

PRICE SHOCKS

How COVID-19 is triggering
a pandemic of child malnutrition
and how we can stop it.

THIS MEANS THE WORLD

CONTENTS

Executive Summary	04
Price Shocks: The Human Cost	05
Price Shocks: The Numbers	06
COVID-19 and Food Systems	08
COVID-19 and Global Hunger	12
COVID-19 and Child Malnutrition	14
Price Shocks: The Global Picture	16
Price Shocks: The Regional Picture	18
Africa	18
Middle East	20
Pacific	22
Asia	24
Scoping Solutions: Food for Thought	26
Call to Action	30
References	33

“IT’S NOT TOO LATE TO PREVENT THE WORST OF THIS CRISIS”

- Food prices reach their highest in a decade as COVID-19 causes income collapse
- Healthy food now out of reach for billions worldwide as children bear the brunt
- Hunger killing more people per day than COVID-19
- Pandemic-related malnutrition could kill 250 children per day by the end of 2022

The world is on the brink of a child malnutrition pandemic. This is due to a perfect storm of sky-rocketing food prices, lower incomes, reduced nutrition services and disrupted food supply chains as a result of COVID-19.

But it is not too late to prevent the worst of this nutrition crisis. Together, governments, the private sector and non-government organisations (NGOs) can strengthen food supply chains and empower parents and caregivers with the economic tools they need to provide nutritious food for their households.

EXECUTIVE SUMMARY

COVID-19 is fuelling food price rises for the world's poorest.

In May 2020, global food prices reached their highest levels in a decade. Retail food prices are rising in almost every country, but their impact is greatest in poor countries where food costs account for a larger share of household budgets. Since the pandemic was declared – that is, between February 2020 and July 2021 – Australian food prices rose by an average of 3.5%. This was dwarfed by food price increases in Myanmar (54%), Lebanon (48%), Mozambique (38.3%), Vanuatu (30.9%), Syria (29.2%) and Timor-Leste (17.7%) – among people who can least afford it.¹

While food prices are increasing, so too is unemployment, putting nutritious food further out of reach for millions of families worldwide. Pandemic-related job losses and lower incomes are forcing millions of families to skip meals, opt for cheaper and less nutritious food, or go without food altogether. Developing countries are expected to lose more than US\$220 billion in income because of COVID-19,² which means there is less money to buy food at the same time that food (especially nutrient-rich food) is becoming more expensive and less available due to supply chain disruptions.

This perfect storm of rising food prices and reduced incomes is already contributing to growing global hunger. As many as 161 million more people faced hunger in 2020 compared to the previous year, a 25% increase from 2019.³ Most worryingly, more than 41 million people are currently suffering emergency levels of food insecurity and/or famine-like conditions due to a deadly mix of armed conflict, climate change and the socio-economic impacts of COVID-19.⁴

ALREADY, HUNGER IS KILLING MORE PEOPLE PER DAY THAN COVID-19

Acute hunger is estimated to kill 11 people every minute,⁵ compared to seven people dying from COVID-19 per minute.⁶

Children are most vulnerable to the hunger crisis that's worsened by COVID-19. This is because children have a greater need for nutrients, they become undernourished faster than adults, and they are at a much higher risk of dying from starvation. World Vision warns that reduced access to nutritious food could lead to a pandemic of child malnutrition in the wake of COVID-19, scarring the development of a generation of children.

By 2022, the nutrition crisis arising from COVID-19 could result in 13.6 million more children suffering from wasting or acute malnutrition.⁷ This is in addition to the 47 million children under five years of age who suffered from wasting (a severe form of acute malnutrition) in 2019, before the onset of COVID-19.⁸

Now is the time to act. The Australian Government has shown leadership in the face of previous food crises such as the Horn of Africa famine in 2011-12. Now COVID-19 is making the situation even worse, making it even more important for Australia to once again 'turn up' on the international stage.

To help prevent the worst of this nutrition crisis, we call on the Australian Government to:

- 1. Urgently deliver a \$150 million package to prevent famine in at-risk countries in Africa and the Middle East.**
- 2. Lead a global, multi-country effort to rebuild livelihoods for the poorest and hardest hit by COVID-19 so vulnerable families can afford nutritious food.**
- 3. Invest \$100m in a flagship initiative to address child stunting in the Pacific region.**

Together, the private, public and NGO sectors can strengthen food supply chains and empower parents and caregivers with the economic tools they need to provide nutritious food for their families. A pandemic of child malnutrition cannot occur on our watch.

PRICE SHOCKS: THE HUMAN COST



Annet and her family wonder where their next meal will come from because they can't afford food since COVID-19.
Photo: Brain Jakisa Mungu/World Vision

Food out of reach for pandemic-hit families in Uganda

Annet's family hasn't eaten in nearly 24 hours. Hunger has stripped her seven-year-old daughter Evelyn and her little brothers of their energy and smiles. There is no playing in this house.

She's on the veranda of their home trying to breastfeed her baby. She and husband James are wondering where their next meal will come from – and when it will be.

Evelyn's grandmother arrives at the door, a bundle of firewood balancing on her head. She had been gone for more than six hours.

"I went early. Sometimes I just want to be away from here because if I stay, the children will keep asking for what to eat," she says.

Magdalena might have found the firewood, but there is nothing at home to cook.

The family of 10 ate a small amount the day before.

"We now mostly depend on the neighbours to survive. We borrow food and beg for food sometimes. Sometimes they give it to us but sometimes they don't," she says.

"You cannot depend on neighbours the whole time. About a week ago, we spent four days without eating," she says.

Evelyn's father, who used to do manual labour to earn an income, says job opportunities are now hard to find. Before the COVID-19 pandemic, there was demand for farm and off-farm labour which would earn him up to UGX 10,000 a day (\$3.80), enough to buy food for a few days.

"It is sad to see that as a man I cannot provide for my family. The situation wasn't this bad before. The food was enough, and people would sell part of it to get money to pay us for the work we would do, but now, everyone is poor and hungry," James says.

Since COVID-19, food prices have risen an average of 21%. At the same time, the pandemic has caused the loss of livelihoods and income.

PRICE SHOCKS: THE NUMBERS

Global food prices are now at their highest levels in a decade

12 months

Global food prices rose for 12 months in a row from May 2019 to May 2021⁹

↑43%

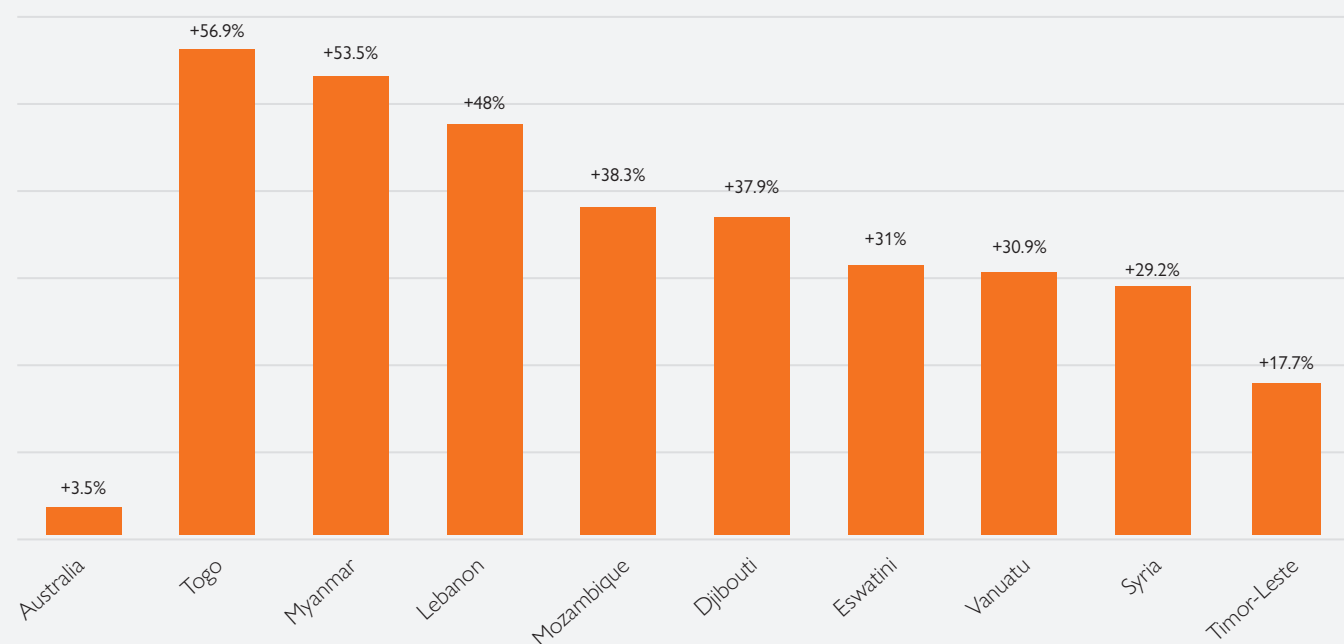
Maize prices are 66% higher than in January 2020, before the COVID-19 pandemic¹⁰

↑20%

Low-income countries reliant on food imports will see food import costs jump 20% in 2021¹¹

The cost of food has surged in many countries since COVID-19, but the poorest are hardest-hit

Food Price Increases (Feb 2020 - July 2021)¹²



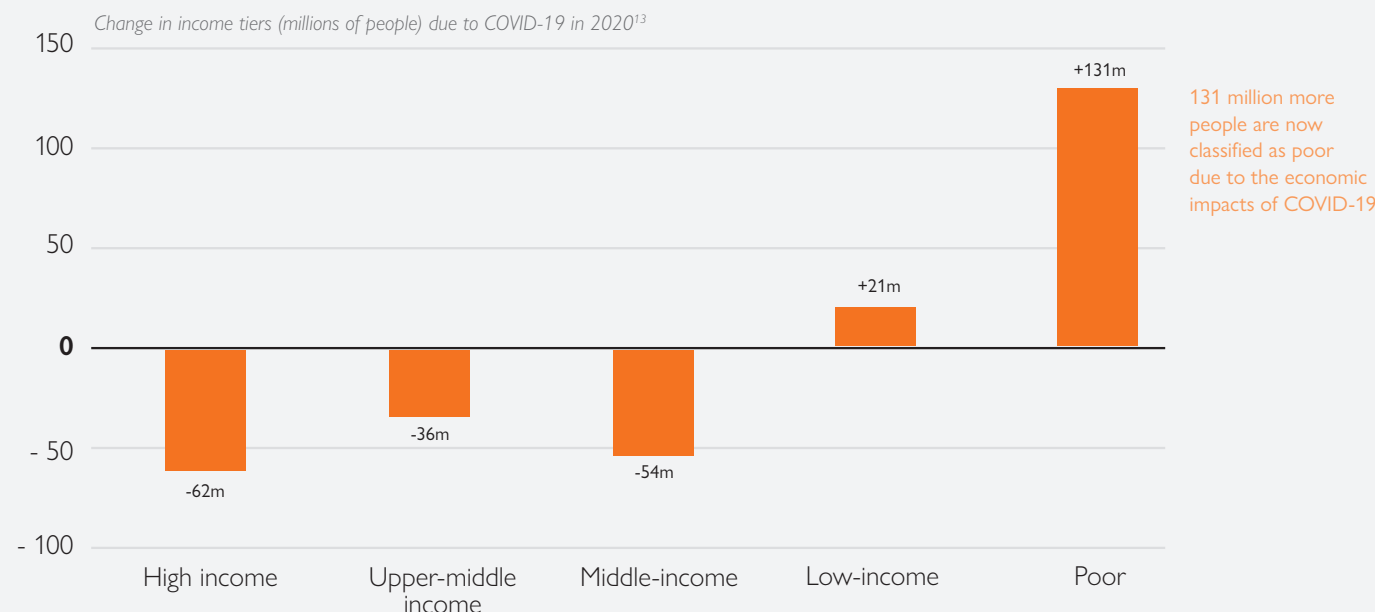
According to World Vision research, a food basket of ten common food items costs*

1 hour	of work in Australia	2 days'	work in Lebanon	6 days'	work in Chad
1 day's	work in Cambodia	3 days'	work in the Solomon Islands	6 days'	work in the Democratic Republic of the Congo
1.5 days'	work in Kenya	3.5 days'	work in Uganda	8 days'	work in South Sudan

The 10 common food items included sweet bananas, rice, wheat flour, raw sugar, corn cobs, eggs, cooking oil, a raw chicken, tomatoes and milk.

PRICE SHOCKS: THE NUMBERS

The sharp rise in food prices comes as the COVID-19 pandemic has pushed millions into poverty



HUNGER IS NOW KILLING MORE PEOPLE THAN COVID-19



11 people are dying every minute from lack of food (estimate)¹⁴



7 people are dying every minute from COVID-19 (actual)¹⁵

Combined, COVID-19 disruptions, rising prices and falling incomes are creating a children's crisis



370 million children missed out on school meals in 2020 due to COVID-induced school closures¹⁶



40% drop in coverage of essential nutrition services during COVID-19 pandemic¹⁷



250 children estimated to die per day from pandemic-related malnutrition by the end of 2022¹⁸

WITHOUT URGENT ACTION, COVID-19 AND ITS SECONDARY IMPACTS COULD CLAIM MILLIONS MORE LIVES AND SCAR A GENERATION OF THE WORLD'S MOST VULNERABLE CHILDREN.

COVID-19 AND FOOD SYSTEMS

COVID-19, FOOD SYSTEMS AND SUPPLY CHAINS

The pandemic came at a time when food systems were already under strain. Conflict, natural disasters, climate change, and the mega-spread of pests and plagues on a trans-continental scale preceded the COVID-19 outbreak. Many communities were already experiencing, or at risk of experiencing, food insecurity – and COVID-19 has made their situation so much worse. This is because measures to respond to COVID-19 – including physical distancing, school closures and country lockdowns – significantly disrupted the production, processing, transport and sale of food.

The COVID-19 pandemic created supply and demand shocks across food systems worldwide. Most people in the world source their food from local markets, which are highly susceptible to disruption. COVID-19 contributed to disruptions right along the supply chain, from affecting inputs (such as the availability of seeds for planting and labour for harvesting) to the processing and transport of food, to the sale of food. Perishable foods (such as fresh milk, fruits and vegetables, meat and fish) are more susceptible to disruption than other foods with a longer shelf life. Perishable foods, however, are far richer in nutrients. The figure below summarises how food systems have been significantly affected by COVID-19 and associated measures to limit the spread of the virus.

KEY POINTS:

- COVID-19 has disrupted almost every aspect of the food system – from hindering the transportation of food, to slowing harvests, to reducing the affordability of food, to causing more than 370 million children worldwide to miss out on vital school meals.
- Global food prices reached their highest levels in a decade during the COVID-19 pandemic.
- Food import costs are at record levels. Poor countries dependent on food imports are likely to see food import costs jump by 20% in 2021 alone.



LABOUR SHORTAGES

Movement restrictions and the health impacts of the virus led to widespread labour shortages across the food industry. Labour-intensive sectors such as livestock production, planting, harvesting, and crop processing have been most affected.¹⁹



REDUCED DEMAND

Widespread loss of income since COVID-19 means many families are not able to spend as much on food. In turn, less consumer spending on food means less income for workers across the food value chain. This triggers a downwards, reinforcing spiral.²³



DISRUPTED HARVESTING AND PLANTING

Planting seasons were delayed and, in some cases, missed altogether due to COVID-19 limiting or disrupting the supply of agricultural inputs such as seeds, fertiliser and animal feed.²⁰ This could lead to production shortfalls in the future.



