

CHALLENGES OF YOUNG AGRIPRENEURS IN EASTERN BHUTAN

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ABSTRACT

Bhutan encourages youth to engage in agribusiness. However, many young Bhutanese not pursuing agribusiness indicates the prevalence of challenges that remain unaddressed. These challenges must be understood adequately in order to not only encourage but retain the youth entering into the agribusiness sector. Bhutan has a scarcity of research on the challenges faced by young agripreneurs; therefore, this study initiated the filling of this gap. This study was conducted in Mongar, Trashigang, and Trashiyangtse districts of Eastern Bhutan. Data were collected from 50 registered young agripreneurs in these districts using a self-administered semi-structured questionnaire. The results showed that young agripreneurs were challenged most by environmental issues (82%), followed by inaccessible financial supports (80%), and management issues (58%). Although 56% of the young agripreneurs indicated that they generally faced marketing challenges, the number was 10% less at present than when they initially started their business. Access to land and farm inputs (overall) were not a problem for many young agripreneurs. Accordingly, to promote agribusiness, this study recommends relevant authorities to support the establishment of enabling business environments for young agripreneurs by training them in climate-



smart agriculture, the provision of micro-credits, and improving their access to enterprise management training, such as leadership.

Keywords: *agribusiness, young agripreneurs, and challenges of agripreneurs*

INTRODUCTION

The depopulation and aging in the agricultural sector are serious challenges facing nations around the world. Bhutan is by no means an exception. Although the agriculture sector currently employs 51.1% of its population (National Statistics Bureau [NSB], 2020), the youth between the age of 15 and 34 years, which make up approximately 40% of its population, do not prefer to pursue a career in agribusiness (Dendup, 2018; Pelzom & Katel, 2017). Instead, many prefer to migrate from rural to urban areas in search of non-agricultural employment. Out of about 22% of the rural population who migrated to urban centres, the majority were youth between 15 and 29 years old (NSB, 2018). The out-migration of rural youth reduce the available labour in rural areas; thereby, hindering the overall development of agribusinesses. A declining rural workforce is partially responsible for the reduction of land used for agriculture, from 2.93% in 2010 to 2.76% in 2016 out of country's geographical area of 3,839,400 hectares (Ministry of Agriculture and Forests [MoAF], 2019). This decline has also contributed to the rise in import dependence in basic food items in the country. For instance, Bhutan imported major food items worth approximately seven billion ngultrums in 2019 from India, its largest trading partner (MoAF, 2019). Despite the extensive migration to urban centres, Bhutan has a youth unemployment rate of 11.9% (NSB, 2019).

The increasing demand for value-added food for the growing urban population makes it a strong business case for youth to participate in agribusiness (Yami *et al.*, 2019). Therefore, agribusinesses are thought to be a practical way to attract youth back into agriculture, as there is a sure market (Susilowati, 2014). The rising import of agricultural products in Bhutan also signifies a business opportunity to commercialise agriculture through agribusiness. For these reasons, government agencies (e.g., Ministry of Economic Affairs and the Ministry of Labour and Human Resources) and Civil Society Organisations (e.g., Loden Foundation and Tarayana

Foundation) have supported young Bhutanese to pursue agribusiness. Additionally, two agencies in Eastern Bhutan, including the Commercial Agriculture and Resilient Livelihoods Enhancement Programme (CARLEP) and Agriculture Research and Development Center (ARDC), Wengkhari, are partly mandated to encourage youth participation in agribusiness (CARLEP, 2020).

Studies from the developing countries report on several challenges restricting youth's entry into the agribusiness sector, including individual aspirations and expectations, limited access to land and credit, and low profitability and economic pressures (Leavy & Hossain, 2014; Som *et al.*, 2018; Leavy & Smith, 2010). Rural youth also experience challenges related to land, farm input, market, management, finance, and the environment (Food and Agriculture Organisation [FAO], 2014). In Bhutan, the inadequate response to the Royal Government of Bhutan's (RGoB) efforts suggests the presence of obstinate challenges hindering Bhutanese youth from partaking in agribusiness. According to Pelzom and Katel (2017), young Bhutanese do not prefer employment in the agriculture sector because they perceive the loss of crops, lack of resources, parental pressure, and lack of technical and financial access in the agriculture sector. Similarly, Dendup (2018) also stated that people, including youth, perceive farming as a difficult and dubious career.

