

Bhutan
Food Security and Agriculture Productivity Project (FSAPP)

Proposal

GAFSP Public Sector Window, COVID-19 Response Additional Funding

August 10, 2020

Department of Agriculture
Ministry of Agriculture & Forests
Royal Government of Bhutan

—

World Bank
Agriculture and Food Global Practice

1. Basic Project Information

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| a. Project Name(s) | Food Security and Agriculture Productivity Project (FSAPP) (Investment project) ¹ |
| b. Current project development objective | To increase agricultural productivity and enhance access to markets for farmers in selected gewogs in South-West Bhutan |
| c. Responsible Supervising Entity/ies (SE) | World Bank |
| d. Investment SE Project Team Leader | Name: Felipe F Dizon Title: Task Team Leader, Agriculture Economist Email: fdizon@worldbank.org |
| e. TA SE Project Team Leader | NA |
| f. Project country | Bhutan |
| g. Counterpart Government Ministry/ies and Department(s) | Department of Agriculture, Ministry of Agriculture and Forests |
| h. Date of Project approval by the SE | April 27, 2017 |
| i. Current Project closing date | December 30, 2022 |
| j. Latest Project implementation rating by SE for investment project | Rating towards project development objective: Satisfactory Date: May 19, 2020 Rating on implementation progress: Satisfactory Date: May 19, 2020 |
| k. Latest Project implementation rating by SE for TA project | NA |

2. Project Financial Information (as of July 30, 2020)

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|--------------------|---|
| l. Project Funding | All funding sources ² : US\$ 9.359 million Of which GAFSP grant amount: US\$ 8.000 million |
| m. Disbursements | All funding sources, <i>disbursed</i> : US\$ 7.153 million GAFSP grant, disbursed: US\$ 6.745 million GAFSP grant, actual spent: US\$ 5.138 million |

3. Summary of Additional Funding Request

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| n. Additional Funding amount requested | US\$ 4.640 million |
| o. Supplemental SE administrative fee request | US\$ 0.365 million |

¹ The FAO is providing TA to the investment project, but this TA falls under the investment project for which the World Bank is the SE

² Includes GAFSP funds and government and beneficiary contributions. The FAO-TA is funded via the \$US 8 million GAFSP grant.

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| p. Costed list of proposed components and/or activities to be funded | Component 1: Strengthening Farmer and Producer Groups US\$ 0.120 million Component 2: Enhancing Farmer Productivity US\$ 3.281 million Component 3: Enhancing Access to Markets US\$ 0.989 million Component 4: Project Management US\$ 0.250 million |
| q. Revised Project Development Objective (if applicable) | NA |
| r. Revised project closing date (if applicable) | December 30, 2024 |
| s. Estimated number of direct and indirect beneficiaries (disaggregated by gender) (indicate if these are additional to the current project beneficiaries) | <p>The additional funding will cover <u>8,000 direct beneficiaries</u>, (of which 40 percent of individual beneficiaries would be female).</p> <ul style="list-style-type: none"> -Of the current targeted 10,400 household beneficiaries, 5,000 will be covered by the additional funding -An additional 3,000 households covering other gewogs in project districts will be covered, including 300 unemployed displaced individuals, primarily youth. <p>The additional funding is expected to reach <u>indirect beneficiaries</u>, including those in project districts (but not in project gewogs) who will benefit from improved food availability and quality at the district-level.</p> |

4. COVID-19 impact and Funding Needs (25%)

t. COVID-19 impact, disruptions, and response and coordination

Impacts and disruptions

Bhutan's economy has been significantly affected by the COVID-19 induced crisis. Even though Bhutan has had a limited number of cases of COVID-19 due to stringent containment measures,³ the pandemic has affected the economy through a decline in the services sector as tourist arrivals dried up, and disruptions to industrial activities, mainly through reduced demand for exports and disruptions to access to critical inputs. On March 22, Bhutan sealed off its land borders to prevent the spread of COVID-19. The lockdown in India and domestic containment measures, including social distancing, are expected to significantly depress economic activity. There is much higher risk in four of the five FSAPP districts because these run along the southwest border with India. The Ministry of Health is increasing testing in these districts due to concerns of community transmission.

Local-level food supply disruptions caused by COVID-19 are leading to food availability constraints and rising food prices in various areas of the country. Bhutan is a small remote country of about 750,000 people. It relies heavily on imports for food needs, primarily with India. Agriculture and food items accounted for 17 percent of the total import bill (excluding electricity). Of this, 91 percent of food imports was with India. While Bhutan exported 2.9

³ As of July 31, 2020, Bhutan had 101 confirmed cases, of which 88 have fully recovered. The country remains in code orange (moderate disruption). whereby isolation is triggered for confirmed cases, suspected cases are quarantined, and schools and educational institutes across the country are closed. As of July 31, 2020, 8,990 people have been quarantined and discharged, while another 580 remains in quarantine.

billion Nu of food products to India, it imported 10.6 billion Nu from India. It is for this reason that the lockdown and mobility restrictions in India have had some impact on the country's food supply and distribution. These disruptions indicate that domestic food production must scale up to meet existing needs. However, the agriculture sector faces some challenges to production, such as the lack of labor, inputs, and investments in mechanization and irrigation.

Bhutan is a mountainous country which makes accessibility within the country a considerable challenge. The country has limitations to transportation, packing, storage, and processing, especially so for more nutritious foods as these are typically more perishable. As COVID-19 is unraveling these limitations are being exacerbated. Supply disruptions at a national level are linked to and compounded by supply disruptions at the local district and gewog⁴ levels. In practice, food sourced from India is transported directly by the Indian suppliers to the districts. This means that disruptions in supply in the national border (with limits in access for Indian truck drivers) translates to disruptions in district-level supply. Schools are an important touchpoint and distribution platform for food in communities, particularly via meals for children but also as local stores for the food security reserve. Schools have opened for grades X and XII since July 1, but classes for all other grades are still closed. Altogether, these disruptions to supply and distribution have led to an increase in domestic food prices since the onset of the pandemic, particularly for more nutritious food products. Higher food prices affect districts with higher shares of undernourished individuals or of households who have experienced food shortages, such as the FSAPP project districts. (See [Annex 3](#) for an analysis of COVID-19 impacts on food supply and food security in Bhutan).

Due to COVID-19, fewer foreign construction workers are coming in and fewer tourists are coming in. These have led to a standstill in the construction and tourism subsectors. The services sector is the second largest contributor to GDP, and the largest earner of hard currency in the country. Over 77 percent of the urban population in Bhutan are employed in the service sector. The construction sector heavily relies on foreign skilled and unskilled workers, which consist of over 35,000 workers normally. Currently, there is a shortage of about 14,500 foreign workers in the sector. The government closed the country to inbound tourists on March 6. This forced around 2,400 visa cancellations in March and resulted in the closure of hotels and many other businesses which cater to tourists. The tourism sector has seen a decline in revenues of 41 percent in 2019/20 compared to 2018/19.

Due to the COVID-19 impacts on tourism, many have lost their jobs and experienced substantial declines in incomes. The tourism sector consists of about nine percent of GDP and employs around 6 percent of the population, or 50,000 Bhutanese by some estimates and about 77 percent of the urban population. A recent report on the COVID-19 impacts on the tourism sector highlighted three key findings.⁵ First, the impact of COVID-19 is deep, widespread, and cross-cutting— among the respondents, one-third had lost their jobs or are on leave without pay, two-thirds do not have diversified income sources outside of tourism, and three-fourths experienced a drop in income between 50 to 100 percent. Second, there is a strong interest in alternative employment, especially in agriculture and other vocations. For this reason, urban to rural migration is occurring. Third, the coping strategies available to those impacted by COVID-19 are limited, with relying on government help and curbing consumption as prevalent coping strategies. Besides the laid off workers, around another 8,000 Bhutanese who were employed abroad have since returned and are jobless.⁶ Many of the laid off workers, both those who were in urban areas in tourism and those who were in other countries, have migrated back to rural

4 A gewog refers to a group of villages. Gewogs form a geographic administrative unit below districts.

5 National Statistics Bureau and United Nations Development Programme, May 2020. Rapid Socio-Economic Impact Assessment of COVID-19 on Bhutan's Tourism Sector: An analysis of the vulnerability of individuals, households, and businesses engaged in the tourism sector.

6 As of end July, some reports indicate that 30,000 Bhutanese are seeking employment and that the number is expected to further increase.

areas in Bhutan where their families still reside. They are returning to the rural gewogs in FSAPP districts, creating an onus and opportunity for FSAPP to respond to provide livelihoods and income to its target population.

Response and coordination

The Royal Government of Bhutan (RGoB) has put forward a set of initiatives to respond to COVID-19. The major initiatives include the cash transfer program Druk Gyalpo's Relief Kidu (DGRK), interest payment relief, frontloading and reprioritization of the 12th Five Year Plan (FYP) programs and activities, and the Economic Contingency Plan (ECP, Series I). (See [Annex 4](#) for details on the RGoB response initiatives). The ECP budget of 4.5 billion Nu (US\$ 60 million) is focused on the agriculture, construction, and tourism sectors, and includes various interdependent initiatives. It is spearheaded and coordinated by the ECP Delivery Unit under the Prime Minister's Office and managed by other lead ministries.⁷ *The Build Bhutan Project (BBP)* aims to fill the foreign workforce gap in the construction sector by mobilizing skilled laid off workers or returning migrants and by skilling other unskilled workers. The *Tourism Resilience* arm of the ECP will balance the immediate engagement of displaced workers in other livelihoods with efforts to improve tourism governance and infrastructure.

