



# STATE OF THE LEAST DEVELOPED COUNTRIES 2021

Building back better in response  
to COVID-19

*Follow up on the Implementation of the Istanbul Programme  
of Action for the Least Developed Countries*



UN-OHRLLS

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**Note**

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# FOREWORD

I am pleased to share with you the 2021 mandated report on the State of the LDCs. It focuses on the effects of the COVID-19 pandemic, which has brought the structural handicaps of LDCs into the limelight as it affected them through multiple channels and exacerbated their vulnerabilities.

Thus, COVID-19 has put the development progress achieved over the past 10 years—the period of the implementation of the Istanbul Programme of Action—into jeopardy, just at the time when we are preparing for the Fifth United Nations Conference on the LDCs (LDC5), which will take place in Doha in January 2022.

This Conference is expected to provide a comprehensive appraisal of the implementation of the Istanbul Programme of Action; address new and emerging challenges and opportunities; reinvigorate the global commitment to addressing the special needs of LDCs; and mobilize additional international support and formulate and adopt a renewed partnership for LDCs.

The 2021 report on the State of the LDCs prepared by my office is a call to action. The report analyses the effects of COVID-19 in all spheres of live in LDCs, from health and education to remittances and employment. It also looks at macroeconomic and financial effects.

It sheds light on the actions people and governments in LDCs took to combat the pandemic—from SMEs producing hand sanitizer and universities developing COVID-19 tests to governments expanding support to SMEs and building on the experience from previous epidemics to contain the spread of the virus.

The report presents recommendations on how to build back better and enhance resilience to future shocks. As LDCs are often affected by multiple shocks at the same time, not least by shocks related to climate change, measures in a new programme of action need to be bold and targeted.

It is my sincere hope that this report will contribute to further dialogue and enhanced action in support of the LDCs and an ambitious outcome of the LDC5 Conference, building on the 2030 Agenda for Sustainable Development.



**Fekitamoeloa ‘Utoikamanu**  
Under-Secretary-General, and High Representative  
for the Least Developed Countries, Landlocked  
Developing Countries and Small Island Developing  
States