REDUCED ACCESS TO MARKETS

Both producers and consumers suffered from reduced access to markets during lockdowns.²⁴ Individuals and households living in low-income areas often had a disproportionate lack of access to food outlets, including food delivery services.



INCREASED FOOD WASTE

Closed markets, lack of labour for harvesting/processing, and a lack of cold storage capacity has resulted in farmers having to dump milk and throw away fresh produce such as fruits and vegetables.²¹



INCREASED FOOD PRICES

Increased food prices: Low-income countries reliant on food imports are particularly vulnerable to rising food prices since COVID-19. These countries are forecast to see food import costs jump 20% in 2021.²⁵



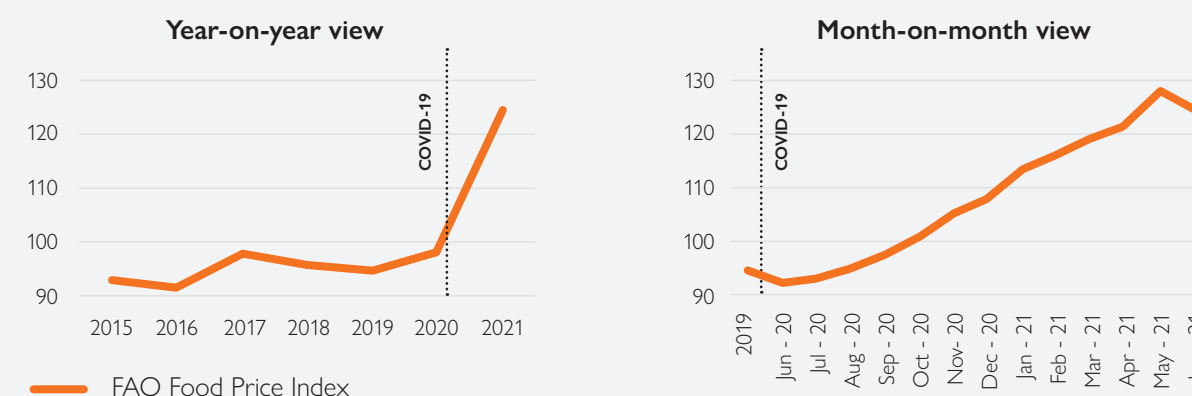
MISSED SCHOOL MEALS

School closures meant that 370 million children did not receive school meals in 150 countries during the pandemic. As a result, these children missed out on an estimated 39 billion in-school meals in 2020.²² For many children, a school meal was their most reliable source of nutritious food.

COVID-19 AND FOOD AFFORDABILITY

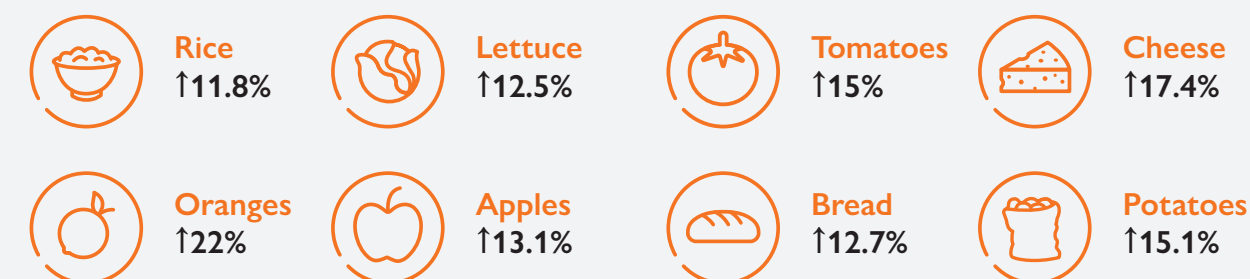
Global food prices have increased 30-40% since COVID-19. Between May 2020 and May 2021, food prices increased in every consecutive month. In fact, in May 2020, global food prices hit their highest levels in a decade, soaring 40% above the costs of a year earlier. While food prices fell for the first time in 12 months in June, 2021, they remained exceptionally high.²⁶ The Food Price Index – which tracks the global prices of meat, dairy, cereals, vegetable oils and sugar – has increased from 95.0 in 2019 (before COVID-19) to 124.6 in June 2021.²⁷ These increased prices are making a healthy diet unaffordable for millions of people.

Figure 2: Global food prices jump since COVID-19 (2016-2021)²⁸



Some commodities have been affected more than others. For example, the price of maize has skyrocketed 43% since January 2020, according to the World Bank.²⁹ The snapshot below provides a summary of other food price changes between February 2020, (before the pandemic declaration) and July 2021, showing price increases across the board.

Figure 3: Global food price increases since COVID-19³⁰



The massive rise in food prices is hitting food importers and low-income countries the hardest. Food import costs are expected to reach record levels in 2021. Low-Income Food-Deficit Countries³¹ such as Afghanistan, Bangladesh, Ethiopia and Burkina Faso are forecast to see food import costs jump 20% this year alone.³² These countries are already dealing with severe levels of food insecurity, a crisis worsened by the record-high food import costs.

But to what extent are these 'price shocks' related to COVID-19? The relationship between COVID-19 and food prices is not straightforward. The pandemic has put both downward and upward pressure on food prices. On the one hand, loss of income and rising unemployment due to COVID-19 lockdowns and movement restrictions have contributed to a fall in demand as families reduce their food intake, and this has the effect of reducing food prices. At the same time, however, COVID-19 has disrupted food supply chains and the availability of inputs such as seeds and

fertilisers, which has affected availability of food and increased the cost of production and transport, which in turn has increased food prices. Food import costs are rising, which creates greater demand for domestically-produced products. COVID-19 has contributed to both higher consumer prices and lower prices for producers, increasing food insecurity for both urban and rural poor.

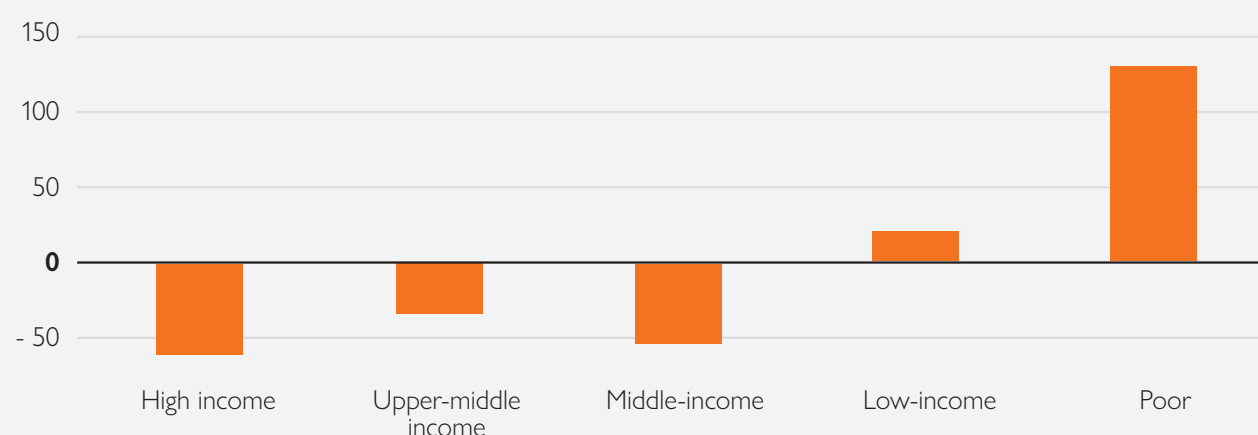
While the change in global food prices is concerning, the primary risk to food security and price inflation is at the country level. Retail food prices are rising in almost every country, but their impact is greatest for the most vulnerable in poor countries where food costs account for a much larger share of budgets (as much as 84% of median earnings in northeast Syria for the most basic of food items).³³ Countries that have experienced the greatest increase in hunger since the pandemic are those that have experienced multiple shocks – climate, conflict and economic shocks.

COVID-19 AND FOOD ACCESS

The sharp rise in food prices comes at the same time that the pandemic has triggered job losses and, in turn, the ability of millions to afford nutritious food. Developing countries alone are expected to lose more than US\$220 billion in income because of COVID-19.³⁴ As a result, around three billion people (40% of the world's population) cannot afford even the cheapest healthy diet.

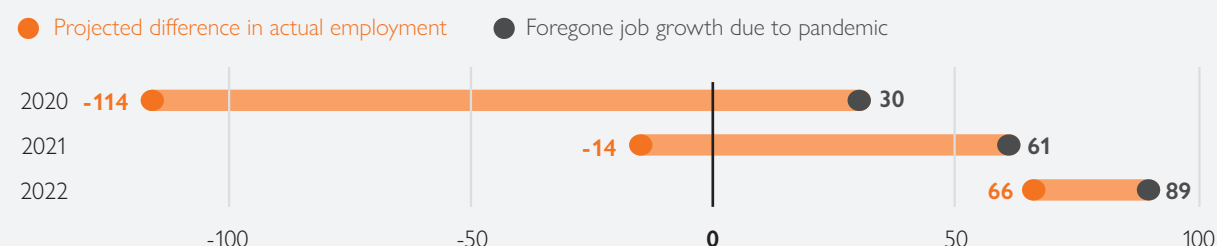
The Pew Research Center estimates an additional 131 million people are now categorised as “poor” due to the COVID-induced economic recession in 2020.³⁵ Millions of workers have fallen out of the global middle class (who live on US\$10-20 a day), and are now classified as “low income” (US\$2-10 per day) or “poor” (US\$2 or less per day) (see Figure 4). Seven countries (including Indonesia and Samoa) have fallen entire income groups since the pandemic, according to the latest World Bank classifications. The World Bank projects that the knock-on effects of COVID-19 could plunge 150 million into extreme poverty by the end of 2021.³⁶

Figure 4: Change in income tiers (millions of people) due to COVID-19 impacts in 2020³⁷



Pandemic-related job losses are a significant challenge for food affordability. The International Labour Organization forecasts global unemployment will reach 220 million people in 2021, up from 187 million in 2019.³⁸ Had there been no pandemic, the world would have created an estimated 30 million new jobs in 2020. Instead, as the graph below shows, 114 million jobs were lost in 2020 and a further 14 million jobs are expected to be lost in 2021. This includes both actual job losses from the knock-on effects of COVID-19 as well as lost job growth due to the pandemic.

Figure 5: Pandemic-induced global shortfall in jobs, relative to 2019 (millions)³⁹



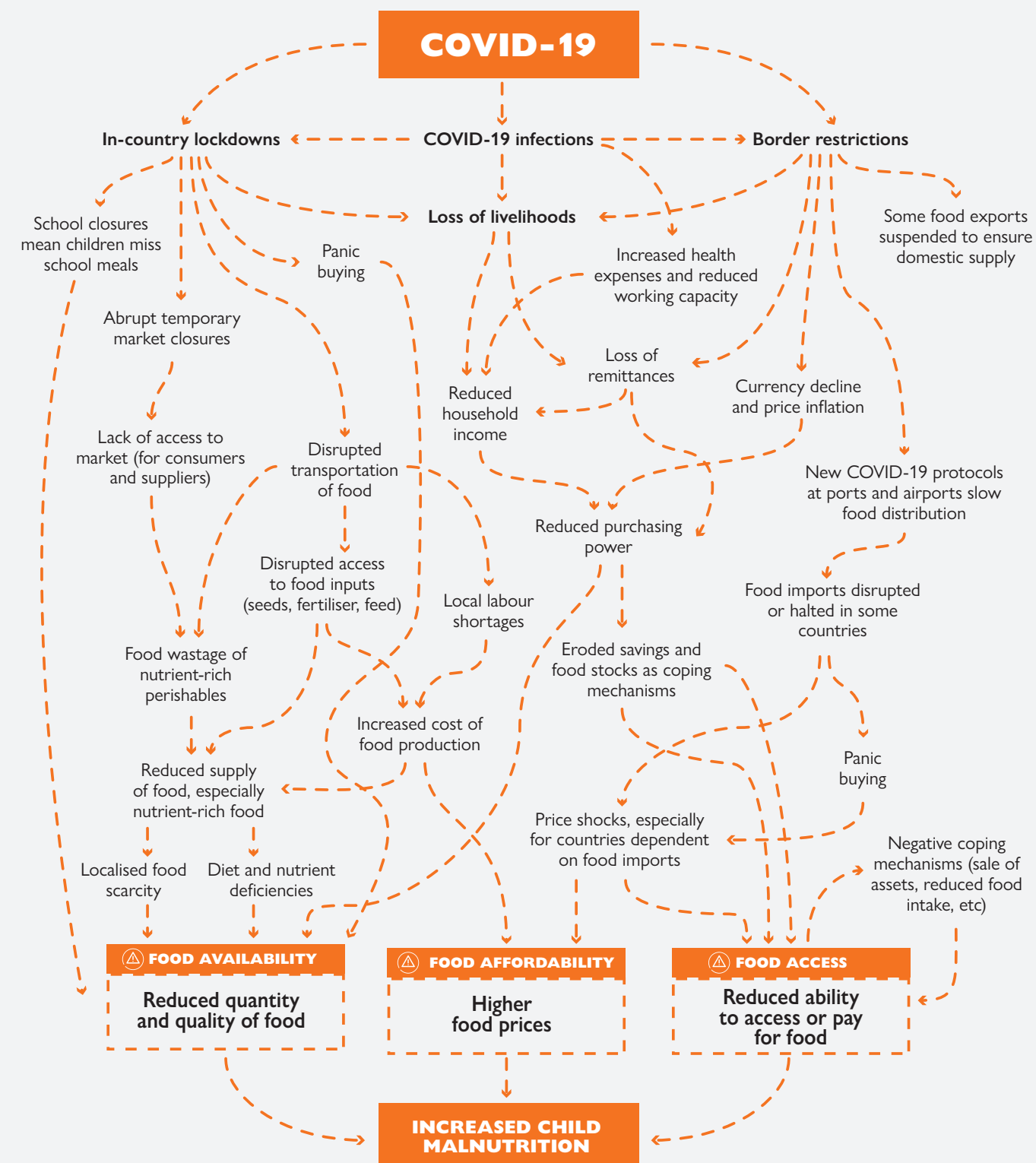
Note: The orange dots denote the projected difference in actual employment relative to 2019. The grey dots denote the development that would have been expected had there been no pandemic, hence showing foregone employment growth. The numbers inside the bar refer to the total pandemic-induced shortfall in jobs in a given year (that is, the shortfall due to the combination of the actual employment losses and foregone employment growth). Source: ILO estimates

Reduced incomes from COVID-19 are forcing millions of families worldwide to skip meals, opt for cheaper and less nutritious food, or go without food altogether. This is especially concerning for women and girls, who often eat last and less. Other families have resorted to child labour or child marriage to make up for lost income. Reduced expenditure on food leads to reductions in calorie intake but increases micronutrient deficiencies.⁴⁰ When combined with conflict and other shocks, this can lead to the most extreme form of food crisis, famine.

SYSTEMS VIEW OF COVID-19 IMPACTS ON FOOD

A systems lens can be very useful to understand how COVID-19 is affecting the food value chain through a combination of primary and secondary impacts. Because COVID-19 is negatively affecting so many aspects of the food system – including through reinforcing feedback loops – a systems lens is helpful to map out interactions and identify potential entry points and solutions. Each food system is, of course, unique to its geographical, cultural, political, and demographic context, so this systems map is intentionally high-level and looks at generic factors that have broad applicability rather than niche characteristics tailored to specific contexts.