Although there is a positive trend of youth engagement in the agriculture sector, most of the youth still prefer to migrate from rural areas to urban areas; thereby perpetuating the decline of the workforce in rural Bhutan (Pelzom & Katel, 2017; Tshewang *et al.*, 2017). In the absence of an adequate understanding of young agripreneurs' challenges, it is arduous to design effective interventions to encourage and retain the youth entering into the agribusiness sector. Understanding young agripreneurs' challenges could help stakeholders formulate effective programmes and projects that attract and retain youth in agribusiness. Engaging youth in agriculture through agribusiness has the potential to address issues related to rural to urban migration, unemployment, and rising food imports.

While previous studies, including Dendup (2018) and Pelzom and Katel (2017) capture the perception around these challenges, there is still limited comprehensive understanding of the challenges faced by youth

pursuing agribusiness in the country. Therefore, this study investigated the challenges faced by young agripreneurs in Eastern Bhutan.

METHODOLOGY

Study Area

A cross-sectional survey was conducted from January to February 2020 in Eastern Bhutan. Eastern Bhutan was selected based on the dominant patterns of out-migration being from the east to west towards the major urban centres located in Western Bhutan, leaving Eastern Bhutan largely depopulated (Choda, 2012). Moreover, Eastern Bhutan has a list of registered young agripreneurs with the CARLEP office. The CARLEP, along with ARDC, promotes market-driven farming in Eastern Bhutan. One of the mandates for CARLEP is to encourage youth engagement in agribusiness in six Eastern districts, including Lhuentse, Mongar, Pemagatshel, Samdrup Jongkhar, Trashigang, and Trashiyangtse (CARLEP, 2020). Three of these districts; Mongar, Trashigang, and Trashiyangtse were selected for this study (Figure 1). The three selected districts have varying agro-ecological zones, ranging from wet subtropical to alpine zones (MoAF, 2019), suitable for a diverse range of crops and livestock production. Bhutanese farmers, including those in selected districts, largely maintain their practice of self-subsistence and integrated farming of crops and livestock (Wang *et al.*, 2019). Mongar has population of 37,150 people, while Trashigang and Trashiyangtse has 45,518 and 17,300 people respectively (NSB, 2020).

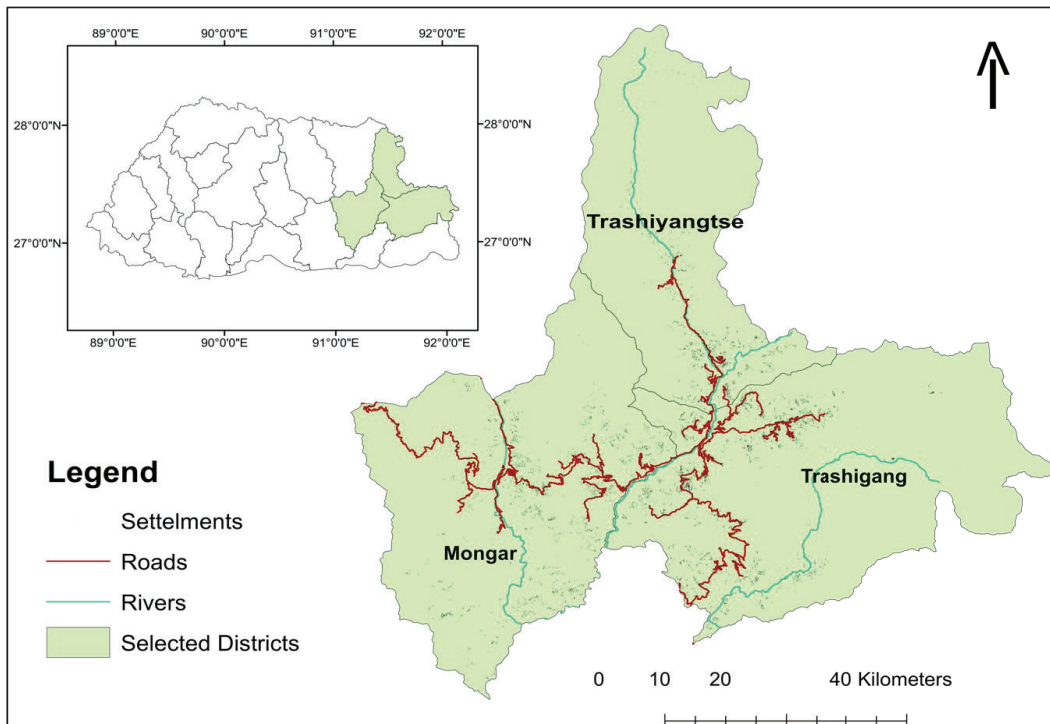


Figure 1: Study Area Showing Mongar, Trashigang, and Trashiyangtse Districts (Source by authors)

