs by Mr. Sheikh Shiraj (a popular agriculturalist and media person in the country); he regularly watches YouTube.

Individual factors

He has a positive attitude toward his own business and understands its value and its contribution to society and the country. He has already acquired the basic soft skills required for running this business, such as identifying good-quality seeds, the timing of planting different varieties and their market demand, and the possible impact of weather and climatic conditions.

CASE STUDY 5 –Md. Maniruzzaman, Mechanization Entrepreneur

Summary

Md. Maniruzzaman has a bachelor's degree. He works in agricultural mechanization. In the beginning, he faced several challenges, like getting access to information, technology, and capital. Over time, through help from training received from DAE and some family support, he built up a machinery inventory. He plans to expand his business and build a repair workshop for his agricultural machineries and equipment.

Background

Md. Maniruzzaman has a business in the Savar upazila near Dhaka. He is 34 years old. He mainly started his entrepreneurial activity with farming by taking some land on lease and some local NGO financial help. His family members were supportive and helped him with his farming and other supportive activities.

Occupation before current venture and reason for the change

Before his present endeavor, he worked in sweet gourd and potato production, but profits were not consistent over the years. Over time, he understood the application of machineries and their role in increasing efficiency. He started undertaking some agricultural projects for which he was required to rent machines like power tillers, power sprayers, and weeding machines. As time progressed, he built up an inventory of machinery. His neighboring farmers asked for his machineries and equipment. To ensure a stable stream of income and to diversify risk, he now rents machinery and equipment. Alongside this business, he does agribusiness in potatoes, fisheries, and fruit garden.

Initial challenges and support

In the beginning, the main problem was getting access to information, technology, and capital. Additionally, it was challenging to find skilled labor with adequate knowledge of operating the machineries and equipment. Training from DAE helped him understand how to operate machinery and equipment. He took a loan of BDT 15,000 from a local branch of BRAC, an NGO-linked bank, and he received some funds from his family, which also provided supervisory and monitoring support for his projects. He started his business with a secondhand shallow machine, a power spray machine, and some other equipment.

He got some training from Jubo Unnoyon Adhidaptor (Department of Youth Development (DYD)), DAE on field works, and BRAC. BRAC also advised him on choosing seeds and the appropriate amount of fertilizers.

Table 15: Case Study 5 – Support received by the YE

From Where?	Financial	Material/In-kind	Technology	Advice/Training/Guidance
Family members	Received financial support from his family to start agricultural production activities	Received family-owned land and monitoring support for his rental business	None	Learned basics of agriculture from his family
Community	None	Received a space for storing his materials and equipment to run his business/office on a low rent	None	None
Direct Government organization & support	None	None	None	Received training on agricultural production practices, like doses of fertilizers and use of machineries from DAE and DYD
IGOs/NGOs	None	None	None	Received training from BRAC on safe agricultural practices including pesticide dose, fertilizers, and choosing good seeds
Development project	None	None	None	Learned to operate different types of agricultural machines through training provided by a DAE project
Others	Received BDT 15,000 from BRAC Bank-linked with BRAC training	None	Used money received from BRAC to buy a secondhand shallow machine for a fair price	None

According to Table 15, he received support from the government, private organizations, family members, NGOs, and community, but none from the private sector.

Details about the venture: Costs, inputs, outputs, and outcomes

He can earn around BDT 20,000–40,000 monthly depending on the season. His monthly expenses vary between BDT 12,000 and BDT 18,000. He has four permanent employees and a few temporary employees. All of them are men aged 30 years or below.

Table 16: Case Study 5 – Inputs, outputs, and outcomes of current business venture

Inputs	Outputs	Outcomes
Agricultural Machineries and Equipment Rental Business	Increased use of agricultural machineries in the locality	Improvement in agriculture efficiency, leading to better income for farmers
Credit support to poor neighboring farmers for rental	Agricultural machineries and equipment available for poor neighboring farmers	Inclusive agricultural mechanization and improvement in efficiency for poor farmers in the locality
Informal technical training to local youth for machineries and equipment maintenance	Improvement in skills of local youth on basic troubleshooting and maintenance of agricultural machineries and equipment	Improvement in income generation of local youth due to improvement in this skillset
Employment of local youth	Income support for local youth	Better livelihood outcomes of employed youth from better income

Current challenges

One of the main challenges he faces is the growth in the brick-making business in his area, which is hampering agricultural activities. Since he is still relatively new in the market, a risk of rigorous competition also exists.