Figure 6: Systems view of COVID-19 impacts on food availability, affordability and access



COVID-19 AND GLOBAL HUNGER

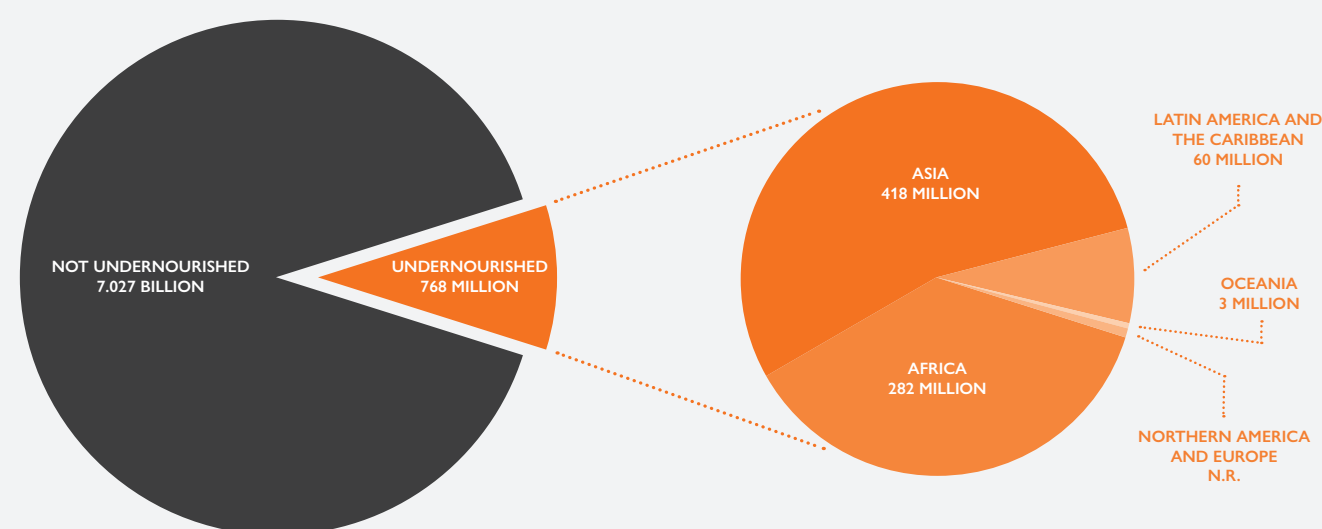
It is clear that COVID-19 is causing a global health and economic crisis, but many don't realise it is also triggering a global hunger and nutrition crisis. According to the latest State of Food Security and Nutrition report, world hunger increased in 2020 under the shadow of the COVID-19 pandemic:

- Between 720 and 811 million people in the world faced hunger in 2020 – as many as 161 million more than in 2019, before the pandemic. More than half of people affected by hunger in 2020 were in Asia and more than one third in Africa (See Figure 7).
- Three billion people (40% of the world's population) could not afford healthy diets in 2020.
- After remaining virtually unchanged for five years, the prevalence of undernourishment – an estimate of the proportion of the population facing serious food deprivation – increased 1.5 percentage points in just one year – reaching a level of around 9.9%.⁴¹

KEY POINTS:

- **World hunger is growing under the shadow of COVID-19. As many as 161 million more people faced hunger in 2020 compared to the previous year.**
- **One in three people worldwide have not had access to adequate nutritious food since COVID-19.**
- **More than 41 million people are currently suffering emergency levels of food insecurity due to a deadly mix of armed conflict, climate change and the socio-economic impacts of COVID-19.**

Figure 7: Snapshot of global hunger in 2020⁴²



Notes: Number of undernourished in millions. Projected values based on the middle of the projected range. N.R. = not reported, as the prevalence is less than 2.5 percent
Source: FAO.

The increase in the number of hungry people in 2020 was greater than the total increase over the past five years.⁴³

As explained in the previous chapter, high food prices combined with reduced incomes due to COVID-19 mean more nutritious food has become unaffordable for millions of households, who are forced to cut down on the quantity and quality of their food intake.

The nutrition crisis disproportionately affects women. At the global level, the gender gap in the prevalence of moderate or severe food insecurity has grown even further during the COVID-19 pandemic. The prevalence of moderate or severe food insecurity was 10% higher among women than men in 2020, compared to 6% in 2019.⁴⁴

The knock-on effects of COVID-19 on hunger and food security will be felt for some time. By 2030, projections are that 656.8 million people will be hungry. This is 6% higher than the number of hungry people in 2015, the year 193 governments committed to zero hunger in the context of the 2030 Agenda on Sustainable Development in 2015. By 2030, around 30 million more people will face hunger compared to a scenario in which the pandemic had not occurred.⁴⁵

SPIRALLING FOOD INSECURITY AMONG REFUGEES SINCE COVID-19

More than three-quarters (77%) of refugees and internally displaced people in eight countries cannot meet their food needs. This is according to World Vision's survey of 339 refugee and displaced households (representing 1914 people) in Brazil, Colombia, the DRC, Jordan, Peru, Turkey, Uganda, and Venezuela.⁴⁶ More than 70% of respondents reported an income drop, and 40% said they had lost a job, since the COVID-19 pandemic.

When asked about their top concerns for children based on their current context of COVID-19 and displacement, 37% of refugee and displaced households reported being concerned about food. Children's lack of access to food or poor diet was reported by respondents as the top concern for most refugees and IDPs in Colombia (67%), Venezuela (56%), and Peru (50%). In the DRC, nine out of 10 of those surveyed were unable to fully meet their food needs.

According to the World Food Programme, more than three million refugees across East Africa – 72% of the total regional refugee case load – face ration cuts of between 10-60%.⁴⁷ Less than a third continue to receive full food rations (2100 calories per person per day).

COVID-19 AND ACUTE FOOD INSECURITY

The World Food Programme estimates 272 million people are already – or are at risk of becoming – acutely food insecure due to the aggravating effect of the COVID-19 crisis.⁴⁸ Of those, 41 million people in 43 countries are at the 'emergency' phase of food insecurity in 2021, just one step away from a declaration of famine.⁴⁹ Of greatest concern are the 584,000 people currently living in famine-like conditions in parts of Africa and the Middle East.

While conflict is the main driver of emergency levels of food insecurity, the impacts of COVID-19 on food supply chains and logistics and the affordability of food are exacerbating already high levels of acute food insecurity in the most fragile regions of the world. Rising food prices are hampering the work of agencies to provide emergency food packages. For example, in the first four months of 2021, the World Food Programme had to pay 13% more for wheat than it did in the previous year.⁵⁰ World Vision has declared a multi-country emergency response for Ethiopia, Somalia, South Sudan, Sudan, Kenya and Uganda and aims to reach about 2.4 million people with emergency support, including 490,000 children.

COVID-19, PRICE SHOCKS AND CONFLICT

Food unaffordability can be a risk multiplier for instability, especially when it intersects with pre-existing community tensions. Multiple studies have shown that food insecurity, especially when caused by increasing food prices, is associated with a higher risk of civil unrest and communal conflict.⁵¹ Essentially, hunger feeds unrest. For example, the price of food was a significant, if not principal, factor in triggering the unrest in Tunisia initially, and then in Algeria, Yemen, Bahrain, Jordan, and Egypt in 2010-11 (the so-called 'Arab Spring').⁵²

One recent study projected that COVID-19 could ignite conflict in 13 more countries by 2022.⁵³ This reflects an increase of 56% compared to the pre-pandemic forecast – due to the pandemic, its economic impacts and government responses, such as national lockdowns. Although each case has its own unique drivers, political grievances and armed violence have already started to spread across Afghanistan, Ethiopia, Lebanon, Myanmar and South Africa since the pandemic.

Hunger can be both a cause and consequence of displacement. Mass movements of people, whether within the borders of their own countries or across borders, often have adverse effects on food availability, prices and access in host communities as well as in the areas left behind.

A VICIOUS CYCLE: THE RELATIONSHIP BETWEEN COVID-19 AND UNDERNUTRITION

COVID-19 and its secondary impacts are leading to more people becoming hungry and undernourished, and undernourished people are at greater risk from COVID-19. People who are undernourished tend to have weaker immune systems and are therefore at greater risk of severe illness from COVID-19. Good nutrition – at the individual and community levels – is a critical defence against the virus because it helps ensure that the human body is in an optimal state to defeat COVID-19.⁵⁴

But COVID-19 and its aftershocks are contributing to growing undernutrition. COVID-19 and the containment measures associated with it have disrupted food systems and supply chains across the globe.⁵⁵ For example, pandemic-related disruptions hindered Vitamin-A supplements from reaching communities in Burundi. The knock-on effects of COVID-19 have also reduced incomes and, subsequently, the purchasing power of households to afford healthy, nutritious food.

COVID-19 AND CHILD MALNUTRITION

Children are most vulnerable to the malnutrition crisis from COVID-19. This is because children have a greater need for nutrients, they become undernourished faster than adults, and they are at a much higher risk of dying from starvation. For example, during the 2011 Somalia famine, 260,000 people died, and half of them were children.⁵⁶

Malnutrition refers to deficiencies or excesses in a person's intake of energy and/or nutrients, but for the purpose of this report it focuses on undernutrition. This includes children who are underweight for their age, too short for their age (**stunted**), dangerously thin for their height (**wasted**), and those who suffer from micronutrient deficiencies.⁵⁷

KEY POINTS:

- Even before COVID-19 hit, one million children died every year as a direct result of wasting (severe acute malnutrition).
- In 2019, 144 million children under five were stunted (too short for their age) and 47 million children were wasted (low weight for their height) due to undernutrition.
- By 2022, the nutrition crisis from COVID-19 could result in 13.6 million more children suffering from wasting or acute malnutrition, 2.6 million more children suffering from stunting, and 283,000 more deaths for children under five.

THE MAGNITUDE OF CHILD MALNUTRITION



45% of deaths

among children under five years of age are linked to undernutrition



47 million children

under five years of age suffered from wasting (acute malnutrition) before COVID-19



144 million children

under five were stunted (too short for their age) before the pandemic hit

Even before the COVID-19 pandemic, one million children died every year due to wasting (severe acute malnutrition). About 45% of deaths among children under five years of age are linked to undernutrition.⁵⁸

In 2019, an estimated 47 million children under five years of age suffered from wasting (low weight-for-height). Severe wasting is responsible for one in 10 deaths among children under five in low and middle-income countries. For those children who survive, malnutrition can damage their body growth, cognitive development and school performance.⁵⁹

Stunting is even more pervasive. In 2019, 144 million children under five years of age suffered from stunting.⁶⁰ That is more than one in five children worldwide who are not able to properly grow physically and cognitively due to chronic or recurrent malnutrition. Globally, children living in the poorest households are more than twice as likely to be affected by stunting, and children in rural areas are 40% more likely to be stunted than those in urban settings.⁶¹

THE IMPACT OF COVID-19 ON CHILD MALNUTRITION



13.6 million

more children will suffer from wasting or acute malnutrition by 2022 due to COVID-19 impacts



40% less coverage

of essential nutrition services during COVID-19 in low- and middle-income countries



250 children

estimated to die per day from pandemic-related malnutrition between 2020-2022

The COVID-19 pandemic is increasing the risk of all forms of malnutrition. It is estimated that an additional 267.6 million people will be unable to afford a healthy diet by 2022.⁶² By the end of 2022, it is estimated that up to 13.6 million more children under five will suffer from wasting due to the economic and nutrition crisis from COVID-19.⁶³ Child stunting rates are expected to increase for the first time in two decades due to the aftershocks of the pandemic, with predictions that an additional 2.6 million children will be stunted by 2022.⁶⁴ Each percentage point drop in global GDP is expected to result in an additional 700,000 stunted children.⁶⁵

While child malnutrition cases are rising, nutrition services are declining. There has been a 40% reduction in the coverage of essential nutrition services in low and middle-income countries since COVID-19, reaching 75–100% in lockdown contexts.⁶⁶ This means millions of children are missing out on vital iron and folic acid supplements, deworming, and family nutrition education in places where families need them most. As a result of increases in wasting and declines in nutrition services, up to 283,000 more children under five could die from pandemic-related malnutrition by the end of 2022.⁶⁷

THE COST OF CHILD MALNUTRITION



US\$3.5 trillion

is lost from the global economy each year due to all forms of malnutrition



US\$29.7 billion

in productivity losses due to COVID-related stunting and mortality by 2022



US\$1400

is lost in average lifetime earnings for every person who is stunted in childhood

Children bear the biggest cost of malnutrition. Children suffering from wasting are 11 times more likely to die from preventable diseases than those that are well-nourished.⁶⁸ Undernutrition makes children much more vulnerable to disease and death.⁶⁹

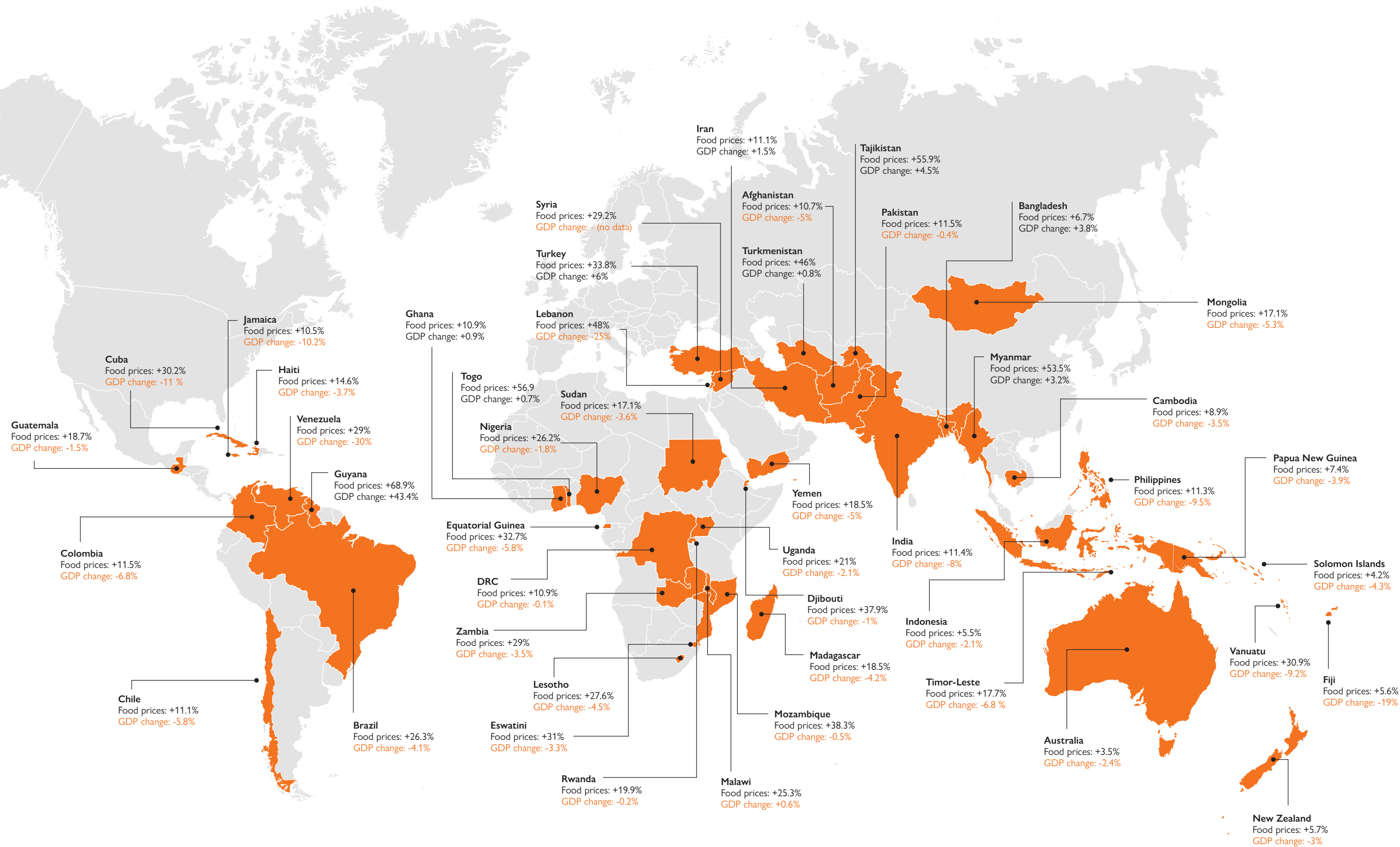
For those children who survive, the impacts of childhood malnutrition can last a lifetime, harming their ability to learn, earn and reach their full potential as adults. On average, adults who were stunted as children earn at least 20% less than if they had not been stunted.⁷⁰ The average lifetime lost earnings associated with stunting is US\$1,400 per child.⁷¹ This has significant economic implications, nationally and globally. The average country's GDP per capita is 7% lower than it would have been if none of its current workers had been

stunted in childhood.⁷² Malnutrition in all its forms costs the global economy as much as US\$3.5 trillion every year.⁷³ With COVID-19 leading to a pandemic of malnutrition, it is estimated that productivity losses due to stunting and mortality may reach US\$29.7 billion by 2022.⁷⁴

The United Nations has warned that without large-scale coordinated action, COVID-19 combined with the emerging global recession could create a global food emergency, with consequences for health and nutrition "of a severity and scale unseen for more than half a century".⁷⁵ Without adequate action, the nutrition crisis from COVID-19 could permanently scar the development of a generation of the world's most vulnerable children.

