Myanmar:

Food Security and Agriculture Monitoring Brief

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Acknowledgments

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Abbreviations

CDM	civil disobedience movement
COVID-19	coronavirus disease 2019
DAT	digital agriculture technology
DPs	Development Partners
EAO	ethnic armed organizations
FAO	Food and Agriculture Organization (of the UN)
FIES	Food Insecurity Experience Scale
GDP	gross domestic product
IFPRI	International Food Policy Research Institute
IFRC	International Federation of Red Cross and Red Crescent Societies
MADB	Myanmar Agriculture Development Bank
MFI	microfinance institution
MHS	Ministry of Health and Sports
MMK	Myanmar kyat
MOPF	Ministry of Planning and Finance
NPL	nonperforming loan
QR	quick response code
SAC	State Administration Council
TCMS	Township-based Conflict Monitoring System
UN	United Nations
UNDP	United Nations Development Programme
UNHCR	United Nations High Commissioner for Refugees
USDA	U.S. Department of Agriculture
WFP	World Food Programme

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Executive Summary

The objectives of this report are to assess the impacts of the COVID-19 pandemic and the military coup on February 1, 2021, on the agriculture sector and food security in Myanmar and to identify some priority areas for action going forward. The report draws on primary and secondary sources of data to assess the impacts of recent political shocks and the COVID-19 pandemic on food security, including a farmer phone survey, key informant interviews with representatives of the agribusinesses and agricultural finance sectors, desk reviews and analyses of secondary data on the agriculture sector and food security, conflict analysis and mapping, and data on market prices from a variety of sources.

Myanmar is facing multiple crises

From early 2020, Myanmar has experienced a succession of crises: the COVID-19 pandemic, political and economic unrest in the wake of the military coup in February 2021, and disruptions to global commodity markets caused by the war in Ukraine. These crises have had significant adverse effects on the economy overall and on poor households in particular. The country's GDP contracted by an estimated 18 percent in FY 2021 (year ended September) and job losses are estimated to have reached one million (World Bank 2022a). The share of Myanmar's population living in poverty is estimated to have more than doubled compared to levels before the COVID-19 pandemic. The third wave of COVID-19 (July-October 2021) further disrupted the operations of firms, which were already weakened in the aftermath of the military coup (World Bank 2021a). Internal conflicts have intensified and spread across the country, including to areas that had been relatively stable prior to February 1, 2021. Fertilizer and fuel prices have increased due to disruptions in the global markets following the war in Ukraine.

The agri-food sector has been hit particularly hard

The agriculture sector is a major contributor to economic growth, livelihoods, and social stability in Myanmar. Prior to 2020, primary agriculture accounted for nearly 30 percent of the country's GDP and merchandise exports, nearly 50 percent of overall employment and around 70 percent of rural employment. When forward and backward linkages to primary agriculture are included, the agri-food system accounted for 42 percent of total GDP and 58 percent of total employment. Under the successive crises, the agri-food sector has been severely impacted, with huge implications for food and economic security, particularly for the large number of poor people living in rural areas. One the one hand, reduced incomes and higher prices are adversely affecting consumption and food security. On the other hand, rising input prices, especially for fertilizer and fuel, is disrupting agriculture production; many farmers have reduced the use of critical inputs, and in some cases, they are reducing cultivated area. Overall, the agriculture sector contracted by around 10 percent in FY 2021 (World Bank 2021b). It is estimated that paddy area planted in 2021–22 is 7 percent below the average of the past 3 years.

Based on a World Bank survey of 850 farming households conducted in December 2021 (henceforth referred to as the World Bank Farmer Survey), about 53 percent of the respondents reported challenges to planting in the coming season. The reasons cited included the high cost of fertilizer (47 percent of respondents) and fuel (17 percent) as well as the impact of a worsening political situation (16 percent).

Logistics and supply chain disruptions have negatively impacted both domestic and international food trade. Farmers have reported difficulties in supplying their produce to retail shops, mostly because of market disruptions and limited access to their usual trade partners. Similarly, the increasing number of security checkpoints, levies, and delays has led to the loss of perishable vegetables and fruits. Despite some recovery of agricultural exports since the middle of 2021, exporters continue to face a range of challenges such as increased transportation, logistics and input costs. Higher freight costs and more stringent food safety standards have reduced regular trade in favor of border trade with China, India, and Thailand. This adjustment, however, is not without risk. The extended closure of the major Muse-Ruili border between Myanmar and China in 2021 for both security and pandemic control reasons made delivering perishable commodities to the Chinese market difficult.

Household food security is deteriorating across the country

Lower farm incomes, food scarcity and rising food prices are leading to increased food insecurity among farm households. The World Bank Farmer Survey found that 49 percent of the farm households had seen their farm incomes reduced by an average of 43 percent since January 2021. Up to 34 percent of households reported concerns about having enough food to eat. Farm households also reported several constraints such as stock shortages, liquidity problems, and increased food prices, especially for dairy products, vegetables, and edible oil. One in five farm households experienced shocks in the past 12 months. In response, farm households relied on coping strategies such as borrowing money, selling assets, and reducing food consumption. Migration was also used as a coping strategy, although it was limited due to security concerns. Food security challenges particularly impacted conflict-affected areas and regions and states that are traditionally food deficit.

While food prices stabilized by the end of 2021, they remain higher than previous years, with steeper price increases for imported food, particularly palm oil and animal feed, because of the depreciation of the Myanmar kyat. There is significant spatial variation in the proportion of households who reported price increases for the food items they consumed over the past 12 months. Prices of selected food items remain high in Kayah/Karenni and Sagaing, where conflict has intensified, as well as in Rakhine.

Access to agricultural credit and rural finance have become limited after the military took over

The multiple crises brought on by COVID-19 and the military takeover have led to a weakening of Myanmar's financial system, significantly affecting the agriculture sector and in particular agribusinesses. During the 1st and 2nd waves (March-December 2020) of the pandemic, due to the movement restrictions, MFIs and banks were unable to visit their clients for repayment collection nor to expand their operation as planned prior to the pandemic. In early February 2021, banks, microfinance institutions (MFIs), and mobile wallet providers began to impose daily and weekly withdrawal limits to manage the flows and maintain reserves. During key informant interviews by the World Bank during December 2021 (henceforth referred to as WB agribusiness key informant interview), agribusinesses responded to these financial challenges by turning to cash-only transactions, which are also limited and not allowed to exceed 20 million kyats per purchase. Two phone surveys led by International Food Policy Research Institute (IFPRI) during September 2021 found that the banking system disruptions remained the main obstacle for 55 percent of input retailers and 70 percent of rice millers (IFPRI 2021c, d).

In addition to creating a higher share of cash-based transactions, the crisis in the banking system has constrained credit availability and limited the functions of institutions that normally provide credit to farmers including MFIs, commercial banks and the Myanmar Development Bank. Limited access to credit remains a main problem among farm households who face liquidity challenges driven by cash and credit constraints against the backdrop of costlier inputs. The World Bank Farmer Survey found that among those reporting issues with credit from suppliers, 41 percent reported that there are fewer suppliers now selling on credit, 36 percent faced higher interest rates, and 15 percent indicated the amount of credit available was insufficient.

Moving forward

Food security concerns are widespread and exhibit substantial variation in terms of severity across regions and states. Multiple crises—intensifying armed conflict, the COVID-19 pandemic and related restrictions, the deteriorating agriculture finance scenario over the course of 2021, the generally fragile political situation in Myanmar, and the recent global commodity market disruptions caused by the war in Ukraine— have negatively impacted the livelihood and income of farmers in Myanmar. To mitigate these challenges, the priority areas for attention include:

- **Supporting short-term food availability and access with a focus on conflict-affected areas**

Myanmar's health, economic, and political crises have had devastating and compounding impacts on human development. These are especially visible in the nutritional and developmental status of children and the increased vulnerability of women to care for themselves and their children. It would be important to prioritize support through food and emergency aid to address urgent food security risks especially among the most food insecure and vulnerable households located in conflict-affected areas and where food consumption is currently insufficient.

- **Supporting crop and livestock production of smallholder farmers**

At the same time, it is important to continue the development efforts to sustain the improvements in agriculture productivity and livelihoods of small-scale farmers, particularly women farmers. This could be achieved through fostering productive partnerships between farmers, who are organized into groups and the private sector, and enabling better access by smallholder farmers to high quality and affordable agricultural inputs, such as seeds, fertilizers, and herbicides; to services including mechanization and extension; to finance through credit and lending; and to training. Voucher and cash transfer schemes have proved to be efficient instruments to ensure and enhance broad, well-targeted temporary access to inputs.

- **Supporting agribusinesses and other value-chain participants**

The private sector is the main supplier of the wide array of inputs and services in Myanmar, thus fostering the growth and development of private agribusinesses, banks, MFIs, and nongovernmental organizations engaged in supporting farmers is essential. Enabling them to operate effectively helps farmers to stay productive and in business. In this regard, there is a need to address the liquidity constraints for agriculture finance faced by MFIs and ensure technical assistance to support them. Ongoing efforts to provide support for loan restructuring, debt rescheduling, or adjustments to loan covenants should be strengthened. Broad-based technical assistance to MFIs can enhance their capacity to provide clients with flexibility on loan repayments.

ES Executive Summary
(Burmese translation)

အနှစ်ချုပ်အစီရင်ခံစာ

ဤအစီရင်ခံစာ၏ ရည်ရွယ်ချက်မှာ မြန်မာနိုင်ငံ၏ စိုက်ပျိုးရေးကဏ္ဍနှင့် စားနပ်ရိက္ခာဖူလုံရေးအပေါ် ကိုဗစ် - ၁၉ ကမ္ဘာ့ကပ်ရောဂါနှင့် ဖေဖော်ဝါရီ ၁ ရက်နေ့က စတင်ခဲ့သော စစ်အာဏာသိမ်းမှုတို့၏ အကျိုးသက်ရောက်မှုကို ဆန်းစစ်ရန်နှင့် ရှေ့ဆက် ဦးစားပေး လုပ်ဆောင်ရမည့် ဧရိယာများကို ဖော်ထုတ်ရန်ဖြစ်သည်။ အစီရင်ခံစာသည် နိုင်ငံရေးအကျပ်အတည်းနှင့် ကိုဗစ် -၁၉ ကပ်ရောဂါ၏ သက်ရောက်မှုများကို ဆန်းစစ်နိုင်ရန် လယ်သမားများအား ဖုန်းဖြင့်စစ်တမ်းကောက်ယူခြင်း၊ စိုက်ပျိုးရေးဆက်စပ် စီးပွားရေးလုပ်ငန်းများနှင့် ငွေကြေးကဏ္ဍတို့မှ အဓိက သတင်းအချက်အလက်ပေးနိုင်သူများနှင့် တွေ့ဆုံမေးမြန်းခြင်း၊ ထွက်ရှိပြီးအစီရင်ခံစာများ၊ သုံးသပ်ချက်များအား ပြန်လည်ဆန်းစစ်ခြင်း၊ စသည့် တိုက်ရိုက်နှင့် တစ်ဆင့်ခံ သတင်းအချက်အလက် အရင်းအမြစ်များအပါအဝင်၊ စိုက်ပျိုးရေးနှင့် စားနပ်ရိက္ခာဖူလုံရေးဆိုင်ရာ တစ်ဆင့်ခံ ဒေတာ အချက်အလက်များ၊ မြေယာအသုံးပြုမှု ပြောင်းလဲပုံဆိုင်ရာ ဂြိုလ်တုဓါတ်ပုံများ၊ ပဋိပက္ခဆိုင်ရာ လေ့လာသုံးသပ်ခြင်း၊ မြေပုံအသုံးပြုခြင်းနှင့် ရင်းမြစ်များစွာမှ ရရှိသော ဈေးနှုန်းဆိုင်ရာအချက်အလက်များ ကို အသုံးပြုထားပါသည်။

မြန်မာနိုင်ငံသည် အကျပ်အတည်းမျိုးစုံရင်ဆိုင်နေရ

မြန်မာနိုင်ငံသည် ၂၀၂၀ ခုနှစ်အစောပိုင်းမှ စတင်ခဲ့သော ကိုဗစ်-၁၉ ကမ္ဘာ့ကပ်ရောဂါနှင့်တကွ ၂၀၂၁ ခုနှစ် ဖေဖော်ဝါရီလမှ စတင်ခဲ့သော စစ်အာဏာသိမ်းမှု၏ နောက်ဆက်တွဲ နိုင်ငံရေး ၊ စီးပွားရေး မတည်ငြိမ်မှုများစွာကို ရင်ဆိုင်ဖြတ်သန်းနေရသည်။ မကြာသေးခင်က ယူကရိန်းစစ်ပွဲ၏ အကျိုးဆက်အနေဖြင့် မြန်မာနိုင်ငံ စားသုံးသူဈေးကွက်တွင် ဆိုးကျိုးသက်ရောက်မှုများ ရင်ဆိုင်ကြုံတွေ့နေရသည်။ နိုင်ငံရေး ၊ စီးပွားရေး မတည်ငြိမ်မှုများက ယခင်ကတည်းက ရင်ဆိုင်နေရသည့် စားနပ်ရိက္ခာ မလုံလောက်မှုကို ပိုမိုဆိုးရွားစေခဲ့ပါသည်။ ပျက်စီးယိုယွင်း လာသည့် စိုက်ပျိုးရေးနှင့် စားနပ်ရိက္ခာ ကွင်းဆက်သည် ဆင်းရဲနွမ်းပါးသည့် လူထုကို ကြီးမားစွာ ထိခိုက်စေခဲ့သည်။ ၂၀၂၁ ခုနှစ် ဘဏ္ဍာနှစ် (စက်တင်ဘာလတွင် ကုန်ဆုံးသည့် ဘဏ္ဍာနှစ်) တွင် နိုင်ငံ၏ GDP သည် ၁၈ ရာခိုင်နှုန်းခန့်အထိ ကျုံ့သွားပြီး အလုပ်အကိုင်ပေါင်း တစ်သန်းခန့် ဆုံးရှုံးခဲ့သည် (**ကမ္ဘာ့ဘဏ် ၂၀၂၂ စစ်တမ်း အရ**) ။ ဆင်းရဲနွမ်းပါးသည့်အခြေအနေသို့ ကျရောက်သွားသော မြန်မာ့လူဦးရေသည် ကိုဗစ်-၁၉ ကပ်ရောဂါမဖြစ်ပွားခင် အဆင့်နှင့် နှိုင်းယှဉ်လျှင် နှစ်ဆကျော် တိုးပွားလာသည်ဟု ခန့်မှန်းရသည်။ ကိုဗစ် - ၁၉ တတိယလှိုင်း (ဇူလိုင် - အောက်တိုဘာ ၂၀၂၁) သည် စစ်အာဏာသိမ်းမှုကြောင့် ယိမ်းယိုင်နေခဲ့သည့် ဖြစ်သည် (**ကမ္ဘာ့ဘဏ် ၂၀၂၁ စစ်တမ်း အရ**)။ ပြည်တွင်း ပဋိပက္ခများ ပိုမိုတိုးမြင့်လာခဲ့ပြီး နိုင်ငံအနှံ့ အထူးသဖြင့် ဖေဖော်ဝါရီလ ၁ ၊ ၂၀၂၁ ခုနှစ်မတိုင်ခင်က အတော်အတန် တည်ငြိမ်အေးချမ်းနေခဲ့သော ဒေသများသို့ ပြန့်နှံ့သွားခဲ့သည်။ ယူကရိန်းစစ်ပွဲက ကမ္ဘာ့ဈေးကွက်အား ရိုက်ခတ်မှုကြောင့် ဓါတ်မြေသြဇာနှင့် လောင်စာဆီဈေးနှုန်းများ မြင့်တက်လာခဲ့သည်။

ကပ်ရောဂါနှင့် စစ်အာဏာသိမ်းမှုတို့ကြောင့် စိုက်ပျိုးရေးနှင့် စားနပ်ရိက္ခာကဏ္ဍများကို ထိခိုက်စေခဲ့