Another key challenge is the lack of sufficient technical skills and finances to undertake maintenance work for the machineries and equipment. If he and his staff are unable to fix a machine, he has to transport it to another area to get it fixed which leads to significant transportation and time cost. Access to additional capital to expand his business is also challenge.

Future prospects

In five years, he wants to increase the number of machineries and equipment. He plans to buy a petrol power spray that costs around BDT 90,000. He expressed willingness to establish a repair workshop for his agricultural machineries and equipment business. He feels that such a workshop would help local youth learn technical skills like machine operations and repairs. While credit for expanding his business is available from formal banks, it requires collateral support that he does not have, and the cost of credit is quite high.

Impact on the community

He is recognized as a successful businessman in the community and has become quite influential among the farmers. Sometimes he helps farmers by providing them machinery and equipment and taking the payment later. His business has influenced local farmers to invest more in mechanization services to help increase efficiency and productivity.

Institutional and regulatory support

He has not availed himself of any insurance or risk-related products from formal or informal institutions so far other than a BDT 15,000 loan from an NGO. He did not face any problems in obtaining his trade license. He is neither a member of nor has access to any association/Chamber of Commerce, nor does he get any support for market access from any institution. He is not aware of any youth associations and is not part of any CSO or FBO. He is aware of Friends Agro Sangho, a CBO that provides agricultural development and marketing support to its members.

No technical institution is present in his locality. Most of his skills relating to business and marketing are self-taught. He got some agricultural production-related advice and training from the local extension officials who helped him initially start with the agricultural production business and trained him on how to use agricultural machineries and equipment. He also acquires knowledge and related skills on agricultural machines and equipment through social media like YouTube.

Table 17: Case Study 5 – Skills training support received by the YE

	Business skills	Marketing skills	Technological skills
Self-Made	Mostly self-taught through observing and learning from others	Maintaining a good relationship with community farmers	Learned from online materials available on platforms like YouTube
External Informal Help	None	Got the basic idea when neighboring poor farmers started asking for his machines sometimes	None

External Formal Training	Small business management-related skills from DYD	None	None
External Formal Training (Institutional)	None	None	Agricultural- and machineries-related training from local extension office and NGO

Technology and market access

He believes that mobile phones and the Internet are vital for running the business effectively, and he spends around BDT 1,000/month for their use. A mobile phone connection directly helps farmers make a booking for his machineries and equipment. Mobile phone services also help in making and receiving payments. He watches agricultural programs on TV and YouTube to learn about new machinery, equipment, and other technology.

Individual factors

He is educated, opportunistic, and manages business risk very well. His entrepreneurial attitude led him to create and expand his business. He is very friendly and helpful and has the basic soft skills required for running this business.

CASE STUDY 6 – Dipendra Nath Barman Dipu, Composting Owner

Summary

Mr. Dipendra Nath Barman Dipu (Dipu) has a vermicompost operation situated in Tokhshial Kheda village near Rangpur. He became interested in this venture after his family had a bad experience dealing with chemical companies and public organizations for fertilizers. He received some support from training in Japan and a mentor who is considered a pioneer in vermicomposting. He plans to expand his business throughout North Bengal.

Background

Dipu is 29 years old and has a master’s degree in history. There are six members in his family, including two sisters and one brother. All his siblings are married.

Initial challenges and support

His family was dependent on agriculture for subsistence. As a child, he saw the adverse effects of depending on chemical companies and public organizations to collect and buy required fertilizers. In 2012, when he was a third-year student at graduation level, he started vermicomposting. He was motivated by Mr. Manik, who is popularly known for his pioneering activity with vermicompost. Vermicomposting helped him to become less dependent on corporate fertilizer chains. Dipu has a passion for the environment and wants to help the local

unemployed gain economic independence. He started vermicomposting on family-owned land, with one ring provided by Mr. Manik free of cost for six months. He got some training from Japan, particularly on production techniques and technology. He faced several challenges initially. A social stigma was attached to vermicomposting as it deals with earthworms. He also had to convince his family members to give him a piece of land to set up his “vermi ring”. Arranging necessary finance was also a challenge.