PRICE SHOCKS: THE GLOBAL PICTURE

Across the globe, higher food prices are combining with pandemic-related job losses to make nutritious food unaffordable for millions of families. From the Pacific to the Middle East, from Asia to Africa, food prices are rising and incomes are falling, creating the conditions ripe for a nutrition crisis. Poor countries are the worst affected. In countries where conflict is further restricting access to food, such as in Yemen, Ethiopia and South Sudan, the risk of famine is a real and imminent threat.



Source of food price data: Food and Agriculture Organization (2021),⁷⁶ Price changes (%) from February, 2020, to July, 2021, by country. Source of GDP data: International Monetary Fund (2021),⁷⁷ Real GDP growth (annual % change) in 2020

PRICE SHOCKS: IMPACTS IN AFRICA

CONTEXT

Conflict, climate change, high food prices, flooding and the desert locust outbreak, together with the socio-economic impacts of COVID-19, gravely threaten the food security of millions of people in Africa. Tens of thousands of hectares of farmland and pasture were damaged by locusts in 2020, a situation exacerbated by the devastating impacts of the pandemic on lives and livelihoods.

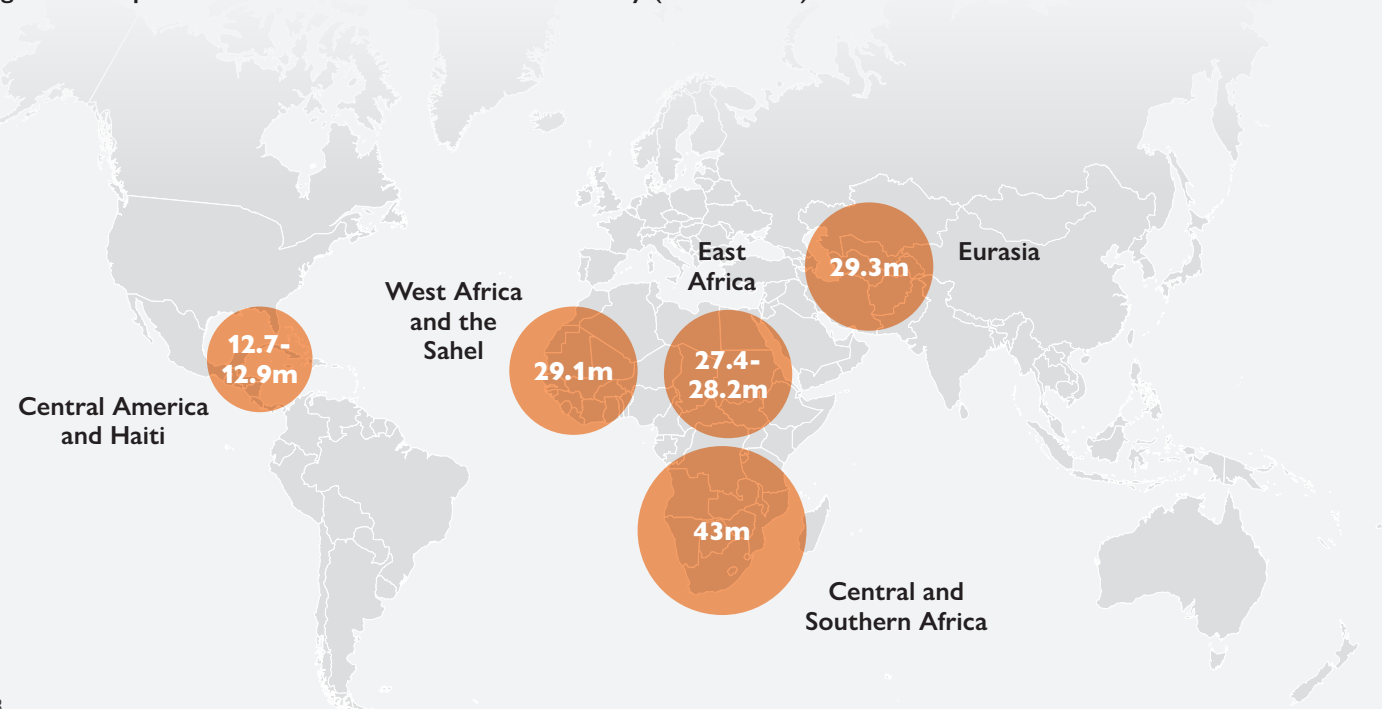
CHILD HUNGER AND MALNUTRITION

About one in five people in Africa (21% of the population) faced hunger in 2020 – more than double the proportion of any other region. Compared with 2019 (before the COVID-19 pandemic), about 46 million more people in Africa were affected by hunger in 2020.⁷⁸ According to the Food and Agriculture Organization, 34 of the 45 countries requiring external food assistance are located in Africa, making the continent by the far most food insecure region of the world.⁷⁹

To give a sense of what this means in reality, World Vision surveyed 46 households in the DRC in 2020.⁸⁰ More than half (61%) of respondents said they had to reduce the quantity and quality of meals since the pandemic, and only 4% said they were able to fully meet their food needs. More than one in 10 households (13%) said they could not meet their food needs at all, which is particularly concerning given that there was an average of nine members in each household surveyed.

A decade after the devastating famine in Somalia, multiple countries in Africa are on the brink of famine. In 2021, 43 million people in Africa are facing crisis levels of food insecurity (IPC Phase 3) or worse (see Figure 8). In northern Ethiopia, 353,000 people are already suffering from famine-like conditions (IPC Phase 5 Catastrophe), and this is expected to increase to 401,000 people by September, 2021.⁸¹ This is the highest number of people classified in IPC Phase 5 in a single country in the last decade.

Figure 8: People who faced crisis levels of food insecurity (IPC Phase 3) or worse in 2021⁸²



KEY POINTS:

- **Multiple countries in Africa are on the brink of famine – the most extreme form of food insecurity. In 2020, 97.9 million people in Africa faced crisis levels of food insecurity (IPC Phase 3) or worse.**
- **About one in five people in Africa (21% of the population) faced hunger in 2020 – more than double the proportion of any other region.**
- **Millions of refugees in camps across East Africa have had food rations cut (by as much as 60%) due to lack of funding and the reduced availability of food since COVID-19.**

Child malnutrition in the region remains a major source of concern. According to UNICEF and the World Food Programme, the number of acutely malnourished children across six Sahel countries – Burkina Faso, Chad, Mali, Mauritania, the Niger and Senegal – has increased sharply since the pandemic, from an estimated 4.5 million in January 2020 to almost 5.4 million by July 2020.⁸³ Another study of the combined impact of food insecurity and COVID-19 on acute malnutrition in 19 countries in West and Central Africa estimated that 15.4 million children under 5 years old would be affected by wasting in 2020, a 20% increase from pre-COVID estimates.⁸⁴ One third of these children were expected to be severely wasted. Another study warned that acute malnutrition across central and southern Africa could increase by 25% or more during 2020 and 2021.⁸⁵

FOOD SYSTEMS

With at least 60% of the African population dependent on agriculture for their livelihoods and access to food, any disruption to the sector can threaten the food security of the continent's poor. Measures to contain COVID-19, including movement restrictions and border closures, limited the access of farmers to pasture and markets, affecting food supply chains, livelihoods, and broader community tensions. Africa is also vulnerable to international food price fluctuations. From 2016 to 2018, Africa imported about 85% of its food from outside the continent, leading to an annual food import bill of US\$35 billion, which is forecast to reach US\$110 billion by 2025.⁸⁶ This heavy reliance on world markets is problematic for food security, especially given that food import costs are expected to jump 20% in 2021 for low-income, import-dependent countries.⁸⁷



According to World Vision research, a food basket of ten common food items costs*

1 hour	of work in Australia	3 days'	work in Mozambique	6 days'	work in Chad
1.5 day's	work in Kenya	3 days'	work in Ethiopia	6 days'	work in the Democratic Republic of the Congo
2 days'	work in Rwanda	3.5 days'	work in Uganda	8 days'	work in South Sudan
2 days'	work in Mauritania	5.5 days'	work in Burundi		

FOOD AFFORDABILITY

Countries in Africa have faced some of the sharpest food price increases in the world since the COVID-19 pandemic. Between February 2020 and July 2021, food prices increased by 56.9% in Togo, 37.9% in Djibouti, 38.3% in Mozambique, 29% in Zambia and by 21% in Uganda.⁸⁸ Food price increases were highest for fresh products such as vegetables, meat and fish, mainly driven by shortages related to disruptions in the supply chain for fresh foods following movement restrictions.

COVID-19 impacts have already reduced the availability of food in markets in refugee camps.⁸⁹ Funding shortfalls continue to drive food ration cuts for more than three million refugees in East Africa, affecting 72% of refugees in the region.⁹⁰ Food rations have been cut by 60% in Rwanda, 50% in South Sudan, 40% in Uganda and Kenya, 23% in Djibouti and 16% in Ethiopia.

“We don’t have enough to eat. We share food enough for one person amongst the three of us, leaving us hungry. Finding money has become very difficult.”

- Sourcevie, 11, DRC, 2021

PRICE SHOCKS: IMPACTS IN THE MIDDLE EAST

CONTEXT

In the Middle East, food crises triggered by protracted conflict and/or worsening economic crises have been exacerbated by the COVID-19 pandemic to such an extent that multiple countries are now on the verge of famine. Of the 10 countries in which more than one million people faced emergency or severe food insecurity in 2020, three were in the Middle East: Yemen (3.6 million), Syria (1.3 million) and Palestine (1.3 million).

CHILD HUNGER AND MALNUTRITION

In 2020, 29.4 million people in the Middle East faced crisis levels of food insecurity or worse (IPC Phase 3 or above) in four conflict-affected countries/territories (Iraq, Palestine, the Syrian Arab Republic and Yemen) as well as refugee populations (mainly Syrian) in Egypt, Jordan, Iraq and Lebanon.⁹¹ In Yemen, 45% of the country's population were in Crisis or worse (IPC Phase 3 or above), despite ongoing humanitarian food assistance. The number of young children suffering from severe wasting in Yemen increased by 15.5% during the year to reach 98,000 in need of urgent treatment.

An assessment carried out by World Vision across countries in the Middle East between June and September 2020 found that 74% of respondents in Syria and 65% of respondents in Lebanon were worried they would not be able to have enough to eat in the coming months.⁹² This was confirmed by a UN report in 2021 that half a million children in Syria were chronically malnourished, and that in some areas of northwest Syria, acute malnutrition was approaching the emergency threshold of 15% among displaced children living in camps and hard-to-reach areas.⁹³

Nutrition services in the region are needed more than ever, but they are hampered by the COVID-19 pandemic. Coverage of vital services to detect child wasting have reduced by 10-24% in Palestine, Syria and Yemen due to COVID-19, meaning countless children are missing out on potentially life-saving early detection and treatment.⁹⁴



According to World Vision research, a food basket of ten common food items costs*

1 hour of work in Australia

½ a day's work in Jordan

2 days' work in Lebanon

3 days' work in Syria

KEY POINTS:

- In 2020, 29.4 million people in four conflict-affected countries/territories in the Middle East faced crisis levels of food insecurity or worse (IPC Phase 3 or above).
- Half a million children in Syria alone are chronically malnourished and, in some areas of northwest Syria, almost 15% of displaced children are suffering from acute malnutrition.
- Coverage of services to detect wasting, the most severe form of child malnutrition, have dropped by 10-24% in Palestine, Syria and Yemen due to COVID-19.

FOOD SYSTEMS

The pandemic and its secondary impacts are disrupting food systems in all countries in the Middle East through COVID-19-related trade restrictions, supply chain shocks, stockpiling and increased prices. This is particularly concerning for Lebanon, Iraq, the Syrian Arab Republic and Yemen, which collectively host vast populations of refugees and internally displaced people.

Iran was one of the early victims of the pandemic, with a first wave of fatal cases as early as March 2020. Early studies show rural communities in Iran experienced worsening food security during the pandemic, due to the impact of COVID-19 on food systems.⁹⁵

FOOD AFFORDABILITY

Highly dependent on food imports, the Middle East is vulnerable to food shortages and price hikes. Food prices were already surging in many countries in the region before COVID-19 due to depreciating currencies, particularly in Lebanon and Syria.⁹⁶ But since the pandemic, food prices have climbed even higher: the onset of COVID-19, food prices jumped by 48% in Lebanon, 29.2% in Syria, 18.5% in Yemen and 11% in Iran, due to a mix of reasons including conflict, supply chain disruptions and inflation.⁹⁷

To make matters worse, the region's economy is expected to contract by 5.7% as a result of the pandemic, with the economies of some conflict-affected countries projected to shrink by as much as 13%, making food even less affordable.⁹⁸ The twin shock of the pandemic and low oil prices has prompted the International Monetary Fund to lower its Middle East and North Africa economic forecast to its lowest level in 50 years.⁹⁹ The UN estimates an additional 14.3 million people in the Middle East will fall into poverty, swelling total numbers to more than 115 million. That is one quarter of the total Arab population.¹⁰⁰

The situation in northeast Syria is particularly dire. According to HNAF income data from January 2021, a family with a median income of 250,000 Syrian pounds would have to spend 84% of that income just on the bare minimum of food (the Survival Minimum Expenditure Basket).¹⁰¹



Some children in the Bekka Informal Tented Settlements have only two meals a day because food prices have doubled due to COVID-19.
Photo: Maria Bou Chaaya/World Vision

The human cost: Families skip meals in Lebanon as local food prices double

Food prices have doubled in the Bekaa Informal Tented Settlement where Ziad, Fatima and their five children have lived since they sought refuge from the war in their home country of Syria. The main cause is COVID-19 and the food insecurity it has triggered.