စီးပွားရေးဖွဲ့စည်းမှုပုံစံများ ပြောင်းလဲလာသော်လည်း စိုက်ပျိုးရေးသည် မြန်မာ့စီးပွားရေး၊ သက်မွေးဝမ်းကျောင်းနှင့် လူမှုဘဝတည်ငြိမ်မှုတို့အတွက် အရေးပါသော ကဏ္ဍတစ်ခု အဖြစ်ဆက်လက် ဖြစ်နေဆဲဖြစ်သည်။ ၂၀၂၀ ခုနှစ်မတိုင်ခင်က စိုက်ပျိုးရေးသည် နိုင်ငံ၏ စုစုပေါင်း ထုတ်ကုန်ပမာဏ (GDP) နှင့် ကုန်သွယ်ပို့ကုန်ပမာဏ၏ ၃၀ ရာခိုင်နှုန်းနီးပါးရှိခဲ့သည်။ စိုက်ပျိုးရေး ကဏ္ဍသည် နိုင်ငံရှိလုပ်သားဦးရေ၏ ၅၀ ရာခိုင်နှုန်းခန့်ကို အလုပ်အကိုင်ပေးထားသကဲ့သို့ ကျေးလက် လူဦးရေ၏ ၇၀ ရာခိုင်နှုန်းခန့် မှီခိုအားထားရာ အဓိက အလုပ်အကိုင်ကဏ္ဍကြီးဖြစ်သည်။ စိုက်ပျိုးရေး၏ ရှေ့ပြေးနှင့် နောက်ခံချိတ်ဆက်မှုများကို ထည့်သွင်းလိုက်ပါက စိုက်ပျိုးစားနပ် ရိက္ခာစနစ်သည် စုစုပေါင်း GDP ၏ ၄၂ ရာခိုင်နှုန်း နှင့် စုစုပေါင်း အလုပ်အကိုင်အရေအတွက်၏ ၅၈ ရာခိုင်နှုန်း ပါဝင်နေပါသည်။

အဆက်မပြတ် ရင်ဆိုင် ကြုံတွေ့လာရသည့် အကျပ်အတည်းများကြောင့် စိုက်ပျိုးရိက္ခာထွက်ကုန် ကဏ္ဍ အထူးသဖြင့် ကျေးလက်ဒေသနေ နွမ်းပါးသော ပြည်သူများ ပြင်းထန်စွာ ထိခိုက်ခဲ့ကြောင်း တွေ့ရသည်။ တစ်ဖက်တွင် လျော့နည်းလာသည့် ဝင်ငွေနှင့် မြင့်တက်လာသည့် ကုန်စျေးနှုန်းများ ကြောင့် စားနပ်ရိက္ခာစျေးနှုန်းများနှင့် ဝယ်ယူစားသောက်နိုင်စွမ်းကို များစွာထိခိုက်စေပါသည်။ အခြား တစ်ဖက်တွင် မြင့်တက်လာသည့် သွင်းကုန်စျေးနှုန်းများ၊ အထူးသဖြင့် ဓါတ်မြေသြဇာနှင့် လောင်စာဆီ စျေးနှုန်းများက စိုက်ပျိုး ကုန်ထုတ်နိုင်မှု အပေါ် ထိခိုက်စေခြင်း၊ လယ်သမားများစွာက အရေးကြီးသည့် သွင်းအားစုများ လျော့ချသုံးစွဲလာရခြင်း၊ အချို့သောအခြေအနေများတွင် စိုက်ပျိုးပမာဏလျော့ချခြင်းတို့ တွေ့ရှိရသည်။ ခြုံငုံသုံးသပ်ရလျှင် စိုက်ပျိုးရေးကဏ္ဍသည် ၂၀၂၁ ဘဏ္ဍာနှစ်တွင် ၁၀ ရာခိုင်နှုန်းအထိ ကျုံ့သွားသည် (**ကမ္ဘာ့ဘဏ် ၂၀၂၁ ခ စစ်တမ်းအရ**)။ ၂၀၂၁-၂၀၂၂ ခုနှစ် စပါးစိုက်ပျိုးမြေဧရိယာသည် ပြီးခဲ့သည့် ၃ နှစ်တာ ကာလနှင့် နှိုင်းယှဉ်လျှင် ၇ ရာခိုင်နှုန်းလျော့ကျသွားသည်ဟု ခန့်မှန်းသည်။

ကမ္ဘာ့ဘဏ်က ၂၀၂၁ ခုနှစ် ဒီဇင်ဘာလက ပြုလုပ်ခဲ့သည့် လယ်သမားများ စစ်တမ်းအရ (ရှေ့တွင် ကမ္ဘာ့ဘဏ် လယ်သမားစစ်တမ်း ဟုရည်ညွှန်းသွားမည်) ဖြေဆိုခဲ့သူ လယ်သမားများ၏ ၅၃ ရာခိုင်နှုန်းခန့်က လာမည့်စိုက်ပျိုးရာသီတွင် စိုက်ပျိုးရန် အခက်အခဲရှိကြောင်း ဖြေကြားခဲ့ကြသည်။ ထိုသို့ဖြစ်ရသည့် အဓိကအကြောင်းရင်းများတွင် ဓါတ်မြေသြဇာစျေးနှုန်းမြင့်မားခြင်း (ဖြေဆိုသူ များ၏ ၄၇ ရာခိုင်နှုန်း) နှင့် လောင်စာဆီစျေးနှုန်း (၁၇ ရာခိုင်နှုန်း) တို့အပြင် ပိုမိုဆိုးရွားလာသည့် နိုင်ငံရေးအခြေအနေ (၁၆ ရာခိုင်နှုန်း) တို့ပါဝင်သည်။ ဓါတ်မြေသြဇာစျေးနှုန်း မြင့်မားလာခြင်းက လယ်သမားများကို ဝန်ထုပ်ဝန်ပိုးဖြစ်စေခဲ့သည်။

သယ်ယူပို့ဆောင်ရေးနှင့် သွင်းအားစု အခက်အခဲများသည် ပြည်တွင်းနှင့် ပြည်ပ အစားအစာ ကုန်သွယ်မှုကို သိသိသာသာ ထိခိုက်စေသည်။ လယ်သမားများက ၎င်းတို့၏ ထုတ်ကုန်များကို လက်ကားဒိုင်များသို့ ပေးပို့ရာတွင် အခက်အခဲများရှိကြောင်း၊ အများအားဖြင့် စျေးကွက် ကမောက်ကမဖြစ်ခြင်းနှင့် ယခင် ဆက်သွယ်နေကြ စီးပွားဖက်များနှင့် ချိတ်ဆက် ရာတွင်လည်း အခက်အခဲဖြစ်ကြောင်း ပြောဆိုခဲ့ကြသည်။ ထိုနည်းတူပင် လုံခြုံရေးအရ စစ်ဆေးရေးဂိတ်များ တိုးမြင့်လာခြင်း၊ အခွန်အခများ နှင့် ကြန့်ကြာမှုများ ပိုမိုများလာခြင်းကြောင့် ပျက်စီးပုပ်သိုးလွယ် ဟင်းသီးဟင်းရွက်နှင့် အသီးအနှံများ ဆုံးရှုံးကြရသည်။

၂၀၂၁ ခုနှစ် နှစ်လယ်ပိုင်းမှစ၍ စိုက်ပျိုးရေး ပို့ကုန်လုပ်ငန်းများ ပြန်လည်သက်ဝင်လာခဲ့သော်လည်း ပြည်ပပို့ကုန်ကဏ္ဍသည် သယ်ယူပို့ဆောင်ရေးနှင့်သွင်းအားစုများ ကုန်ကျစရိတ်မြင့်မားလာခြင်းနှင့် စိန်ခေါ်မှုများကို ရင်ဆိုင်နေရဆဲဖြစ်သည်။ ဥပမာ- ကုန်စည်ပို့ဆောင်စရိတ် မြင့်မားလာခြင်းကြောင့် စိုက်ပျိုးရေး ပို့ကုန်များ ပြည်ပတင်ပို့နိုင်မှု သိသိသာသာ အခက်အခဲဖြစ်စေသည်။ ထိုမျှသာမက ကုန်စည်ပို့ဆောင်မှုစရိတ်များ မြင့်မားလာခြင်း၊ နှင့် အစားအစာဘေးကင်းလုံခြုံရေးဆိုင်ရာ သတ်မှတ်ချက်များ တင်းကျပ်လာခြင်း တို့ကြောင့် ပုံမှန်ကုန်သွယ်မှု ပြုလုပ်နေကြဖြစ်သော တရုတ်၊ အိန္ဒိယနှင့် ထိုင်းနိုင်ငံ နယ်စပ်ကုန်သွယ်မှုများကို အကန့်အသတ်ဖြစ်စေသည်။ ဤကဲ့သို့သော အခြေအနေများကြောင့် နယ်စပ်ကုန်သွယ်မှု ချောမောစွာ လုပ်ဆောင်နိုင်ရန်အတွက် စွန့်စားမှုများစွာယူ၍ လုပ်ဆောင် ကြရသည်။ ၂၀၂၁ ခုနှစ်တွင် ရွှေလီ

အဓိကနယ်စပ်ကုန်သွယ်ဂိတ်ကို လုံခြုံရေးနှင့် ကပ်ရောဂါထိန်းချုပ်ရေးအတွက် ကာလကြာရှည် ပိတ်ဆို့ထားခဲ့မှုကြောင့် လယ်သမားများနှင့် စိုက်ပျိုးရေးနှင့်ဆက်စပ် လုပ်ကိုင်သော စီးပွားရေးလုပ်ငန်းများ အနေဖြင့် ပျက်စီး၊ ပုပ်သိုးလွယ်သော စားသုံးကုန်များ တရုတ်နိုင်ငံဈေးကွက်သို့ တင်ပို့ရာတွင် အခက်အခဲများစွာ တွေ့ခဲ့ရသည်။

အိမ်ထောင်စု စားနပ်ရိက္ခာဖူလုံမှုအခြေအနေမှာ တစ်နိုင်ငံလုံးအတိုင်းအတာနှင့် လျော့ကျလျက်ရှိ

လယ်ယာဝင်ငွေလျော့ကျလာခြင်း၊ စားနပ်ရိက္ခာရှားပါးလာခြင်းနှင့်၊ စားသောက်ကုန်ဈေးနှုန်းများ မြင့်တက်လာခြင်း တို့ကြောင့် လယ်သမားအိမ်ထောင်စုများအကြား စားနပ်ရိက္ခာမဖူလုံမှုများ မြင့်မားလာသည်။ ကမ္ဘာ့ဘဏ်၏ လယ်သမားစစ်တမ်း အရ လယ်သမား အိမ်ထောင်စုများ၏ ၄၉ ရာခိုင်နှုန်းသည် ပျမ်းမျှအားဖြင့် ဝင်ငွေ ၄၃ ရာခိုင်နှုန်းအထိ လျော့ကျလာကြောင်း တွေ့ရသည်။ ၃၄ ရာခိုင်နှုန်းခန့်သော မိသားစုများက အစားအစာဖူလုံစွာ ရရှိနိုင်ရေးအတွက် စိုးရိမ်ပူပန်နေရကြောင်း ပြောဆိုခဲ့ကြသည်။ လယ်သမားအိမ်ထောင်စုများက ရိက္ခာသိုလှောင်ထားနိုင်မှု နည်းပါးလာခြင်း၊ ငွေကြေးလည်ပတ်မှု ခက်ခဲလာခြင်း နှင့် အစားအစာ ဈေးနှုန်းများ မြင့်တက်လာခြင်း၊ အထူးသဖြင့် နို့နှင့် နို့ထွက်ပစ္စည်းများ၊ အသီးအနှံနှင့် စားသုံးဆီ ဈေးနှုန်းများမြင့်တက်လာခြင်း စသည့် အခက်အခဲများကို တင်ပြခဲ့ကြသည်။ ပြီးခဲ့သည့် ၁၂ လတာကာလအတွင်း လယ်သမားအိမ်ထောင်စု ငါးစုလျှင် တစ်စုသည် အကျပ်အတည်းများနှင့် ရင်ဆိုင်ခဲ့ကြရသည်။ အဆိုပါ အကျပ်အတည်းများကို ရင်ဆိုင်နိုင်ရန် အိမ်ထောင်စုများသည် ငွေချေးငှားခြင်း၊ ပိုင်ဆိုင်ပစ္စည်းများအား ရောင်းချခြင်း၊ အစားအစာလျှော့စားခြင်း စသည့်နည်းလမ်းများကို အသုံးပြုခဲ့ကြသည်။ လုံခြုံရေးအခြေအနေအရ စိတ်ချရမှု မရှိသော်လည်း ရွှေ့ပြောင်းသွားလာခြင်းနည်းလမ်းအား ထွက်ပေါက်တစ်ခုအဖြစ် အသုံးပြုမှုများ ရှိနေသေးကြောင်းလည်း တွေ့ရှိရသည်။ စားနပ်ရိက္ခာမပြည့်စုံမှုသည် ဒေသအလိုက် ကွာခြားမှုရှိသော်လည်း ပဋိပက္ခဖြစ်ပွားနေသည့် နယ်မြေဒေသများနှင့် ယခင်ကပင် စားနပ်ရိက္ခာ ဖူလုံမှု နည်းပါးသည့် ပြည်နယ်နှင့် တိုင်းများတွင် ပိုမိုဆိုးရွားခဲ့သည်။
၂၀၂၁ ခုနှစ် နှစ်ကုန်ပိုင်းတွင် အစားအစာဈေးနှုန်းများ ယေဘုယျအားဖြင့် တည်ငြိမ်သွားသော်လည်း ယခင်နှစ်ကထက် ကြီးမြင့်ဆဲပင်ဖြစ်သည်။ ကျပ်ငွေတန်ဖိုး ကျဆင်းသွားသဖြင့် ပြည်ပမှ တင်သွင်းရသည့် စားသောက်ကုန်များ (အထူးသဖြင့် စားအုန်းဆီ) ဈေးနှုန်းများ ထိုးတက်သွားသည်။ နယ်မြေဒေသများစွာရှိ အိမ်ထောင်စုများသည် ပြီးခဲ့သည့် ၁၂ လတာ ကာလအတွင်း ၎င်းတို့ စားသုံးသည့် အစားအစာများ ဈေးနှုန်းကြီးမြင့်သွားသည်ဟု ပြောဆိုခဲ့ကြကြောင်း တွေ့ရှိရသည်။ ကယား/ကရင်နီ နှင့် စစ်ကိုင်း ကဲ့သို့ ပဋိပက္ခတိုက်ပွဲများ ပြင်းထန်နေသည့် ဒေသများနှင့် ရခိုင် ပြည်နယ်တို့တွင် အချို့သော စားသောက်ကုန် အမျိုးအစားများမှာ ဈေးနှုန်းကြီးမြင့်နေဆဲဖြစ်သည်။

စစ်အာဏာသိမ်းမှုနောက်ပိုင်း စိုက်ပျိုးစရိတ်ချေးငွေနှင့် ကျေးလက်ငွေရေးကြေးရေးအထောက်အပံ့ လက်လှမ်းမီ ရယူနိုင်မှု အကန့်အသတ်ဖြစ်လာ

ကိုဗစ် - ၁၉ နှင့် စစ်အာဏာသိမ်းမှုကြောင့် ပေါ်ပေါက်လာသည့် အကျပ်အတည်းများစွာက မြန်မာ့ ငွေရေးကြေးရေးကဏ္ဍကို အားနည်းစေခဲ့သည်။ စိုက်ပျိုးရေး ကဏ္ဍကို သိသိသာသာ ထိခိုက်စေခဲ့ပြီး စိုက်ပျိုးရေးဆက်စပ် စီးပွားရေးလုပ်ငန်းများ အထူးသဖြင့် အထိနာခဲ့သည်။ ကိုဗစ်ကူးစက်မှု ပထမနှင့် ဒုတိယလှိုင်းများ (မတ် - ဒီဇင်ဘာ ၂၀၂၀) အတွင်း အသွားအလာ ကန့်သတ်မှုများကြောင့် MFIs နှင့် ဘဏ်များသည် ချေးငွေပြန်လည် ကောက်ခံခြင်းနှင့် ချေးငွေသစ် ထပ်မံချပေးခြင်းတို့ကို ယခင်စီစဉ်ထားသည့်အတိုင်း မပြုလုပ်နိုင်ခဲ့ပေ။ ဖေဖော်ဝါရီ ၂၀၂၁ ခုနှစ် အစောပိုင်းက ဘဏ်များ၊ အသေးစားငွေကြေးအဖွဲ့အစည်းများ (MFIs) နှင့် မိုဘိုင်းဝေါလတ် (Mobile Wallet) ကိုယ်စားလှယ်များသည်