Sample Size and Sampling

Young agripreneurs, in this study, refers to agricultural entrepreneurs who are between the ages of 15-34 years, pursuing a career in agribusiness. While there are various definitions of the term agribusiness, for the purposes of this study, agribusiness encompasses the business-related activities around agriculture from production, processing, distributing, and marketing of crops, livestock, and forestry products. From a total of 67 young agripreneurs registered with CARLEP and ARDC in Mongar, Trashigang, and Trashiyangtse districts, using a two-stage simple random sampling, this study selected 50 young agripreneurs (i.e., 74.63%). The first stage involved a random selection of three out of six districts (50%) where CARLEP is active in Eastern Bhutan. The second stage involved the random selection of 50 young agripreneurs. Out of the 50 young agripreneurs, 34% were from Mongar, 36% from Trashigang, and 30% from Trashiyangtse. The choice of both districts and young agripreneurs employed simple random sampling using the lottery method.

Data Collection Instrument and Procedure

The survey used a two-part semi-structured questionnaire as it enabled the collection of qualitative and quantitative data. The first part of the questionnaire collected data on the profile of the young agripreneurs, including their age, gender, education level, business type, net income, reasons for partaking in agribusiness, and assets owned. The second part of the questionnaire collected data on the challenges the young agripreneurs faced in six major areas pertaining to their business: land, farm input, market, management, finance, and environment, based on a FAO study reporting on similar challenges for rural youth to participate in the agriculture sector (FAO, 2014). The young agripreneurs were able to self-administer the semi-structured questionnaires because they were literate. To ensure the reliability of the questionnaire, we designed most of the questions to collect categorical data comprising two-point scales of 0 (No) and 1 (Yes) alongside objective type questions (Tenzin & Natsuda, 2016). On average, each respondent took 15-30 minutes to complete the questionnaire.

Questionnaire Pre-Test

The ARDC and CARLEP were included in the development of the questionnaire survey, where they were asked to comment, based on their field experiences and knowledge of youth and agribusiness in Eastern Bhutan. The questionnaire was then subjected to pre-testing. Five young agripreneurs in Mongar district participated in the pre-test. They could answer most of the questions accurately and precisely without difficulty. The survey questions were revised and refined according to their comments.

Data Analysis

The questions on the respondent's profiles and challenges provided a series of categorical data. Pre-determined statements describing challenges were rated by the respondents on the two-point scale of 0 and 1 (representing 'No' and 'Yes,' respectively). The Statistical Package for the Social Sciences (SPSS) version 23 was used to perform descriptive statistics, including frequencies and percentages. The study area map was generated using Arc GIS version 10.6.1.

Ethical Approval and Consent

The proposal to conduct this survey was reviewed and approved by the College of Natural Resources, Lobesa, and the implementing agencies (ARDC and CARLEP). The scope and purpose of this study was explained to the respondents and their consent was received before administering the survey.

RESULTS AND DISCUSSION

Profile of Respondents

Of those we surveyed, 72% of the young agripreneurs were men, all of whom had received formal education. With regards to what motivated them to start their agribusiness, 69% responded that it was due to their own self-interest, while 30% responded that it was due to external supports, while only 1% mentioned being persuaded by their family. We found that 60% received a monthly net income of Nu.10,000-16,999, indicating that most of them were small-scale agripreneurs. Despite their small-scale, only 20% relied on non-farm activities for additional income, which included carpentry, vehicle hiring services, and wage labour. All young agripreneurs owned a cell phone, and 90% owned land (Table 1).