Ziad lost his job as a tailor. With the prices spiralling, the family had to cut back on even the essentials. Their bills – from tent rent to electricity – stacked high, and they had no way to pay. The market in the settlement used to allow them to buy groceries and pay later, but

given the new circumstances, that is no longer offered. The family's children ate two meals a day instead of three.

Another mother in an ITS, Dalia, said she stopped giving her one-year-old girl milk because it has become so expensive. "I had to start feeding her solid food," Dalia said. Her husband, Ahmad, used to paint houses, but now he can't find work. Although they receive food assistance, it is barely enough because prices doubled since the beginning of the economic crisis that hit Lebanon.

PRICE SHOCKS: IMPACTS IN THE PACIFIC

CONTEXT

The physical isolation of the Pacific islands, coupled with their swift response in the early stages of the pandemic, meant they could minimise COVID-19 infections and transmissions. However, the physical isolation of the Pacific islands has been a double-edged sword throughout the COVID-19 pandemic. While limiting the freedom of travel is undoubtedly an effective public health response, the economic fallout from these measures has been severe, reducing the ability of households to afford nutritious food.

CHILD HUNGER AND MALNUTRITION

Even before the pandemic, the Pacific region suffered the highest rates of child stunting in the world. In the Solomon Islands one in three children suffers from stunting, and half of children in Timor-Leste and PNG are affected by stunting.¹⁰² Frontier Economics estimates child malnutrition in PNG alone costs the national economy \$US508 million each year due to losses in productivity, losses in potential income, and losses from increased health care expenditure.¹⁰³

COVID-19 is expected to worsen the already high prevalence of child undernutrition in the Pacific region. It is estimated COVID-19 could increase moderate or severe wasting among children under five by 14.3%.¹⁰⁴ The Pacific is highly vulnerable to the impacts of climate change, which is also expected to threaten food security in the region.

COVID-19 AND FOOD SYSTEMS

Food system value chains in the Pacific region are highly fragmented, diverse and complex. Regional food supply chains have been disrupted through the closure of local markets, combined with the limited capacity of farmers to store harvested crops. Widespread lack of refrigerated storage has led to increased wastage through spoilage of perishables, the most nutritious source of food.¹⁰⁵

Many Pacific countries are dependent on food imports. The top five primary food imports of Pacific Island countries contribute to more than half of the total dietary energy consumed in some countries such as PNG and Timor-Leste.¹⁰⁶ This means that many countries in the Pacific are highly vulnerable to surges in international food prices or supply chain failures. Since the pandemic, food prices have increased by 30.9% in Vanuatu, 17.7% in Timor-Leste, 7.4% in PNG and 4.2% in the Solomon Islands.¹⁰⁷

Reduced incomes due to COVID-19-related job losses in tourism, commercial and government sectors and lower remittance flows have already resulted in changes in patterns of food consumption. Most Pacific Islanders have relied on traditional coping mechanisms such as subsistence agriculture, local fishing, and family and village social networks.¹⁰⁸ Reports suggest an increase in the consumption of cheaper foods with lower nutrient density (such as rice), especially in informal settlements where there is limited ability to grow food.¹⁰⁹



According to World Vision research, a food basket of ten common food items costs*

- | | | | |
|------------------|----------------------|------------------|-----------------------------|
| 1 hour | of work in Australia | 2.5 days' | work in Vanuatu |
| 1 days' | work in Timor-Leste | 3 days' | work in the Solomon Islands |
| 1.5 days' | work in PNG | | |

KEY POINTS:

- **Even before COVID-19, the Pacific region suffered from some of the highest rates of child stunting in the world due to chronic undernutrition.**
- **Since COVID-19, food prices have spiked in Vanuatu and Timor-Leste in particular, rising by 30.9% and 17.7% respectively.**
- **Only half of Pacific households can fully meet their food expenses since COVID-19, according to World Vision research.**

COVID-19 AND FOOD AFFORDABILITY

Food price spikes are occurring while the region's tourism-dependent economy is collapsing under the weight of lockdowns and restricted travel. Modelling suggests that the number of people living in extreme poverty (living on less than US\$1.90 per day) in the region could increase by more than 40% in the short term, reducing the ability of households to afford the right quality and quantity of nutritious food.¹¹⁰ The Lowy Institute warns that the Pacific region faces a potential "lost decade" owing to the economic devastation caused by the COVID-19 pandemic. It forecasts the average income per person in the Pacific will not recover to its 2019 level until 2028, which would have worrying implications for long-term food affordability.¹¹¹

World Vision's household surveys across the Pacific and Timor-Leste show the impacts COVID-19 are already reducing both access to food and the affordability of food.¹¹² This threatens to deepen the nutrition crisis in the region.

THE SURVEY FOUND:

- One in five Pacific households skipped meals or ate cheaper meals since COVID-19 because they could not afford a healthy diet.
- Only half of households could fully meet their food expenses.
- Most respondents (59%) had either lost their job, lost income, or resorted to alternative sources of income in the two weeks preceding the survey.
- Fresh food and basic food items were increasingly difficult to access, with 40% of households indicating fresh food was only available "at times" and 5% noting fresh food was never available.

In another study in the Solomon Islands, between 26-43% of households went without food for a day or more between February and July 2020, raising further concerns about food security.¹¹³



Backyard bounty: How home gardens in PNG have been invaluable during COVID-19

A backyard gardening program is paying double dividends in the COVID pandemic for families in Papua New Guinea. Nutrient-rich vegetables from small plots are feeding families. And surplus food from these backyard gardens generates an income to buy other food items – more expensive now, because of COVID pandemic-related price rises – or to put into savings to support children's wellbeing.

Through the Caring for Nutrition program, Debbie (pictured) is learning how a space the size of a flower garden can provide an abundance of highly nutritious vegetables. "Backyard gardening will enable us to save money but also provide us with greens for our daily meals," says Debbie.

She's one of about 10,000 people for whom the project in the Port Moresby communities of 9 Mile and Hanuabada has inspired an improved livelihood.

The project is supported by the PNG Aus Partnership and implemented by World Vision working closely with the National Department of Health, PNG Women's Microbank and the Department of Agriculture of Livestock.

Debbie, a Women's Microbank officer, takes her identification photo to open a savings account and deposit the money she has saved from her home garden.
Photo: Nelson Kairi Kurukuru/World Vision

PRICE SHOCKS: IMPACTS IN ASIA

CONTEXT

More than half of the world's undernourished people (418 million) live in Asia.¹¹⁴ According to the UN's Food and Agriculture Organization, nine countries in Asia are in need of external assistance for food, including Afghanistan, Bangladesh, the Democratic People's Republic of Korea and Myanmar.¹¹⁵

CHILD HUNGER AND MALNUTRITION

In Asia in 2019, an estimated 74.5 million children under five years of age were stunted (too short for their age) and 31.5 million suffered from wasting (too thin for height) due to a lack of adequate nutrition in their diets. Most of these children live in Southern Asia where nearly 56 million children suffer from stunting and more than 25 million from wasting.¹¹⁶

COVID-19 and its aftershocks are making this situation even worse. About one in 10 people in Asia (9% of the population) faced hunger in 2020, 57 million more than the previous year, largely due to the disruption caused by COVID-19.¹¹⁷ At the same time child malnutrition is rising in Asia, access to treatment is decreasing. In Bangladesh and Nepal, for example, the number of young children being treated for severe acute malnutrition fell by more than 80% compared to before the COVID-19 pandemic.¹¹⁸

FOOD SYSTEMS

Food systems in Asia have proved relatively resilient when compared with other regions.¹¹⁹ Nevertheless, COVID-19 has stretched food systems, causing widespread disruptions to transportation, labour-intensive food production and food affordability. For example, in India, the countrywide lockdown coincided with the country's peak harvesting time of a variety of crops ((from wheat, to barley, to high-value crops such as fruits and vegetables).¹²⁰ The lack of harvesting labour caused huge food waste and economic losses for farmers.

Food price increases have varied across the region, depending on each country's internal dynamics, food system resilience and reliance on food imports. In Myanmar, food prices have risen 53.5% since the pandemic, compared to 11.4% in India, 17.1% in Mongolia, 8.9% in Cambodia and 5.5% in Indonesia.¹²¹

“Every day for the past 22 days, we’ve eaten one meal per day and sometimes for my husband and me, there is no food for us. We do not know how long we can survive. There is no food anywhere. I cannot tolerate this situation anymore.”

- Shilpi, 35, Bangladesh, 2020

KEY POINTS:

- Around 1.85 billion people in Asia were unable to afford a healthy diet in 2019. This number is likely much higher now because of the economic fallout from COVID-19.
- Up to 85 million households in Asia have had no or limited food stocks since the pandemic, according to World Vision research.
- In Southern Asia alone, there are nearly 56 million stunted children and more than 25 million wasted children due to undernutrition.



According to World Vision research, a food basket of ten common food items costs*

1 hour of work in Australia

½ day's work in Vietnam

1 days' work in Bangladesh

1 days' work in Afghanistan

1 days' work in Cambodia

1 days' work in Nepal

FOOD AFFORDABILITY

Around 1.85 billion people in Asia were unable to afford a healthy diet in 2019.¹²² Since then, COVID-19 and its associated containment measures have drastically reduced employment opportunities and incomes across the continent, making it even more difficult to afford nutritious food. In Bangladesh, for example, a nationwide survey by BRAC found that 93% of respondents had suffered a loss of earnings, with 54% reporting no income in March.¹²³

This was confirmed by World Vision's survey of more than 14,000 households across nine countries in Asia.¹²⁴ One third

of these households reported they had lost jobs or income since the COVID-19 outbreak. As a result, only 30% of households said they could fully cover basic food expenses. To cope with the lack of affordability of basic food, 50% of families are relying on cheaper, less nutritious food, 36% are reducing food portion sizes, and 28% are skipping meals. According to the survey, almost one in four children in Asia are having two meals a day or less. Most worryingly, one quarter of all families surveyed did not have any food stocks on hand, and one third had only one week's supply left. Based on these findings, up to 85 million households have no or limited food stocks across Asia.



The human cost: Amid economic devastation, a story of resilience in Bangladesh

Ohab was one of the many Bangladeshi people forced to stop working after COVID-19 triggered lockdowns last year. The situation could have been far more dire for him, his wife, Khadija, and their two children. Some of his neighbours struggled to find enough food to eat. But the family was able to continue to buy food with the support of a World Vision livelihoods program that generated alternative sources of income.

“Every day since the lockdown over 50 days ago, my wife and two of my children have divided our chores around our livestock. While my first-born, Abu 19, and I milk the cows and check on the sheep, my wife and Hassan, 13, pick up eggs from the chickens and ducks”, Ohab said. They had some hungry days in the earlier stages of lockdown, but eventually the family had enough food – such as milk and eggs – from their livestock and vegetable garden to make it through.

In 2018, the family was among other ultra-poor families who received training from World Vision on agriculture production and livestock rearing. World Vision supplied the family with a heifer and a variety of vegetable seeds for alternative income creation. They embraced the opportunity. During COVID, they had enough food to not only feed themselves, but also to sell to others and give surplus food to other families in need in their village.

Ohab and Khadija's family have shown resilience through the COVID-19 pandemic because of previous agriculture and livestock training from a World Vision program.
Photo: Masud Rana/World Vision

SCOPING SOLUTIONS: FOOD FOR THOUGHT

World Vision addresses both the short and long-term causes of hunger and food insecurity through a range of initiatives, including: distributing emergency food, ensuring markets work for the poor, teaching farmers how to nurture their land, improving the quantity, diversity and safety of food, distributing micronutrient supplements, setting up community and health centres, and providing mothers and caregivers with the information they need to improve nutrition for their families and newborn children. Action is needed to address both the immediate risks from malnutrition and its root causes.

PROVIDE LIFE-SAVING FOOD AND CASH ASSISTANCE IN EMERGENCIES

Multiple countries in Africa and the Middle East are one step away from famine, and some countries have populations already living in famine-like conditions, the most life-threatening and catastrophic form of food insecurity. The most pressing global priority right now should be meeting urgent food needs to prevent a serious food crisis from becoming a large-scale catastrophe of human suffering and death. Engaging markets is key to this, as is cash and voucher assistance. We know that collective political will and immediate assistance works to beat back famine in the short-term. In 2017 when the world last faced the risk of large-scale famine in multiple countries, the international community came together to fight famine and saved millions of lives.

Solution in action: Responding to the hunger emergency in East Africa

In East Africa, around 7.8 million people are being pushed to the very edge of starvation due to a deadly mix of conflict, climate change and COVID-19. In April 2021, World Vision declared a multi-country regional hunger crisis response in six countries in East Africa (Ethiopia, Somalia, South Sudan, Sudan, Uganda and Kenya). World Vision has already reached 1.4 million highly vulnerable people with food and market-sensitive cash, voucher and nutrition support in these six countries. As of May 2021, more than 19,000 children received malnutrition treatments, 35,000 people were reached with cash and voucher assistance, and 311,000 people received much-needed food assistance.¹²⁵

STRENGTHEN FOOD SYSTEMS

In addition to responding to immediate food crises, we need to make smart investments over the longer term in partnership with the food industry to end food crises once and for all. This requires working across the humanitarian-development-peacebuilding nexus in a climate-smart way to reduce humanitarian need and promote sustainable livelihoods and the resilience of the most vulnerable people. It also requires improving the resilience of food systems to respond to and recover from shocks, including economic shocks like price increases and climate shocks like extreme weather events which are increasing in their frequency and severity.

World Vision strengthens food systems through programs on both the supply and demand side, increasing the availability of nutritious food through markets and agriculture as well as supporting behaviour change to improve the quality of diets. We work alongside communities to diversify food sources, plant more drought-resistant and nutritious crops, access seed banks, restore degraded landscapes, improve food storage capacity and reduce food loss. Crucially, our approach engages the market system to distribute agricultural inputs and facilitate buying, processing and retailing. For example, World Vision's rural development program in the drylands of Ethiopia helped more than 60,000 smallholder farmers better capture and use rainwater to increase crop yields, building confidence to engage with input suppliers, credit providers and markets to improve incomes. As a result, dietary diversity in the local area more than doubled and the food gap – the difference between what wealthy people eat and what poor people eat – reduced by 34%. In South Sudan and Timor-Leste, World Vision has set up community-managed seed banks to help farmers plant crops and increase their yields and incomes.

Solution in action: Reducing child stunting in Burundi through nutrition-sensitive agriculture

Burundi's Muyinga Province has one of the highest rates of child stunting in the world. At the start of World Vision's nutrition-sensitive economic development project, six out of 10 children suffered stunting due to undernutrition.

With funding from the Australian Government's Department of Foreign Affairs and Trade, World Vision implemented a nutrition-sensitive value chain project to reduce chronic malnutrition, especially for children under five, in Burundi's Muyinga Province.

This involved:

- improving the agricultural productivity of biofortified crops, such as high-iron beans, by providing technical training and market information for farmers and improving commercial access to inputs such as seeds;
- linking producers to markets through farmer cooperatives;
- providing Vitamin A supplements to children under five to reduce rates of malnutrition; and
- setting up kitchen gardens in more than 40% of households to reduce the cost of food and increase the diversity of food.