ငွေကြေးလည်ပတ်မှုနှင့် ငွေသားအရန်ထားရှိနိုင်မှုတို့ကို စီမံနိုင်ရန် နေ့စဉ် နှင့် အပတ်စဉ် ငွေသားထုတ်ယူနိုင်သည့် ပမာဏကို ကန့်သတ်ခဲ့ကြသည်။ စိုက်ပျိုးစီးပွားလုပ်ငန်းများသည် အဆိုပါ ဘဏ္ဍာရေးအကြပ်အတည်းကို ငွေသားသက်သက်ဖြင့် ပေးချေကြခြင်းဖြင့် ဖြေရှင်းကြသော်လည်း ငွေသားဖြင့် ဝယ်ယူမှုကို သန်း ၂၀ ထက် မပိုရဟုသော ကန့်သတ်ချက်ကြောင့် အခက်အခဲများ ရင်ဆိုင်နေရသည့် လယ်သမားမိသားစုများစွာအတွက် အဓိက အတားအဆီးတစ်ခု ဖြစ်နေဆဲဖြစ်သည်။ ကမ္ဘာ့ဘဏ်၏ လယ်သမားစစ်တမ်းအရ အထက်ပါ သွင်းအားစုသမားများထံမှ ချေးငွေရရှိနိုင်မှု အခက်အခဲများအပြင် ၄၁ ရာခိုင်နှုန်းသော လယ်သမားများက သွင်းအားစုများကို အကြွေးဖြင့် ရောင်းချပေးသူ နည်းလာကြောင်း၊ ၃၆ ရာခိုင်နှုန်းက အတိုးနှုန်းမြင့်တက်လာကြောင်း၊ ၁၅ ရာခိုင်နှုန်းက ရရှိနိုင်သည့် ချေးငွေပမာဏ က မလုံလောက်တော့ကြောင်း ဖြေကြားခဲ့ကြသည်။

ရှေ့ဆက်ရန်အတွက် မူဝါဒလမ်းညွှန်ချက်များ

စားနပ်ရိက္ခာ ဖူလုံရေးဆိုင်ရာ စိုးရိမ်ပူပန်မှုများ တိုင်းနှင့် ပြည်နယ်အသီးသီးတွင် ကျယ်ကျယ်ပြန့်ပြန့် တည်ရှိနေသည်။ ပြင်းထန်လာသည့် လက်နက်ကိုင်ပဋိပက္ခ ၊ ကိုဗစ်-၁၉ ကမ္ဘာ့ကပ်ရောဂါ နှင့် ဆက်စပ် တားမြစ်ကန့်သတ်မှုများ၊ ၂၀၂၁ ခုနှစ် ဖြစ်စဉ်၏ အကျိုးဆက် ဆက်လက်ခက်ခဲနေသေးသော စိုက်ပျိုးစီးပွားရေးဆိုင်ရာ ဘဏ္ဍာရေး အခင်းအကျင်း၊ ယေဘူယျအားဖြင့် ထိလွယ်ရှလွယ်ဖြစ်နေသည့် မြန်မာ့နိုင်ငံရေးအခြေအနေ ၊ ယူကရိန်းစစ်ပွဲကြောင့် လတ်တလော ကမ္ဘာ့စျေးကွက် ကမောက်ကမအခြေအနေများ - စသည် အမျိုးမျိုးသော အခက်အခဲတို့သည် လယ်သမားများ၏ ဘဝနေထိုင်မှုနှင့် ဝင်ငွေအပေါ် များစွာထိခိုက်စေသည်။ အဆိုပါ အခက်အခဲများကို ကျော်လွှားနိုင်ရန် အောက်ပါ ရေိယာများကို ဦးစားပေးသင့်ကြောင်း -

- ***ကာလတို စားနပ်ရိက္ခာ ရရှိနိုင်ရေးနှင့် ပဋိပက္ခဒဏ်သင့် ဒေသများသို့ ရောက်ရှိနိုင်ရေး ကူညီပံ့ပိုးပေးရန်***

မြန်မာနိုင်ငံ၏ ကျန်းမာရေး၊ စီးပွားရေး နှင့်နိုင်ငံရေး အကျပ်အတည်းများစုပေါင်း၍ လူသားရင်းမြစ် ဖွံ့ဖြိုးတိုးတက်ရေးကို များစွာ ထိခိုက်စေပါသည်။ ယင်းအချက်များသည် ကလေးသူငယ်များ အဟာရပြည့်ဝရေး၊ ဖွံ့ဖြိုးတိုးတက်ရေး အခြေအနေများ၊ အမျိုးသမီးများ၏ ၎င်းတို့ကိုယ်ကို စောင့်ရှောက်နိုင်မှုနှင့် ကလေးသူငယ်များကို ပြုစုစောင့်ရှောက်နိုင်မှုတို့တွင် မြင်သာထင်ရှားပါသည်။ လူသားချင်း စာနာထောက်ထားမှုဆိုင်ရာ အကူအညီများ ဆက်လက်လုပ်ဆောင်ရန် အထူးသဖြင့် ပြင်းထန်သော ပဋိပက္ခဖြစ်ပွားနေရာ နေရာများနှင့် စားနပ်ရိက္ခာပြတ်တောက်နေသော နေရာများကို ထောက်ပံ့ကူညီရန် အရေးကြီးပါသည်။ အစားအစာနှင့် အရေးပေါ် အကူအညီမှတစ်ဆင့် လူသားချင်းစာနာထောက်ထားမှုဆိုင်ရာ အထောက်အပံ့များ ဆက်လက်ပံ့ပိုးပေးနိုင်ရေးသည် အရေးတကြီးလိုအပ်နေသည့် စားနပ်ရိက္ခာ ပြတ်လပ်မှု အထူးသဖြင့် ပဋိပက္ခဖြစ်ပွားနေသည့် ဒေသများမှ ထိခိုက်လွယ် မိသားစုများနှင့် စားနပ်ရိက္ခာ မလုံလောက်သည့် ဒေသများအတွက် အလွန်အရေးကြီးသည်။

- ***အသေးစား လယ်သမားများ၏ ကောက်ပဲသီးနှံနှင့် မွေးမြူရေး ကုန်ထုတ်လုပ်မှုကို ပံ့ပိုးပေးခြင်း***

တစ်ချိန်တည်းပင် အသေးစား လယ်သမားများ အထူးသဖြင့် အမျိုးသမီးများအနေဖြင့် ၎င်းတို့၏ စိုက်ပျိုးရေး ကုန်ထုတ်လုပ်မှုနှင့် သက်မွေးဝမ်းကျောင်းလုပ်ငန်းများ တိုးတက်စေရန်၊ ပံပိုးပေးနိုင်ရေးက အရေးကြီးပါသည်။ ဤအချက်ကို ပုဂ္ဂလိက ကဏ္ဍနှင့် ပူးပေါင်း၍ အသေးစားလယ်သမားများအနေဖြင့် အရည်အသွေးကောင်းမွန်၍ ဈေးနှုန်းသင့်တင်သည့် မျိုးစေ့ ၊ ဓါတ်မြေဩဇာ နှင့် ပိုးသတ်ဆေးကဲ့သို့သော အရည်အသွေးမြင့် စိုက်ပျိုးသွင်းအားစုများ ၊ စက်ကရိယာများ နှင့် ရေသွင်းမြောင်းများအပါအဝင် စိုက်ပျိုးရေး ဝန်ဆောင်မှုများ၊ ချေးငွေနှင့် ငွေကြေးချေးငှားခြင်းကဲ့သို့သော ငွေကြေးအထောက်အကူများ ၊ သင်တန်းပို့ချမှုများ စသည်တို့ ပံပိုးပေးခြင်းတို့ ပြုလုပ်နိုင်သည်။ ပြေစာနှင့် ငွေသား လွှဲပို့မှု အစီအစဉ်သည် ပိုမိုကျယ်ပြန့်၍ အသေအချာ ဦးတည်လုပ်ဆောင်မှု ပိုမိုကောင်းမွန်လျှင် ၊ သွင်းအားစုများကို ယာယီရယူသုံးစွဲနိုင်မှုရှိလျှင် ထိရောက်သည့်အစီအစဉ်ဖြစ်ကြောင်း တွေ့ရှိရသည်။

- ***စိုက်ပျိုးရေးဆက်စပ် စီးပွားရေး လုပ်ငန်းများ နှင့် အခြားသော တန်ဖိုးမြင့်ကွင်းဆက် ပါဝင်သူများ***

သွင်းအားစုများနှင့် ဝန်ဆောင်မှုများကို ဒေသန္တရ ပုဂ္ဂလိက ကဏ္ဍမှ ကျယ်ကျယ်ပြန့်ပြန့်ရရှိနေကြောင်း တွေ့ရသည့်အတွက် ဖွံ့ဖြိုးရေး မိတ်ဖက်များ (DPs)အနေဖြင့် ပုဂ္ဂလိက စိုက်ပျိုးရေးနှင့် ဆက်စပ် စီးပွားရေးလုပ်ငန်းရှင်များ၊ ဘဏ်များ၊ MFIs များနှင့် အစိုးရမဟုတ်သော အဖွဲ့အစည်းများ (NGOs) နှင့် ဆက်သွယ်၍ လယ်သမားများအား ပံ့ပိုးပါက ဖြစ်နိုင်ခြေအလားအလာ ရှိကြောင်း တွေ့ရှိရသည်။ ၎င်'တို့ကို ထိရောက်စွာ လုပ်ငန်းလည်ပတ်နိုင်ရန် ကူညီပေးခြင်းဖြင့် လယ်သမားများ၏ ကုန်ထုတ်လုပ်မှုနှင့် စိုက်ပျိုးရေးလုပ်ငန်းများ ဆက်လက်လုပ်ဆောင်နိုင်စေရန် များစွာ အထောက်အကူပြုကြောင်းတွေ့ရသည်။ ချေးငွေ ပုံစံများ ပြန်လည်ပြင်ဆင်ခြင်း၊ ကြွေးမြီကောက်ခံရေး အစီအစဉ်များ ပြန်လည်ရေးဆွဲခြင်း၊ သို့မဟုတ် ချေးငွေ သဘောတူစာချုပ်များ ပြန်လည်ညှိနှိုင်းခြင်း တို့တွင် ပံပိုးပေးခြင်းဖြင့် ပိုမိုအားကောင်းစေရန် လုပ်ဆောင်သင့်သည်။ MFIs များကို ကျယ်ကျယ်ပြန့်ပြန့် နည်းပညာအထောက်အကူပေးခြင်းအားဖြင့် ၎င်းတို့၏ ဖောက်သည်များကို ပိုမိုအဆင်ပြေလွယ်ကူသော ချေးငွေ ပြန်လည်ပေးဆပ်ရေး အစီအစဉ်များဖြင့် အထောက်အကူပေးနိုင်ပါလိမ့်မည်။

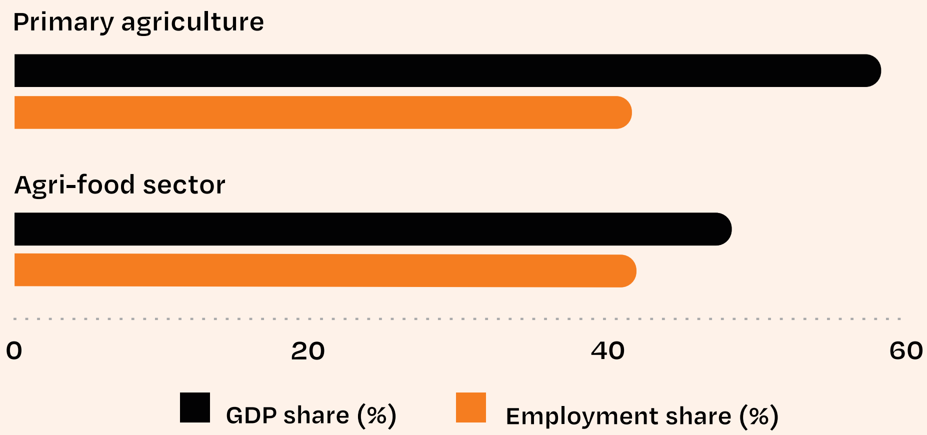
01 Pre-Crises Glance at the Agriculture and Food Sectors[1]

Prior to the pandemic in early 2020, the coup on February 1, 2021, and subsequent political and economic unrest, Myanmar was making progress on the four dimensions of food security--namely food availability, access, utilization, and stability, as defined by the Food and Agriculture Organization (FAO) of the United Nations (UN). This chapter reviews Myanmar's pre-crises performance in the agriculture sector and in food security.

Agriculture is an important sector in Myanmar's economy as it is a major contributor to economic growth, livelihoods, and social stability. Primary agriculture still accounts for nearly 30 percent of GDP (figure 1). This sector employs nearly half of the entire working population in the country and was the main source of employment for around 70 percent of the rural population (World Bank 2021c). When forward and backward linkages to primary agriculture are included, the agri-food system accounted for 42 percent of total GDP and 58

FIGURE 1

GDP and employment share of primary agriculture and agri-food sectors in Myanmar, 2015

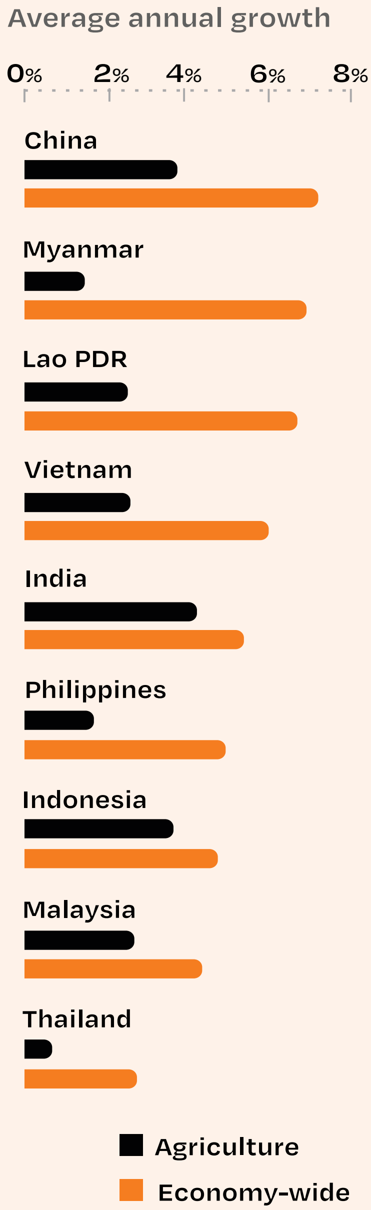


Sources: World Bank (2019); FAO and WFP (2021).

1 In this report, multiple crises (or crises) are defined as a succession of crises from early 2020 which Myanmar has experienced; the multiple waves of the pandemic, political and economic unrest in the wake of the military coup in February 2021, and disruptions to global commodity markets caused by the war in Ukraine. A calendar of these events can be found in Annex 1.

FIGURE 2

Agriculture and economy-wide growth in nine Asian countries, 2010–2020



Source: World Development Indicators Database.

percent of total employment (World Bank 2019). Agricultural growth has contributed significantly to poverty reduction: about 46 percent of the poverty reduction achieved between 2005 and 2015 was directly attributed to the growth of the agriculture sector (World Bank 2019).

Although the agriculture sector has ample potential, the pace of growth remains slow and unstable. The sector grew by an average of 1.5 percent annually between 2010 and 2020, with significant volatility (figure 2). This growth was roughly half that of China and India during the same period. Yet, Myanmar's economy overall grew at an average rate of 7 percent per year during this period, making it one of the highest growth rates in the region. The disconnect between the farm sector and broader economy underscores opportunities to accelerate the sector's convergence with the rest of the economy and other agriculture sectors across the region. Myanmar's agricultural productivity is among the lowest in Asia as the result of multiple factors, including an inadequate supply of essential agricultural services, such as agricultural research and extension, and inputs such as certified and improved seeds; low input quality (fertilizer and chemicals); and poor knowledge among farmers about good agriculture practices including proper fertilizer usage. Growth in the sector has also been volatile due to the damaging impact of climate change and extreme weather events, such as El Niño. In 2015–16, for instance, the El Niño event and the accompanying drought in the central and dry areas resulted in a significant drop in the production of key export crops, such as sesame, beans, and pulses.

In Myanmar, rice and pulses remain the main agricultural crops. Together, these crops constituted about 67 percent of the gross crop output in 2016 and consistently occupy over two-thirds of the total cultivated area. According to the 2017 Agriculture Public Expenditure Review (World Bank 2017), spending on irrigation and extension services focused on rice at the expense of other nutritious and profitable crops, with about two-thirds of the total agriculture budget spent on rice-related programs in 2017.

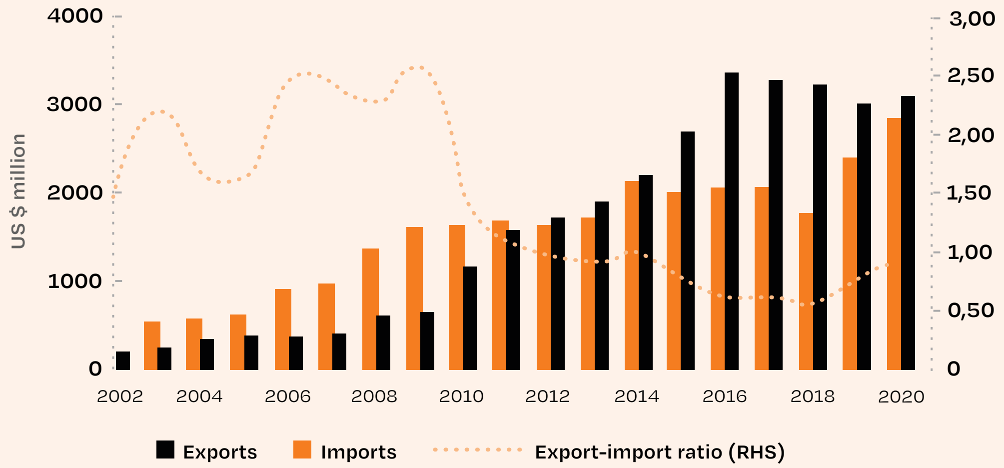
Rice and pulses are Myanmar's major export crops. Between 2010 and 2017, Myanmar went from being the 15th to the 5th largest exporter of rice by value and has also maintained its position among the top four exporters of legume-based products during this period. It became the third top country in the world and a leader among members of the Association of Southeast Asian Nations (ASEAN) in the production of pulses. In 2017, Myanmar exported US$13.9 billion worth of goods and services, of which about 29 percent were exports of primary agricultural and processed agricultural commodities.