Table 18: Case Study 6 – Support received by the YE

From Where?	Financial	Material/In-kind	Technology	Advice/Training/Guidance
Family members	Received some money from family	Received land for setting up his first vermi ring	None	None
Community	None	He collected around 250 gm of vermi from the community	None	None
Development Partners	None	None	None	Training on vermicomposting in Japan with the support of an organization
Others	None	Received a vermicomposting ring free of cost for six months from Mr. Manik (popularly known as Kencho Manik for his pioneering work in vermicomposting)	None	Received guidance from Mr. Manik on vermicomposting

According to Table 18, Dipu only received support from family, community, a development partner, and an individual.

Details about the venture: Costs, inputs, outputs, and outcomes

Presently he maintains 600 to 700 rings and five houses for the production and processing of vermicompost. He engages nine people, of whom seven are below 35 years of age, and three are women. His monthly expense is around BDT 40,000 to BDT 50,000, and he earns a net profit of around BDT 20,000 per month, which helps him maintain his family and household-related livelihood cost.

Table 19: Case Study 6 – Inputs, outputs, and outcomes of current business venture

Inputs	Outputs	Outcomes
Vermicompost production	Vermicompost	Increased use of organic fertilizer and reduction in harmful effects caused by use of chemical fertilizer
Role Playing, training, and motivation among local youth and women	Improvement in skills and motivation of local youth and women	Increased number of youth and women entrepreneurs in vermicompost
Employment of local youth and women	Increased employment of local youth and women	Better livelihood outcomes for employed youth through better and reliable income source

Current challenges

Dipu has found marketing his products challenging. He cannot set up a showroom for the marketing and promotion of his produced fertilizers as they are not a branded product. The procedure for licensing vermicompost production and marketing is very difficult. Scarcity of land and the high cost of leasing are major problems that hamper scaling up production and becoming competitive. Another risk is the dominance of chemical companies in the market, which can wipe out small entrepreneurs like Dipu.

Future prospects

In the next five years, he envisions expanding his business throughout North Bengal, although seasonality may pose a problem in the future. The peak market season is from September to January, and there is no government support for the off-peak season.

Impact on the community

The smallholders of Virganj now get vermicompost as a substitute for chemical, and bio or organic fertilizers from private companies. His product is cheaper than the chemical and organic fertilizers supplied by private companies. His venture has a very positive effect on local youth. He engages some local youth in his own production and marketing activities. Some local youth also started producing vermicompost. In terms of gender impact, he employs three women and has trained more than 200 women in the locality and adjacent areas.

Institutional and regulatory support

There is no risk-reducing institute or financial instruments like insurance or a credit rotational scheme from the government, private sector, or NGOs to support his venture, nor is there institutional support for marketing his products. He is a member of the Bangladesh Vermi Compost Association (BVCA), which gives him confidence that he is not alone in the market. The association provides some market access-related support.

Likewise, no technical institution exists in the locality, and he does not have access to any institution that provides support for achieving and enhancing competitiveness in the business. He did not get any formal or informal skill development training to improve his business and marketing skills. He received training from Japan in 2015 about vermicompost-related technological skills development with support from an organization.

Dipu points out that previously several youth organizations and associations operated in the area, but many are not active anymore. He is not aware of any youth associations working to develop institutional partnerships in the vermicompost value chain.

Table 20: Case Study 6 – Skills training support received by the YE

	Business skills	Marketing skills	Technological skills
Self-Made	Mostly self-made from the beginning	Learned through interaction with farmers	None
External Informal Help	None	Received market access-related support from Bangladesh Vermi Compost Association (BVCA)	Received support from Mr. Manik on vermicomposting
External Formal Training (Institutional)	None	None	Received training in Japan on vermicomposting

Technology and market access

According to Dipu, both the Internet and mobile phones are necessary to run the business effectively. He spends around BDT 108/month for Internet use as he uses around 3 GB/month on average. He uses a mobile phone for communicating and accessing the Internet.