Of the ECP budget, about 3.2 billion Nu is targeted to the agriculture sector, under a broad program on *food self-sufficiency and nutrition security*. The strategy involves interventions across the value chain. It starts with an analysis of demand, and addresses demand needs with interventions around production, transportation, and market-related interventions around processing, storage and marketing. To promote diet diversification away from rice, the list of priority commodities for production support under the ECP excludes rice.⁸ The budget for enhancing production is largely delegated to the local governments (a 200 million Nu budgetary grant). The support on transportation focuses on increasing accessibility. Market-related interventions include aggregation, cold storage, and other post-harvest infrastructure. Interventions on storage and marketing become especially crucial given the government's initial response to stockpile the National Food Security Reserve (NFSR), which now presents an opportunity to carefully manage its storage and distribution.⁹

The World Bank alongside other development partners is engaged in dialogue with and provides support to the RGoB COVID-19 response. The World Bank has provided support directly to the RGoB COVID-19 response via two instruments. The first is a US\$ 5 million COVID-19 Emergency Response and Health Systems Preparedness Project. This project aims to prevent, detect and respond to the threat posed by COVID-19 and strengthen national systems for public health preparedness. The second is a US\$ 16 million Development Policy Financing with a Catastrophe Deferred Drawdown Option to enhance capacity to manage the risk of climate change and natural disasters including disease outbreaks. Other development partners are supporting the RGoB COVID-19 response, including the European Union, World Food Programme (WFP), and the International Fund for Agriculture Development (IFAD). IFAD manages the Commercial Agriculture and Livelihoods Enhancement Program (CARLEP) which covers the eastern districts in Bhutan.

u. COVID-19 impacts on FSAPP implementation

7 The PMU for BBP falls under Ministry of Labor and Human Resources (MoLHR), the PMU for Tourism Resilience falls under Tourism Council of Bhutan (TCB), the PMU for agriculture interventions fall under MoAF, while the farm road PMU falls under the Gross National Happiness Commission (GNHC).

8 The focus commodities include cereals (maize, buckwheat, wheat), vegetables (chili, onion, tomato, brinjal, cauliflower, and beans), oil seeds (mustard), lentils, meat (chicken, pork), fish, and milk.

9 The Food Corporation of Bhutan Ltd (FCBL) manages the NFSR, and the implementation of the NFSR emergency action plan to stockpile three essential non-perishable commodities: rice, pulses (split red lentils), and edible oils (soybean oil). The action plan foresees a stockpile of food for 50 percent of the population for a 3-month period under code orange and 6-month stock under code red. By April, the government had exceeded the 3-month stockpile target under the NFSR action plan and was expected to shortly reach the 6-month stock.

FSAPP implementation is progressing well. The project has disbursed US\$ 6.74 million (or 84 percent of the grant), of which the actual amount spent as of June 2020 is US\$ 5.14 million (or 64 percent of the grant). The project has made significant progress across all components. As of June 2020, FSAPP has reached all 9,620 households in the project area covering five districts in the southwest, with 50 percent of beneficiaries female. Project achievements are notable given just about three years of implementation (approved in April 2017 and effective in August 2017). The upcoming midterm review (MTR) scheduled in September 2020 will further assess progress in achieving outcome objectives.

COVID-19 has not substantially impacted project implementation progress. However, construction works have experienced temporary delays. These delays include the construction of distribution networks for the four schemes which began around May and June 2020 and were designed to expand the command area, and the construction of farm sales outlets in the project districts. The overarching constraints to construction labor are expected to be relieved with the recent lifting of the ban for skilled labor from India and with the BBP under the ECP which has already started mobilizing and skilling displaced workers (alongside other incentives described in the ECP). FSAPP construction works are being prioritized in coordination with the MoLHR. Besides construction works, group-based capacity building activities (under Component 1) will experience some delay due to restrictions on large gatherings. These delays will be further reviewed and addressed in the upcoming MTR.

v. FSAPP response to COVID-19 impacts

FSAPP is by design a COVID-19 responsive project, and is aligned with the Agriculture ECP. FSAPP holds the potential to contribute to the broader response to boost and diversify domestic agricultural production. No changes to design, activities, target population, or implementation arrangements have been made. To respond to COVID-19, FSAPP has the capacity to scale and reframe its interventions in the existing project area, but it cannot do so due to budgetary constraints. In early April, as the pandemic was unfolding, the PMU and the DoA made an informal inquiry into the availability of additional financing from the World Bank, precisely to leverage FSAPP to support the MoAF response to COVID-19. No financing was available for FSAPP then.

5. COVID-19 Response Activities (40%) Description of Additional Financing Activities

Response activities

The proposed response activities fall under existing project components. The components as they are currently designed are crucial to the COVID-19 response to boost and diversify production and to provide livelihoods to those laid off. The following proposed activities are expected to generate short to medium-term relief:

Component 1: Strengthening Farmer and Producer Groups

- Formation, strengthening, and training of groups.¹⁰
This will include farmer groups, producer groups, youth cooperatives, and additional water user associations (WUAs).
- Prime Minister’s “Healthy Drukyl” campaign and other nutrition BCC interventions.
The Healthy Drukyl campaign was recently launched to address obesity and the rise in non-communicable diseases. The behavioral change initiative aims to shift away from Bhutanese diets which are heavy in rice and fat content from consumption of curries, towards the consumption of more healthy and balanced diets alongside the practice of physical exercise. In addition, community outreach will be conducted to augment

¹⁰ Training includes financial management, leadership training, and farmer business management. The FSAPP and FAO-TA pilot initiative on the use of farmer diaries will be used.

the current Behavior Change and Communications approach (BCC).¹¹ During such a pandemic, malnutrition rates can increase sharply, leading to even higher morbidity and mortality rates. Meeting one's nutritional needs can help maintain health and fortify the immune system to fight off infections.

Component 2: Enhancing Farmer Productivity

- *Fast-tracked* construction of four additional irrigation schemes.
FSAPP has completed four irrigation schemes which cover two of the five FSAPP districts, Sarpang and Samtse. This proposed response activity includes four additional large schemes which cover the three remaining FSAPP districts (Chukha, Dagana, Haa) and Sarpang.¹² The total proposed length of the additional channels is 56.2 Kms, benefiting 450 households, with a command area of 206 Has for wetland and 484 Has for dryland. While Bhutan is rich in water resources, its geographical terrain places farmer fields far from the streams and riverbeds from which to draw water from. Irrigation not only enhances the production of cereals during the main season, but boosts fruit and vegetable cultivation during the dry season. This therefore aligns with the ECP response on boosting agriculture production. The proposal is fast-tracked construction of the schemes and results are expected in the medium-term by 18 months (See Section 6.z).
- Inputs, equipment, and capacity building¹³ for farmers, including new generation famers.
New generation famers include workers who have been laid off, youth, and women. Engaging a new generation of farmers will, first, increase agricultural production and help address the high rates of youth unemployment.

Component 3: Enhancing Access to Markets

- Construction of packhouses.
This proposal requests packhouses to be constructed to benefit farmer groups, youth, women and workers who have been laid off. The packhouses would source fruits and vegetables from farmers to supply better quality produce to the market. The packhouses would implement post-harvest activities such as cooling, cleaning, grading and packaging.
- Improvement of transportation and storage infrastructure.
This proposal requests the construction of five cold storage facilities with 25 MT capacity located in each of the five project districts, and two large cold storage facilities with 200 MT capacity each located in Sarpang and Chukha intended to serve the large urban centers in these districts. The proposal includes the procurement of one refrigerated van for each of the five project districts. The cold storage and refrigerated van will be provided to and then maintained by the beneficiaries (through famer and producer groups). These investments are expected to enhance market access and support local-level food availability, particularly crucial during the pandemic and its aftermath. These will be interlinked with the school feeding program.

Construction of packhouses and storage infrastructure will be fast-tracked and is expected to secure local availability of nutritious food during the pandemic and its aftermath. These results are expected in the medium-term by 18 months (See Section 6.z). The proposed response activities under Component 3 are meant to address various COVID-19 impacts. During the initial months of the COVID-19 pandemic, fewer

11 Activities include training of youth groups, nutrition sensitization of community influencers and government frontline workers, community engagement through focused group discussions, cooking demonstrations with local nutritious varieties to help close the knowledge to practices gap, adaptation and roll-out of Information-Education-Communication materials

12 The large schemes have already been identified, namely, Tareythang gewog under Sarpang Dzongkhag, Bongo gewog under Chukha Dzongkhag, Karna gewog under Dagana Dzongkhag, and Samar gewog under Haa Dzongkhag. The two smaller irrigation schemes are for Dekiling gewog under Sarpang Dzongkhag and Eusu gewog under Haa Dzongkhag.

13 This includes provision of protected agriculture, high efficiency irrigation systems (HEIS), and a range of inputs. Input support and training will be provided on land preparation, crop management, pest, disease and weed management, soil management, harvest, post-harvest, and marketing.

imports were coming into the country and food supply chains were overall disrupted. During this time, the quality of produce in the markets were below standard and had poor shelf life. Vegetable wholesalers were moving from one district to another sourcing vegetables, even paying in advance for crops still in the fields. These vegetables were being packed in jute bags, resulting in reduced quantities, lower quality, and higher consumer prices.

Filling gaps, coordinating the response, and documenting lessons

The FSAPP COVID-19 response is coordinated by the DoA and the MoAF, which interfaces and coordinates with the other ministries and the ECP Delivery Unit. FSAPP has been at the forefront working closely with the district level governments in the southwest towards boosting production and productivity and enhancing market access. Under the Agriculture ECP, seven districts have been identified for boosting vegetable production. Four of these seven districts cover four FSAPP districts.¹⁴ Bhutan does not have any cold storage facilities at the district level. There are only three cold storage facilities all of which are close to the capital—two in Paro district, one operated by the National Post Harvest Center, and one with 120 MT capacity operated by a private individual, and a third facility in Thimphu operated by the Food Corporation of Bhutan. Packhouses are also insufficient in the project districts.

To fill gaps in cases where the BBP is unable to absorb some of the unemployed, FSAPP will engage a new generation of farmers and those involved in agriculture-based enterprises, thereby providing livelihoods to displaced workers. The identification of laid off workers is being done in close coordination between the DoA, the MoLHR, and the TCB. FSAPP will also coordinate with CBREP and its efforts to promote productive sources of income among youth. A joint (virtual) mission is being planned between FSAPP and CBREP in September to discuss collaborations particularly in the four overlapping districts. This mission will also include exchanges of lessons between the FSAPP and CARLEP teams.