From 2014 to 2016, the share of cereals (primarily rice) in exports ranged between 16 and 37 percent. Depending on the year, rice occupied the first or the second position in the export of agricultural commodities. Pulses were also in high demand by neighboring countries and surpassed rice exports for several years. Export markets for pulses include Bangladesh, China, India, Thailand, and the

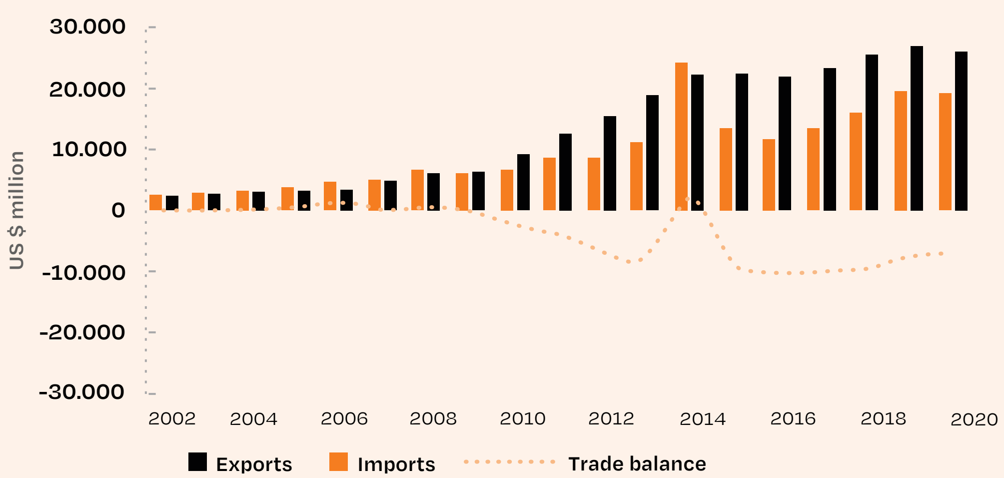
FIGURE 3

Myanmar's food and overall exports and imports, 2002–2020

a. MYANMAR'S FOOD TRADE



b. MYANMAR'S OVERALL TRADE



Source: World Bank calculations based on mirror data from the World Integrated Trade Solution.
Note: The values of food imports and exports are calculated based on the food definition of the FAO at the harmonized system (HS) 4-digit level.

United Arab Emirates. About 23 percent of the total beans and pulses production was exported during this time.

However, the total food export-import ratio shows the overall trade position of Myanmar as a net importer of food, driven largely by processed food imports (figure 3). During 2010–2020, food exports increased by about 9 times, and food imports increased by about 15 times. Overall, exports and imports increased by 8 times and 11 times, respectively. In the early 2010s, Myanmar began to open the economy and became a net importer of both total merchandise and food trade. While Myanmar remained an exporter for rice and pulses, its overall trade position also brings increased vulnerability to exchange rate volatility and fluctuations in global commodity markets, as observed during the COVID-19 pandemic, the military coup, and the recent global commodity market disruptions caused by the war in Ukraine.

While not yet food and nutritionally secure, Myanmar was progressing along the four dimensions of food security—availability, access, utilization, and stability.[2] The physical availability of food is determined by the level of food production, stock levels, and net trade, whereas economic and physical access to food is related to incomes, expenditure, markets, and prices. Food utilization addresses how the human body makes the most of nutrients and is associated with feeding practices, food preparation, diversity of diet, and intra-household distribution of food. Stability of the other three dimensions over time is linked to influences, such as adverse weather conditions, political instability, or economic factors including unemployment or rising food prices that might impact food security status (FAO 2008).

Availability. Overall, Myanmar has been a net exporter of cereal products. Rice remains an important crop and commodity for the economy and welfare of the country. In general, while enough food was produced and available at the national and regional levels, availability was more limited in some remote areas due to transportation and logistics constraints.

Access. Despite structural deficiencies and some regional imbalances, access to food was improving in Myanmar during the last decade. A report by IFPRI concluded that in 2015, 25 percent of the population lived in households reporting food expenditures below the Cost of Recommended Diets, while in 2010 that percentage was at 32 percent (Mahrt et al. 2019). In 2015, almost 70 percent of households reported some sort of income from agriculture. In the poorest quintile, 40 percent reported income only from agriculture, and 46 percent reported both agricultural and nonagricultural incomes (MOPF and WBG 2017). As agricultural production is cyclical, income from agriculture alone is not always sufficient to purchase adequate food. As a result, the rates of food poverty[3] in rural areas were substantially higher than in urban areas, with 12.5 percent of the rural population suffering from food poverty compared to 2.7 percent of the urban population (MOPF and WBG 2017).

2 These dimensions are based on the widely accepted definition of food security from the first World Food Summit held in 1996 at FAO headquarters. "Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life." https://www.fao.org/3/al936e/al936e.pdf.

3 Food poverty refers to having total consumption expenditures considered insufficient to cover food needs. Individuals and households are unable to secure an adequate and nutritious diet.

Utilization. Limited diversification of diets, micronutrient deficiencies, and poor practices in food preparation have influenced food utilization even prior to the pandemic. In 2015, 68 percent of the population could consume the recommended daily quantity of staples. The percentages were lower for the consumption of protein-rich foods (39 percent), vegetables (17 percent), fruits (16 percent), and less than 1 percent of dairy products (MHS and ICF 2017). The poor also had less diversified diets. Across income quintiles, households in the lowest quintile obtained up to 72 percent of daily calories from rice, pulses, and nuts, while these foods constituted 51 percent for households in the top quintile (MOPF and WBG 2017). Only 4 percent of the households in the poorest quintile could consume the recommended quantity of protein, compared with 60 percent in the wealthiest quintile (MHS and ICF 2017). High prevalence of micronutrient deficiencies indicated diets without enough fruits and vegetables. In 2015, close to 36 percent of children under the age of 5 and 30 percent of women of reproductive age (15 to 49) were anemic (MHS 2019), and only 16 percent of children aged 6 to 23 months received a minimum acceptable diet (MHS and ICF 2017). Common food preparation practices, such as overcooking vegetables, reduced nutritional value.

Stability. Weather conditions, the political situation, and the volatility of food prices have long affected food security. Following the Global Climate Risk Index 2021, Myanmar was the second most affected country by extreme weather events between 2000 and 2019, as it experienced frequent medium-to-large-scale natural disasters. Catastrophic floods in 2015 are estimated to have caused economic losses in the amount of 1.7 percent of the previous year's GDP (World Bank 2017). Furthermore, armed conflict and inter-communal violence have persistently affected Chin, Kachin, Kayin, Rakhine, and Shan states since August 2017 (FAO and WFP 2021). Finally, the volatility of rice prices during the pre-crises period (before March 2020) was of concern to the Myanmar government given the significant importance of rice for farm incomes and consumer expenditures. Prior to the crises, it was estimated that for people spending 50 percent of their income on rice, a 20 percent temporary increase in rice prices would lead to an income loss of about 10 percent (World Bank 2019).

02 Impacts of the Multiple Shocks on the Agriculture Sector

From early 2020, Myanmar has experienced a succession of crises: the COVID-19 pandemic, political and economic unrest in the wake of the military coup in February 2021, and disruptions to global commodity markets caused by the war in Ukraine with significant adverse impacts on farmers. These shocks have been taking a heavy toll on farmers by reducing their access to agricultural inputs and creating disruptions in market infrastructure and logistics. Increasing costs of transportation and inputs, especially for fertilizer and fuel, have reduced farmers' margins. In addition to the higher costs of inputs and agriculture-related services, the combined effect of the pandemic and political upheaval had an impact on decisions related to agricultural production. This chapter describes the effects of the multiple crises on the agriculture sector since early 2020. The findings reported in this chapter draw significantly from the World Bank Farmer Survey undertaken in December 2021.

Agricultural production

High production costs, primarily driven by increasing costs of inputs, have compelled farmers to reduce their use of critical inputs, and in some cases, reduce their cultivated areas. According to the World Bank Farmer Survey (December 2021), 13 percent of the respondents reduced cultivated areas in the 2020–21 cropping season compared to the previous year. The cultivated area of paddy for 2021–22 is estimated to be around 7 percent below the average for the previous 3 years (World Bank 2022a), while the cultivated area of pulses in 2020–21 was 2.57 million hectares, which is also 14 to 40 percent below the averages area for 2017 through 2020 (Table 1). Maize production is estimated to be 10 to 20 percent lower than the average output level in previous years (USDA 2021). Local production of oilseed crops, especially peanuts, is likely to increase due to the higher price of imported palm oil and rising demand from both domestic and international markets. Similarly, during the WB agribusiness key informant interview, 72 percent of the agribusiness respondents reported having to cut back production due to higher production and logistics costs.

TABLE 1

Actual paddy growing area in Myanmar

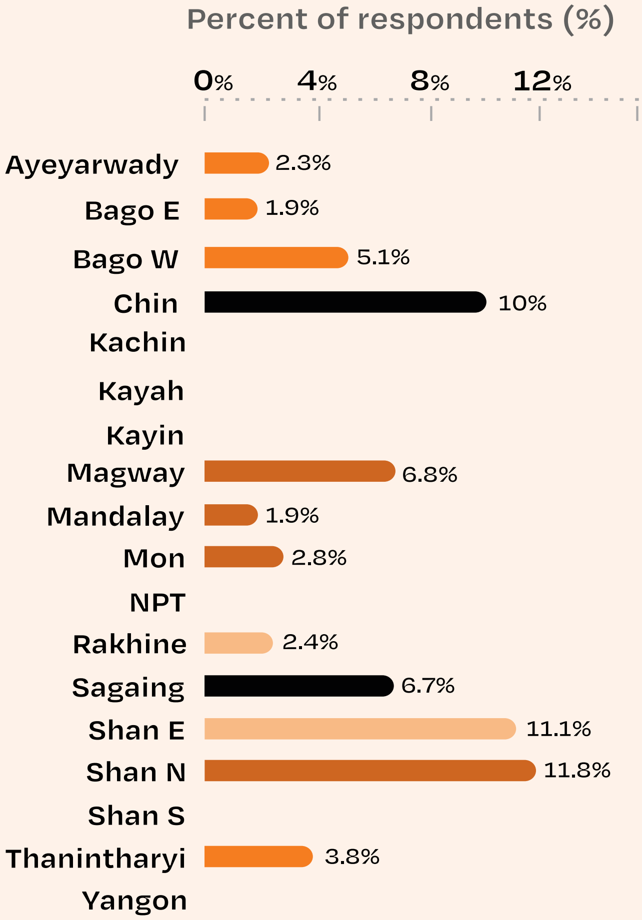
Sowing years	2017–18	2018–19	2019–20	2020–21	2021–22
Actual growing area (thousand, ha)	7,256	7,228	7,004	6,717	6,503

Source: World Bank (2022).

In most regions, except for the conflict affected areas, farmers were able to complete their harvesting activities but with some yield losses. About 96 percent of respondents had already harvested their crops in December 2021. Overall, about 50 percent of farmers reported harvesting their crops during the 2021–22 growing season, but they also reported that they faced yield losses due to the weather (57 percent), pests (37 percent), and lower use of fertilizer (17 percent) due to their

FIGURE 4

Farm households without a harvest in the past season due to armed conflict per conflict intensity in states and regions



Sources: World Bank estimates using data from the World Bank's survey of farmers conducted in December 2021 and the Township-based Conflict Monitoring System (TCMS) of the Myanmar Institute for Peace and Security.
Note: Colors in the chart for each state and region follow the conflict intensity mapping: red = very severe conflict; dark brown = severe conflict; light orange = moderate conflict; light blue = mild and very mild conflict.

high costs. Weather-related losses could be partly attributed to fluvial and flash flood events that occurred in 2021 across many states and regions in the country. The states and regions with the higher percentage of households who could not complete their harvests were in locations with severe or very severe conflict: northern Shan, 11.8 percent; Chin, 10 percent; Magway, 6.8 percent; and Sagaing, 6.7 percent (figure 4). Armed clashes and violence have constrained agricultural production activities, the flow of goods and services, and access to inputs.

Agricultural inputs and services

Rising fertilizer, seeds and fuel costs will likely affect the upcoming cropping season, which will have adverse implications for paddy, planted from mid-October to mid-December, and for maize, planted from mid-October to January. Fifty three percent of farmers in the World Bank Farmer Survey indicated that high fertilizer and fuel costs are constraining their ability to plant in the coming season.

Border closures, higher international prices, and depreciation of the kyat are pushing domestic fertilizer prices higher. Fertilizer price increases pose a major burden to farmers, as fertilizer is the largest purchased input in farm production. Price increases are expected to continue due to disruptions in the global fertilizer markets following the war in Ukraine. Although Myanmar imports more than 85 percent of its chemical fertilizers from China, Korea, and Vietnam and only 1 percent from the Russian Federation and Ukraine, the overall global disruption in the fertilizer supply chain and rising prices are affecting local prices. Anecdotal evidence indicated that farmers paid 50,000 MMK per bag of fertilizer during the 2021 monsoon season, which is more than twice the price in the previous season (Frontier Myanmar 2021). Herbicide costs increased by one-third to 15,000 MMK per acre. Based on a survey of agro-retailers in June 2021, fertilizer prices were estimated to be 52 percent higher for urea and 29 percent higher for compound fertilizer compared to June 2020 (IFPRI 2021a). They are mainly imported from China, India, and Thailand.

Farmers also face rising costs in agricultural services over the past year. Compared to 2020, 64 percent of farmers reported higher costs of harvesting, stating that agriculture mechanization service fees increased by almost 25 percent (IFPRI 2021b). According to another farmer phone survey conducted in the Delta region by the Market Analysis Unit of Mercy Corps in November 2021, 54 percent of the farmers indicated that acquiring inputs was difficult, and 43 percent reported that finding labor was difficult. For instance, hiring seeders in 2021 was costlier than in 2020 (Keesecker 2021).

Agriculture logistics and transport costs increased during COVID-19 and after February 1, 2021: respondents from the WB agribusiness key informant interviews indicated that about half of the container services, or 4,750 container trucks were no longer operating. The closure of important border crossings such as the Muse-Ruili into China and the increasing number of security checkpoints, levies, and delays led to the loss of perishable vegetables and fruits. Fuel prices, already high due to the depreciation of the kyat, are expected to continue to escalate because of the rising global fuel prices due to the war in Ukraine. By mid-March 2022, fuel prices in Myanmar were 133 percent higher than in February 2021. Global fuel shocks and currency fluctuations are expected to keep domestic fuel prices volatile, introducing greater uncertainty for consumers, farmers, and food manufacturers with respect to their capacity to withstand additional surges in prices of food, agriculture inputs and operating costs in the near future.

Although much lower than the first wave of the pandemic, demand still exists for small lorries that can access urban areas, carrying fruits and vegetables. These trucks also serve farms near urban areas. However, users have reported a significant increase in their cost, as much as 50 percent higher compared to the pre-COVID-19 period. Train transportation, which was commonly used to transport nonperishable agri-food products, has been restricted due to security concerns. Electricity outages and surging diesel prices make it more expensive for farmers to pump water to irrigate their rice fields in the summer season. As fuel prices keep rising, Myanmar is reportedly generating electricity at less than half its normal capacity, which translates into rationing electricity (Seng Pan and Tsa Shee Nrang 2022).

Agricultural output markets and trade

During August and September 2021, around 40 to 46 percent of farmers reported difficulties in selling their crops (FAO 2021; Than et al. 2021; IFPRI 2021c). The World Bank Farmer Survey also showed that some farm households had to store their produce due to low prices and uncertainty. Farmers reported difficulties in supplying produce to retail shops, mostly because of market disruptions, very low prices, and no access to usual traders. Similarly, respondents from the WB agribusiness key informant interviews indicated that suppliers and intermediaries were facing the same difficulties.