He mainly depends on Dr. Nikhil Shil, an agriculturalist in the locality, and the Internet for new technology. The price of the vermicompost does not fluctuate much, and for reliable market- and price-related information, he relies mostly on BVCA, for which he does not need to pay anything. He relies on his own friendly image and relationships with local farmers and those in adjacent areas to get access to inputs (land and worms) and outputs (compost).

He understands that training is very important for his personal development and for enriching his technical knowledge and skills. He wants some training, preferably from outside Bangladesh, but expressed that it is hard to find good opportunities given financial constraints.

Individual factors

He has a positive attitude and understands his business's value and its contribution particularly to the environment and human health. He has already acquired the basic skills required for running this business. These include knowing the right worm, good-quality cow dung, timing of

harvesting compost, market demand, and the seasonal pattern of demand. He has very good social and networking skills that help his business and promotion of vermicompost production as an income-generating entrepreneurial activity among women and community youth. He can spread the vermicompost business by providing motivation and basic training to others.

CASE STUDY 7 –Tariqul Islam, Urban Entrepreneur

Summary

Md. Tariqul Islam has a fruits and vegetables shop in the capital city of Dhaka. He received support from his family members, local community members, and a development project operating in the area. He plans to expand his business by opening new branches in the future. A key challenge he anticipates is access to inputs and technology.

Background

Md. Tariqul Islam (Tara) is 30 years old. He lives in Dhaka with five family members. He attended school up to class 10. He has used a mobile phone for the last 10 years and the Internet for the last 5 to 6 years. His family initially had a fruit business, but it yielded a low rate of return and required huge running capital. As a result, they transitioned to the current business, which focuses on selling fruit juice and fresh-cut fruits and vegetables from a permanent shop in Mohammadpur Town Hall Market, one of Dhaka's most prominent business locations.

Occupation before current venture and reason for the change

Initially, he helped his father in their family business of selling fresh fruits from a shop. Due to the high running capital cost, low return, and losses incurred because of the lack of low-cost means to store perishable fresh fruits, the business was eventually closed. Moreover, his father was getting older and did not want to continue pursuing a risky business.

His elder brother, who lives in Singapore, came up with the idea of starting a juice business and gave Tariqul some money to start the business. He also received financial support from his father and encouragement from his mother. He started this business in 2016.

Initial challenges and support

Initially, the main challenge was to find a suitable location for his juice business. He made this decision without much hardship due to the support he received from his local community, who held his family in high regard due to their previous business venture. He received training support from DAM. Table 21 provides details of the support he received.

Table 21: Case Study 7 – Support received by the YE

From Where?	Financial	Material/In-kind	Technology	Advice/Training/Guidance
Family members	Received support from his elder brother and father	None	Received support on business ideas and juice-making techniques from his brother and father	Received support from his parents and brother
Community	None	Received support on finalizing the shop location	None	None
Direct government organization and support	None	None	None	Received training on fresh-cut fruits and vegetables from DAM
Others	None	None	None	Received some information on technologies like a sealing machine and support for fresh-cut vegetables and fruits from the Internet and DAM’s website

He received support from his family, community members, and DAM, but none from the private sector, IGOs, or NGOs.

Details about the venture: Costs, inputs, outputs, and outcomes

Presently, he employs eight people in his business, of whom seven are male youth and one is a woman. His monthly labor cost is around BDT 90,000, and additional miscellaneous expenses are another BDT 30,000. He earns around BDT 170,000–200,000 per month, depending on seasonality.