The learning from this response will be tracked by the PMU, collected by the MoAF, and fed into the broader learnings from the ECP and RGoB response. FSAPP is exploring a partnership with the Development Impact Evaluation Unit (DIME) of the World Bank in order to design and implement a rigorous evaluation of the impacts of FSAPP in the context of COVID-19.

w. Expected impacts, beneficiaries, and targeting

Expected impacts

The expected impacts of the additional funding support the RGoB response to COVID-19 and directly contribute to the PDO: increased agricultural productivity and enhanced market access. The expected impacts include:

- Enhanced domestic production and local availability of a variety of cereals, fruits, and vegetables. This will be achieved by utilizing fallow land, engaging youth and workers who have been laid off, providing improved inputs, and securing the availability of irrigation water throughout the cropping season.
- Improved distribution and local availability of better-quality cereals, fruits, and vegetables throughout the year. This will be achieved through value addition activities in packhouses and improved transport and storage with district-level cold storage facilities.
- Improved livelihoods and incomes for farmers and displaced workers in the project area.
- Increased nutrition awareness among households in the project area, which could further lead to behavior change towards healthier and more diverse diets.

¹⁴ Chhukha, Dagana, Samtse, and Sarpang. The other three districts are Pema Gatshel, Tsirang, and Samdrup Jongkhar.

These investments are intended to respond to the immediate short-to-medium term impacts of COVID-19. Nonetheless, these responses are expected to have longer-term impacts. To sustain the impacts of the investments, FSAPP combines investments with the strengthening of groups and technical capacity building to increase beneficiary ownership and improve longer-term operation and maintenance of assets. These measures put in place a response to the threat of food supply chain disruptions in future emergency situations.

Beneficiaries and targeting

The project area for the additional funding will cover the existing five FSAPP districts. FSAPP currently covers 24 gewogs of the 58 gewogs in the project districts, with 10,400 target beneficiaries. The additional funding will cover 5,000 of these existing beneficiaries. FSAPP proposes to introduce additional gewogs, in existing project districts. These new gewogs will be selected based on the location of fallow fields which can be mobilized for cultivation and the location of displaced workers who are interested in farming as an alternative livelihood (there is currently much interest).¹⁵ The identification of the displaced is being done in coordination with TCB and MoLHR.¹⁶ The project will particularly target youth and women beneficiaries. FSAPP will cover an additional 3,000 beneficiary households from these additional gewogs, including new generation farmers and existing farmers. The pandemic displaced many individuals from urban centers, particularly the youth, who having no alternative source of livelihood have returned to their gewogs where their parents live. Similarly, laid off returnees from abroad willing to take up farming will be identified and supported. Unlike for the main 24 FSAPP gewogs, the project does not intend to cover the full rural population of all the new gewogs. To address the risk that new generation farmers will return to their previous jobs, the support provided to new farmers will include investments and training which make farming more lucrative and market-oriented than otherwise perceived. Intensive training and mentoring from existing farmers will also ensure that new generation farmers can start production in the forthcoming season and thereby contribute to the urgent local production needs during this COVID-19 pandemic.

x. Draft results framework

See [Annex 2](#) for the draft results framework and proposed revisions.

6. Project readiness to utilize additional funds (35%)

y. Alignment with PDO and activities, and new geographic area

The proposed response activities are fully aligned with the existing components and subcomponents, and with the existing PDO of FSAPP. Because the design of the components will not be revised, it is expected that the PMU will be fully able to disburse the additional funding and implement the response activities efficiently.¹⁷ The PMU has demonstrated success and has built the momentum to implement the existing components and deliver on the target outputs. Across all five Implementation Status and Results Reports between May 2018 to December 2019, FSAPP has been rated Satisfactory both on progress towards PDO and overall implementation progress.

FSAPP will continue to work in its five districts. In the *existing 24 project gewogs*, the additional funding will help boost and secure the gains made in these communities against the risks of COVID-19 on food production, distribution, and market access. The additional funding will support at least 5,000 of the current 10,400 targeted households. In the *other gewogs* to be added after additional funding, the aim is to secure livelihoods and boost

¹⁵ Dagona district, for example, has already submitted a request to support 27 new generation farmers located across five new gewogs and three existing gewogs. The list from other project districts are soon to be submitted.

¹⁶ Already, about 200 laid off workers have been identified by the TCB and formed into groups for vegetable production.

¹⁷ The PMU has in its team a Procurement Specialist, Marketing and Value Chain Specialist, M&E Officer and various engineers to implement the proposed activities. The position of Environmental and Social Safeguards Specialist at the PMU was recently vacated and will soon be filled.

food production. Because these other gewogs fall under the five districts, the existing district-level implementation arrangements will be adequate to increase the coverage to other gewogs and beneficiaries. The additional funding will support at least 3,000 more households on top of the 10,400 targeted households.

The proposed activities will be delivered under the existing well-functioning implementation arrangements. FSAPP has nine project implementation units (PIUs) with significant reach in the project districts and across the range of project activities.¹⁸ In addition, FSAPP has an FAO Technical Assistance facility (FAO-TA) embedded in the project and financed by the existing grant. FAO-TA provides technical support to the PMU and will be integral to the smooth implementation of the additional funding activities.

Given the shorter timeframe available to disburse funds and respond to COVID-19 impacts, the PMU and DoA will leverage partnerships across government and development partners. The identification of additional beneficiaries is being done in coordination with MoLHR and TCB, the response activities targeted to youth will be coordinated with the activities under CBREP¹⁹, and the implementation lessons will be exchanged with CARLEP. FSAPP is further exploring the operationalization of the collaboration with WFP to even more rapidly implement response activities effectively. WFP and Tarayana Foundation will be piloting a battery of nutrition outreach activities in Samtse district, building on the earlier collaboration between FSAPP and the Tarayana foundation in the same district.²⁰ Moreover, WFP is closely engaged with the Ministry of Education (MoE) to support the improvement of school food storage facilities for perishables, and for capacity development of the management of the school feeding and nutrition program.²¹ FSAPP will explore linkages around these areas with WFP to deliver its response quicker.

z. Timeline for disbursement and implementation, and expected results

Of the US\$ 4.64 million additional funding, 93 percent will be disbursed within 18 months (See Annex 1). The cumulative projected disbursements are 17 percent within 6 months, 45 percent within 9 months, 59 percent within 12 months, and 93 percent within 18 months, or by June 2022 if the funding is made available by January 2021. The 24-month extension of the closing date to December 2024 is requested to complete the activities covered by the existing grant. The time extension would focus less on physical infrastructure investments which will be frontloaded, and instead would focus more on fortifying the technical capacity building activities which are crucial to the sustainability of outcomes achieved. Of the US\$ 2.86 million remaining funds, 75 percent will be disbursed by December 2022 and the remaining 25 percent will be disbursed by December 2024.

The construction of the irrigation schemes is one of the more expensive activities which will require significant attention by the PMU to ensure rapid delivery. While these investments may be challenging, they also form one of the strongest FSAPP responses to COVID-19 impacts with potentially large impacts across an entire gewog. Moreover, given the lessons learned in the initial years of the project to deliver similar irrigation schemes, the PMU is confident that it can fast-track the construction of the four additional irrigation schemes, despite the impacts on the construction subsector (See Section 4.u on the recent easing of construction labor constraints

18 These include five district-level PIUs, three PIUs in regional Agriculture and Research Development Centres (ARDCs), and one PIU in the Department of Agriculture Marketing Cooperatives (DAMC).

19 The timeline of CBREP interventions and FSAPP AF activities coincide. CBREP is seeking synergies to complement the limited training and financing it can provide in the FSAPP districts, thereby providing a ripe opportunity for collaboration.

20 With the support of a grant from the South Asia Food and Nutrition Security Initiative (SAFANSI), Tarayana Foundation supported FSAPP in nutrition and health BCC for hard-to-reach communities.

21 Improvement in food storage facilities includes pallets, exhaust fans, and refurbishing stores and kitchens. Capacity building for the school feeding program includes food preparation and food safety training for cooks and staff. The interventions include training content development, subsequent roll-out of training on safe and hygienic food preparation for 120 cooks and 96 school staff across schools in the FSAPP districts.

combined with the prioritization of FSAPP civil works). The PMU estimates completion of award of contracts at most within six months, and completion of works at most within 12 months after award. Beneficiaries would have access to irrigation and water much before December 2022, and in time for the season of winter vegetable cultivation. Other major investments like the construction and installation of district-level cold storage facilities can be completed before September 2021, again assuming the funds are made available by January 2021.

Most of the productivity enhancement activities will be completed immediately, and even larger scale infrastructure will be fully completed within 18 months. As such, we expect increases in agricultural production, agricultural productivity, and market access within 18 months both for existing beneficiaries and the beneficiaries in other gewogs. These results will be captured and documented via the Annual Outcomes Survey conducted by the PMU. In addition, the enhanced quantity and quality of food production and distribution will support availability for other communities, and will help RGoB mitigate the risk of future food supply disruptions.

aa. Project implementation progress is rated Satisfactory.

bb. Annex 1 provides updated project budget by component and activity.

Section 4.v described the initial informal request from the PMU/DOA for COVID financing.

cc. Documents included: World Bank ISR and Aide Memoire from May 2020.