Higher logistic and input costs impacted agricultural exporters and importers. However, agricultural exports began to recover in mid-2021, fueled by the kyat depreciation, increasing global food prices, higher demand from neighboring countries, and export market diversification (World Bank 2022a). Nonetheless, increasing freight charges significantly impacts the profitability of exports, making them no longer competitive in high-end markets, such as Europe. Some exporters are targeting alternative markets, either locally or in neighboring countries (World Bank 2022a). Anecdotal evidence based on WB agribusiness key informant interviews and news articles indicates that agricultural exporters are succeeding in diversifying their markets, and demand from neighboring countries, such as India and Sri Lanka, has increased. Figure 5 shows trends in agricultural exports over recent years.

Border trade with China has slowly been reopening since the beginning of December 2021, but it is operating at a much lower capacity than before the crises. In contrast, the border trade with Bangladesh, India, and Thailand is operating normally. The major Thai border gate of Myawaddy-Mae Sot has experienced a significantly higher amount of traffic. It is being used as a land bridge to cater to higher value agricultural products for the Lao People's Democratic Republic and Vietnam, through which these products reach China and other international markets. For high-value fruit and vegetable imports, the Thai border has been the main operating entry point. Similarly, those who export maize to Thailand did not mention any major problems.

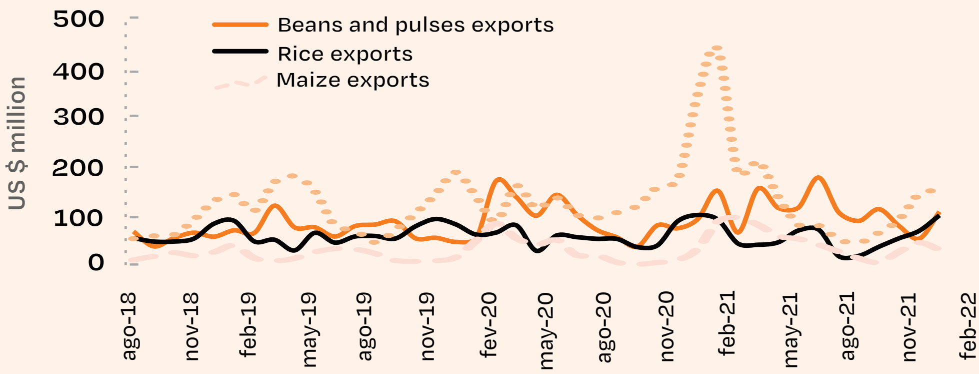
Importers reported large increases in the prices for containers, while arriving shipments are being cleared without facing major challenges (USDA 2021). Importers are purchasing wheat and soybean meal in bulk shipments due to increased container costs. Compared to more distant exporters, such as Brazil, Paraguay, and the United States, exporters from China, India, and Thailand have smaller shipping constraints as they share a land border with Myanmar.

FIGURE 5

Agricultural exports

a. ALL AGRICULTURAL EXPORTS

b. SELECTED AGRICULTURAL EXPORTS



Sources: CEIC for all data points up to December 2021; Ministry of Commerce for data from January to February 2022.

However, the recent policy change on import restrictions by the State Administration Council (SAC), with an aim to improve the trade balance, will likely increase the prices of imported food and fertilizers. The list of items that require an import license has grown and includes about 97 percent of food and related products. This will increase trade costs for importers, resulting in an increase in prices for net imported products, such as fertilizers and palm oil.

03 Impacts of Multiple Shocks on Household Food Security

As a consequence of the multiple shocks since early 2020, Myanmar's past gains in poverty reduction are being reversed and household food security is deteriorating. Developments since February 2021 have caused severe disruptions to economic activities. The halt to assistance programs and disruption to economic activity since the military assumed power on February 1st has heightened risks, especially for the poorest. The share of Myanmar's population living in poverty is expected to have doubled compared to pre-COVID-19 levels (World Bank 2022b) . The food security outlook is also concerning. Myanmar ranked 71 out of 116 countries in the 2021 Global Hunger Index; the share of the population suffering from insufficient food consumption increased from 13 percent in 2020 to 20 percent in 2021. As a result of ongoing violent episodes, remoteness, and disruptions in transport, the rates of food insecurity are especially high in Chin, Kachin, Rakhine, and Shan states and in the Sagaing region.

This chapter reviews the impacts of multiple shocks on household food security based on its four dimensions, with a focus on rural farming households due to the high share of poor households in rural areas of Myanmar and the weight of farming and agricultural activities in their livelihoods. In 2015, almost 70 percent of households in Myanmar reported some income from agriculture, and in the poorest quintile, 40 percent reported sole reliance on agriculture-related incomes (MOPF and WBG 2017). Notwithstanding this focus on rural areas, the status of urban areas will also be described based on additional evidence from secondary sources.

Availability

The lower levels of input use combined with reductions in planted area, particularly for paddy, maize, and pulses, are likely to reduce overall domestic output. At the same time, higher production of peanut oil is anticipated in response to the higher prices of imported palm oil. Palm oil accounts for 90 percent of domestic consumption of edible oils. The direct impact of the Ukraine war on Myanmar's food trade balance is expected to be small, as agricultural trade with Russia and Ukraine is limited. But the depreciation of the kyat might exacerbate the indirect effects through higher prices of imported fuel and fertilizers.

Mounting problems on the production side along with the surge in prices of imported food are beginning to affect food availability. A recent survey by IFPRI found that the share of households reporting food supply issues because of higher political instability nearly doubled from 32 percent in May 2021 to 61 percent in December 2021 (IFPRI 2022a). During the World Bank Farmer Survey in December 2021, between 43 and 53 percent of households reported finding shelves with no stock of fruit and vegetables; between 53 and 55 percent reported no fish and meat; 68 percent reported no pulse; and 82 percent reported no dairy products.

Access

The multiple ongoing crises are squeezing farm household incomes, with adverse implications for their ability to purchase food. The World Bank Farmer Survey found that compared to income levels prior to the military take-over, 49 percent of all farm households reported a reduction in income (World Bank 2022a). Only 12 percent reported an increase and 39 percent reported no change. Among the households reporting a reduction in income, the average reduction was 43 percent. Additional evidence shows that the situation might be even more serious in urban areas. A survey led by the WFP in May 2021 of peri-urban households of Yangon found that the income of about 80 percent had been reduced by about 25 percent compared to January 2021 (WFP 2021a). A nationwide survey by UNDP (2021) also concluded that between January 2020 and May/June 2021, the reduction of household incomes was larger in urban households at 29.9 percent than in rural households at 19.8 percent.

The World Bank Farmer Survey found that farmer households are concerned about sustained access to food, especially among those with financial constraints. On average, 34 percent of the farm households reported their concern about having enough food to eat in the prior month. Sixty-two percent of the farmer households had debts, out of which 16 percent had to sell some assets to repay loans. The proportion of households with food security concerns is higher among those with financial constraints: 39 percent of those with debt and 43 percent of those who sold assets to repay their debts were concerned about food security. The survey found that 4 percent of the farmer households skipped a meal in the previous month due to not having enough food at home.[4] In urban areas, a WFP-led survey in Yangon (WFP 2021a) found that inadequate food consumption was higher in informal settlements at 32 percent than in formal settlements at 18 percent.

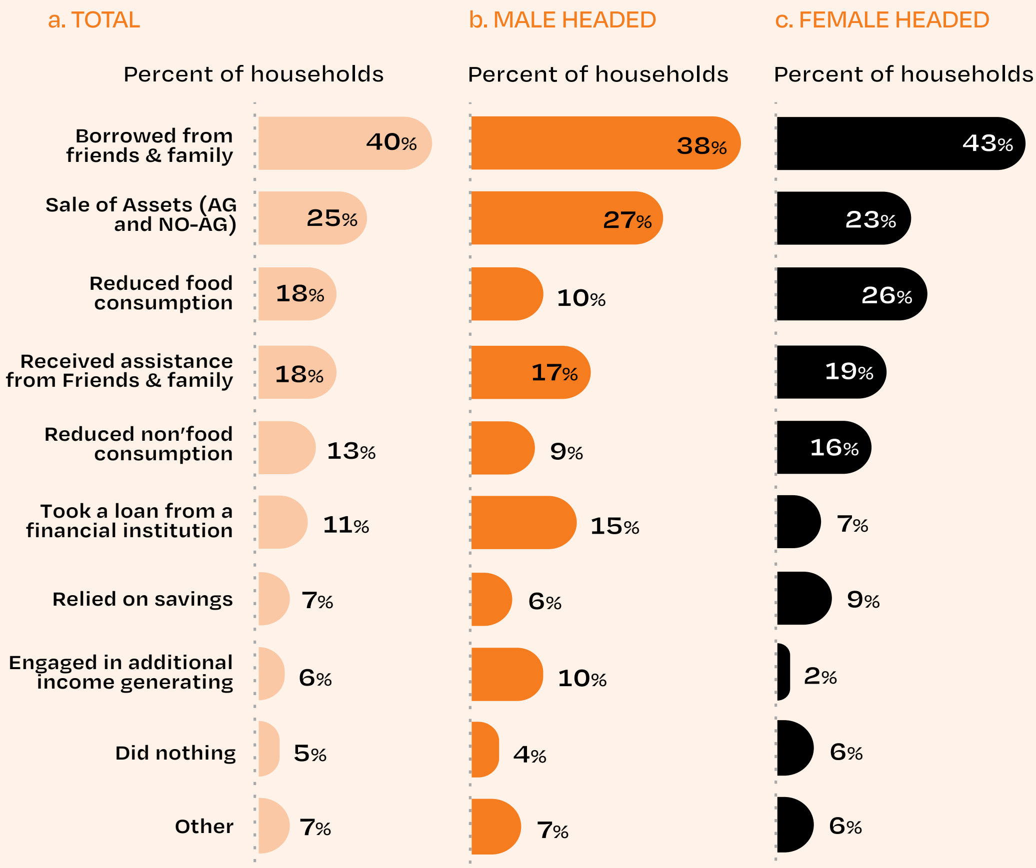
As shocks reduced their incomes and put their access to food at risk, farm households relied on coping strategies, such as borrowing money, selling assets, and reducing food consumption. One in five farm households experienced shocks between December 2020 to December 2021, including sickness, injury, or death of a household member (31 percent) or cost increases in major food items consumed (29 percent). Among them (figure 6), coping strategies included borrowing from friends or family (40 percent) and selling assets especially livestock (25 percent). Livestock is one of the key assets owned by farm households to enhance their

4 Following the Food Insecurity Experience Scale (FIES) of the FAO, questions were included on food insecurity status in the farmer phone surveys. Out of the full FIES scale, three questions were added to the farmer phone survey questionnaire: concern or worry last month about having enough food to eat (FIES1), skipping a meal in the past month because of insufficient food at home (FIES4), and going a whole day without eating last month because they had no food (FIES8).

ability to respond to shocks and support their livelihoods, whenever farmers need cash or decide to reinvest in other farming or income-generating activities. A larger share of households' own livestock (74 percent in the Regions, 65 percent in the States). A quarter of the respondents indicated to have sold their animals, seeds, equipment, or other assets. The three main reasons to sell assets were repayment of a loan (38 percent) and purchase of food (24 percent) or fertilizer (15 percent). Evidence from urban areas (WFP 2021a) showed that an overwhelming majority of respondents in informal settlements needed to borrow money to be able to buy food—89 percent compared to 60 percent in formal settlements.

FIGURE 6

Response of farm households to shocks



Source: World Bank estimates using data collected from the survey of farmers conducted in December 2021.
Note: AG and NO-AG assets refer, respectively, to agricultural assets such as seeds, animals, equipment, and machinery and nonagricultural assets such as vehicles, furniture, appliances, and clothing.

While some strategies are common, male- and female-headed farm households also prioritize specific coping strategies differently in terms of reducing expenses, formal borrowing, and additional income generation (figure 6). Female-headed households relied on reducing household expenses by reducing consumption of food (26 percent) and non-food items (16 percent) and by borrowing from friends and family members (43 percent). Besides borrowing from friends and family (38 percent), male-headed households seemed to opt for borrowing from financial institutions (15 percent), engaging in income generating activities (10 percent), or selling their agricultural and nonagricultural assets (27 percent).

All households are resorting to cutting back on the amount of food consumed to cope with the income reduction. Between August 2020 and June 2021, the share of households nationwide that were reducing their food consumption rose from 11 to 38.7 percent (UNDP 2021). Per area of residence, 58.3 percent of urban households and 62.8 percent of rural households reported in June 2021 eating less since the military coup on February 1, 2021. In urban areas, consumption coping strategies show stark differences between informal and formal settlements. Evidence from May 2021 shows that in informal settlements, the most frequent strategies were related to choosing less preferred or expensive food—81.9 percent in informal compared to 44.4 percent in formal settlements, borrowing food—73.1 percent in informal compared to 37.7 percent in formal settlements, and limiting the portion size—71.2 percent in informal compared to 46.5 percent in formal settlements. One of the most severe strategies is reducing the number of meals; it was a strategy for only 15.2 percent in formal settlements, against 44.3 percent in informal settlements (WFP 2021a).

Farm households also use migration as a coping strategy although to a limited degree due to security concerns. The World Bank Farmer Survey found that circumstances with a direct impact on a household's decision to migrate included expecting a future decrease in farm income (30 percent), their debtor position (27 percent), or currently cashing out assets (34 percent) (World Bank 2022a).

According to 26 percent of households, at least one household member is working away from home. However, although an additional 23 percent considered migrating or relocating to another village, region, or state for work, they could not do so. Of those who tried but could not, the main reason was limited transport service (48 percent) followed by security risk and fear of armed conflict (30 percent), unwillingness to leave their family under the current situation (14 percent), and the high cost of transportation to relocate to another part of the country (12 percent). The lack of transportation services and serious concerns about security while in transit are impacting the migration decisions of younger respondents. Of those under age 30, 34 percent have considered but refrained from relocating due to reports of arbitrary detainment by the military. Migrating overseas for work shows a similar percentage of households, about 24 percent are willing but unable to relocate. The reasons preventing migration are similar, with 37 percent citing lack of transport, 19 percent high cost, 19 percent security risk and fear of armed conflict, and another 19 percent lack of money.

Utilization

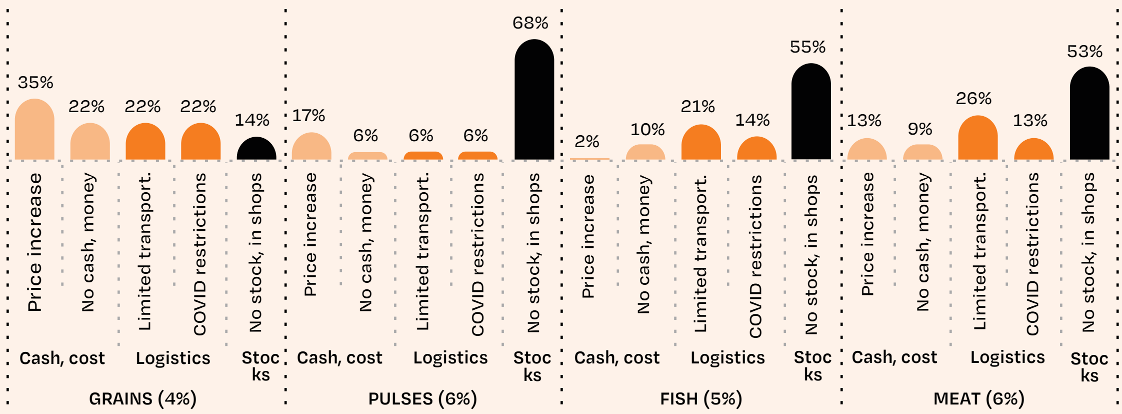
In rural areas of the Central Dry Zone, households reported consuming lower amounts of meat and fish in the first half of 2021, although the diversity in diets was reportedly maintained (Lambrecht et al. 2021). As illustrated in figure 7, between 68 and 82 percent of households were not able to purchase dairy products or pulses because of stock shortages in markets. In addition to empty shelves, other relevant factors are the increases in price for cooking oil (41 percent), grains (35 percent), and vegetables (21 percent) and limited transportation for meat (26 percent) and fruit (21 percent). Cash shortages come up noticeably as a reason for a household's limited access to grains (22 percent) and vegetables (14 percent).