Table 22: Case Study 7 – Inputs, outputs, and outcomes of current business venture

Inputs	Outputs	Outcomes
Juice and fresh-cut vegetables and fruits	Fresh-cut vegetables and fruit packs, juice, and pulp	Income generation Improving the consumption of various vegetables and fruits for the poor by providing low-priced mixed packs Providing ready-to-cook vegetables and ready-to-eat fruits, which leads to time savings for urban people
Labor	One woman and seven men from the locality	Income generation leading to a better livelihood for employees
Training on juice and fresh-cut vegetables and fruits	Skilled youth and women in juice and fresh-cut vegetables and fruits	Scope of developing more entrepreneurship opportunities in juice and fresh-cut vegetables and fruits business

Current challenges

Inputs like quality fresh fruits are seasonal, so it is challenging to preserve them and maintain their quality since he has only one deep freezer, which is not adequate. He also fears the risk of damage from natural calamities like flooding, which can hamper customer demand. He also mentions that there is a lack of insurance covering such businesses.

Future prospects

He plans to expand his juice business by opening new branches and starting home and bulk delivery to corporate bodies. He also wants to automate some of his processing activities in the future.

Impact on the community

According to Tariqul, huge potential exists in this business as the demand for good-quality juice is expanding significantly. The sales trend for fresh-cut fruits and vegetables is also increasing. He has influenced other youth in the community who now view this business as more profitable than others. This business creates opportunities for youth and female employment and has a quick return. The risk of loss is low since the juice is prepared only as per demand and anticipated orders.

Institutional and regulatory environment

This YE lives in the capital city of Dhaka, a busy, crowded place with good market potential for almost any business. Moreover, with the proliferation of mobile phone usage, any person with good networking capacity can manage the informational needs; thus, Tariqul has not felt the need to become a member of any type of association or organization.

According to Tariqul, the cost of credit is still quite high in Bangladesh, given the probable rate of return on the business. Formal institutions require collateral, which is too high for a YE like him.

Since he got financial support from his brother, he was not burdened with the high cost of market credit.

He is not aware of any youth development program in Bangladesh that could help him, nor is he a member of any CSO or CBO that encourages youth development in the region. Besides, there is a communication gap between entrepreneurs and organizations like trade bodies and Chambers of Commerce. These organizations focus on specific segments like ICT and light engineering, not on YEs in general. The skill level supports received by the YE are given in Table 23.

Table 23: Case Study 7 – Skills training support received by the YE

	Business skills	Marketing skills	Technological skills
Self-Made	Learned the basics from his family business on fresh fruits	Learned the basics from observation and failure	None
External Informal Help	Learned basic business skill and human resource management skills from his father and elder brother	None	None
External Formal Training	None	Learned basic marketing skills from a DAM project	Learned basic technical skills on fresh-cut vegetables and fruits from DAM

Technology and market access

He uses a mobile phone to communicate with his input providers and to access technical information and knowledge. He gets information on market prices through his mobile phone as well as DAM’s website.

Individual factors

Over time he has become a renowned provider of good-quality juice. Customers are willing to travel a long distance to buy his juice. He thinks that to become a successful YE, one needs to understand market needs and have business and technical skills.

5. Key Challenges and Lessons Learned

Based on the literature and case studies, several key challenges and lessons emerge regarding youth entrepreneurship in agriculture in Bangladesh. These policy, institutional, regulatory, technological, and individual challenges and related lessons learned are discussed below.

Policy and regulatory environment

Bangladesh created a National Youth Policy that is a key success driver for youth engagement. 2017 NYP discusses youth involvement in agriculture through entrepreneurship training, establishing business incubators to give practical advice to YEs, marketing YE products at home and internationally, and creating opportunities in rural areas by giving youth priority in getting access to agricultural land, and credit/finance. The policy provides only broad focus areas but limited strategies. The 2018 National Agriculture Policy also discusses activities for youth involvement in agriculture sector. But no specific policy targets are defined. It is recommended that the 2017 NYP and 2018 National Agriculture Policy provide more specific strategies, with a clear framework for assessing the progress of emerging initiatives.

Receiving market and export opportunities is another key policy driver. The YEs in the case studies faced challenges to access markets. Most YEs created their own network and relied on that to find market opportunities. Some YEs stated that they want to tap into export opportunities in the future but do not mention receiving any support for it. Most case studies identified getting access to low-cost credit as another major challenge for setting up and expanding the business. One YE who runs a Farmers' Hub business pointed out that access to credit is a key challenge in scaling hub operations.