Annex 1: Updated Project Budget and Timeline of Disbursement

Investment Funding Budget

Only accounts for GAFSP US\$ 8 million grant and requested Additional Funding of US\$ 4.64 million.

| Components | Activities | Original Budget (US\$) | | Additional Funding (US\$) | Total Budget (US\$) |
|---|---|------------------------|-----------|---------------------------|---------------------|
| | | Disbursed | Available | | |
| Component 1: Strengthening Farmer and Producer Groups | Activity 1: Formation, strengthening, and training of groups | | | 100,000 | |
| | Activity 2: Prime Minister’s “Healthy Drukyul” campaign | | | 20,000 | |
| | Subtotal | 201,615 | 877,558 | 120,000 | 1,199,173 |
| Component 2: Enhancing Farmer productivity | Activity 1: Construction of additional irrigation schemes | | | 1,804,000 | |
| | Activity 2: Farm inputs, equipment, and capacity building | | | 1,477,000 | |
| | Subtotal* | 3,694,008 | 1,515,357 | 3,281,000 | 8,490,365 |
| Component 3: Enhancing access to Markets | Activity 1: Construction of packhouses | | | 500,000 | |
| | Activity 2: Improvement of transportation and storage infrastructure, and marketing input support | | | 489,000 | |
| | Subtotal* | 371,775 | 629,172 | 989,000 | 1,989,947 |
| Component 4: Project Management | Subtotal** | 871,034 | -161,034 | 250,000 | 960,000 |
| TOTAL BUDGET FOR ALL COMPONENTS | | 5,138,432 | 2,861,053 | 4,640,000 | 12,639,485 |
| *Excluding current beneficiary contributions of US\$ 0.095 million and excluding the budget for beneficiary contributions of US\$ 0.239 million total for Component 2 and 3. | | | | | |
| **Excluding current RGoB contribution of US\$ 0.346 million and excluding budget of US\$1.12 million of RGoB contribution for Component 4. Thus, there is more funding for project management available to deliver the current activities. The negative amount reported is covered by RGoB contributions. | | | | | |

Timeline of Disbursement of Additional Funding

| Component | Calendar Year (CY) 2021 | | | | CY 2022 | | | | CY 2023 | CY 2024 | Subtotal |
|-------------------|-------------------------|----------------|------------------|----------------|----------------|----------------|---------------|---------------|----------------|----------------|------------------|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Year | Year | |
| Component 1 | 11,000 | 17,000 | 24,000 | 10,000 | 10,000 | 20,000 | 21,000 | 7,000 | 0 | 0 | 120,000 |
| Component 2 | 203,000 | 440,000 | 756,000 | 487,000 | 750,000 | 579,000 | 33,000 | 0 | 33,000 | 0 | 3,281,000 |
| Component 3 | 0 | 86,000 | 537,000 | 148,000 | 133,000 | 53,000 | 4,000 | 0 | 0 | 27,000 | 988,000 |
| Component 4 | 4,000 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 | 17,000 | 95,000 | 87,000 | 251,000 |
| Subtotal | 218,000 | 551,000 | 1,325,000 | 653,000 | 901,000 | 660,000 | 66,000 | 24,000 | 127,587 | 113,213 | 4,640,000 |
| Cumulative (US\$) | 218,000 | 769,000 | 2,094,000 | 2,747,000 | 3,648,000 | 4,308,000 | 4,374,000 | 4,398,000 | 4,525,587 | 4,638,800 | |
| Cumulative (%) | 5% | 17% | 45% | 59% | 79% | 93% | 94% | 95% | 98% | 100% | |

Annex 2: Updated Results Framework

Proposed Revised Results Framework

| <i>Project Development Objective: To increase agricultural productivity and enhance access to markets for farmers in selected gewogs in south-west Bhutan</i> | | | | | | |
|---|-----------------|--|---|------------------|---|--|
| Project Outcome Indicators | Baseline | Original Target | Proposed Revisions | Frequency | Source of Data | Responsibility |
| 1. Productivity of targeted crops ²² increased by at least 20 percent in project areas ²³ . | 0 | 20 | No change | Annual | Project Progress Reports RNR Statistics Third Party Assessments | PMU, PST, RDCs, dzongkhag and Gewog administrations |
| 2. Increase in both volume and value of produce marketed by at least 20 percent. | 0 | 20 | Increase to 25 | Annual | Project Progress Reports Third Party Assessments | PMU, PST, RCDs, dzongkhag and Gewog administrations, |
| 3. Number of direct project beneficiaries of which 30 percent are women. | 0 | 10,400 HHS ²⁴ – 15,600– female beneficiaries | 3,000 <i>additional</i> HHS in new gewogs (of which 40 percent are women) | Annual | Project Progress Reports Third Party Assessments | PMU, PST, RCDs, dzongkhag and gewog administrations |

²² Rice, Vegetables, Potatoes, Large Cardamom, Citrus.

²³ Project areas = 24 gewogs in 5 dzongkhags in South-West Bhutan

²⁴ 1 HH = estimated 5 family members on average, Total beneficiary HHS – 10,400. 5 x 10,400=52,000 (total estimated beneficiary population); 30% of total beneficiary population that will be receiving direct project interventions will be female = 30% of 52,000 = 15,600

| Project Outcome Indicators | Baseline | Original Target | Proposed Revisions | Frequency | Source of Data | Responsibility |
|---|----------|----------------------|--|-----------|---|---|
| <p>Component 1: Strengthening Farmers and Producers Groups: <i>To strengthen farmers' groups (including in nutrition), so they are better able to implement and sustain project interventions.</i></p> | | | | | | |
| 1.1 Number of beneficiaries receiving technical trainings and other capacity building support | 0 | 300 ²⁵ | 40 additional farmer groups | Quarterly | Project Progress Reports | PMU, PST, RCDs, dzongkhag and Gewog administrations |
| 1.2 Number of farmers ²⁶ who are members of an association including producer groups, cooperatives etc. (disaggregated by gender) – <u>GAFSP Core Indicator # 14</u> | 0 | 10,400 ²⁷ | 3,000 additional farmers (300 new generation, and 2,700 existing farmers) | Biannual | Project Progress Reports RNR Statistics Third Party Assessments | PMU, PST, RCDs, dzongkhag and Gewog administrations |
| 1.3 Number of people receiving improved nutrition services and products through the project - <u>GAFSP Core Indicator # 11 (new GAFSP indicators)</u> <u>1.3.1</u> Number of people who received nutrition counseling/education, recipients of Ready-to-use-Therapeutic Foods, bio-fortified foods, Vitamin A and micronutrient supplements <u>1.3.2</u> Number of people receiving extension support for nutrition-relevant techniques | 0 | 6,000 ²⁸ | 120 additional households | Biannual | Project Progress Reports Third Party Assessments | PMU, PST, RCDs, dzongkhag and Gewog administrations |

²⁵ 300 Farmer Groups – any farmer group (including WUAs and producer groups) formed/strengthened under the project. Each group should receive at least one training.

²⁶ Supported by the project in creating or strengthening farmer groups.

²⁷ 1 farmer per HH, total number of targeted HHs – 10,400 farmers

²⁸ 60% of targeted 10,400 HHs = 6,240 HHs. Assuming at least one person receives services per HH = 6,240 persons ~ 6,000 persons – This 6,000 covers both 1.3.1 and 1.3.2. These were not targeted separately because they are both pathways leading to the same outcome, i.e. 1.3 (no. of people receiving improved nutrition services and products)

| | | | | | | |
|--|---|----------------------|---|----------|---|---|
| Component 2: Enhancing Farmer Productivity: <i>To improve agricultural productivity vital for improving food security and nutrition.</i> | | | | | | |
| 2.1 Targeted crop area provided with irrigation – <u>GAFSP Core Indicator # 6</u> | | | | | | |
| Area covered by Flood Irrigation | 0 | 1,346 acres | 512 acres additional (flood irrigation) | Biannual | Project Progress Reports RNR Statistics Third Party Assessments | PMU, PST, RCDs, dzongkhag and gewog administrations |
| Area covered by Micro irrigation | 0 | 250 acres | 1,198 acres additional (micro irrigation) | | | |
| 2.2 Number of water users ²⁹ with new/improved irrigation services – <u>GAFSP Core Indicator # 8</u> | 0 | 4,065 ³⁰ | 2,250 additional | Biannual | Project Progress Reports RNR Statistics Third Party Assessments | PMU, PST, RCDs, dzongkhag and Gewog administrations |
| 2.3 Number of farmers who have adopted an improved agricultural technology ³¹ promoted by the project in targeted project areas (gender disaggregated) – <u>GAFSP Core Indicator # 4</u> | 0 | 10,400 ³² | 3,000 additional farmers (300 new generation, and 2,700 existing farmers) | Biannual | Project Progress Reports Third Party Assessments | PMU, PST, RCDs, dzongkhag and Gewog administrations |
| 2.4 Total land area under cultivation for citrus and cardamom increased by 5 percent | 0 | 5 | No change. | Biannual | Project Progress Reports RNR Statistics Third Party Assessments | PMU, PST, RCDs, dzongkhag and Gewog administrations |
| Component 3: Enhancing Access to Markets: <i>To promote nutrition sensitive value chain development for high value (economically and nutrient-rich) crops in order to enhance market linkages for farmers.</i> | | | | | | |

²⁹ Water Users = All farmers benefitting from project supported irrigation interventions

³⁰ 563 HHs benefitting from flood irrigation interventions, and 250 HHs benefitting under micro irrigation interventions (Total HHs = 813; average HH size = 5 persons, therefore total water users (beneficiaries) of irrigation= 813 x 5 =4,065 persons. All flood and micro irrigation schemes are new schemes.

³¹ Improved Agricultural Technology = Including but not limited to - high efficiency irrigation, disease-free seeds and saplings, soil conservation, farm machinery, electric fencing, greenhouses, and any other technology provided by the project

³² Calculated by assuming one farmer per HH. Total targeted HHs - 10,400.

| | | | | | | |
|---|-----------------|---------------------|---|----------|---|---|
| 3.1 Number of beneficiaries of project supported market infrastructure ³³ | 0 | 30 ³⁴ | No change. | Biannual | Project Progress Reports RNR Statistics Third Party Assessments | PMU, PST, RCDs, dzongkhag and Gewog administrations |
| 3.2 Number of producer groups receiving market information ³⁵ | Baseline | 30 | No change. | Biannual | Project Progress Reports Third Party Assessments | PMU, PST, RCDs, dzongkhag and Gewog administrations |
| 3.3 Number of farmer groups linked to schools | 0 | 10 ³⁶ | No change. | Biannual | Project Progress Reports Third Party Assessments | PMU, PST, RCDs, dzongkhag and Gewog administrations |
| 3.4 Number of children receiving the recommended 5 servings of fruits/vegetables per day | 0 ³⁷ | 2,100 ³⁸ | No change. | Biannual | Project Progress Reports Third Party Assessments | PMU, PST, dzongkhag and Gewog administrations |
| 3.5 Number of packhouses constructed and handed over in project area | -- | -- | New indicator. Target: 15 | Biannual | Project Progress Reports | PMU, Dzongkhags & Gewog Administrations |
| 3.6 Number of cold storage facilities constructed and handed over to farmer groups and cooperatives | -- | -- | New indicator. Target: 7 facilities (5 25 MT capacity, and 2 200 MT capacity). | Biannual | Project Progress Reports | PMU, Dzongkhags & Gewog Administrations |
| Component 4: Project Management | | | | | | |

³³ Market Infrastructure = Including, but not limited to, improved handling equipment (crates, tarpaulin sheets), collection/packing center, small market sheds, improved storage structures e.g., zero energy cool chambers for vegetables/fruits and machines and materials for packaging and weighing, farm shops

³⁴ 30 Producer Groups. At least one form of market infrastructure per group

³⁵ Market information =Market prices, knowledge of markets present, and cost of market access

³⁶ Approximately 16 schools will be targeted with at least one producer/farmer group linked to each school (therefore at least 16 producer/farmer groups linked). 60% of 16 = 9.6 ~ 10 groups.