Various studies around dietary diversity indicated issues related to maternal and child diet quality. Between May 2021 and December 2021, no less than 39 percent

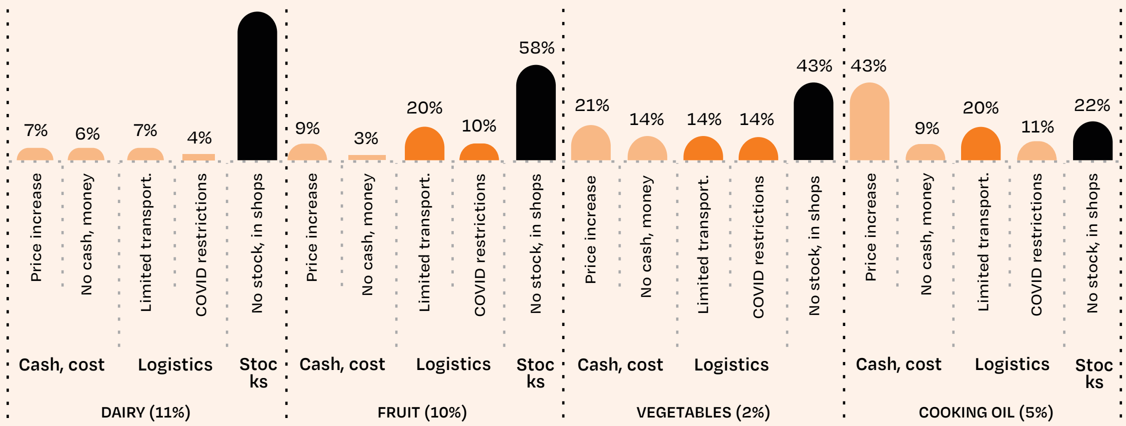
FIGURE 7

Farm households reporting issues around access to food items

a. ACCESS TO GRAINS, PULSES, FISH, AND MEAT



b. ACCESS TO DAIRY, FRUIT, VEGETABLES, AND COOKING OIL



Source: World Bank estimates using data collected from the survey of farmers conducted in December 2021.
Note: Percentage refers to the share of respondents who could not access that particular food item in the week prior to the interviews.

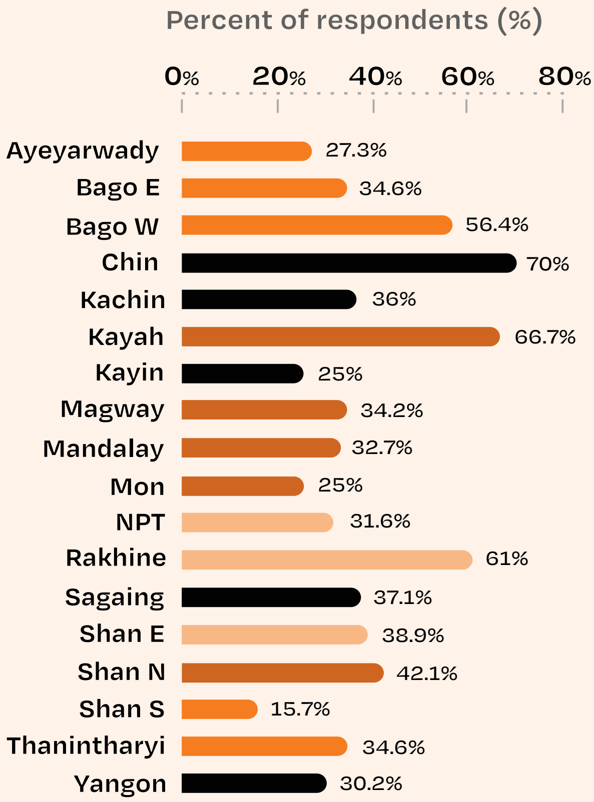
of mothers in urban Yangon reported poorly diversified diets, as well as twenty-five percent of mothers in the rural Dry Zone and 30 percent of migrants from those areas (IFPRI 2022a). Diet diversity is also poor among infants in the rural Dry Zone, showing a much higher share of infants between 6 to 18 months of age with poor diets in 2021 than in 2020.

Stability

The escalation in conflict and logistical disruptions threatens the stability of food security, exacerbating the vulnerability of every state or region, regardless of their pre-existing conditions, but especially Chin, Kachin, Rakhine, and Shan states (appendix B). Figure 8 shows the share of households concerned or worried about having enough food to eat. In Bago West, Chin, Kayah/Karenni, and Rakhine, 56 percent or more are concerned about food security. According to the Myanmar Micronutrient and Food Consumption Survey, Chin, Kayah, Magway, and Shan were already suffering from high levels of food insecurity in 2017-18 and showing high levels of stunting among children under the age of 5 (MHS 2019). The Sagaing region is traditionally food secure, yet with intensified conflicts over the past year, a relatively high proportion of households are now worried about food security.

FIGURE 8

Farm households reporting concern about having enough food per state and region



Sources: World Bank estimates using data collected from the survey of farmers conducted in December 2021.
Note: Conflict intensity has been calculated based on data from the township-based conflict monitoring system (TCMS). Colors in the chart per state or region follow conflict intensity mapping: red = very severe conflict; dark brown = severe conflict; light orange = moderate conflict; light blue = mild and very mild conflict.

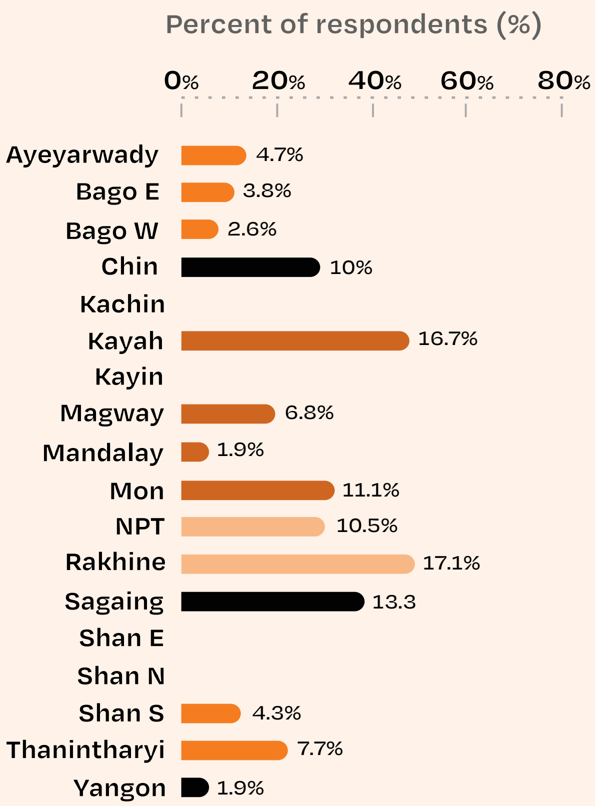
Prior to February 2021, conflicts were concentrated between the military and ethnic armed organizations (EAOs) and between different EAOs. Since the coup, conflicts have intensified across the country and appear to have affected the harvest during the 2021 monsoon season. These have derived from violent clashes that have erupted between the military and SAC supporters and People's Defense Forces and other armed resistance groups.

Reflecting increases in transport costs, logistics constraints, and conflict-related disruptions, the increase in prices was generally larger in food deficit, remote, and conflict-affected areas than in surplus-producing areas. There is significant spatial variation in the share of the farm households reporting price increases for selected food items[5] consumed over the past 12 months. Conflict affected areas (Figure 9), including Kayah/Karenni and Sagaing, where conflict has intensified, and Rakhine have been more impacted (World Bank 2022a).

In all regions, on average, food prices were substantially higher in 2021 compared to 2020 and 2019 despite relative stability at the end of 2021 (figure 10). From Q4 2020 to Q4 2021, retail prices rose by up to 25 percent for rice, 21 percent for pulses, 93 percent for palm oil, 48 percent for tomatoes, and 18 percent for eggs. After a

FIGURE 9

Farm households reporting price increase of major food items by conflict intensity per state and region, December 2021



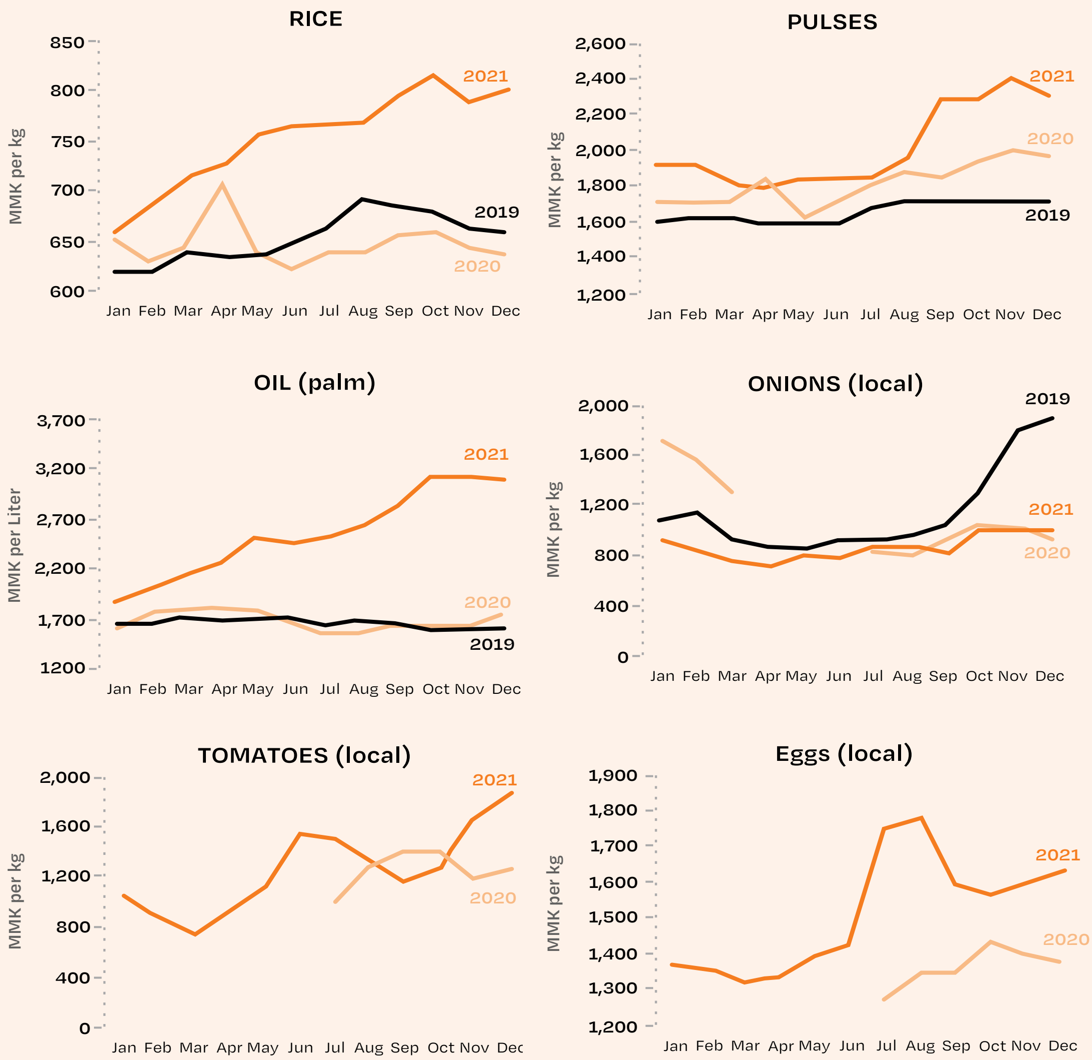
Source: World Bank estimates based on global food prices data from the World Food Programme available at data.humdata.org.

5 The selected food items are rice, cooking oil, vegetables and fruits, and animal products.

surge in the first half of 2021, the retail price of rice and pulses moderated their upward trend in the last quarter of the year. For rice, the changing projections on the harvested produce explain the variability in prices. The kyat depreciation against the U.S. dollar, steep increases in international prices, and higher transportation costs pushed the prices of imported foods, notably edible oils,[6] to record highs. The price of palm oil[7] remained above 3,000 MMK per liter in Q4 2021. Supply disruptions and stock shortages of vegetables and fruits led to higher prices, especially for tomatoes, during Q4 2021 (WFP 2021b). For onions, variable local production patterns and high transportation costs contributed to high price variations across regions and states. For animal products, retail prices

FIGURE 10

Average retail prices of selected food items during recent years



Source: World Bank estimates based on global food prices data from the World Food Programme available at data.humdata.org.

6 Myanmar imports around 700,000–800,000 metric tons of palm oil annually to meet domestic consumption.

7 Palm oil is the dominant edible oil in Myanmar, and Indonesia and Malaysia are its main suppliers. For more information, see the website of the Malaysian Palm Oil Council at [https://mpoc.org.my/myanmar-malaysian-palm-oil-opportunity-in-the-land-of-gold/.](https://mpoc.org.my/myanmar-malaysian-palm-oil-opportunity-in-the-land-of-gold/)

have increased leading to lower household consumption.[8] For imported animal products, such as broiler meat, the kyat depreciation has also put upward pressure on prices.[9]

In parallel with the overall increase of food prices, the high price volatility of some food items adds more uncertainty and weakens the stability dimension. Although prices have surged overall, the volatility of food prices deserves particular attention (appendix C). As prices went up for grains and pulses, their volatility moderated considerably compared to previous years. As prices skyrocketed for palm oil, volatility remained mostly unaltered with episodic events of higher volatility, as seen between the first and second waves of COVID-19. Volatility increased in parallel in tomato prices, while onion prices exhibited a pattern of seasonal volatility. Overall, perishable products, including eggs until September 2021, exhibited substantial volatility over the year, with domestic prices heavily dependent on the quantity of local production and the ability of producers to access markets within Myanmar and abroad in reasonable time.

8 Following a slight decrease at the beginning of 2021, egg prices approached 1,800 MMK for 10 eggs in July 2021. After a brief trend correction, the levels during the last quarter of 2021 remained above their levels during the previous year.
9 The prices for broiler meat increased nearly 20 percent between August and September 2021 (USDA 2021).

04 Agricultural Credit

The multiple crises brought on by COVID-19 and the military coup have disrupted Myanmar's financial system, significantly affecting the agriculture sector and in particular agribusinesses. During the pandemic, due to the movement restrictions, MFIs and banks were unable to visit their clients for repayment collection nor to expand their operation as planned prior to the pandemic. Within days of the military coup, banks, microfinance institutions (MFIs), and mobile wallet providers began to impose daily, weekly, and transfer-out limits to manage the flows and to ensure they had enough reserves left. During the WB agribusiness key informant interviews, agribusinesses responded to these financial challenges by undertaking transactions and management based principally on cash.

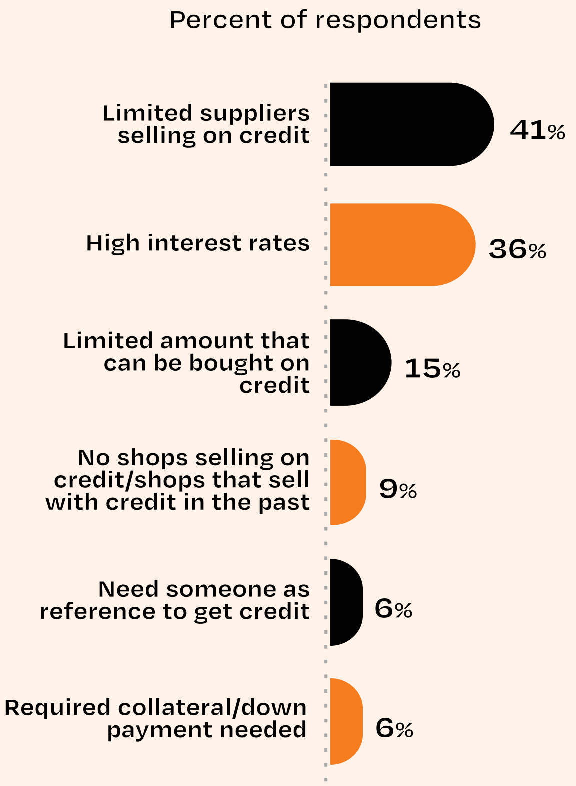
Similarly, farmers are facing liquidity challenges driven by cash and credit constraints against the backdrop of costlier inputs. The crisis in the banking system has adversely impacted the agriculture sector, constraining credit availability and leading to a higher share of cash-based payments, which are also limited and not to exceed 20 million kyats per purchase.[10] Two IFPRI-led phone surveys conducted during September 2021 also found that the banking system disruptions remained the main obstacle for 55 percent of input retailers and for 70 percent of rice millers (IFPRI 2021c, d).

Limited access to credit remains a major problem among farm households. The World Bank Farmer Survey found that among those reporting issues with credit from suppliers, 41 percent reported that there are fewer suppliers now selling on credit, 36 percent found higher interest rates, and 15 percent indicated the amount of credit available was insufficient (figure 11).

10 Notification No. 43/2021 was issued by the Central Bank of Myanmar on November 3, 2021. For more information, see the mitv website at https://www.myanmaritv.com/news/payment-issue-central-bank-myanmar-issues-notification.