Table 1: Profiles of Young Agripreneurs in Eastern Bhutan (*n* = 50)

Profile characteristic	Category	Respondent (%)
Gender	Male	72
	Female	28
Education level	Secondary level	56
	Tertiary level	44
Reasons for agribusiness	Self-interest	69
	External support	30
	Family persuasion	1
Net income (Nu.)	3,000-9,999	13
	10,000-16,999	60
	17,000-23,999	17
	24,000-30,999	10
Non-farm activities	Yes	20
	No	80
Assets owned	Cell phone	100
	Land	90
	Machinery	67
	Television	57
	Livestock	47
	Vehicle	17

Challenges of Young Agripreneurs

The second part of the questionnaire assessed challenges the young agripreneurs faced based on six major areas pertaining to their business: land, farm input, market, management, finance, and environment (Figure 2). Of all the agripreneurs, 84% reported that they faced environmental challenges. Environmental challenges referred to as climate variabilities, including rising temperature, novel food-borne pathogens and diseases, irregular seasons (shorter winters), unpredictable weather, erratic rainfall, and declining source of irrigation water. Over the past few decades, Bhutan has been experiencing significant changes in weather events (associated with signs of climate change). These include the increased frequency of wind and hailstorms, erratic rains, glacier outburst floods, and appearances of new diseases and pests (Chhogyel & Kumar, 2018; Wangchuk & Wangdi, 2018). Such climate variabilities have severe consequences on Bhutan's agriculture sector. For instance, 10-20% of crop loss in 2019 was attributed to weather events (Chhogyel *et al.*, 2020). Other reported pieces of evidence of climate change were associated with the damaging of crop, agricultural land, and irrigation channels (Chhogyel & Kumar, 2018).

When comparing the degree of environmental challenges encountered when they initiated their agribusiness, compared to the present, half of the young agripreneurs reported that they are experiencing more challenges at present (50%) than in the initial stage (27%). This is consistent with other studies which have reported on Bhutanese farmers perceiving an increase in climate change and its effects compared to the past (Chhogyel *et al.*, 2020; Chhogyel & Kumar, 2018; Wangchuk & Wangdi, 2018; Wangchuk & Siebert, 2013).

With regards to the availability of financial support, 80% of the young agripreneurs reported a lack of support being a hindrance to pursuing agribusiness. In general, financial access is a challenge for many Bhutanese entrepreneurs, especially among youth (Royal Monetary Authority [RMA], 2018; Tshering, 2018). More than half of the young agripreneurs (53%) reported that it was more challenging to access financial support now than when they first entered the business. This reflects a socio-cultural context where young agripreneurs can access financial support from their parents, relatives, and friends when they needed less money in the initial stage, while

experiencing more difficulty getting loans from commercial banks when they are seeking to upscale their business. This is presumably due to the lack of affordable agricultural loans available in the country. Loans provided to the agriculture sector amounted to 5.07 billion BNT, which accounted for only around 5% of the total loans provided in 2017 (RMA, 2018). Apart from the Bhutan Development Bank Limited, which supports rural agrarian sector development, the loans provided to the agriculture sector from domestic commercial banks was less than 1% of the overall loan portfolio as of 2017 (Dorji, 2018). This is largely because loans provided by the commercial banks are unaffordable for farmers (especially for young agripreneurs) due to their high-interest rates (Dorji, 2018). Although Bhutan started the Priority Sector Lending scheme in 2018 and the National Cottage and Small Industry Bank Limited in 2019 to improve financial access (Chezom, 2019; Dorji, 2018), young agripreneurs were deterred from borrowing as they perceived the procedure to be overly complicated and time-consuming. Bhutanese women entrepreneurs have also reported a similar challenge (Tshering, 2018). All statistics mentioned above show poor access to finance by smallholder farmers, especially by the young farmers.

In addition to accessing financial support, 58% of the young agripreneurs reported a lack of management skills as a challenge. Management referred to both crop or livestock production management practices and administrative management. The Bhutan's government provides farmers with subsidised technologies such as high-yielding seeds, improved breeds of livestock, and farm machinery (Wang *et al.*, 2019), which young agripreneurs are only gradually adopting due to the lack of in-depth scientific knowledge on producing crops and rearing animals using these technologies. For instance, the loss of crop to the changing weather (Chhogyel *et al.*, 2020) partly shows a lack of farmers' crop production skills. Some of the young agripreneurs were members of vegetable producer groups. While group members are motivated and goal-oriented when they form the group, they find that managing the group becomes complex and challenging over time. Young agripreneurs also shared challenges in group management, including poor leadership and group cohesion over the years. Sonam and Martwanna (2012) have also reported management issues in farmers' groups in Bhutan. Such factors are reflected in how 60% of the respondents described enterprise management being more challenging at present than it was initially.