³⁷ This indicator measures children receiving five servings under the project. Therefore, baseline is zero.

³⁸ 70% of targeted 3000 school children = 2,100 school children

| | | | | | | |
|--|-----|--|------------|------------------------|---|---|
| 4.1 At least 2 Learning Notes and 3 Case studies published and disseminated | n/a | 2 Learning Notes 3 Case Studies | No change. | Biannual | Published Reports | PMU, PST, RCDs, dzongkhag and Gewog administrations |
| 4.2 Progress reports are prepared and submitted on biannual basis and are of satisfactory quality. | n/a | Accurate and timely reports | No change. | Biannual | Biannual Project Progress Reports | PMU, PST, RCDs, dzongkhag and Gewog administrations |
| 4.3 Procurement of goods and works under this project is completed according to schedule. | n/a | Contracts awarded and completed on schedule. | No change. | Ongoing | Project Progress Reports, Procurement reviews | PMU, PST, RCDs |
| 4.4 Percentage of beneficiaries satisfied with services ³⁹ provided by the project. | n/a | 50 | No change. | Mid and End of Project | Beneficiary Satisfaction Surveys | PMU |

³⁹ Services: Any intervention under the project.

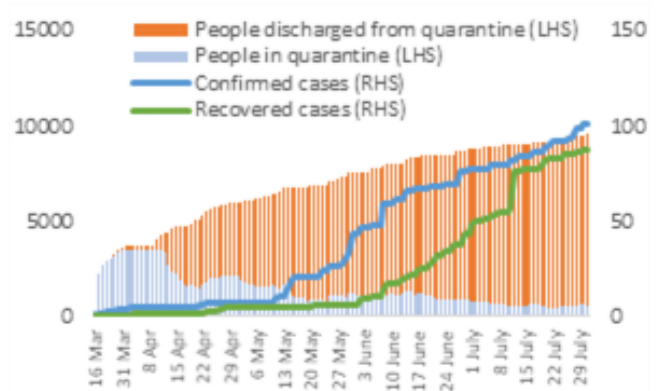
Annex 3: Assessment of COVID-19 existing and potential impacts on food security in Bhutan

COVID-19 Summary as of July 31, 2020

| | |
|---|--------------|
| Number of confirmed case(s) / recovered / death | 101*/88***/0 |
| Total samples tested | 43,196 |
| Rapid tests | 32,156 |
| RT-PCR tests | 11,040 |
| Number of people in quarantine / discharged | 580/8,990 |

* Two migrated, all imported and detected while under quarantine

** Recovered cases include de-isolation cases from July 12



A. Background

While Bhutan has been able to prevent a domestic outbreak of COVID-19, it has been significantly impacted by lower tourism, reduced foreign demand for goods exports, and supply shortages.⁴⁰ On March 22, Bhutan sealed off its land borders as a precautionary measure to prevent the spread of COVID-19, except for movement of goods, with the Bhutan-India border remaining open for trade. As per the National Preparedness and Response Plan (NPRP) for COVID-19, the country remains in code orange (moderate disruption),⁴¹ whereby isolation is triggered for confirmed cases, suspected cases are quarantined, and all schools and educational institutes across the country are closed. The lockdown in India and domestic containment measures, including social distancing, are expected to significantly depress economic activity. The impact on the labor market will be felt more broadly across the country and particularly in urban areas, where an estimated 40 percent of households depend on tourism and trade-related activities.

The COVID-19 induced crisis has led to mobility restrictions within and across countries which poses challenges for food security in Bhutan. The global pandemic may cause disruptions in food supply chains resulting in shortages and price spikes in a broader range of countries with possible direct and indirect impacts on Bhutan’s food security. As widespread lockdowns cause the global economy to slow or fall into recession, the risk of exacerbating poverty and hunger is high. As a small landlocked country, Bhutan relies strongly on food imports – which account for 49.5 percent of total food expenditure and about 17 percent of total imports. These imports are primarily from India.

Households in Bhutan have generally met minimum food security standards before the COVID-19 crisis, but the impact of the pandemic could change the situation on the ground. In Bhutan, almost all households have enough to eat throughout the year. In 2007 an average household had enough food for 11.6 months of the year, and in 2017 it had enough for 11.9 months, according to the Bhutan Living Standards Survey (BLSS). The proportion of households reporting difficulty in having enough food in the past year declined from 10.8 percent

⁴⁰ Reports from Association of Bhutanese Industries (ABI) and Construction Association of Bhutan (CAB) indicate a sharp decline in non-hydro exports to India, while shortages in labor and raw material from India impede activities in the manufacturing and construction sector. News reports indicate a shortage of non-essential consumer goods in the domestic market due to the lockdown in India.

⁴¹ There are four levels of the NPRP: green zone (no disruption), yellow zone (minimal disruption), orange zone (no local transmission, with moderate disruption and partial lockdown), and red zone (local transmission, with major disruption and complete lockdown).

in 2010 to 2.2 percent in 2015.⁴² However, food insecurity and poor nutrition outcomes are pressing issues, particularly in remote regions with little commercial agriculture.

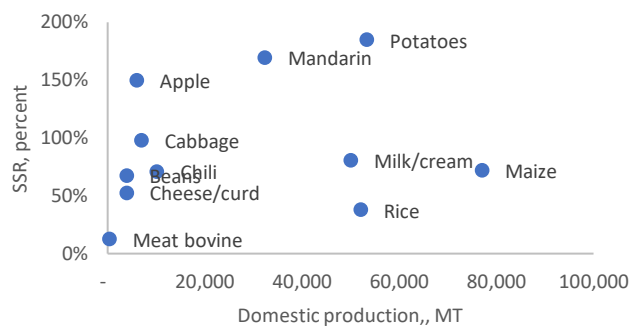
B. Food supply disruptions

The country produces much of its needs for (non-rice) staple cereals and for vegetables (see Box 1), but agriculture production faces some challenges. The agriculture sector faces various constraints including a decline in farm labor as people migrate to urban areas, an inherent scarcity of productive agricultural land given the country’s topography (and underutilization of the already scarce land), and insufficient investments in mechanization and irrigation. More men have tended to migrate into urban areas, leading to the feminization of agriculture labor in certain districts. Domestic production is driven by the intensification of inputs, as opposed to productivity and mechanization.⁴³ There are also large spatial differences in production leading to a bifurcation of the agriculture sector, with some districts responding to incentives from lucrative domestic and export markets, and other lagging districts producing mainly for subsistence. Since the onset of the COVID-19 crisis, there have been anecdotal reports of reverse migration by workers formerly employed in the tourism sector.

Box 1: Food supply from domestic production

The country has high self-sufficiency ratios (SSR)⁴⁴ in cereals and starchy staples (except rice), vegetables and fruits, and there are only minor production gaps for non-meat protein sources. Among cereals and starchy staples, the country is more self-sufficient in potatoes and maize than in rice, with a SSR of 185 percent for potatoes, 72 percent for maize and 37 percent for rice in 2018. Among vegetables and fruits, rich in micronutrients, there are some domestic production gaps particularly in chili with an SSR for 71% — an essential vegetable in the country for which demand is high. For non-meat protein sources, similar to vegetables, there are only minor productions gaps. The country is least self-sufficient in meat products. The SSR for meat (beef) was 12%, with 2,910 MT imported in 2018.

Figure 1. Self-sufficiency levels of selected food products, average 2016-18



Bhutan is at a critical time in the production season for paddy, and for vegetables in the mid and high altitudes. The transplanting season for paddy typically takes place in May with harvesting in October. The harvesting (and planting) season vary for different vegetables, depending on the agroecological zones and altitude of the production area. The production season for vegetables in the mid and high altitudes is typically in the summer months from May to August, whereas in the low altitudes it is typically during the winter.

⁴² Nutrition Program, Department of Public Health, Ministry of Health. 2015. “National Nutrition Survey 2015.” Thimphu

⁴³ World Bank (2019), Harnessing Spatial Opportunities in Agriculture for Economic Transformation

⁴⁴ The SSR is defined as the share of production to the sum of production and net imports (imports minus exports).