This nutrition-sensitive approach to agriculture, combined with direct support for vulnerable children, boosted food security and nutrition. Chronic malnutrition, stunting and underweight prevalence among children under five reduced by 3%, 6% and 27% respectively, while the prevalence of all three increased in areas outside of the project by 21%, 5% and 1% respectively.

Solution in action: Supporting 'superfoods' in Timor-Leste

World Vision's Better Food, Better Health project is a nutrition-sensitive agriculture project aiming to improve nutrition for more than 31,000 people in Timor-Leste. The project promotes the production and utilisation of six 'superfoods': soybeans, mung beans, red kidney beans, orange sweet potato, moringa and eggs.

Alda, 35, from Aileu, used to have difficulties developing her farm and her business before her involvement with World Vision's project. She explains: "Before World Vision came to my village, I only planted mustard greens and cabbage on my farm. However, World Vision's presence in my village motivated me to plant various crops. I attended the superfood training on how to produce local foods and received seeds for planting."

Alda, who won World Vision's superfood cooking competition and now grows a variety of crops, said COVID-19 had presented challenges for her work and family. "It's been two or three months, and I can't sell my food collection at the market due to the lockdown," she said. Nevertheless, her crops have provided nutritious food for her and her family during this difficult time. Since COVID-19 there was a local rice shortage, but Alda was able to exchange her local crops for rice.

TARGET THE FIRST 1000 DAYS OF A CHILD’S LIFE

Meeting a child’s nutritional requirements is most crucial in the first 1000 days of life, beginning with the period of pregnancy and ending with the child’s second birthday. During this time, children have higher nutritional needs to support their rapid growth and development and they are also more susceptible to infections. If a child is stunted during the first 1000 days, it can compromise their long-term development.¹²⁶ If a child is stunted at age two, the condition is often irreversible.¹²⁷

That is why World Vision focuses its child health programs at this early stage of life – to improve life-long health outcomes by targeting this critical window of development, the first 1000 days. We have developed an evidence-based approach to help newborns thrive in these first few critical months, called the ‘7-11’ strategy. This includes 7 interventions for pregnant mothers, and 11 for children under the age of two.

Figure 9: World Vision’s ‘7-11’ approach

7 INTERVENTIONS FOR PREGNANT WOMEN	11 INTERVENTIONS FOR CHILDREN UNDER AGE 2
1. Adequate diet	1. Appropriate breastfeeding
2. Iron/folate supplements	2. Essential newborn care
3. Tetanus Toxoid immunisation	3. Handwashing with soap
4. Malaria prevention and intermittent preventive treatment	4. Appropriate complementary feeding
5. Birth preparedness, healthy timing and spacing of pregnancy	5. Adequate iron
6. Deworming	6. Vitamin A supplementation
7. Access to maternal health services	7. Oral rehydration therapy/zinc
	8. Prevention and care for malaria
	9. Full immunisation
	10. Prevention and care-seeking for acute respiratory infections
	11. Deworming

In World Vision’s experience, child health outcomes are found to be most effective when they are integrated with other community needs such as women’s empowerment (and the rights of women to healthy, spaced and planned pregnancies), nutrition (through food security and diversity), clean water, sanitation and hygiene, and improved household income through livelihoods. This technical crossover results in innovative and complex projects that, in the long term, significantly reduce hunger and malnutrition in a self-sustaining way.

Solution in action: Using the ‘7-11’ strategy to improve child health and nutrition in Myanmar

World Vision’s maternal, newborn and child health project in Myanmar trained nearly 80,000 people in 115 villages in nutrition, childcare and ante-natal care, while also improving family planning and sanitation. This project was funded by the Australian Government’s Department of Foreign Affairs and Trade.

In line with the ‘7-11’ approach, growth monitoring also took place, with thousands of children referred to specialist care for under-nutrition. The project encouraged local egg farmers to be part of the project by donating eggs to the families of children who’d been identified as malnourished. Over four years, 3794 malnourished children were treated as part of the project.

INCREASE AND DIVERSIFY INCOMES SO FAMILIES CAN AFFORD NUTRITIOUS FOOD

One of the greatest drivers of food unaffordability is the widespread collapse in incomes and livelihoods because of COVID-19. While some of the previous solutions address the supply side of the food system, interventions are also needed on the demand side to ensure that households have the income they need to purchase food. When combined with nutrition behaviour change, this can have a tremendous impact. Economic development through jobs and decent work is one of the most sustainable and powerful ways to improve food security.

This is why World Vision promotes market systems change that includes poor and marginalised groups. We work alongside the private sector to strengthen business models while also equipping those excluded from the market system (such as women, youth and the ultra-poor) with the skills and knowledge to engage in markets and generate incomes. Recognising that people at different levels of poverty require different levels of support, World Vision integrates both market-focused and household-focused strategies based on the level of market readiness, such as providing coaching, business, and financial literacy training, establishing savings groups and smart subsidies. This approach has evolved from more than a decade of World Vision’s experience in value chain programming across 38 countries. By improving incomes for those at the bottom of the economic pyramid, this inclusive approach improves household purchasing power and the ability of families to afford nutritious food.

Solution in action: Generating more income for poor families in Indonesia

World Vision’s MORINGA project embraces systems thinking and market forces to increase the income of 4000 farming households in central and eastern Indonesia. It does this through commercial partnerships with private market actors, while simultaneously building household productive capacity through training and coaching.

Through this project, World Vision is seeking to change the way market actors operate to benefit the poor. This has involved improving the supply of hybrid seed through two partnerships with large agri-input supply companies, training small-holder farmers in good agricultural practice, and establishing production centres to fast-track processing. This has focused on three sub-sectors: pilinut, moringa seed, and maize.

At the end of the first growing season, farmers were already experiencing positive results. Within just two years of the project, annual incomes of participating households increased 265%. In turn, higher incomes enable households to invest more in health, including nutritious food.

SUPPORT WOMEN’S ECONOMIC EMPOWERMENT

Women’s empowerment is a powerful pathway to improving child nutrition. While women’s empowerment has intrinsic value and should be prioritised as an objective in its own right, it can also contribute to better nutritional outcomes for children. In India, children of mothers who participated in more household decisions were less likely to be wasted and stunted.¹²⁸ In other studies, women having a more equal say in crop decision-making has been linked with improved farming productivity in Bangladesh¹²⁹ and better household food security in South Africa¹³⁰ and Ghana.¹³¹ Another study revealed that when women are stable financial contributors to a household, spending on health and education for children increases and household poverty decreases.¹³²

World Vision is committed to advancing gender equality and women’s economic empowerment through an intentional approach across our livelihoods programs. A key part of our approach is responding to the different barriers and opportunities faced by women compared to men, promoting gender equitable relations between women and men within households, as well as engaging men and boys as allies and partners in women’s empowerment. This involves conducting gender-sensitive market and value chain analysis, identifying economic barriers facing women and ways to address them.



Photo: Klezer Gaspar/World Vision

WORLD VISION'S MISSION IS TO END CHILD HUNGER GLOBALLY

Every 60 seconds a hungry child is fed through the generous support of World Vision's donors. In each of the last five years (2015-2020), World Vision and its partners have provided **7 million children** with life-saving food assistance.

With the support of our donors, World Vision has further stepped up to combat COVID-19 and its aftershocks for hunger and child malnutrition. In 2020, World Vision:

- Reached 12 million of the most vulnerable people (including 7.2 million girls and boys) in 29 countries with vital food security and nutrition programs, in partnership with the UN World Food Programme
- Distributed 105 million metric tonnes of food in 16 countries to meet emergency food needs
- Provided supplementary feeding to over 684,000 children under five years of age across 14 countries to protect their nutritional status
- Treated more than 96,000 children with wasting in 13 countries, with 89% of these children making a full recovery

CALL TO ACTION

Well before COVID-19, World Vision was on a mission to end global hunger and all forms of malnutrition, especially for children. COVID-19 and its impacts have made this mission even more important. World Vision invites the Australian Government to join us, along with the international community, in stopping the worst of the COVID-induced hunger crisis by equipping poor families with the tools they need to provide for themselves and their children.

We need to put children at the centre of development, and at the centre of the COVID-19 recovery, because doing so achieves a triple dividend of benefits. It immediately improves the lives of the most vulnerable children, builds their productivity for future life stages, and lays the foundations for strong development outcomes for the next generation.

World Vision is the World Food Programme's largest non-governmental partner and has been so for 16 years. In the 2020 financial year, we partnered with WFP on 365 PROJECTS IN 29 COUNTRIES to provide food assistance (in the form of food, cash and/or vouchers) to 12 million people facing a hunger crisis – 58% of them children.

ACTION 1:

Immediately deliver an emergency Famine Prevention Package to the Horn of Africa and the Middle East

The Australian Government should urgently deliver a \$150 million famine prevention package to provide life-saving assistance to communities in Africa and the Middle East that are on the brink of famine.

Over 41 million people in 43 countries are at the 'emergency' phase of food insecurity in 2021, just one step away from a declaration of famine. It is not too late to prevent the worst of this acute hunger crisis. The Government's famine prevention package should be new and additional to the current humanitarian budget and be channelled through proven mechanisms such as the United Nations Central Emergency Response Fund (CERF), World Food Programme and the Australian Humanitarian Partnership to urgently assist families at the heart of the crisis. The Australian Government demonstrated great leadership in responding to the Somalia famine in 2011-12, and now is the time to step up once again.

By adopting a famine prevention package, Australia would join the United Kingdom and other G7 governments in the fight against famine. Last year, the UK last year announced a £119m aid package (AU\$220m) to tackle the combined threat of coronavirus and famines in fragile countries, including Yemen, Somalia, Central African Republic, Nigeria, and Sudan.¹³³ Since then, G7 governments have committed to a comprehensive famine prevention and humanitarian crises compact, providing US\$1.5 billion of humanitarian support to the three countries at risk of famine (Yemen, South Sudan and Nigeria) and an additional \$7 billion for 42 countries with populations one step away from famine.¹³⁴ Now is the time for Australia to join the fight against famine.

ACTION 2:

Build back better, fairer, and greener food systems in the Indo-Pacific region

Australia should support an inclusive, green economic recovery for Indo-Pacific region to improve household purchasing power and the affordability of food. By rebuilding livelihoods for the most vulnerable, donors like Australia can increase food security, broaden the consumer base, and build resilience across the market system – supporting our shared recovery and prosperity.

Now is the moment to turn a crisis into an opportunity – with a renewed focus on inclusive, resilient, and sustainable food systems. Australia can help stem the nutrition crisis from COVID-19 by rebuilding regional food and economic systems to be better, fairer, and greener in the wake of the pandemic, making nutritious food more accessible and affordable for the most vulnerable. This includes scaling up local climate and nutrition-sensitive agriculture and supporting an inclusive, green economic recovery across the Indo-Pacific region.

Building back better food systems means creating a food system that is more resilient against shocks and stressors. It also means delivering greater value to growers and workers and providing consumers with an affordable range of healthy food. Nutrition-sensitive and climate-smart agriculture can do just this, as a source of both income and food. Australia should step up its support for nutrition-sensitive agriculture across the Indo-Pacific region, drawing on established best practice and the expertise of Australian farmers.

To promote gender equality, priority should be placed on targeted women's economic empowerment programs that respond to the different barriers and opportunities faced by women compared to men. Initiatives that should be considered include social protection measures (such as cash and vouchers assistance or food assistance to meet immediate needs), inclusive market systems programs that broaden opportunities for individuals (especially women) to engage in economic activity, and implementing nature-based solutions that restore and build ‘green assets’ as a driver of social, economic and environmental resilience.

ACTION 3:

Lead the effort to reduce child stunting in the Pacific region

It is recommended that the Australian Government develop a flagship initiative to curb child stunting in the Pacific and Timor-Leste. As the leading donor in a region plagued by child undernutrition, Australia should make reducing child stunting a centrepiece of its development assistance.

In Australia's immediate region – the Pacific and Timor-Leste – children suffer from some of the worst child stunting rates in the world. Child stunting is particularly prevalent in Timor-Leste (50.2%) and PNG (49.5%) due to widespread undernutrition, which is severely impacting not only fullness of life in these countries, but economic productivity as well. In PNG alone, child malnutrition costs the national economy an estimated \$US508 million each year due to losses in productivity, income, and increased health care costs.¹³⁵ Every dollar invested in reducing stunting generates an economic return equivalent to about US\$18 in high-burden countries.¹³⁶

As a member of the Pacific vuvale (family), Australia cannot ignore the scourge of child undernutrition which is having deep and long-lasting impacts on the region's health, productivity and prosperity. The proposed flagship initiative on child stunting should include:

- supporting maternal and child health interventions to ensure children have the best start to life possible;
- training community health workers to conduct child health check-ups and leverage digital technologies for child health;
- strengthening the resilience of food systems in the region;
- increasing food stocks in the region through expanded storage facilities;
- scaling up nutrition-sensitive and climate-smart agriculture and stimulate nutrition-sensitive value chains to increase the local production and demand of nutrient-rich foods; and
- investing in school food programs to boost school-based food literacy and nutrition education.

REFERENCES

*Food basket figures based on comparison of prices of 10 common food items (World Vision, 2021) with Gross National Income per capita (World Bank, 2019). The 10 common food items included sweet bananas, rice, wheat flour, raw sugar, corn cobs, eggs, cooking oil, a raw chicken, tomatoes and milk. Prices were collected from supermarkets in capital cities and converted into AUD. Total food prices were then compared to Gross National Income per capita data from the World Bank (2019), which were also converted into AUD and divided by working days to calculate daily income.

1 Food and Agriculture Organization of the United Nations, 2021, Price changes by countries, available at: <http://www.fao.org/datalab/website/web/food-prices>, accessed July 2021.

2 United Nations Development Programme, 2020, COVID-19: Looming crisis in developing countries threatens to devastate economies and ramp up inequality, available at: <https://www.undp.org/press-releases/covid-19-looming-crisis-developing-countries-threatens-devastate-economies-and-ramp>, accessed July 2021.

3 Food and Agriculture Organization of the United Nations, IFAD, UNICEF, WFP and WHO, 2021, The State of Food Security and Nutrition in the World 2021: Transforming food systems for food security, improved nutrition and affordable healthy diets for all, available at: <https://doi.org/10.4060/cb4474en>, accessed July 2021.

4 World Food Programme, 2021, WFP at a glance, available at: <https://www.wfp.org/stories/wfp-glance>, accessed July 2021.

5 Oxfam, 2021, The Hunger Virus Multiplies: Deadly recipe of conflict, COVID-19 and climate accelerate world hunger, available at: https://oi-files-d8-prod.s3.eu-west-2.amazonaws.com/s3fs-public/2021-07/The%20Hunger%20Virus%202.0_media%20brief_EN.pdf, accessed July 2021.

6 Total number of confirmed COVID-19 deaths from Sunday, 8 August 2021, to Saturday, 14 August 2021, was 68,141. This equates to an average of 9,734 deaths per day or 6.76 deaths per minute. See weekly or daily COVID-19 confirmed death data at: Johns Hopkins University, 2021, COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at John Hopkins University (JHU), available at <https://www.arcgis.com/apps/dashboards/bda7594740fd40299423467b48e9ecf6>, accessed August 2021.

7 Saskia Osendarp, et al, 2021, The COVID-19 crisis will exacerbate maternal and child undernutrition and child mortality in low-and middle-income countries, Nature Food (2):476-484, available at: <https://www.nature.com/articles/s43016-021-00319-4>, accessed July 2020.