FIGURE 11

Households reporting issues in getting credit from input

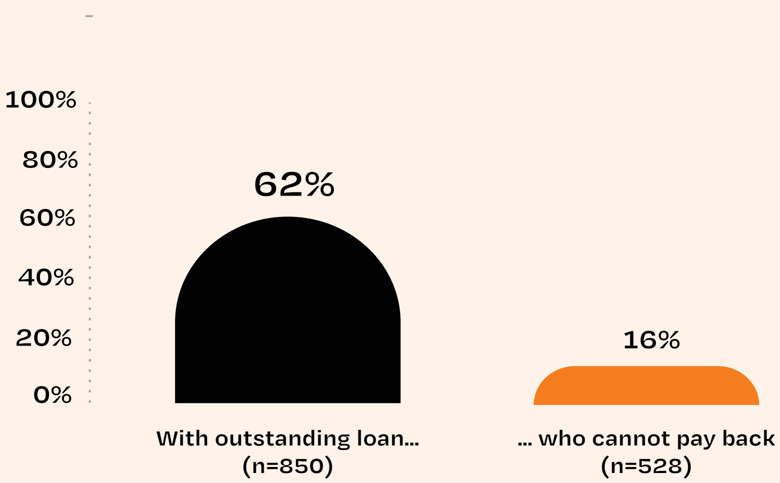


Sources: World Bank estimates using data collected from the survey of farmers conducted in December 2021.

Among the respondents, 62 percent reported having a current loan. And among those with a loan, 16 percent said that they are unable to repay their loans (figure 12).

FIGURE 12

Percentage of households with outstanding loans and unable to repay them



Source: World Bank based on data collected from the survey of farmers conducted in December 2021.

Microfinance institutions

MFIs have been affected by liquidity constraints and a decline in asset quality since the COVID-19 pandemic and the military coup. After the first wave of COVID-19 in Myanmar (March–August 2020), nonperforming loans (NPLs) increased, but were still manageable at 3 to 4 percent of total loans. However, by December 2020 (during second wave of COVID-19), NPLs had spiked to 9.6 percent—a historic high point in the sector—and then nearly tripled to 25.3 percent within the following 5 months (January–May 2021) because of the political unrest (MMFA 2021).[11] MFIs rescheduled loans during these periods, but then faced liquidity problems to issue new loans. The sector analysis indicated a steep upward trend throughout 2021 in overdue loans (MMFA 2021).

According to key informant interviews conducted with 10 agri-focused MFIs from December 2021 to January 2022 (henceforth referred to as the WB agri-finance key informant interviews), repayment rates are recovering in Ayeyarwady and Yangon since 2020 when the first and second waves of COVID-19 hit the finance sector. However, in Magway, Sagaing, and Shan (South), the repayment rate remains low and, in some cases worsening, aggravated by the increasing insecurity situation (table 2).[12] The MFI staff in these townships, especially in Sagaing, are finding it difficult to reach out to farmers to collect payments due to the deteriorating security situation. Loan disbursements of MFIs significantly decreased due to liquidity constraints and operational difficulties in 2021.[13] Some agri-focused MFIs reduced loan amounts for agricultural clients in May, June, July, and August 2021, according to key informant interviews. In addition, some MFIs have formally issued lender requests for lower rates as well as reduced or restructured debt service payments. Due to financial and operational difficulties, some report they started to scale down their operations and reduce staff.

TABLE 2

Repayment rate by state and region based on interviews with agri-focused microfinance institutions

Region/States	Township	2020	2021
Ayeyarwady	Bogale	50–60%	70–75%
	Maubin	50–60%	50–60%
	Myaungmya	70–80%	80–90%
	Pathein	70–80%	80–90%
	Pyapon	50–60%	70–75%
	Wakema	70–80%	80–90%
Magway	Magway	90–100%	80–90%
	Myaing	90–100%	80–90%
	Yesagyo	90–100%	70–80%

11 The survey was conducted with 141 microfinance institutions (MFIs) out of 188 MFI members of the Myanmar Microfinance Association.
12 The World Bank conducted key informant interviews in the agriculture finance sector, from December 2021 to January 2022, with 10 MFIs having a focus on agricultural loans and 2 agri-focused commercial banks.
13 Speech by general director, Financial Regulatory Department, at the Annual General Assembly on December 22, 2021.

Region/States	Township	2020	2021
Sagaing	Budalin	90–95%	50–60%
	Monywa	90–95%	30–40%
	Shwebo	90–100%	60–70%
	Wetlet	90–100%	30–40%
Shan	Hsipaw	80–90%	70–80%
	Hsiseng	90–100%	90–100%
	Kyaukme	90–100%	70–80%
	Lashio	80–90%	70–80%
	Nawnghkio	90–100%	70–0%
	Taunggyi	60–70%	50–60%
Yangon	Dala	80–90%	60–70%
	Kungyangon	40–50%	70–80%
	Kyauktan	40–50%	70–80%
	Thanlyin	40–50%	70–80%
	Twantay	40–50%	70–80%

Source: World Bank estimates based on key informant interviews with agri-focused MFIs.

Agriculture-focused commercial banks

Stalled cash circulation, lower disbursements rates, security concerns and the uncertain situation pushed agriculture focused commercial banks to curtail their agriculture lending.[14] With a ratio of on-time full payment customers in 2021 below the 2020 value, banks reported that they had limited resources to increase their disbursements during the past year or at least at a lower amount compared to 2020. Like MFIs, banks are also facing a problem of poor repayments. The situation is more serious in the Sagaing region where violence and insecurity likewise hinder bank staff in reaching farmers and collecting repayments. For non-performing loans, banks are dealing with clients in financial difficulty on a case-by-case basis and working on rescheduling or restructuring debt. It was also reported that banks stopped lending to new customers, to poor repayment customers, and in high-risk or potentially high-risk areas. Like MFIs, banks interviewed also reported they cut staff salaries and reduced operational expenses.

14 Based on the key informant interviews in the agri-finance sector conducted from December 2021 to January 2022.

Myanmar Agriculture Development Bank

It is likely that disbursements and the repayment rate of the Myanmar Agriculture Development Bank (MADB), the largest agricultural lender in the country, have also declined, according to anecdotal evidence.[15] The COVID-19 Economic Recovery Plan Committee initiated a loan program on April 9, 2020. It was initially slated to only last 1 year with a 1 percent interest rate. In 2021 on March 17, the State Administration Council (SAC) directed an extension of 6 months. On September 11, it directed another 6-month extension commencing in October to enable businesses to run smoothly while facing difficulty in paying back loans.[16] According to interviews with farmers, some of them have intentionally avoided repayments as part of the civil disobedience movement (CDM).[17] MADB does not extend loans to farmers who did not repay their last loans in full. Hence it is likely that some of farmers did not have access to new MADB loans.

15 As of early 2022, information on disbursement and repayment rates subsequent to the 2020 monsoon are not officially available.
16 According to the Global New Light of Myanmar, September 12, 2021.
17 Based on the key informant interviews in the agri-finance sector conducted from December 2021 to January 2022, with 10 MFIs having a focus on agricultural loans and 2 agriculture-focused commercial banks.

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5. Conclusions, Emerging Issues, and a Way Forward

The agriculture sector faces immediate and medium-term risks with new conflict dynamics.

Armed conflict, multiple waves of COVID-19, and a fragile political situation have impacted agricultural production in Myanmar. Increasing production costs have driven farmers to reduce the application of critical inputs, and in some cases, reduce cultivated areas. Farmers are struggling with both getting a good market price for their products and finding reasonable and reliable transportation channels for their output. Many farmer respondents reported that their income has decreased since March 2020 and has not yet recovered.

Local conflict dynamics have varied regionally across Myanmar and have become more severe after the military coup. States and regions such as Chin, Kachin, Kayah, Kayin, Magway, Sagaing, Shan (North), and Yangon have experienced more severe conflict-dynamics. Because of security concerns, various agriculture related services, including agricultural finance services, have been negatively impacted. Disruptions in global commodity markets resulting from the war in Ukraine are likely to raise fertilizer and fuel prices and in turn adversely affect agricultural production.

Food security is deteriorating, with variation seen across regions and states.

Food security is a matter of rising concern, with substantial regional variation across Myanmar. The multiple crises have worsened the pre-existing situation in areas already suffering from high levels of food insecurity, as measured by a high prevalence of food insecure households, malnutrition as measured by stunting in children under 5 years of age, and poverty rates. The crises have squeezed farm household incomes and reduced economic access to food. Households are adopting various coping strategies to respond to the food insecurity situation, including obtaining loans, selling assets and equipment, engaging in additional income-generating activities, and reducing food consumption or number of meals. Growing evidence shows troubles in urban areas, where consumption coping strategies show stark differences between informal and formal settlements. Some household migrate for employment alternatives elsewhere, locally or abroad. Other strategies include eating less or getting assistance from friends and relatives.

The war in Ukraine is likely to continue to impact the stability dimension of food security in Myanmar through higher fuel prices and trade flow disruptions. While food prices generally stabilized by the end of 2021, they remain higher than previous years, with steeper price increases for imported food, particularly palm oil.

Moving forward

Supporting short-term food availability and access with a focus on conflict-affected areas

Myanmar's health, economic, and political crises have had devastating and compounding impacts on human development. These are especially visible in the nutritional and developmental status of children and the increased vulnerability of women to care for themselves and their children. It would be important to prioritize support through food and emergency aid to address urgent food security risks especially among the most food insecure and vulnerable households located in conflict-affected areas and where food consumption is currently insufficient. Digital solutions offer one avenue for facilitating food and cash distribution. These technologies can facilitate market linkages between farmers and buyers, and the delivery of food and cash assistance and there is room to build from on-going experiences in the country. WFP, for example, has employed digital tools in its peri-urban program to register beneficiaries. A few private sector actors are applying digital registration systems to facilitate transactions with vegetable sellers and local resident buyers.

Supporting crop and livestock production of smallholder farmers

At the same time, it is important to continue the development efforts to sustain the improvements in agriculture productivity and livelihoods of small-scale farmers, particularly women farmers. This could be achieved through fostering productive partnerships between farmers who are organized into groups and the private sector, and enabling better access by smallholder farmers to high quality and affordable agricultural inputs, such as seeds, fertilizers, and herbicides; to services including mechanization and extension; to finance through credit and lending; and to training. Voucher and cash transfer schemes have proved to be efficient instruments to ensure and enhance broad, well-targeted temporary access to inputs.

Digital solutions can help facilitate better input supply and improve productivity. Mobile wallet, QR codes, and other available technologies could be used for e-voucher programs that aim to cover the input costs of seeds, fertilizer, and the rental of land-leveling and harvesting machinery. These programs act as a subsidy to offset spikes in input pricing. More specific areas of support could include training farmers on improved farm management and appropriate input use that reduces yield gaps; promoting improved agricultural practices to increase food quality and compliance with food safety standards; and improving agricultural value chain integration. Digital technology can also be leveraged to provide agronomic and related extension services (e-extension) to farmers in remote and conflict-affected areas. The use of online-offline communication technologies, such as community videos, has been shown in many countries (e.g., India, Nepal, Kenya, Ethiopia) to have a significant impact in disseminating best agronomic practices and advisory services to farmers. This is especially important for women to provide them with information on fertilizer use, seed recommendations, and trading of finished goods.

Supporting agribusinesses and other value-chain participants

The private sector is the main supplier of the wide array of inputs and services in Myanmar, thus fostering the growth and development of private agribusinesses, banks, MFIs, and nongovernmental organizations engaged in supporting farmers is essential. Enabling them to operate effectively helps farmers to stay productive and in business. In this regard, there is a need to address the liquidity constraints for agriculture finance faced by MFIs and ensure technical assistance to support them. Ongoing efforts to provide support for loan restructuring, debt rescheduling, or adjustments to loan covenants should be strengthened. Broad-based technical assistance to MFIs can enhance their capacity to provide clients with flexibility on loan repayments. These could include fostering the use of new technologies that enable operational flexibility at a time of constrained mobility and security challenges such as digital payment systems or programs for digital literacy support to staff and clients. The full recovery phase will also require access to additional financing injections so that MFIs can more effectively restart lending operations (IFPRI 2022b) to address liquidity issues around input procurement by farmers, building on their existing input support and voucher programs.

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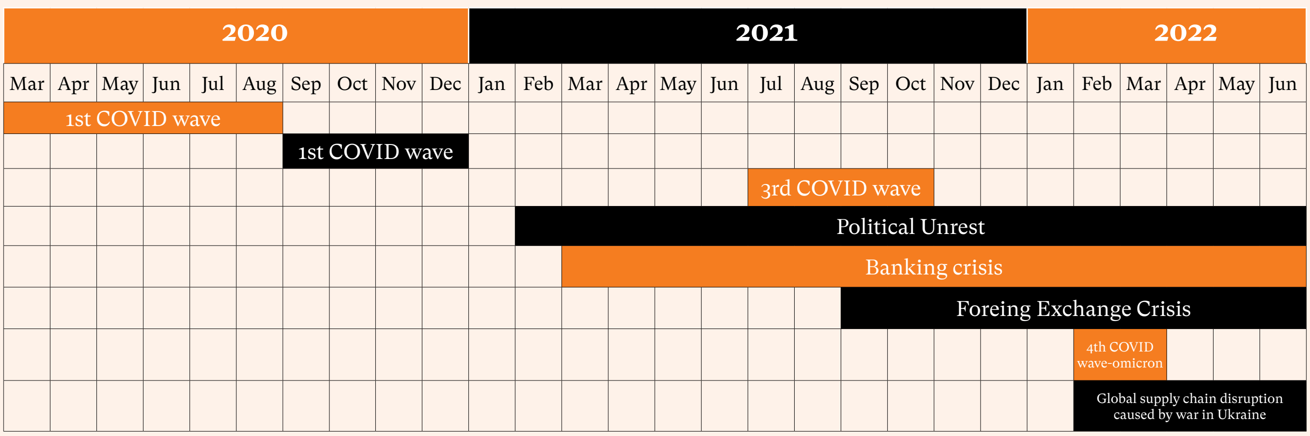
Appendix A

Methodological Notes

Definition of “multiple crises”

In this report, multiple crises (or crises) are defined as a succession of crises from early 2020 which Myanmar has experienced; the multiple waves of the pandemic, political and economic unrest in the wake of the military coup in February 2021, and disruptions to global commodity markets caused by the war in Ukraine. The calendar below describes these events.

Crisis calendar March 2020-June 2022



The report draws on primary sources of data and information as well as secondary sources that provide additional background for interpreting the results from primary data (box A.1). The report builds on various sources, including farmer phone surveys; key informant interviews with representatives of the agribusiness and agrifinance sector; desk review and analysis of secondary data on agriculture sector (e.g., production and area) and food security; conflict analysis and mapping; data on market prices from the World Food Programme (WFP) and the Food and Agriculture Organization (FAO) including its Global Information and Early Warning System; and the Development Economics Vice Presidency of the World Bank.

BOX A.1.

Method and Data Sources

Farmer phone surveys

A farmer phone survey, commissioned by the World Bank, was conducted by Myanmar Survey Research, December 14–30, 2021. Its aim was to assess the food and agricultural sector situation in Myanmar and to understand the impact of the COVID-19 pandemic and the military coup on the livelihood and food security of farm households. The survey covered a sample of 850 respondents from farm households in states and regions. The number of interviews completed is proportional to the rural population in each of those states and regions. The survey questionnaire included mostly close-ended questions asking farm households to assess their food security, livelihood, and income situation, taking into consideration the impact of the COVID-19 pandemic and military coup.

The survey was conducted by phone, which creates a sampling bias as only households with mobile phones were included in the sample. Mobile phone penetration is under 90 percent. It is possible that the survey approach, using computer-assisted telephone interviewing, has excluded a proportion of vulnerable households who cannot afford a mobile phone or reside in remote areas without mobile network coverage. Since the farmer phone survey was conducted in the second half of December, the monsoon paddy harvest and marketing would not have been completed. Evidence obtained also needs to be assessed in this light.

Key informant interviews

To understand the impacts of the COVID-19 crisis and the political instability on the activities in the agribusiness and agrifinance subsectors in Myanmar, the World Bank commissioned key informant interviews. They aimed to collect information directly from stakeholders from both subsectors through in-person or virtual (by phone, video, or audio-call) interviews, depending on the specific circumstances and the security concerns affecting each interviewee. For both sets of interviews, the preferred instrument was a survey with open-ended questions.

Agribusiness and agri-service providers. The interviews of agribusiness and agri-service providers targeted representatives of 12 agribusiness associations and federations and 12 agribusiness companies and traders. They were conducted by Myanmar Marketing Research and Development both through the telephone and in-person during December 2021 and January 2022. The targeted agribusinesses covered the value chains of selected commodities, including rice, beans and pulses, maize, vegetables, dairy, and fishery. The areas of interest during the interviews included the status and performance of agriculture-related logistics and transport enterprises agribusinesses, agri-processors, food retailers, wholesalers, and exporters; the constraints faced by fertilizer and other input suppliers; and agriculture trade (i.e., export and import, including border trade).