Table 1. Harvesting seasons for different vegetables

| Vegetable Types | Season availability (Harvesting) | | | | | | | | | | | |
|-------------------------|----------------------------------|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|
| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Green vegetables | | | | | | | | | | | | |
| Broccoli | Low | Low | | | | | | | High | High | High | High |
| Beans | | Low | Low | Low | Low | Low | Low | Low | Low | Low | Low | Low |
| Green leaves | Low | Low | Low | Low | Low | Low | Low | Low | Low | Low | Low | Low |
| Peas | | | Low | Low | Low | Low | Low | Low | Low | Low | Low | Low |
| Other Vegetables | | | | | | | | | | | | |
| Brinjal | | Low | Low | Low | Low | Low | Low | Low | Low | Low | Low | Low |
| Cauliflower | Low | Low | Low | Low | Low | Low | Low | Low | Low | Low | Low | Low |
| Cabbage | Low | Low | Low | Low | Low | Low | Low | Low | Low | Low | Low | Low |
| Carrot | Low | Low | Low | Low | Low | Low | Low | Low | Low | Low | Low | Low |
| Chili | | | | Low | Low | Low | Low | Low | Low | Low | Low | Low |
| Radish | Low | Low | Low | Low | Low | Low | Low | Low | Low | Low | Low | Low |
| Pumkins & Squash | | | Low | Low | Low | Low | Low | Low | Low | Low | Low | Low |
| Tomato | | | | Low | Low | Low | Low | Low | Low | Low | Low | Low |
| Onion | | | | Low | Low | Low | Low | Low | Low | Low | Low | Low |

■ Available from low altitude (150-1300m) production areas
■ Available from mid altitude (1300-1800m) production areas
■ Available from high altitude (1800-2500m) production areas

Sources: MoF trade data 2019, MoAF RNR 2018 report, WB staff calculations

Home production is an important source of consumption for many Bhutanese households which could help shield them from supply shortages and price shocks. According to the BLSS 2017, consumption from home production accounts for about 16.6 percent of food expenditure and occupies an important share of vegetable and dairy consumption. The domestic market for the latter has been expanding rapidly in the last decade as demand increased significantly. 24 percent of alcoholic beverages are produced at home but the total expenditure share of these is low, at 3.4 percent. The value of home-produced goods is imputed from self-assessments. As expected, the poor have a higher (lower) reliance on home-produced (imported) goods compared to the nonpoor.

The immediate concern over food security primarily stems from supply chain disruptions from India – most food imports originate from India, and imported food accounts for almost half of Bhutanese food expenditure. Almost all of the trade in food products is with India – accounting for 91 percent of total food imports and 67 percent of food exports in 2019 (see **Box 2: Imported food supply**). Household food consumption data shows that about 49.5 percent of overall food expenditure goes towards imported food. In comparison, domestic food purchases account for 33.9 percent and home-produced food for 16.6 percent of overall food expenditure (**Table 2**).⁴⁵ Reliance on imports varies significantly across major food groups. For example, the share of import purchases in total food consumption is relatively low for alcoholic beverages (26.9 percent) and dairy (37.8 percent) but exceedingly high for tea (91.2 percent), fish (91.5 percent) and cooking oil (96.8 percent) (Table 1). An estimated 56.1 percent of meat expenditure goes towards imports. It should be noted that food groups with overall low import share may include individual items that are predominantly imported.⁴⁶ Cereals are by far where most of households’ spending is allocated to (28.5 percent), but even with more than half of cereal

⁴⁵ The BLSS 2017 records sources of food as follows: imported purchases, domestic purchases and home production. The value of in-kind food receipts is mapped into the same sources when the information is available.

⁴⁶ For example, 99 percent of household spending on noodles goes towards imported noodles. The import share of cereals is about 56.7 percent and noodles account for 1.6 percent of household food expenditure.

consumption relying on imports, recent measures to secure a stock to last six months should help mitigate related concerns.

Table 2. Share of import and domestic food purchases by major food group

| Food group | % Import purchases | % Domestic purchases | % Home production | % in total food consumption |
|---------------------|--------------------|----------------------|-------------------|-----------------------------|
| Cereal | 56.7 | 27.6 | 15.7 | 28.2 |
| Dairies | 37.8 | 42.3 | 20.0 | 18.7 |
| Vegetables | 35.4 | 39.6 | 24.9 | 13.8 |
| Spices | 49.8 | 31.4 | 18.8 | 10.7 |
| Meat | 56.1 | 29.7 | 14.2 | 8.7 |
| Fruits | 46.6 | 41.0 | 12.3 | 7.3 |
| Alcoholic beverages | 26.9 | 49.2 | 24.0 | 3.4 |
| Beverages | 42.3 | 57.7 | 0.0 | 3.3 |
| Fish | 91.5 | 7.8 | 0.6 | 2.5 |
| Cooking oil | 96.8 | 2.6 | 0.6 | 2.4 |
| Tea | 91.2 | 6.7 | 2.1 | 1.0 |
| Total | 49.5 | 33.9 | 16.6 | 100.0 |

Source: Staff calculation using BLSS 2017. Note: Shares are based on expenditure.

The ongoing lockdown in India resulted in labor shortages in Bhutan and disruptions in the movement of goods, which could result in a shortage of food imports and critical inputs for agricultural production. While there have been limited restrictions on the movement of goods across the Indian border,⁴⁷ there are reports of supply side disruptions due to increasing transport and logistics costs and labor shortages, which in turn result in higher cost of and increased difficulty in importing, transporting, and storing (and stockpiling) perishables. The number of foreign workers was equivalent to about 12 percent of the domestic workforce before COVID-19, but some workers had reportedly not been able to return after the lockdown.⁴⁸ Local news reports indicated some domestic disruptions along the food supply chain in rural areas due to increased transport costs, especially at the onset of the crisis. Trade related disruptions could also affect agriculture production activities (including home production), through shortages in the supply of agricultural inputs such as seeds and fertilizer, some of which are sourced from India. The smooth functioning of the agricultural inputs supply chain is crucial as the season for paddy planting in Bhutan begins in May (Box 1).

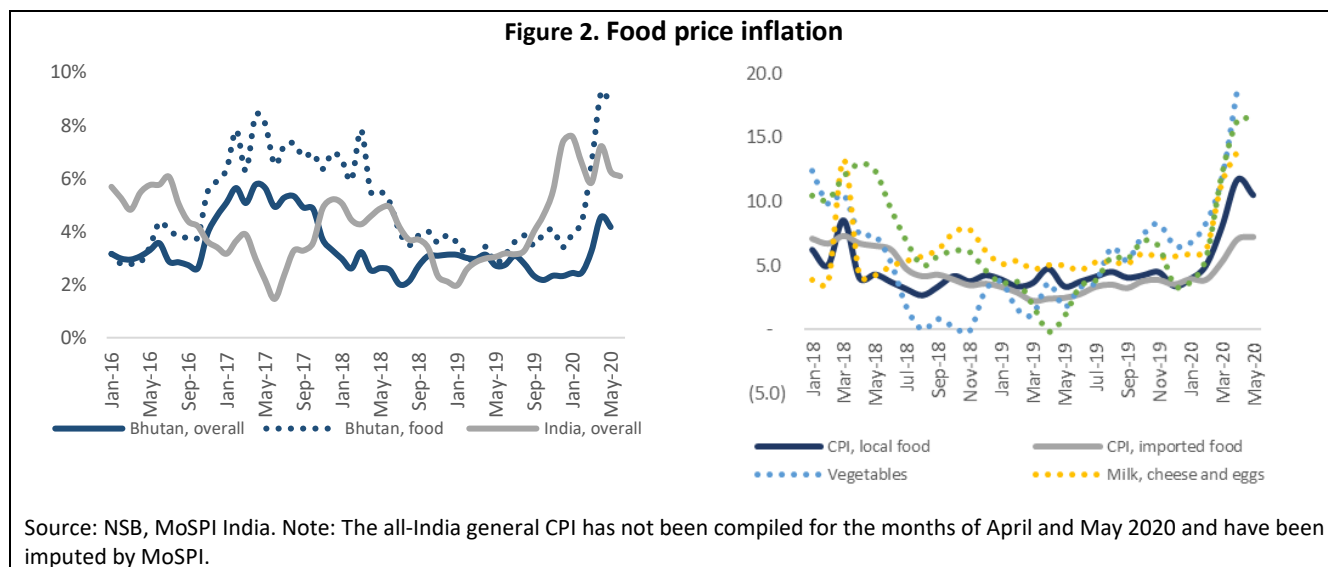
There are indications that a combination of supply shortages due to the lockdown in India, disruptions in local food production, and increased food demand has led to localized price increases particularly for more nutritious food products.⁴⁹ This is reflected in the sharp price increase in some food products since the onset of the COVID-19 pandemic, including vegetables, fruits, and dairy and cheese products (Figure 2). While inflation remained modest in the first half of FY2019/20, averaging 2.5 percent (year-on-year), inflation has accelerated to 4.2 percent in May 2020 (Figure 2). This is primarily due to an increase in local and imported food prices from India, with food price inflation accelerating to 9.2 percent (year-on-year) in April 2020, before slowing to 8.8

⁴⁷ Following COVID-19, there is a standing ban on imports of meat and meat products. On March 25, the MoAF initially announced a ban on import of fruits, vegetables, Doma, and Pani. The ban on imports of fruits and vegetables was recalled on March 27.

⁴⁸ There is currently a shortage of 20,000 construction workers and half of the remaining 28,000 are set to return to India after the Indian lockdown opens up. <https://thebhutanese.bt/bhutan-short-of-20000-construction-labourers-and-half-of-remaining-28000-set-to-go-back-covid-19-impact/>

⁴⁹ Various news reports, eKuensel. In March, the Office of Consumer Protection (OCP) had received 36 complaints on price escalation in two days. Wholesalers indicated that the price for the rice has increased because transport costs doubled given the risk and illegal tax collection along Indian highways.

percent in May.⁵⁰ Disruptions in imported food supply will likely impact households that rely more on imports to fulfill their food needs. Places that could be potentially hit harder from disruptions along the food supply chain are likely those districts that have a higher reliance on imported goods, which would be a result of availability (partly as a function of connectivity and supply chains, an important factor in the context of Bhutan’s landlocked geography and low accessibility in many places), prices and individual preference.



Box 2: Imported food supply

Agriculture and food items account for about 17 percent of total imports. In 2019, total imports (excluding electricity sales to India) were Nu 68.9 billion, and agriculture and food imports were Nu 11.6 billion, equivalent to 17 percent of total imports (**Figure 3**). The majority of food imports is from cereals and vegetables (35 percent or Nu 4 billion), followed by prepared foodstuffs and beverages (27 percent or Nu 3.1 billion) and live animals or animal products (26 percent or Nu 3 billion). Animals or vegetable fats and oils contribute another Nu 1.4 billion (**Figure 4**).