8 UNICEF, World Health Organization and World Bank Group, 2020, Joint child malnutrition estimates: levels and trends in child malnutrition: key findings of the 2020 edition, available at: <https://www.who.int/publications/i/item/jme-2020-edition>, accessed July 2021.

9 Food and Agriculture Organization of the United Nations, 2021, Global food prices fall for the first time in 12 months, available at: <http://www.fao.org/news/story/en/item/1415065/icode/>, accessed July 2021.

10 The World Bank Group, Food Security and COVID-19, 2021, available at: <https://www.worldbank.org/en/topic/agriculture/brief/food-security-and-covid-19>, accessed July 2021.

11 Gus Trompiz, Reuters, Surging food import costs threaten world's poorest, FAO warns, 2021, available at: <https://www.reuters.com/world/china/global-food-import-costs-surge-12-record-this-year-fao-2021-06-10/>, accessed July 2020.

12 Food and Agriculture Organization of the United Nations, Price changes by countries, 2021, available at: <http://www.fao.org/datalab/website/web/food-prices>, accessed July 2021.

13 Pew Research Center, 2021, The Pandemic Stalls Growth in the Global Middle Class, Pushes Poverty Up Sharply, available at: https://www.pewresearch.org/global/wp-content/uploads/sites/2/2021/03/PG_2021.03.18_Global-Middle-Class_FINAL.pdf, accessed July 2021.

14 Oxfam, 2021, The Hunger Virus Multiplies: Deadly recipe of conflict, COVID-19 and climate accelerate world hunger, available at: https://oi-files-d8-prod.s3.eu-west-2.amazonaws.com/s3fs-public/2021-07/The%20Hunger%20Virus%202.0_media%20brief_EN.pdf, accessed July 2021.

15 Total number of confirmed COVID-19 deaths from Sunday, 8 August 2021, to Saturday, 14 August 2021, was 68,141. This equates to an average of 9,734 deaths per day or 6.76 deaths per minute. See weekly or daily COVID-19 confirmed death data at: Johns Hopkins University, 2021, COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at John Hopkins University (JHU), available at <https://www.arcgis.com/apps/dashboards/bda7594740fd40299423467b48e9ecf6>, accessed August 2021.

16 UNICEF and World Food Programme, 2021, COVID-19: Missing More Than a Classroom – The impact of school closures on children's nutrition, available at: https://www.unicef-irc.org/publications/pdf/COVID-19_Missing_More_Than_a_Classroom_The_impact_of_school_closures_on_childrens_nutrition.pdf, accessed July 2021.

17 Food and Agriculture Organization of the United Nations, IFAD, UNICEF, WFP and WHO, 2021, The State of Food Security and Nutrition in the World 2021: Transforming food systems for food security, improved nutrition and affordable healthy diets for all, available at: <https://doi.org/10.4060/cb4474en>, accessed July 2021.

18 Saskia Osendarp, et al, 2021, The COVID-19 crisis will exacerbate maternal and child undernutrition and child mortality in low-and middle-income countries, Nature Food (2):476-48, available at: <https://www.nature.com/articles/s43016-021-00319-4>, accessed July 2020.

19 OECD, 2020, Food Supply Chains and COVID-19: Impacts and Policy Lessons, available at: <https://www.oecd.org/coronavirus/policy-responses/food-supply-chains-and-covid-19-impacts-and-policy-lessons-71b57aea/>, accessed July 2021

20 The World Bank Group, 2021, Social Protection and Jobs Responses to COVID-19: A Real-Time Review of Country Measures, available at: <https://documents1.worldbank.org/curated/en/281531621024684216/pdf/Social-Protection-and-Jobs-Responses-to-COVID-19-A-Real-Time-Review-of-Country-Measures-May-14-2021.pdf>, accessed July 2021.

21 United Nations, 2020, Policy Brief: The Impact of COVID-19 on Food Security and Nutrition, available at: https://www.un.org/sites/un2.un.org/files/sg_policy_brief_on_covid_impact_on_food_security.pdf, accessed July 2021.

22 UNICEF and World Food Programme, 2021, COVID-19: Missing More Than a Classroom – The impact of school closures on children's nutrition, available at: https://www.unicef-irc.org/publications/pdf/COVID-19_Missing_More_Than_a_Classroom_The_impact_of_school_closures_on_childrens_nutrition.pdf, accessed July 2021.

23 Anuradha Veranasi, 2020, How the Effects of COVID-19 Could Cause Food Insecurity until 2050, available at: <https://news.climate.columbia.edu/2020/12/18/covid-19-food-insecurity-2050/>, accessed July 2021.

24 Food and Agriculture Organization of the United Nations, 2020, COVID-19 and smallholder producers' access to markets, available at: <http://www.fao.org/3/ca8657en/CA8657EN.pdf>, accessed July 2021.

25 Gus Trompiz, Reuters, Surging food import costs threaten world's poorest, FAO warns, 2021, available at: <https://www.reuters.com/world/china/global-food-import-costs-surge-12-record-this-year-fao-2021-06-10/>, accessed July 2020.

26 Food and Agriculture Organization of the United Nations, 2021, Global food prices fall for the first time in 12 months, available at: <http://www.fao.org/news/story/en/item/1415065/icode/>, accessed July 2021.

27 Food and Agriculture Organization of the United Nations, 2021, FAO Food Price Index, available at: <http://www.fao.org/worldfoodsituation/foodpricesindex/en/>, accessed July 2021.

28 As above.

29 The World Bank Group, Food Security and COVID-19, 2021, available at: <https://www.worldbank.org/en/topic/agriculture/brief/food-security-and-covid-19>, accessed July 2021.

30 Food and Agriculture Organization of the United Nations, Price changes by countries, 2021, available at: <http://www.fao.org/datalab/website/web/food-prices>, accessed July 2021.

31 Food and Agriculture Organization of the United Nations, 2021, Low-Income Food-Deficit Countries List, available at: <http://www.fao.org/countryprofiles/lifdc/en/>, accessed July 2021.

32 Gus Trompiz, Reuters, Surging food import costs threaten world's poorest, FAO warns, 2021, available at: <https://www.reuters.com/world/china/global-food-import-costs-surge-12-record-this-year-fao-2021-06-10/>, accessed July 2020.

33 Reach, 2021, Briefing Note: Humanitarian Situation Overview in Northeast Syria, available at: https://www.impact-repository.org/document/reach/b2f66abb/REACH_SYR_Briefing_Note_Humanitarian-Situation-Overview-in-Northeast-Syria_June-2021.pdf, accessed July 2021.

34 United Nations Development Programme, 2020, COVID-19: Looming crisis in developing countries threatens to devastate economies and ramp up inequality, available at: <https://www.undp.org/press-releases/covid-19-looming-crisis-developing-countries-threatens-devastate-economies-and-ramp>, accessed July 2021.

35 Pew Research Center, 2021, The Pandemic Stalls Growth in the Global Middle Class, Pushes Poverty Up Sharply, available at: https://www.pewresearch.org/global/wp-content/uploads/sites/2/2021/03/PG_2021.03.18_Global-Middle-Class_FINAL.pdf, accessed July 2021.

36 The World Bank Group, 2020, Poverty and Shared Prosperity 2020: Reversals of Fortune, available at: <https://openknowledge.worldbank.org/bitstream/handle/10986/34496/9781464816024.pdf>, accessed July 2021.

37 Pew Research Center, 2021, The Pandemic Stalls Growth in the Global Middle Class, Pushes Poverty Up Sharply, available at: https://www.pewresearch.org/global/wp-content/uploads/sites/2/2021/03/PG_2021.03.18_Global-Middle-Class_FINAL.pdf, accessed July 2021.

38 International Labour Organization, 2021, World Employment and Social Outlook: Trends 2021, available at: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_794452.pdf, accessed July 2021.

39 As above.

40 Food and Agriculture Organization of the United Nations, IFAD, UNICEF, WFP and WHO, 2021, The State of Food Security and Nutrition in the World 2021: Transforming food systems for food security, improved nutrition and affordable healthy diets for all, available at: <https://doi.org/10.4060/cb4474en>, accessed July 2021.

41 As above.

42 As above.

43 As above.

44 As above.

45 As above.

46 World Vision International, 2021, High Risk – Low Priority: Why unlocking COVID-19 vaccine access for refugees and internally displaced communities is critical for children, available at: https://www.wvi.org/sites/default/files/2021-06/VWRD%20report_final%20with%20profiles.pdf, accessed July 2021.

47 World Food Programme, 2021, WFP Global Operational Response Plan 2021: Update #2, available at: <https://docs.wfp.org/api/documents/WFP-0000129022/download/?ga=2.251614528.739839674.1627441384-1781184949.1592275679>, accessed July 2021.

48 World Food Programme, 2021, WFP at a glance, available at: <https://www.wfp.org/stories/wfp-glance>, accessed July 2021.

49 As above.

50 World Food Programme, 2021, Pandemic job losses conspire with high food prices to push food out of reach for millions, available at: <https://www.wfp.org/news/pandemic-job-losses-conspire-high-food-prices-push-food-out-reach-millions>, accessed July 2021.

51 Chr. Michelsen Institute, 2014, Food security and social conflict, available at: <https://www.cmi.no/publications/file/5170-food-security-and-social-conflict.pdf>, accessed July 2021.

52 As above.

53 Jonathan Moyer and Oliver Kaplan, 2020, Foreign Policy, Will the Coronavirus Fuel Conflict?, available at: <https://foreignpolicy.com/2020/07/06/coronavirus-pandemic-fuel-conflict-fragile-states-economy-food-prices/>, accessed July 2021.

54 Faseeha Aman and Sadia Masood, 2020, How Nutrition can help to fight against COVID-19 Pandemic, Pakistan Journal of Medical Sciences 36:S121-S123, available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7306972/>, accessed July 2021.

55 United Nations, 2020, Policy Brief: The Impact of COVID-19 on Food Security and Nutrition, available at: https://www.un.org/sites/un2.un.org/files/sg_policy_brief_on_covid_impact_on_food_security.pdf, accessed July 2021.

56 UN News, 2013, Somalia famine killed nearly 260,000 people, half of them children – reports UN, available at: <https://news.un.org/en/story/2013/05/438682-somalia-famine-killed-nearly-260000-people-half-them-children-reports-un>, accessed July 2021.

57 UNICEF, World Health Organization and World Bank Group, 2021, Joint child malnutrition estimates: levels and trends in child malnutrition: key findings of the 2021 edition, available at: <https://www.who.int/publications/i/item/9789240025257>, accessed July 2021.

58 World Health Organization, 2021, Malnutrition, available at: <https://www.who.int/news-room/fact-sheets/detail/malnutrition>, accessed July 2021.

59 UNICEF and World Food Programme, 2020, Supporting children's nutrition during the COVID-19 pandemic, available at: https://docs.wfp.org/api/documents/WFP-0000115124/download/?_ga=2.78379092.1799394966.1588248971-858504465.1579802572, accessed July 2021.

60 United Nations, 2020, Policy Brief: The Impact of COVID-19 on Food Security and Nutrition, available at: https://www.un.org/sites/un2.un.org/files/sg_policy_brief_on_covid_impact_on_food_security.pdf, accessed July 2021.

61 Development Initiatives Poverty Research, 2020, Global Nutrition Report 2020, available at: <https://globalnutritionreport.org/reports/2020-global-nutrition-report/>, accessed July 2021.

62 Katherine Richards, Miski Abdi, Hannah Stephenson, Callum Northcote and Kirsten Mathieson, Save the Children, 2020, available at: https://resourcecentre.savethechildren.net/node/18600/pdf/nutrition_critical_english_asia_version.pdf, accessed July 2021.

63 Saskia Osendarp, et al, 2021, The COVID-19 crisis will exacerbate maternal and child undernutrition and child mortality in low-and middle-income countries, Nature Food (2):476-484, available at: <https://www.nature.com/articles/s43016-021-00319-4>, accessed July 2020.

64 As above.

65 United Nations, 2020, Policy Brief: The Impact of COVID-19 on Food Security and Nutrition, available at: https://www.un.org/sites/un2.un.org/files/sg_policy_brief_on_covid_impact_on_food_security.pdf, accessed July 2021.

66 UNICEF, 2021, Tracking the situation of children during COVID-19, available at: <https://data.unicef.org/resources/rapid-situation-tracking-covid-19-socioeconomic-impacts-data-viz/>, accessed July 2021.

67 Saskia Osendarp, et al, 2021, The COVID-19 crisis will exacerbate maternal and child undernutrition and child mortality in low-and middle-income countries, Nature Food (2):476-484, available at: [available at: https://www.nature.com/articles/s43016-021-00319-4](https://www.nature.com/articles/s43016-021-00319-4), accessed July 2020.

68 Christine McDonald CM, et al., 2013, The effect of multiple anthropometric deficits on child mortality: meta-analysis of individual data in 10 prospective studies from developing countries, The American Journal of Clinical Nutrition 97(4): 896–901, available at: <https://academic.oup.com/ajcn/article/97/4/896/4577150>, accessed July 2021.

69 Amy Rice, Lisa Sacco, Adnan Hyder and Robert Black, 2000, Malnutrition as an underlying cause of childhood deaths associated with infectious diseases in developing countries, Bulletin of the World Health Organization 78:1207-1221, available at: [https://www.who.int/bulletin/archives/78\(10\)1207.pdf](https://www.who.int/bulletin/archives/78(10)1207.pdf), accessed July 2021.

70 Sally Grantham-McGregor, Yin Bun Cheung, Santiago Cueto, Paul Glewwe, Linda Richter and Barbara Strupp, Grantham-McGregor, , Developmental potential in the first 5 years for children in developing countries, The Lancet 2007, 369(9555): 60-70, available at: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(07\)60032-4/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(07)60032-4/fulltext), accessed July 2021.

71 Gunther Fink, et al, 2016, Schooling and wage income losses due to early-childhood growth faltering in developing countries: National, regional, and global estimates, American Journal of Clinical Nutrition 104(1):104–112, available at: <https://spiral.imperial.ac.uk/bitstream/10044/1/38611/2/Am%20%20Clin%20Nutr-2016-Fink-104-12.pdf>, accessed July 2021.

72 Emanuela Galasso and Adam Wagstaff, The World Bank Group, 2017, What cost childhood stunting? And what returns to programs combatting stunting?, available at: <https://blogs.worldbank.org/developmenttalk/what-cost-childhood-stunting-and-what-returns-programs-combatting-stunting>, accessed July 2021.

73 Food and Agriculture Organization of the United Nations, 2013, State of Food and Agriculture 2013: Food systems for better nutrition, available at: <http://www.fao.org/3/i3300e/i3300e.pdf>, accessed July 2021.

74 Saskia Osendarp, Jonathan Akuoku, Robert Black, Derek Headey, Marie Ruel, Nick Scott, Meera Shekar, Neff Walker, Augustin Flory, Lawrence Haddad, David Laborde, Angela Stegmuller, Milan Thomas, Rebecca Heidkamp on behalf of the Standing Together for Nutrition Consortium, 2020, The potential impacts of the COVID-19 crisis on maternal and child undernutrition in low and middle income countries, available at: <https://www.researchsquare.com/article/rs-123716/v1>, accessed July 2021.

75 United Nations, 2020, Policy Brief: The Impact of COVID-19 on Food Security and Nutrition, available at: https://www.un.org/sites/un2.un.org/files/sg_policy_brief_on_covid_impact_on_food_security.pdf, accessed July 2021.

76 Food and Agriculture Organization of the United Nations, Price changes by countries, 2021, available at: <http://www.fao.org/datalab/website/web/food-prices>, accessed July 2021.