Some YEs noted that lack of insurance to protect their business is a concern. For instance, one YE who owns a Farmers' Hub recently witnessed a storm and heavy rain that destroyed the nursery infrastructure and seedlings. Another YE who owns a vermicompost business expressed concern about the lack of available insurance schemes to protect the business.

Institutional and intermediary environment

Based on the case studies, it is evident that institutional support from associations and Chambers of Commerce is weak or absent. Most YEs neither had access to such institutions nor received any market-related or technical support from them. One YE mentioned that while such institutions exist, they only support businesses with high volume. Another YE who owns a vermicompost business pointed out the lack of adequate support for marketing and promotion of his organic products. The only institution from which he receives some market-access related support is BVCA.

Access to credit is an important policy driver for YEs' success. Available literature highlights that Bangladesh is globally recognized for its role in the microcredit revolution through institutions such as PKSF and working through projects like PACE, which provide financial support to microenterprises. Although, the case study analysis shows that access to credit is a significant challenge for the YEs, who relied on self-financing and help from family members to start their businesses. Additionally, there is an enhanced risk associated with their plans to expand their business operations since that is contingent on receiving financial support in the future. Given the insights from the case studies, it is evident that financial institutions have not been able to expand operations to reach smaller enterprises.

Access to technical, business, and managerial training is another important driver for the success of YEs. Formal training received from government, not-for-profit, and private institutions has been extremely useful for the case study YEs. This includes training received on crop cultivation techniques and quality control. Some YEs stated that a key challenge has been getting training on business and financial management, repair and maintenance of agricultural machinery, seedling production technology, and Internet and mobile phone services use. The absence of technical institutions in their localities to provide skills-based training support is another key concern raised by some YEs. One YE travelled abroad to get training on production techniques, as no local technical institution support was available.

Bangladesh's extension system is pluralistic but faces several constraints. The weak linkage between research and public extension has affected the quality of training since it is often not aligned with local realities. Additionally, extension focus on agribusiness is inadequate. The scale of the private extension system remains weak. The literature reveals a lack of focus on enterprise education at educational institutions (Uddin, Chowdhury, and Ullah 2015). Extension partnerships between the public and private sectors and NGOs have been found ineffective due to the low technological competency of extension service agents (Afrad, Wadud, and Babu 2019). It may be noted that several national policies, including the 2017 NYP and 2018 National Agriculture Policy, focus on improving access to skills training for YEs but no specific initiatives are discussed in the policy document.

Technology and business environment

Access to low cost mobile phone and Internet services are an important for YEs to network, advertise, and access market information and updates on the latest technologies. Enhancing access to low-cost ICT services would help attract more youth in the agriculture sector and improve efficiency of existing YEs. The government has invested in technologies like optical fiber and 4G/LTE and mobile technology (Ministry of Science and Information & Communication Technology, Government of the People's Republic of Bangladesh 2009; Centre for Research and Information 2017). But Bangladesh still lags in leveraging ICT to boost competitiveness, innovation, and well-being (World Economic Forum 2016).

The YEs highlighted key infrastructural bottlenecks. The urban YE pointed out that seasonality is a constraint for his fresh-cut fruit business because he does not have adequate storage facilities for freezing seasonal vegetables. Another YE raised concerns about land fragmentation in rural areas, which leads to a lack of big plots of land to grow crops and expand production. In addition, the high cost of land leases is a major concern. Some YE depended on their family-owned land to start the business.

Another concern for some YEs is future access to key inputs. Some YEs currently have agreements with a local institution (GBK-E) to receive some inputs but they anticipate future challenges with access to key inputs like growing media, trays, and seeds when the existing agreements end. The 2012 National Agricultural Extension Policy highlighted key infrastructural challenges, including inequality in access to land, lack of timely supply of adequate quantities of quality seeds, inefficient use of irrigation facilities, limited capital or credit facilities, and high fuel and energy

costs. It further pointed out that extension activities have narrowly focused on productivity and production enhancement, with very little attention on improving producers' access to markets and removing constraints in developing farm enterprises and agribusiness.