Almost all of the trade in food products is with India – accounting for 91 percent (Nu 10.6 billion) of total food imports and 67 percent (Nu 2.9 billion) of food exports in 2019. Of total food imports from India, cereals and vegetables accounted for 37 percent (Nu 4 billion), live animal or animal products for 27 percent (Nu 2.9 billion), prepared foodstuffs and beverages for 23 percent (Nu 2.5 billion), and animal or vegetable fats and oils for 12 percent (Nu 1.2 billion) (**Figure 6**). In 2019, India accounted for 67 percent of Bhutan’s total food exports, of which cereals and vegetables and prepared foodstuffs accounted for 54 percent and 40 percent, respectively (**Figure 5**). Bangladesh accounted for 27 percent of total food exports, of which cardamom accounted for 52 percent and citrus fruit for 45 percent.

Bhutan’s top food imports, by value, are rice, soybean oil, and animal source foods, including milk, cheese, and meat (Table 3). In 2019, rice imports were 19 percent of the value of food imports, soybean oil 7 percent, milk and cream (concentrated and not concentrated) 8 percent, cheese and curd 4 percent, and meat of bovine animals 5 percent. Apart from rice, other cereals are included in the top ten food imports, including pasta, bread (pastry, cakes, biscuits), and maize.

⁵⁰ Food prices have been increasing since mid-2019 in line with food prices in India – 85 percent of Bhutan’s imports are from India and the Ngultrum is pegged to the Indian Rupee (INR) at par value – which have since moderated to 7.3 percent in June 2020.⁵⁰ Domestic food prices have also increased since the onset of the pandemic, with domestic food inflation standing at 10.5 percent in May 2020.

Figure 3. Imports, Nu billion (LHS), 2015–19

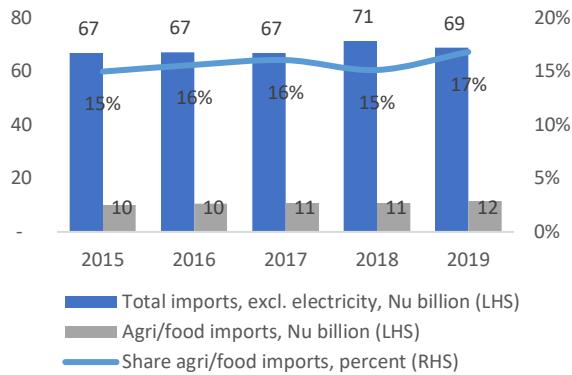


Figure 4. Food imports (sections I-IV), Nu billion, 2015-19

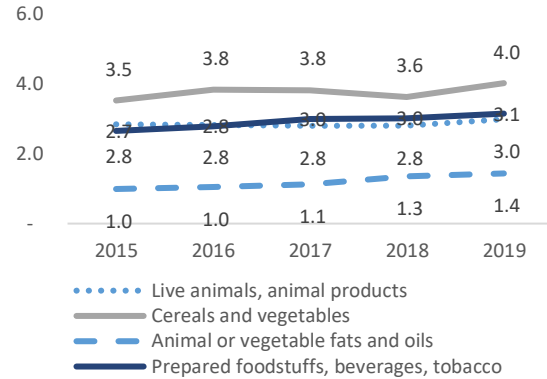


Figure 5. Trade balance food products, Nu billion, 2015–19

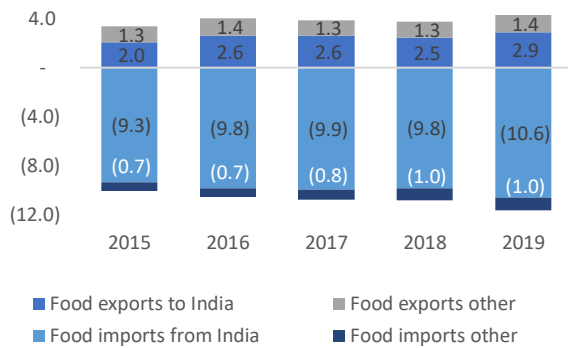


Figure 6. Food exports (sections I-IV) by destination, Nu billion, 2019

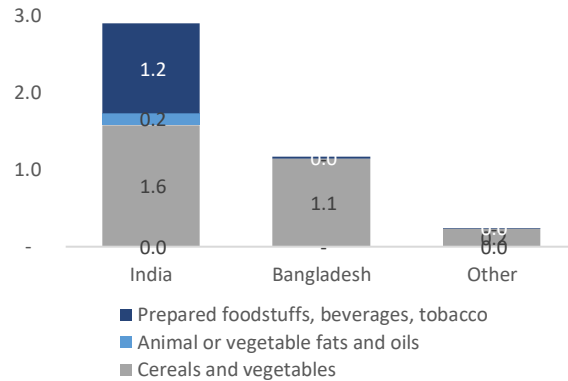


Table 3. Top 10 food imports, 2019

| BTC code | BTC description | Import value, Nu, 2019 (Jan-Sep) | % of food import | Self-sufficiency ratio, 2018 |
|----------|----------------------------------|----------------------------------|------------------|------------------------------|
| 1006 | Rice | 2,156,303,094 | 18.6% | 37% |
| 1507 | Soya-bean oil | 852,930,907 | 7.4% | |
| 0402 | Milk and cream; concentrated | 610,104,867 | 5.3% | 80% |
| 0201 | Meat of bovine animals | 553,773,449 | 4.8% | 12% |
| 0406 | Cheese and curd | 474,416,111 | 4.1% | 52% |
| 1902 | Pasta | 432,162,166 | 3.7% | |
| 1905 | Bread, pastry, cakes, biscuits | 404,725,508 | 3.5% | |
| 0401 | Milk and cream; not concentrated | 398,638,911 | 3.4% | 80% |
| 1701 | Cane or beet sugar | 384,842,016 | 3.3% | |
| 1005 | Maize (corn) | 331,842,563 | 2.9% | |

Sources: MoF trade data 2019, WB staff calculations

Trade-related disruptions due to COVID-19 can also affect smallholder producers, who rely on export markets for their livelihoods and incomes. Many smallholder producers rely on niche high-value commodities for their livelihoods and incomes, including cardamom – a widespread cash crop in the Southwest – accounting for 29

percent of the value of Bhutan’s food exports (Table 4). Other top exports include citrus (12 percent), potatoes (12 percent), and Cordyceps (*Ophiocordyceps sinensis*), a caterpillar fungus (5 percent). While securing import trade flows for food and essential goods is a priority, preserving trade flows in niche high-value commodities will be crucial to preserve livelihoods. In 2019, India accounted for 67 percent of Bhutan’s food exports, followed by Bangladesh (27 percent). Food exports to India primarily included cereals and vegetables and prepared foodstuff (Box 2). The majority of food exports to Bangladesh were cardamom (52 percent) and citrus fruits (45 percent), the top two food exports of Bhutan in 2019 (Table 4).

Table 4. Top 10 food exports, 2019

| BTC code | BTC description | Export value, Nu, 2019 | % of food export |
|----------|--|---------------------------|---------------------|
| 0908 | Nutmeg, mace and cardamoms | 1,247,160,701 | 29% |
| 0805 | Citrus fruit | 530,046,763 | 12% |
| 0701 | Potatoes | 521,074,099 | 12% |
| 2202 | Waters, incl. sugar | 341,023,226 | 8% |
| 1211 | Plants and parts of plants (Cordyceps) | 203,784,055 | 5% |
| 2207 | Ethyl alcohol | 201,633,750 | 5% |
| 2009 | Fruit and vegetable juices | 199,012,453 | 5% |
| 1511 | Palm oil and its fractions | 146,246,861 | 3% |
| 2201 | Waters, excl. sugar | 126,455,949 | 3% |
| 0802 | Nuts | 115,673,978 | 3% |
| 0910 | Ginger, saffron, turmeric and other spices | 92,851,066 | 2% |

Source: MoF trade data 2019, WB staff calculations

C. Households’ vulnerability to food insecurity

Households’ vulnerability to food insecurity varies depending on household-level characteristics and circumstances. Specifically, the following indicators are considered to measure how vulnerable households could be in the event of disruptions to food supply or food price hikes: (i) whether household experienced food shortages in the last 12 months; (ii) whether household members are undernourished; and (iii) whether the household is poor according to the official national poverty line in 2017. Members of a household are considered undernourished if the per capita food consumption falls short of an average of 1500 kcal per day. About 20.8 percent of households in Bhutan do not meet this threshold.⁵¹ The poverty status is considered as a proxy for the household’s purchasing power as well as other vulnerabilities that are closely correlated with poverty but not explicitly captured.