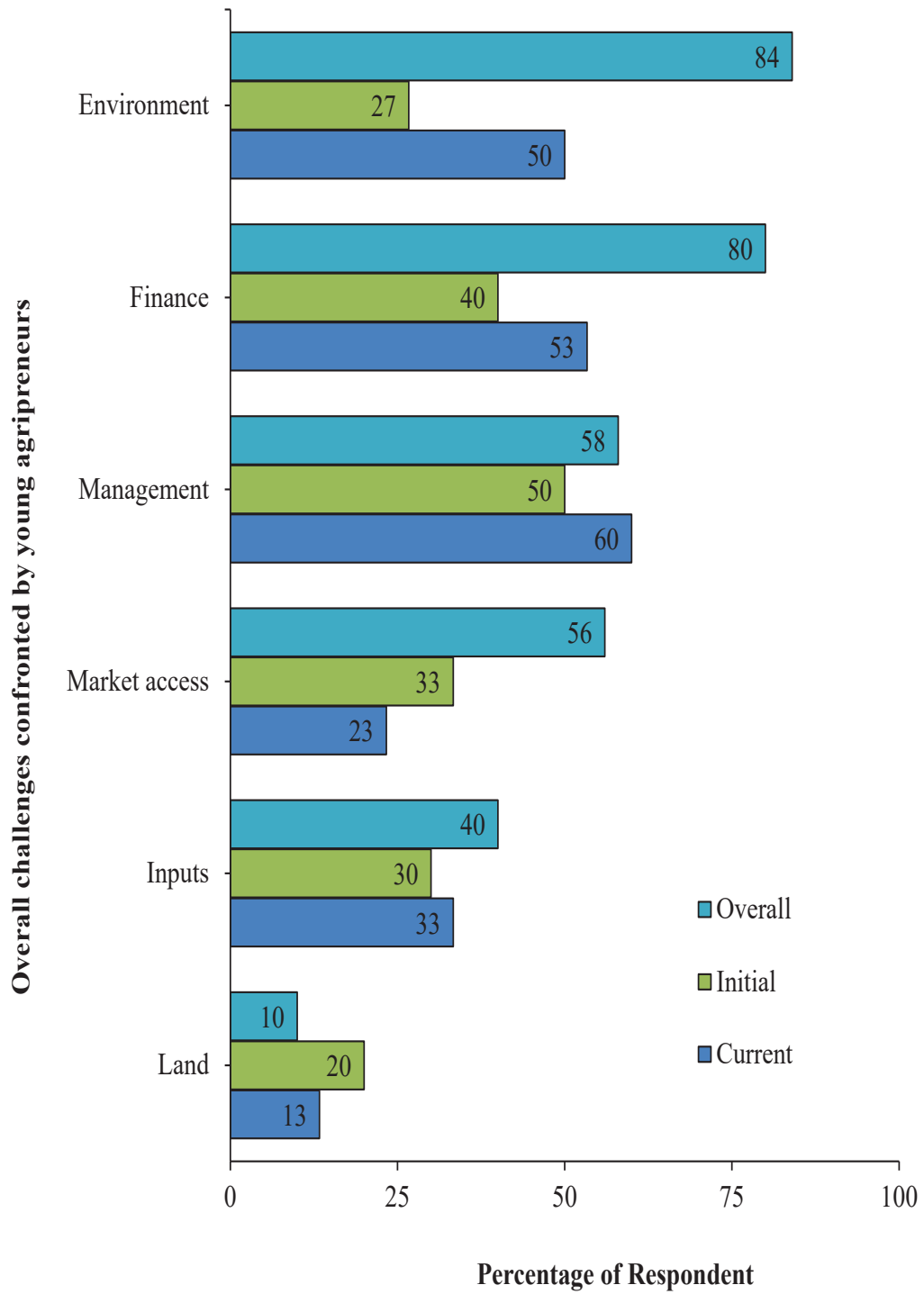


Figure 2: Challenges of Young Agripreneurs

Another significant challenge for young agripreneurs was market access, and 56% reported it as a challenge. As most Bhutanese farmers practice integrated self-subsistence farming (NSB, 2018), there is limited opportunity to sell farm produce in rural villages. The farm produce, therefore, must be ferried to urban centres, which presents a challenge to some young agripreneurs residing in remote areas. Ferrying farm produces to distant markets comes with its issues due to poor road conditions, particularly during the monsoon season, and produce getting spoiled along the way. It takes at least two days for fresh produce to cover about 600 kilometres from Trashiyangtse to Thimphu–Bhutan’s capital city. The challenges of distributing farm produce in Eastern Bhutan is also pronounced in earlier studies (Moktan *et al.*, 2008; Tobgay & McCullough, 2008).