Individual factors

The general perception of agriculture as a productive form of employment is not very positive in Bangladesh—it is often associated with hard labor, financial risk, and unstable income (Agrilinks 2019). However, opportunities to increase income by engaging in agribusiness enterprises are gaining importance among rural youth, particularly when they are exposed to potential business opportunities. This exposure should be further supported by skill building along with their provision of institutional credit for starting businesses. Finally, linking rural youth to a larger agribusiness ecosystem is key for sustainable development of rural youth entrepreneurship in Bangladesh.

The case studies highlighted that a positive attitude, risk-taking ability, and business and networking skills all contributed to the YEs' success. Additionally, their success positively impacted other members of their communities. Community members receive quality products and are also interested in pursuing entrepreneurial activities.

6. Recommendations for Stakeholders

For Policy Makers

Bangladesh has a national policy for youth engagement, which is an important policy driver. Going forward, the policy must provide specific strategies, indicators, and targets. This will help ensure that the policy is implemented effectively, and progress is monitored.

Institutional support for market access is another key driver of success. The government must focus on setting up local institutions that provide market access support to YEs operating on a small scale. This can be done through collaboration with local NGOs and strengthening of existing local extension institutions. These institutions should provide market information, networking opportunities, and product marketing and promotion strategy support to YEs.

Access to credit is pivotal for YEs to set up and expand their businesses. The case studies highlight that such support has been limited and access to any local financial institutions providing credit is lacking. Going forward, efforts by institutions like PKSF and BRAC need to be expanded to ensure that YEs in rural areas have access to credit. Additionally, the government should continue collaborations with international donors to strengthen the agriculture sector and expand the scope of such programs. For example, programs like NATP-2 provide matching grants to rural entrepreneurs. One of the YEs studied received grants under this program. Efforts should also be made to expand the operations of formal financial institutions so that they can provide credit support to YEs with small-scale operations. Focus should also be placed on direct financial institutions and microcredit organizations to provide insurance products for small-scale agribusinesses like the ones in the case studies. This will protect YEs against losses due to potential business failure and incentivize them to expand their scale of operation.

It is universally acknowledged that access to mobile phone and Internet services is useful for YEs in terms of building a network, gaining access to market information, and obtaining updates on the latest technologies. The Farmers' Hub app used by some YEs in the case studies is an example of the importance of these services. Hence, an enhanced focus on improving the penetration of ICT services in rural areas is needed. The government has made progress in this sphere, but efforts to ensure universal, low-cost access to ICT to all YEs need to ramp up.

The government should do a local needs assessment of the training requirements of YEs in agribusiness and build the capacity of local extension staff to provide such training. For instance, training on business and financial management, repair and maintenance of agriculture machinery, seedling production technology, vermicompost production technology, quality control of commodities, and Internet and mobile phone services use are some focus areas. It must be ensured that technical institutions are present in rural areas and can provide not only training support but also up-to-date technology for YEs' businesses. To encourage youth to undertake entrepreneurial ventures, entrepreneurial skills training should be integrated into the academic curriculum. This should include topics on opportunities in agribusiness, and business, financial, and management courses. Collaborations between academic institutions, research institutions, the private sector, NGOs, development organizations, and existing YEs interested in mentorship would help develop such programs.

At a broader level, a platform can be created where business leaders from the agribusiness sector can collaborate with the government and local NGOs. Such a platform can provide periodic capacity-building programs to YEs in both rural and urban areas.

The 2018 National Agriculture Policy as well as the YEs in the case studies acknowledged that access to land continues to be a major concern. As highlighted by the NYP 2017, one way to create employment and entrepreneurial opportunities for youth in rural areas is by improving their access to agricultural land. It is recommended that youth be given priority when giving permission to lease government agricultural land. In addition, public-private partnerships to facilitate access of youth to input and output markets will help, whereby NGOs, the private sector, and the public extension system can identify synergies in their approach to youth entrepreneurship development.

Overall efforts need to be made to improve the business regulatory environment of the country. The focus should be to address political instability and corruption concerns, and to simplify regulatory procedures for enforcing contracts, registering property, and transferring property. Improving access to credit and infrastructure for microenterprises is important so that they can scale up operations and transition from the informal to the formal sector. This is especially relevant for the agriculture sector, which is predominantly informal.