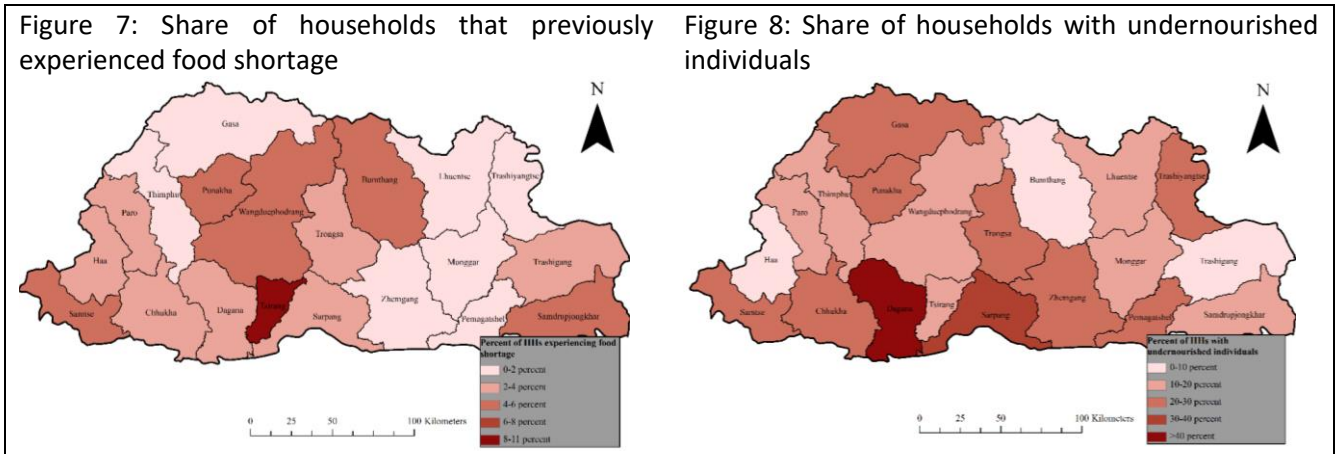
There was already wide variation in food security across districts before the COVID-19 crisis. While only 2.9 percent of Bhutanese reported to have experienced food shortage in the previous 12 months, the share of such households exceeded 10 percent in Tsirang while it was low in the districts of Dagana and Zhemgang which have the highest poverty rates of all. The highest incidence of food shortage was reported in the months of June and July. More than 60 percent of residents in Dagana are undernourished, followed by Sarpang (38.8 percent), Gasa

⁵¹ It should be noted that household calorie consumption was calculated for a core food bundle that consists of 53 items. The BLSS 2017 reports food consumption for a total of 124 items. The 53 items are the same ones that were used to establish the original poverty line in 2007 (against a caloric requirement of 2124 kcal for all ages and both sexes) and for which information on calorie count is available. The items in the core food bundle altogether account for about 70 percent of all household food expenditure. The majority of the remaining items are either of near-zero caloric count or items for whom it is difficult to assign a clear caloric value (e.g., other dried meat), though items such as local cheese and eggs are left out as well.

(27.8 percent) and Zhemgang (24.5 percent). Dagana and Sarpang are FSAPP districts. Food shortages could quickly exacerbate pre-existing malnutrition trends. Districts that underperform in all three measures (relative to the national average) include Dagana, Samtse, Sarpang (all of whom also have a high reliance on imported food products) and Trongsa. Dagana, Samtse, and Sarpang are all FSAPP districts. These districts may warrant particular attention for the monitoring of food shortages and prices as the potential for adverse consequences could be the greatest in these places. It appears that the level of poverty and the extent of undernourishment is relatively closely related, whereas the high level of food insecurity in Tsirang may be due to other factors and warrant further investigation.

Beyond sufficiency in calories, food security also encompasses sufficiency in nutrient intake, particularly for mothers and children. The impact of COVID-19 on the supply and distribution of perishables, which tend to be more nutrient-rich, can lead to less diverse diets and inadequate nutrient intake. This can reduce the immune system’s ability to fight infections, particularly for young children who are more susceptible to infections from compromised immune functions. With the shutdown of schools, the school feeding program – which was the primary distribution platform for feeding children nutritious and diverse diets covering 263 schools and 78,953 students in 2019 – is currently unavailable.

Finally, food insecurity can increase and become a recurrent challenge that can be exacerbated by climate change. Bhutan is exposed to natural and meteorological hazards due to its position in the seismically active eastern portion of the Himalayan Arc. Any geographically small variations in the timing and quantity of rainfall can have profound consequences on water availability, agricultural productivity, and food security. With climate change, the frequency and intensity of extreme events is expected to increase, and such disasters can reverse development gains.



Annex 4: Summary of COVID-19 government response in Bhutan

‘Comprehensive National Response to COVID-19’

The budget FY2020/21 outlines the government’s ‘Comprehensive National Response to COVID-19’. Short- to medium term policy actions to ensure public health and safety, maintain public confidence, macroeconomic stability and economic transformation are outlined below. The government has announced policy measures in Phase II of the National Response to COVID-19 at the end of June, which are also included below.

Health measures are aimed at containing the pandemic and protecting health, and strengthening healthcare system resilience. The National Preparedness and Response Plan (NPRP) has been developed with an objective to enhance the health sector’s response capacity for disease surveillance, detection and prevention and ensure effective treatment. The government has re-appropriated FY2019/20 budget for the procurement of protective material, drugs and medical equipment, and provisions for quarantine facilities. Budget allocations to the health sector in FY2020/21 focus on ensuring adequate medical supplies for all hospitals and health units, increasing public hospital capacity, and advancing the health flagship programs of the 12th FYP (gastric cancer, cervical cancer and breast cancer programs).

The government is protecting vulnerable households through a cash transfer program and measures to increase food security. Vulnerable households have been supported through His Majesty’s cash transfer program (Druk Gyalpo’s Relief Kidu, funded through the NRF), which provides immediate financial support for individuals who have been laid off, placed on unpaid leave or on reduced pay from businesses as well as self-employed individuals who have lost their earnings either partially or completely.⁵² The program was scheduled to last for three months initially (April-June 2020), and has been extended until September 2020 under Phase II. The government has also taken policy actions to *increase food and nutrition security*, including of the vulnerable population. Efforts are underway to secure food stocks, to boost domestic food production and distribution. Nutritious food will be provided to more than 12,000 vulnerable children in the absence of the school feeding program, and the government has increased efforts to monitor and contain rising prices.

Economic measures to stabilize the economy and stimulate growth focus on the agriculture, tourism and construction sectors. The government has implemented a set of fiscal and monetary policy measures to provide immediate relief to affected individuals and businesses (initially for the period April-June 2020). The government has extended most of these initial measures in Phase II of the ‘Comprehensive National Response to COVID-19’. The government aims to revitalize the rural economy and create employment opportunities through the frontloading/re-prioritization of 12th FYP activities and the implementation of the ECP with particular emphasis on the agriculture, tourism and construction sector.

- **Fiscal measures** include (i) interest waiver on loans for six months until September 2020, followed by a partial interest waiver (50 percent) for six months until March 2021;⁵³ (ii) deferment of Corporate Income Tax (CIT) and Business Income Tax (BIT) filing until June 2020, and further deferment until December 2020 for tourism and allied sectors; (iii) deferment of sales tax and customs duty on essential items to facilitate import of essential items until June 2020; (iv) monthly rent waiver on leased government property for the tourism

⁵² Affected people can apply online and upon verification, will receive a cash transfer of Nu12,000 (US\$160) per person per month for April-June 2020, and a reduced amount of Nu10,000 (US\$130) per person per month from July-September 2020. About 23,000 individuals have received the DGRK for the months of April-June for which Nu700 million (US\$9.3 million) has been disbursed.

⁵³ Of the first 3 months, 50 percent is funded through the NRF. The remaining 9 months are fully funded through the NRF, with an estimated amount of Nu7.5 billion (US\$99.3 million).

sector; (v) deferment of electricity bills for industries, (vi) simplified procurement rules and regulations to implement the ECP.

- **Monetary measures** include (i) working capital at concessional rates to wholesalers, tourism sector, and manufacturing industries to import raw materials, as well as bridging loans for business entities to ensure business continuity; (ii) micro loans at concessional interest rates for the agriculture and CSI sectors through the National CSI Development Bank. In Phase II, all monetary measures have been extended until June 2021. In addition, RMA has reduced the CRR to increase liquidity in the banking system.⁵⁴
- The **ECP** focuses on three core programs. The ‘Agriculture and Farm Road Improvement Program’ aims to strengthen food security through increased domestic agricultural and livestock production and new employment opportunities. This includes the improvement of farm roads to increase access to markets and reduce transport costs. Activities under the ‘Tourism Resilience Program’ include training programs for tourism personnel in tourism and hospitality, as well as re-skilling programs for deployment in the construction sector. The ‘Build Bhutan’ project aims to increase domestic labor in the construction sector through the Youth Engagement and Livelihood Program (YELP) and skills training.

The COVID-19 policy measures are aligned with the 12th FYP and its flagship programs. The 12th FYP is dedicated to creating a ‘Just, Harmonious and Sustainable Society through enhanced Decentralization’. The government will advance flagship programs under the 12th FYP through the FY2020/21 budget. Programs including Digitalizing Bhutan, increasing the use of digital technologies in schools, Growing Organic, Redefining Tourism, and Managing Waste have been leveraged through the COVID-19 response and could increase future resilience. The RGoB is currently drafting the 21st Century Economic Roadmap, which will outline Bhutan’s long-term vision. The overall objective is to create economic opportunities for the next generation and become a ‘High Income Gross National Happiness (GNH) Society’ by 2030.

Current health measures in place (as of July 31, 2020):

Health-related measures. The first positive case of COVID-19 was confirmed on March 5. The country remains in code orange (moderate disruption) as per the National Preparedness and Response Plan (NPRP) for COVID-19. New [health-related measures](#) were announced on June 20. [Business hours](#) were extended from 7pm to 9pm on July 1. Sports centers, public parks and places reopened on June 22. MoH highly discourages non-essential gatherings and unnecessary travel between Dzongkhags. Facemasks are mandatory in hospitals, schools, markets, and public transport. A tracing system is in place and MoH is conducting regular testing of high-risk communities and frontline responders.

Travel restrictions. The government has closed all borders as of March 23. Bhutanese are asked to avoid/postpone unnecessary travel to affected countries. The re-entry of all [foreigners](#) holding valid visa, work permits and other immigration permits travelling to Bhutan from any COVID-19 affected countries or if they have visited or transited through COVID-19 affected countries stands suspended until further notice. The government is [facilitating the entry of foreign workers](#) in priority sectors from June 4. All travelers entering Bhutan will be issued a quarantine order. There is no restriction on movement of goods, and the supply of essential goods (food, drugs, fuel) will be secured. A temporary import ban of [meat and meat products](#) has been lifted on June 22; there is a standing ban on imports of fruits and vegetables.

⁵⁴ Monetary measures under Phase II also include a liquidity window facility (interbank borrowing system) to meet temporary funding requirements and ease liquidity constraints within the financial system and the revision/easing of prudential regulations, including the Capital Adequacy Ratio (CAR), and Statutory Liquidity Ratio (SLR).

Closing of schools and institutions. [Schools](#) (classes 10, 12), educational institutes and colleges reopened on July 1. Classes 7 to 9 and 11 will resume in subsequent phases. Primary classes up to Class 6 will not reopen in 2020. Home based work for public and private sector institutions were discontinued on June 22.