The establishment of RAMCO, a dedicated institution, located in Mongar, to look after marketing matters in Eastern Bhutan, alludes to marketing challenges in the region. Among other activities, RAMCO forms collective action groups, including youth farmer groups. Such groups enabled young agripreneurs to improve their accessibility to market (Tenzin & Natsuda, 2016). RAMCO also promotes and facilitates contract farming, where RAMCO links farmers’ groups with large-scale consumers such as hotels and schools. If successful, contract farming is a win-win solution for both buyers and sellers (Tenzin & Natsuda, 2016). Further marketing support include the establishment of market sheds and other diversified sales outlets, as well as the development of farm roads in rural districts (MoAF, 2019). This extensive support network could be understood as the reasons why there was a decrease in the number of respondents experiencing marketing challenges currently (23%) compared to the past when they were initiating their business (33%) (Figure 2).

As for challenges accessing farm inputs, 40% of the respondents stated that they faced difficulty. In this study, farm inputs referred to seeds, fertilisers, pesticides, and animal feeds. As an agrarian country, Bhutan continues to prioritise agricultural subsidies since the initiation of the first five-year development plan, which included the distribution of farm inputs, to boost agricultural production in rural areas (Wang *et al.*, 2019). The respondents reported that they were able to access necessary farm inputs from the extension offices for free. Those who need farm inputs in larger quantities (e.g., fertilisers) could also access the subsidised inputs

from extension offices on a pre-order basis. Furthermore, respondents also received farm inputs, such as seeds, from CARLEP, ARDC, and RAMCO. Although the import of agro-chemicals is regulated in Bhutan (these are centrally procured and distributed through designated commission agents across the country), there has been a gradual increase in import and distribution of chemical fertilisers and pesticides (MoAF, 2019), indicating improved overall access and use over the decades.

Despite these general trends, however, more respondents (33%) reported having trouble accessing farm inputs at present, compared to the past (30%). A probable reason is that young agripreneurs usually initiate as a small enterprise, requiring fewer farm inputs. However, as their business expands over the years, it became harder to meet the increased demand for farm inputs. This shortage can be understood by the rising number of households pursuing semi-commercial farming in some areas. The extension offices are required to divide the provisioned amount of farm inputs among those with growing demand, causing a shortage. There is also a lack of coordination between the importing agencies and the field extension officials due to lack of proper production planning. The absence of adequate farm inputs will result in decreased productivity and earnings. Low initial returns will affect the youth's long-term outlook on agriculture (Barratt *et al.*, 2012). Therefore, prioritising the younger agripreneurs to access the farm inputs would be one way to encourage them to stay in agribusiness, especially in the initial years. As we found that access to farm inputs was not an issue for most of the respondents, the Bhutanese government and its development partners should maintain their subsidy of farm inputs until they can independently finance themselves. However, because wealthy households are reported to have greater access to subsidised farm inputs than low-income families (Wang *et al.*, 2019), extra care should be given to assure farm inputs be available for the marginalised smallholders as well. Furthermore, Bhutan imports most of its farm inputs (MoAF, 2019), which increases dependency on other countries. Relevant institutions, like the National Seed Centre and the Alpine Seeds, should encourage farmers to produce seeds to improve seed security in the country.

Lastly, we found that 90% of the respondents did not have a problem with land access. Moreover, access to land was an initial challenge for 20% of the respondents, but that number decreased to only 13% at present. We

ascertain that young agripreneurs were pursuing small-scale agribusinesses on their family-owned land, and the prevailing patterns of migration away from the rural eastern regions (Gosai & Sulewski, 2013; Choda, 2012) is contributing to improved access, as empty households (Guangdong), an ageing workforce, and fallow lands increase (NSB, 2018). Hence, fallow lands are readily available for leasing, or some owners temporarily allowing their use for free. The rural land leasing is common in all three selected districts (MoAF, 2019). Marginalised youth could also access the common pool land from the groups. The government of Bhutan further started the land User Rights Certificate (URC) scheme to allow state-owned land to be used for commercial agricultural purposes in rural areas. Under the URC scheme, the beneficiary can continue to use the land for the approved purposes. However, the government will withdraw URC if it is not used or misused (Lamsang, 2016). Similarly, land reforms have enabled youth to access land, which allowed them to rehabilitate communal lands and engage in agricultural value chains in Ethiopia and Malawi (Yami et al., 2019).