The government should promote youth entrepreneurial ventures that can benefit local community, such as Farmers' Hub operations, vermicompost businesses, and agricultural mechanization. Besides providing necessary policy, institutional, technical and business support,

the government should also create more awareness amongst rural communities about existence of such business opportunities.

For NGOs and Development Organizations

NGOs and development organizations have played an important role in providing training and technical and financial support to YEs and should continue to do so. Institutions like GBK-E should continue to provide relevant inputs to YEs. Given the uncertainties related to access to key inputs in rural areas, other local bodies can collaborate with NGOs like GBK-E to expand input supply to YEs.

Some YEs expressed concern about the lack of sufficient training support for vermicompost, agricultural machinery, seedling production technology, and ICT use. NGOs and development partners should collaborate with relevant industry players in these areas to create training programs for YEs. The scope of trainings on quality control of commodities provided by institutions like SFSA should be expanded to cover all goods produced by YEs involved in agribusiness.

More programs like PACE and PROMISE should be developed by NGOs and development partners through multistakeholder collaborations to enhance credit, training, and market support for all YEs.

For Entrepreneurs/Businesses

YEs should focus on enhancing their core technical and soft skills. Since networking with other YEs and relevant players can help them get up-to-date information and market access, they should continue to focus on that. Forming youth associations for information sharing, networking, and enhancing access to key inputs and technology will also be helpful.

Since YEs provide employment opportunities and business knowledge, they should mentor community members, especially young people who want to start entrepreneurial ventures and other community members working in the agriculture sector. Mentorship efforts by YE can include training, information sharing, and providing key inputs and helping advocate entrepreneurship benefits in the agriculture sector.

7. Concluding Remarks

Bangladesh has a great opportunity to take advantage of its demographic dividend and drive growth and poverty reduction. This requires sufficient opportunities for productive employment and the commensurate skills development of youth. This report presented the status of youth in Bangladesh and both opportunities and constraints in the agriculture sector. Specifically, we discussed the policy, institutional, technological, and individual capacity for youth development in the country, with special focus on youth entrepreneurship. We interviewed rural and urban YEs working in the agriculture sector to understand which factors contributed to their success and the constraints they faced through this journey. Based on the literature review and case

studies, we highlighted gaps in the current entrepreneurship system in the country. We provided recommendations for policy makers, NGOs and development organizations, and YEs to address the key challenges and create more opportunities for youth entrepreneurship in the agriculture sector.

We found that the agriculture sector presents significant opportunities for youth entrepreneurship. Youth have received funding, skills training, and infrastructure support to pursue their entrepreneurial ventures and expand operations. This is not limited to government support but also includes support from the private sector, local NGOs, and other development partners.

The case studies highlighted that significant challenges remain. YEs still face constraints in getting access to low cost credit, infrastructure, technology, and inputs. Strong institutional support to gain market opportunities and technical and business skills training is lacking. Going forward, concerted efforts by all key stakeholders are needed to ensure that the constraints highlighted by YEs are addressed. The government should focus on ensuring that policies like the 2017 NYP and 2018 National Agriculture Policy realize their objectives and provide rural youth with adequate support. Local NGOs and international organizations should continue to provide targeted support on financial, technical, and skills training to rural YEs.

Some broader insights can also be drawn for future research. Developing countries like Bangladesh that aim to gain from their youth population must focus on creating productive education and employment opportunities for them. As a first step, countries should conduct a diagnostic review of the key gaps in existing policy, institutional, and business technical capacities that support youth entrepreneurship. Since the agriculture sector involves multiple stakeholders at the national and local level, efforts should be made to undertake multistakeholder collaborations that can help identify opportunities and areas for improvement. A roadmap must be created to ensure that the support received by youth to pursue their business ventures is sustainable and addresses all their key concerns. This requires empowering youth by taking account of their concerns and feedback at each stage of program/policy creation, implementation, and evaluation.

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Appendix : Images of youth entrepreneur Md. Maniruzzaman