77 International Monetary Fund, 2021, Real GDP growth (annual % change) in 2020, available at: https://www.imf.org/external/datamapper/INGDP_RPCH@WEO/OEMDC/ADVEC/WEOWORLD, accessed July 2021.

78 Food and Agriculture Organization of the United Nations, IFAD, UNICEF, WFP and WHO, 2021, The State of Food Security and Nutrition in the World 2021: Transforming food systems for food security, improved nutrition and affordable healthy diets for all, available at: <https://doi.org/10.4060/cb4474en>, accessed July 2021.

79 Food and Agriculture Organization of the United Nations, 2021, Countries requiring external assistance for food: July 2021, available at: <http://www.fao.org/giews/country-analysis/external-assistance/en/>, accessed July 2021.

80 World Vision International, 2021, High Risk – Low Priority: Why unlocking COVID-19 vaccine access for refugees and internally displaced communities is critical for children, available at: https://www.wvi.org/sites/default/files/2021-06/VWRD%20report_final%20with%20profiles.pdf, accessed July 2021.

81 World Food Programme, 2021, WFP Global Operational Response Plan 2021: Update #2, available at: <https://docs.wfp.org/api/documents/WFP-0000129022/download/?ga=2.251614528.739839674.1627441384-1781184949.1592275679>, accessed July 2021.

82 Food Security Information Network, 2021, 2021 Global Report on Food Crises, available at: <https://docs.wfp.org/api/documents/WFP-0000127343/download/?ga=2.164791295.1769630836.1627445217-460748022.1626059644>, accessed July 2021.

83 Food Security Information Network, 2020, 2020 Global Report on Food Crises: September 2020 Update – In times of COVID-19, available at: https://docs.wfp.org/api/documents/WFP-0000119673/download/?_ga=2.250085638.120415484.1613951186-1534295176.1613951186, accessed July 2021.

84 UNICEF and WFP, 2020, Joint Message on School Health and Nutrition in the context of the COVID-19 in Eastern and Southern Africa, available at: https://docs.wfp.org/api/documents/WFP-0000115460/download/?_20ga=2.162499708.1780436895.1600862462-598531274.1591008139, accessed July 2021.

85 Southern Africa Development Community, 2020, Synthesis Report on the state of food and nutrition security and vulnerability in Southern Africa, available at: <https://www.sadc.int/>

files/4515/9586/5522/Synthesis_Report_2020_-ENGLISH.pdf, accessed July 2021.

86 Paul Akiwumi, UNCTAD, 2020, COVID-19: A threat to food security in Africa, available at: <https://unctad.org/news/covid-19-threat-food-security-africa>, accessed July 2021.

87 Gus Trompiz, Reuters, Surging food import costs threaten world's poorest, FAO warns, 2021, available at: <https://www.reuters.com/world/china/global-food-import-costs-surge-12-record-this-year-fao-2021-06-10/>, accessed July 2020.

88 Food and Agriculture Organization of the United Nations, Price changes by countries, 2021, available at: <http://www.fao.org/datalab/website/web/food-prices>, accessed July 2021.

89 UNHCR, 2021, WFP, UNHCR appeal for funding for over 3 million refugees hit by ration cuts in Eastern Africa, available at: <https://www.unhcr.org/en-au/news/press/2021/3/603dec5f4/wfp-unhcr-appeal-funding-3-million-refugees-hit-ration-cuts-eastern-africa.html>, accessed July 2021.

90 World Food Programme, 2021, WFP Global Operational Response Plan 2021: Update #2, available at: <https://docs.wfp.org/api/documents/WFP-0000129022/download/?ga=2.251614528.739839674.1627441384-1781184949.1592275679>, accessed July 2021.

91 Food Security Information Network, 2021, 2021 Global Report on Food Crises, available at: <https://docs.wfp.org/api/documents/WFP-0000127343/download/?ga=2.164791295.1769630836.1627445217-460748022.1626059644>, accessed July 2021.

92 World Vision International, 2021, High Risk – Low Priority: Why unlocking COVID-19 vaccine access for refugees and internally displaced communities is critical for children, available at: https://www.wvi.org/sites/default/files/2021-06/VWRD%20report_final%20with%20profiles.pdf, accessed July 2021.

93 UN News, 2021, As Plight of Syrians Worsens, Hunger Reaches Record High, International Community Must Fully Commit to Ending Decade-Old War, Secretary-General Tells General Assembly, available at: <https://www.un.org/press/en/2021/sgsm20664.doc.htm>, accessed July 2021.

94 Food Security Information Network, 2021, 2021 Global Report on Food Crises, available at: <https://docs.wfp.org/api/documents/WFP-0000127343/download/?ga=2.164791295.1769630836.1627445217-460748022.1626059644>, accessed July 2021.

95 Masoud Yazdanpanah, et al., 2021, The Impact of Livelihood Assets on the Food Security of Farmers in Southern Iran during the COVID-19 Pandemic, International Journal of Environmental Research and Public Health 18(10), available at: <https://www.mdpi.com/1660-4601/18/10/5310/htm>, accessed July 2021.

96 World Food Programme, 2020, Impact of COVID-19 in the Middle East, North Africa, Central Asia and Eastern Europe: Update #7, available at: <https://docs.wfp.org/api/documents/WFP-0000122017/download/>, accessed July 2021.

97 Food and Agriculture Organization of the United Nations, Price changes by countries, 2021, available at: <http://www.fao.org/datalab/website/web/food-prices>, accessed July 2021.

98 International Monetary Fund, 2020, Regional Economic Outlook: Middle East and Central Asia, available at: <https://www.imf.org/en/Publications/REO/MECA/%20Issues/2020/07/13/regional-economic-outlook-update-menap-cca#report>, accessed July 2021.

99 United Nations, 2020, Policy Brief: The Impact of COVID-19 on the Arab Region – An Opportunity to Build Back Better, available at: https://unsdg.un.org/sites/default/files/2020-07/sg_policy_brief_covid-19_and_arab_states_english_version_july_2020.pdf, accessed July 2021.

100 As above.

101 Reach, 2021, Briefing Note: Humanitarian Situation Overview in Northeast Syria, available at: https://www.impact-repository.org/document/reach/b2f66abb/REACH_SYR_Briefing-Note_Humanitarian-Situation-Overview-in-Northeast-Syria_June-2021.pdf, accessed July 2021.

102 Jeffrey Sachs, Guido Schmidt-Traub, Christian Kroll, Guillaume Lafortune, Grayson Fuller and Finn Woelm, 2020, Sustainable Development Report 2020: The Sustainable Development Goals and COVID-19, available at: http://s3.amazonaws.com/sustainabledevelopment.report/2020/2020_sustainable_development_report.pdf, accessed July 2021.

103 Majella Hurbey, 2017, Short changed: The cost of child undernutrition in Papua new Guinea, available at: <https://devpolicy.org/short-changed-cost-child-undernutrition-papua-new-guinea-20170824/>, accessed July 2021.

104 Food and Agriculture Organization of the United Nations, UNICEF, WFP and WHO, 2021, Asia and the Pacific Regional Overview of Food Security and Nutrition: Maternal and child diets at the heart of improving nutrition, available at: https://docs.wfp.org/api/documents/WFP-0000123013/download/?_ga=2.29400695.959209001.1626755556-460748022.1626059644, accessed July 2021.

105 Australian Centre for International Agricultural Research, 2020, COVID-19 and food systems in the Indo-Pacific: An assessment of vulnerabilities, impacts and opportunities for action, available at: <https://www.aciar.gov.au/publication/covid-19-and-food-systems>, accessed July 2021.

106 Food and Agriculture Organization of the United Nations, 2020, COVID-19 and the role of local food production in building more resilient local food systems, available at: <http://www.fao.org/3/cb1020en/CB1020EN.pdf>, accessed July 2021.

107 Food and Agriculture Organization of the United Nations, Price changes by countries, 2021, available at: <http://www.fao.org/datalab/website/web/food-prices>, accessed July 2021.

108 Mervyn Piesse, Future Directions International, COVID-19 and Food Security in the Pacific: Considerable Challenges with an Opportunity to ‘Build Back Better’, available at: <https://www.futuredirections.org.au/publication/covid-19-and-food-security-in-the-pacific-considerable-challenges-with-an-opportunity-to-build-back-better/>, accessed July 2021.

109 Australian Centre for International Agricultural Research, 2020, COVID-19 and food systems in the Indo-Pacific: An assessment of vulnerabilities, impacts and opportunities for action, available at: <https://www.aciar.gov.au/publication/covid-19-and-food-systems>, accessed July 2021.

110 Chris Hoy, 2020, Poverty and the pandemic in the Pacific, available at: <https://devpolicy.org/poverty-and-teh-pandemic-in-the-pacific-20200615-2/>, accessed July 2021.

111 Roland Rajah and Alexandre Dayant, Lowy Institute, 2020, Avoiding a Pacific Lost Decade: Financing the Pacific’s COVID-19 Recovery, available at: <https://www.loyyinstitute.org/publications/lost-decade-pacific>, accessed July 2021.

112 World Vision, 2020, Rapid Recovery Assessment: Pacific and Timor-Leste

113 Morgan Wairiu et al., 2020, Assessing Nutrition and Socio-economic Impact of COVID-19 on Rural and Urban Communities in Solomon Islands, available at: <https://pace.usp.ac.fj/wp-content/uploads/2018/04/CTA-2020-Solomon-Islands-Final.pdf>, accessed July 2021.

114 Food and Agriculture Organization of the United Nations, IFAD, UNICEF, WFP and WHO, 2021, The State of Food Security and Nutrition in the World 2021: Transforming food systems for food security, improved nutrition and affordable healthy diets for all, available at: <https://doi.org/10.4060/cb4474en>, accessed July 2021.

115 Food and Agriculture Organization of the United Nations, 2021, Countries requiring external assistance for food: July 2021, available at: <http://www.fao.org/giews/country-analysis/external-assistance/en/>, accessed July 2021.

116 Food and Agriculture Organization of the United Nations, UNICEF, WFP and WHO, 2021, Asia and the Pacific Regional Overview of Food Security and Nutrition 2020: Maternal and child diets at the heart of improving nutrition, available at: <https://www.unicef.org/rosa/media/12181/file/Asia%20and%20the%20Pacific%20Regional%20Overview%20of%20Food%20Security%20and%20Nutrition.pdf>, accessed July 2021.

117 Food and Agriculture Organization of the United Nations, IFAD, UNICEF, WFP and WHO, 2021, The State of Food Security and Nutrition in the World 2021: Transforming food systems for food security, improved nutrition and affordable healthy diets for all, available at: <https://doi.org/10.4060/cb4474en>, accessed July 2021.

118 UNICEF, 2020, Addressing the effects of COVID-19 on children, adolescents and mothers in South Asia, available at: <https://www.unicef.org/rosa/media/13061/file/4-page%20Summary%20Report.pdf>, accessed July 2021.

119 Shenggen Fan, Paul Teng, Ping Chew, Geoffrey Smith and Les Copeland, 2021, Food system resilience and COVID-19 – Lessons from the Asian experience, Global Food Security, available at: <https://doi.org/10.1016/j.gfs.2021.100501>, accessed July 2021.

120 Food and Agriculture Organization of the United Nations, 2020, COVID-19 and the role of local food production in building more resilient local food systems, available at: <http://www.fao.org/3/cb1020en/CB1020EN.pdf>, accessed July 2021.

121 Food and Agriculture Organization of the United Nations, Price changes by countries, 2021, available at: <http://www.fao.org/datalab/website/web/food-prices>, accessed July 2021.

122 Food and Agriculture Organization of the United Nations, IFAD, UNICEF, WFP and WHO, 2021, The State of Food Security and Nutrition in the World 2021: Transforming food systems for food security, improved nutrition and affordable healthy diets for all, available at: <https://doi.org/10.4060/cb4474en>, accessed July 2021.

123 BRAC, 2020, Rapid Perception Survey On COVID19 Awareness and Economic Impact (Final Draft), available at: https://www.brac.net/images/news/downloads/Final-draft_Rapid-Perception-Survey-on-COVID-19-Awareness-and-Economic-Impact_9-May-2020.pdf, accessed July 2021.

124 World Vision International, 2020, Unmasking the Impact of COVID-19 on Asia’s Most Vulnerable Children, available at: https://www.wvi.org/sites/default/files/2020-08/VV%20AP%20Unmasking%20Report%20240820_final.pdf, accessed July 2021.

125 World Vision International, 2021, East Africa Hunger Emergency Response, available at: <https://www.wvi.org/sites/default/files/2021-06/East%20Africa%20Hunger%20Emergency%20Response%20SitRep%203%20Draft%205%20for%20sign%20off.pdf>, accessed July 2021.

126 UNICEF, 2019, The State of the World’s Children 2019: Children, Food and Nutrition: Growing well in a changing world, available at: <https://www.unicef.org/media/63016/file/SOWC-2019.pdf>, accessed July 2021.

127 UNICEF India, Stop Stunting, available at: <https://www.unicef.org/india/what-we-do/stop-stunting>, accessed July 2021.

128 Monal Shroff, et al., 2011, Does maternal autonomy influence feeding practices and infant growth in rural India?, Social Science and Medicine 73(3):447–455, available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3164576/>, accessed July 2021.

- 129 Greg Seymour, 2017, Women's empowerment in agriculture: implications for technical efficiency in rural Bangladesh, *Agricultural Economics* 48:513–22, available at: <https://onlinelibrary.wiley.com/doi/10.1111/agec.12352>, accessed July 2021.
- 130 S Sharaunga S, Maxwell Mudhara and Aylneg Bogale, 2016, Effects of 'women empowerment' on household food security in rural KwaZulu-Natal province, *Development Policy Review* 34:223–52, available at: <https://onlinelibrary.wiley.com/doi/abs/10.1111/dpr.12151>, accessed July 2021.
- 131 Francis Tsiboe, et al., 2018, The Effect of Women's Empowerment in Agriculture on Household Nutrition and Food Poverty in Northern Ghana, *Social Indicators Research* 138(1):89–108.
- 132 I United Nations Foundation, 2013, A Roadmap for Promoting Women's Economic Empowerment, available at: http://www.womeneconroadmap.org/sites/default/files/WEE_Roadmap_Report_Final.pdf, accessed July 2021.
- 133 UK Foreign, Commonwealth and Development Office, 2020, New Foreign, Commonwealth and Development Office will lead global action to ensure world's poorest are protected from ravages of coronavirus and famine, available at: <https://www.gov.uk/government/news/new-foreign-commonwealth-development-office-will-lead-global-action-to-ensure-worlds-poorest-are-protected-from-ravages-of-coronavirus-and-famine>, accessed July 2021.
- 134 UK Foreign, Commonwealth and Development Office, 2021, Policy Paper: G7 famine prevention and humanitarian crises compact, available at: <https://www.gov.uk/government/publications/g7-foreign-and-development-ministers-meeting-may-2021-communique/g7-famine-prevention-and-humanitarian-crises-compact>, accessed July 2021.
- 135 Majella Hurbey, 2017, Short changed: The cost of child undernutrition in Papua new Guinea, available at: <https://devpolicy.org/short-changed-cost-child-undernutrition-papua-new-guinea-20170824/>, accessed July 2021.
- 136 UNICEF, 2019, The State of the World's Children 2019: Children, Food and Nutrition: Growing well in a changing world, available at: <https://www.unicef.org/media/63016/file/SOWC-2019.pdf>, accessed July 2021.



THIS MEANS THE WORLD