Agri-focused microfinance institutions (MFIs) and banks. The interviews targeted representatives from 10 MFIs and from two commercial banks, in both cases with a focus on agricultural sector. The interviews were conducted by phone from December 2021 to January 2022 with the department managers and senior management of the finance institution. The key questions revolved principally around their: agriculture lending portfolio (i.e., terms, conditions, trends, targeted sectors); disbursements, repayment schedules, and refinancing trends; staffing; impact of liquidity constraints; revised business strategies; nonfinancial services, insurance, and digital payment; and new official regulations and administrative decisions.

Desk review and analysis of secondary data

The study used secondary data from two main sources: a desk review to compile agriculture-related news from various sources and an analysis of official data on agricultural production and area. The desk review focused on news and events relevant to the agriculture sector reported in online websites by media, journals, and newsletters from government agencies, ministries, private sector professional associations, and international organizations and agencies from September to December 2021. The desk review covered the multiple stakeholders along the agricultural value chains which included input suppliers, farmers, agribusinesses beyond farm gate, banking sector and finance institutions (including MFIs), professional and sector associations, ministries, and government agencies, as well as various public policies and regulations relevant to the sector.

The secondary data relevant to agriculture and food security was used to analyze the status of food security, unemployment, and production performance of the crops livestock and fishery sectors. The main sources for this analysis were official datasets and reports from academic research by Myanmar institutes and various international organizations—FAO, International Food Policy Research Institute, Mercy Corps, United Nations High Commissioner for Refugees, United Nations Office for the Coordination of Humanitarian Affairs (OCHA), U.S. Department of Agriculture, WFP, and World Bank. The analysis of food security and livelihoods included a literature review and was conducted between July and December 2021..

Use of conflict analysis and mapping

The study also conducted a conflict analysis to look at the impact of conflict on agriculture incomes, food security, food accessibility, and harvest in both conflict-affected and non-affected areas. Geospatially explicit information on events related to conflict and several conflict-related casualties were used to build conflict intensity maps. They were used as the basis to estimate the burden of armed conflict on the food insecurity situation in Myanmar by crossing checking data from them with indicators on food security, food prices, agricultural production, and input supply for farmers in townships with armed conflict. Besides cross-referencing data from the survey of farmers, the sources for the conflict analysis were data from the Township-based Conflict Monitoring System of the Myanmar Institute for Peace and Security on the location (township), number of deaths from armed conflict, and the number of events related to armed conflicts from January 2015 to October 2021 (see appendix B).

Price analysis

The food price analysis focused on yearly trends from 2019–21 and month-on-month and annual changes in prices during the last quarter of 2021 nationwide and across states and regions. These calculations relied on the estimates for Myanmar in 2021 by the Development Economics Vice Presidency of the World Bank working on prices in fragility, conflict, and violence settings; and the price datasets used by the WFP to elaborate the monthly price monitoring reports, including data from 2019 to 2021, which are available on the OCHA Humanitarian Data Exchange website.

Appendix B

Methodology for Conflict Intensity Mapping

To build conflict intensity maps, the World Bank Agriculture Team used information from the Township-based Conflict Monitoring System (TCMS) of the Myanmar Institute for Peace and Security on the location (township), number of deaths from armed conflict, and number of events related to armed conflicts from January 2015 to October 2021.

Two variables were primarily used for conflict intensity mapping: (i) conflict intensity at the state and region level; and (ii) conflict intensity at the township level. A categorical variable, called conflict intensity, was developed that looked not only at the distribution of number of deaths but also at the number of conflict-related events in a state, region, or township in that year (tables B.1 and B.2).

Two continuous variables—total deaths in a township in 2021 and total conflict events in a township in 2021—were cut into buckets that are defined by quantiles of the variables. Maps offer a glimpse of the conflict situation in Myanmar from 2019 to 2021, both at the township level and the state and region levels.

TABLE B.1

Conflict intensity variable descriptions

Level	Variable Name	Variable Definition
Township	Conflict intensi-ty at township level	No conflict (10th percentile): death and events are 0.
		Mild conflict (25th percentile): death is 1; events are greater than 4 and less than or equal to 4.
		Moderate conflict (50th percentile): death is greater than 1 and less than or equal to 6; events are greater than 4 and less than or equal to 12.
		Severe conflict (75th percentile): death is greater than 6 and less than or equal to 42; events are greater than 12 and less than or equal to 28.
		Very severe conflict (90th percentile): deaths are greater than 42 and events are greater than 28.

State	Conflict intensity at state and region level	Very mild conflict (10th percentile): death and events are 15 and 14, respectively.
		Mild conflict (25th percentile): deaths are greater than 15 and less than or equal to 24; events are greater than 14 and less than or equal to 94.
		Moderate conflict (50th percentile): deaths are greater than 24 and less than or equal to 149; events are greater than 94 and less than or equal to 168.
		Severe conflict (75th percentile): deaths are greater than 149 and less than or equal to 430; events are greater than 168 and less than or equal to 318.
		Very severe conflict (90th percentile and above): death and events are greater than 430 and 318, respectively.

Source: World Bank using variables defined by the TCMS.

TABLE B.2

Conflict intensity per state, region, and township with conflict presence, 2021

State or region	Conflict presence in townships	Conflict intensity in state or region
Chin	Hakha, Thantlang, Falam, Matupi, Kanpetlet, Mindat, Tedim	Very severe
Kachin	Waingmaw, Tanai, Mogaung, Puta-O, Momauk, Mohn-yin, Hpakant, Shwegu, Myitkyina, Mansi	Very severe
Sagaing	Yinmarbin, Homalin, Kawlin, Kani, Pale, Myaung, Shwebo, Sagaing, Pinlebu, Kanbalu, Monywa, Tigyaing, Chaung-U, Myinmu, Kale, Taze, Tabayin, Tamu, Wetlet, Katha, Mingin, Khin-U	Very severe
Kayin	Thandaunggyi, Hpa-An, Hpapun, Kawkareik, Kyainsei-kgyi, Myawaddy	Very severe
Shan (North)	Kyaukme, Namtu, Lashio, Hsipaw, Kutkai, Hseni, Muse	Severe
Magway	Tilin, Saw, Yesagyo, Gangaw, Pauk	Severe
Kayah/ Karenni	Bawlake, Demoso, Hpruso, Loikaw	Severe
Yangon	Shwepyithar, Hlaingtharya (East), Mingaladon, Insein, Tamwe, Dagon, Myothit (South), Sanchaung, Thingang-yun	Very severe
Mandalay	Natogyi, Amarapura, Madaya, Myingyan, Chanmyathazi, Mogoke, Sintgaing	Severe

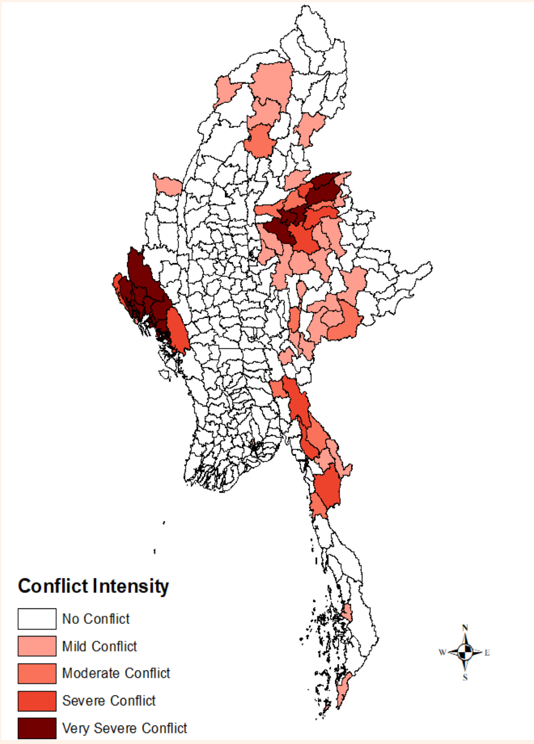
Source: Original calculations for this publication based on conflict data at the township level from the TCMS, January 2015 to October 2021.

Figure B.3 summarizes the changes in conflict intensity mapping from 2019 to 2021. Kachin, Kayah/Karenni, Magway, Mon, Sagaing, and Yangon Regions, formerly classified as "very mild conflict areas," have become "severe conflict" and "very severe conflict" areas since the coup.

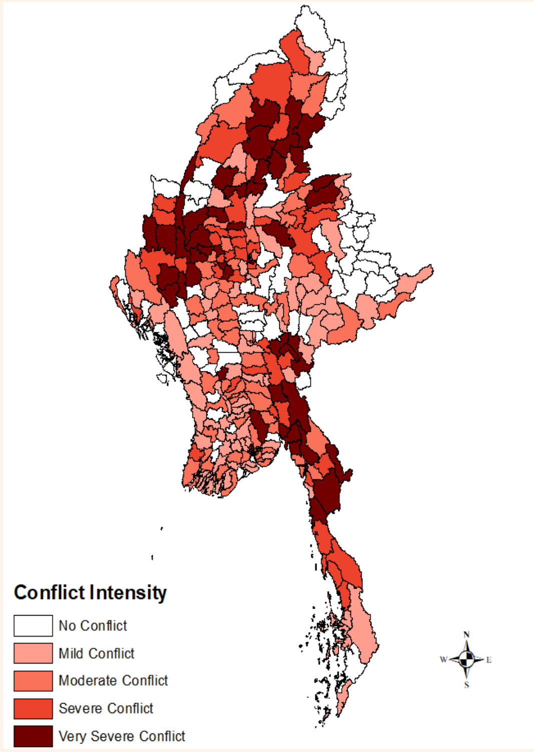
FIGURE B.3

Conflict intensity maps by township and per state and region

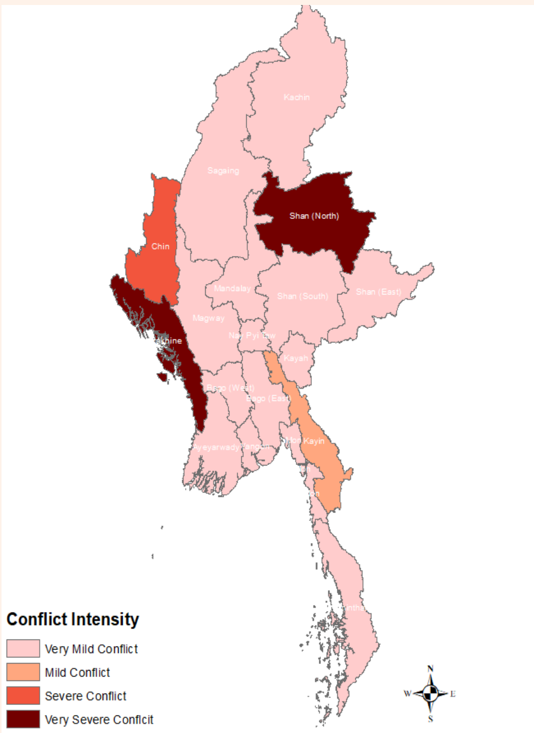
a. TOWNSHIP LEVEL, JANUARY–DECEMBER 2019



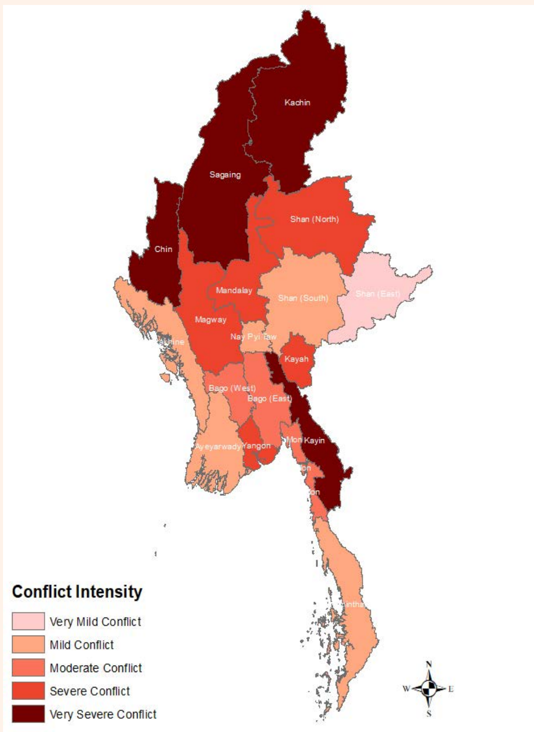
b. TOWNSHIP LEVEL, FEBRUARY–OCTOBER 2021



c. STATE/REGION LEVEL, JANUARY–DECEMBER 2019



d. STATE/REGION LEVEL, FEBRUARY–OCTOBER 2021



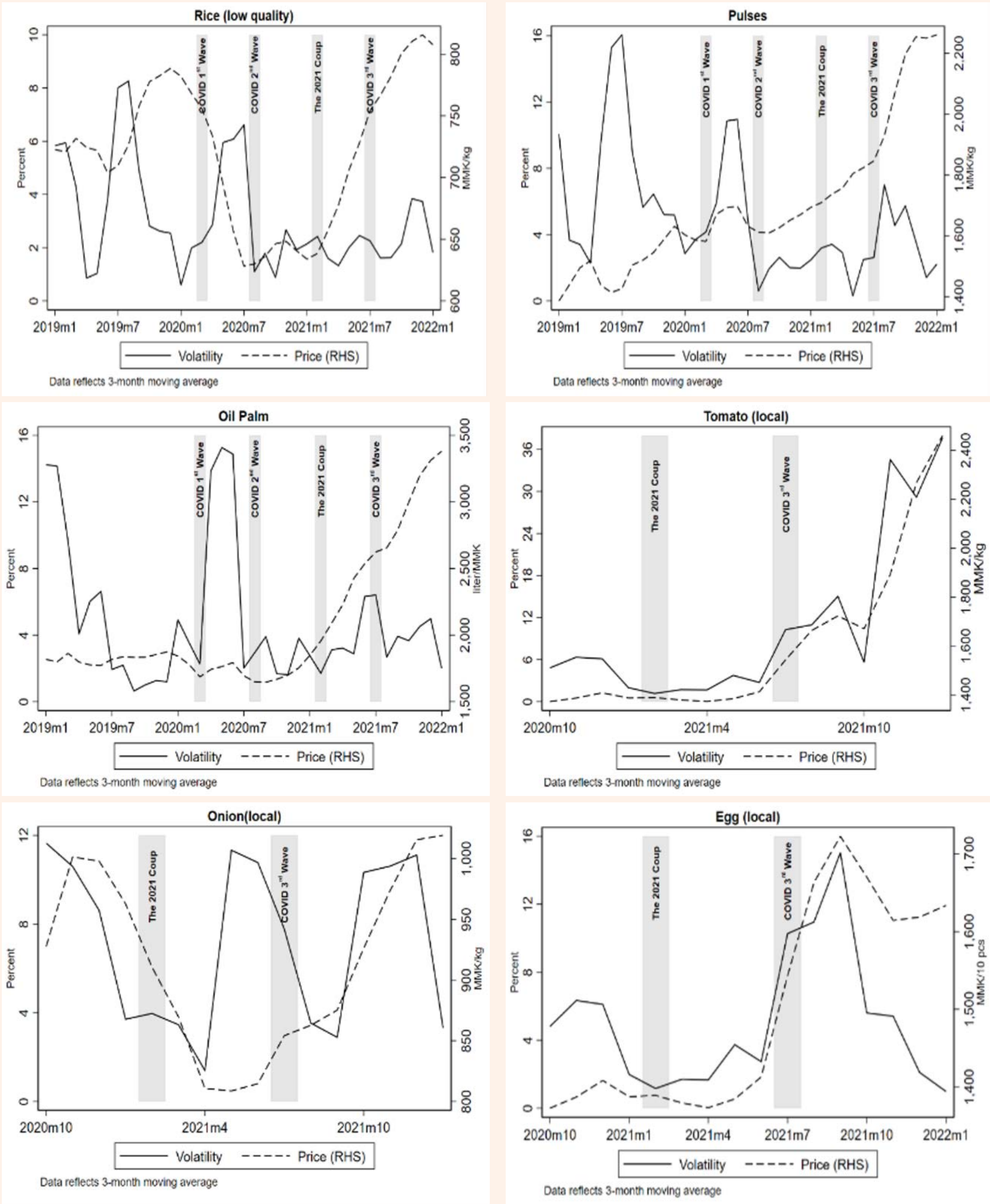
Source: Original calculations for this publication based on conflict data at the township level from the TCMS, January 2015 to October 2021.

Appendix C

Price Level and Volatility per Food Item

FIGURE C.1

Price level and volatility per food item over recent years



Source: World Bank estimates using global food prices data from the World Food Programme available at data.humdata.org.
Note: Volatility is defined as standard deviations of month-over-month changes on rolling 3-month and 6-month windows.

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