IMPLICATIONS AND LIMITATIONS

The current study has several implications to not only encourage but retain youth pursuing agribusiness in the country. The study contributes to an improved understanding of the challenges experienced by young agripreneurs in Bhutan, particularly from the Eastern regions where the aging and depopulation of those in the agriculture sector is an urgent topic of concern. The study shows that 82% of the young agripreneurs are impacted and face challenges by the consequences of climate change for their business. In this regard, the government of Bhutan needs to enhance young agripreneurs' capacity to adapt and mitigate climate change impacts by promoting climate-resilient agriculture practices, or climate-smart agriculture as recommended by Chhogyel and Kumar (2018). The agripreneurs could be trained in sustainable land management practices, given subsidies for climate-resilient crops and animals, pest and disease-resistant crop varieties, infrastructure for rainwater harvesting, and other efforts to improve energy and resource efficiency and autonomy.

Another significant area of challenge was access to financial support. The poor financial access was attributed to high-interest rates from

commercial banks (Dorji, 2018). The government along with financial institutions should, therefore, provide innovative ways to reduce interest rates, especially agriculture loans to young agripreneurs starting their careers. However, there are good prospects as the government has recently initiated supportive scheme such as the Priority Sector Lending to provide low-interest loans to smallholder farmers (Dorji, 2018). Despite such opportunities, loan processing procedures are often complicated, detracting from many taking advantage of the services (Tshering, 2018). Therefore, we strongly suggest the authorities concerned to explore opportunities to simplify the loan processing procedures.

Young agripreneurs reported on the challenges they face in both production and enterprise management. This finding calls for the need to strengthen programmes offered to offer better training programmes or apprenticeship opportunities to gain both technical skills (e.g., cropping, livestock rearing, and climate-smart agriculture practices) as well as managerial skills (e.g., enterprise development, record keeping, and leadership). The ARDC, RAMCO, extension officials, and other relevant authorities could play important roles in this process of training youths entering the agribusiness sector.

As 56% of the respondents reported market access as a challenge, the institution such as the RAMCO should rigorously explore ways to improve farmers' market access. Product processing (value addition), contract farming, cold storage establishment, market infrastructure improvement and similar other efforts have the potential to address market issues.

Addressing these recommendations (forementioned) could encourage and retain youth in the agriculture sector. However, findings in this study are limited to information collected from 50 young agripreneurs' via a cross-sectional self-reported survey in Eastern Bhutan. Young agribusiness entrepreneurs closer to the urban centres in the west, would hypothetically have very different challenges. Further research in the future should consider (1) expanding the sample size as the number of registered young agripreneurs increase, (2) covering more or different districts within Bhutan, and (3) triangulating data from multiple sources (not only based on self-reported data).

CONCLUSION

Agribusiness has the potential to attract and retain young people in the agriculture sector. Many young Bhutanese not pursuing agribusiness indicates the prevalence of challenges that remain unaddressed. Understanding challenges of young agripreneurs and improving their conditions could help address the rising unemployment rates, declining agricultural population, and the increasing reliance on imported foods in the country. By investigating young agripreneurs' challenges in Eastern Bhutan, we focused on the region where issues of depopulation are felt most severely. The results showed that a majority of young agripreneurs were confronted with challenges related to the changing environmental conditions, and financial access. More than half of respondents have experienced difficulty in management and market access. Significantly, the young agripreneurs were facing increasing challenges in the areas of the environment, finance, management, and input access compared to their initial stage of business operation. Although market access was a challenge for more than half of the respondents, the study showed that conditions have improved relative to the past. Moreover, the study found that access to land and farm inputs a relatively minor problem for many young agripreneurs. Therefore, we recommend that the enhancement of knowledge and skills around adaption and mitigation of climate change (e.g., promoting climate-smart agriculture practices), and providing low-interest loans, and simplifying loan processing procedures be prioritised. Furthermore, given the limited knowledge, skill, and experience about the ground realities of the business world, improving access to opportunities for young prospective agripreneurs to gain management skills and marketing know how through training and apprenticeship programmes would be highly beneficial.

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