LIST OF MAIN ACRONYMS

The Access to COVID-19 Tools (ACT) Accelerator	<b>ACT-Accelerator</b>	European Union	<b>EU</b>
Asian Development Bank	<b>ADB</b>	Food and Agriculture Organization of the United Nations	<b>FAO</b>
African Development Bank	<b>AfDB</b>		
African Continental Free Trade Area	<b>AfCFTA</b>	Foreign Direct Investment	<b>FDI</b>
Agricultural Growth Programme	<b>AGP</b>	Green Climate Fund	<b>GCF</b>
Artificial Intelligence	<b>AI</b>	Gross Domestic Product	<b>GDP</b>
Asian Infrastructure Investment Bank	<b>AIIB</b>	Global Humanitarian Response Plan	<b>GHRP</b>
Advance Market Commitment	<b>AMC</b>	Gross National Income	<b>GNI</b>
Africa Medical Supplies Platform	<b>AMSP</b>	Heavily indebted poor countries	<b>HIPC</b>
African Risk Capacity	<b>ARC</b>	Human Immunodeficiency Virus	<b>HIV</b>
The Association of Southeast Asian Nations	<b>ASEAN</b>	Inter-Agency Standing Committee	<b>IASC</b>
Asteroid Terrestrial-impact Last Alert System	<b>ATLAS</b>	International Air Transport Association	<b>IATA</b>
African Union	<b>AU</b>	Information and Communications Technology	<b>ICT</b>
African Vaccine Acquisition Task Team	<b>AVATT</b>	International Fund for Agricultural Development	<b>IDA</b>
The Central Bank of West African States	<b>BCEAO</b>	International Fund for Agricultural Development	<b>IFAD</b>
Base Erosion and Profit Shifting	<b>BEPS</b>	International Food Policy Research Institute	<b>IFPRI</b>
Brazil, Russia, India, China, and South Africa	<b>BRICS</b>	Institute of International Finance	<b>IIF</b>
Caribbean Community and Common Market	<b>CARICOM</b>	International Labour Organization	<b>ILO</b>
Catastrophe Bonds	<b>Catbonds</b>	Integrated Management of Childhood Illnesses	<b>IMCI</b>
Countercyclical Provisions	<b>CCP</b>	International Monetary Fund	<b>IMF</b>
Caribbean Catastrophe Risk Insurance Facility	<b>CCRIF SPC</b>	International Organization for Migration	<b>IOM</b>
Segregated Portfolio Company		Investment Promotion Agency	<b>IPA</b>
Catastrophe Containment and Relief Trust	<b>CCRT</b>	Istanbul Programme of Action	<b>IPoA</b>
Center for Disease Control and Prevention	<b>CDC</b>	International Renewable Energy Agency	<b>IRENA</b>
Committee for Development Policy	<b>CDP</b>	Interregional Initiative	<b>IRI</b>
Coalition for Epidemic Preparedness Innovations	<b>CEPI</b>	Islamic Development Bank	<b>IsDB</b>
Common Market for Eastern and Southern Africa	<b>COMESA</b>	International Telecommunications Union	<b>ITU</b>
Conference of the Parties	<b>COP</b>	Global Knowledge Program on Migration and Development	<b>KNOMAD</b>
COVID-19 Vaccines Global Access	<b>COVAX</b>		
Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2)	<b>COVID-19</b>	Least Developed Countries	<b>LDC</b>
		Fifth UN Conference on Least Developed Countries	<b>LDC5</b>
Development Assistance Committee	<b>DAC</b>	Low Income Country	<b>LIC</b>
Debt Service Suspension Initiative	<b>DSSI</b>	Low- and Middle-Income Country	<b>LMIC</b>
Everything but Arms	<b>EBA</b>	Long-Term Energy Scenarios	<b>LTES</b>
Extended Credit Facility	<b>ECF</b>	Measles-containing-vaccines	<b>MCV</b>
Economic Community of West African States	<b>ECOWAS</b>	Mass Drugs Administration	<b>MDA</b>
Enhanced Integrated Framework	<b>EIF</b>	Multilateral Development Bank	<b>MDB</b>
Economic and Social Commission for Asia and the Pacific	<b>ESCAP</b>	Multilateral Debt Relief Initiative	<b>MDRI</b>

Middle East Respiratory Syndrome	<b>MERS</b>	Tuberculosis	<b>TB</b>
Most Favored Nation	<b>MFN</b>	Total Final Energy Consumption	<b>TFEC</b>
Multi-hazard early warning system	<b>MHEWS</b>	Trade Facilitation Agreement	<b>TFA</b>
Multilateral Investment Guarantee Agency	<b>MIGA</b>	Trade-Related Aspects of Intellectual Property Rights	<b>TRIPS</b>
Multinational Enterprise	<b>MNE</b>	United Kingdom	<b>UK</b>
Memorandum of Understanding	<b>MoU</b>	United Nations	<b>UN</b>
Multi-Partner Trust Fund	<b>MPTF</b>	United Nations Capital Development Fund	<b>UNCDF</b>
Micro-, Small- and Medium-Enterprises	<b>MSME</b>	United Nations Conference on Trade and Development	<b>UNCTAD</b>
New Development Bank of the BRICS	<b>NDB</b>		
Nationally Determined Contributions	<b>NDC</b>	United Nations Department of Economic and Social Affairs	<b>UN DESA</b>
Non-Governmental Organization	<b>NGO</b>	United Nations Development Programme	<b>UNDP</b>
Neglected Tropical Disease	<b>NTD</b>	United Nations Environment Programme	<b>UNEP</b>
Official Development Assistance	<b>ODA</b>	United Nations Educational, Scientific and Cultural Organization	<b>UNESCO</b>
Organisation for Economic Co-operation and Development	<b>OECD</b>		
Oxford Covid-19 Government Response Tracker	<b>OxCGRt</b>	United Nations Framework Convention on Climate Change	<b>UNFCCC</b>
Polymerase Chain Reaction	<b>PCR</b>	United Nations Human Settlement Programme	<b>UN-Habitat</b>
Pacific Catastrophe Risk Insurance Company	<b>PCRIC</b>	United Nations International Children's Emergency Fund	<b>UNICEF</b>
Personal Protective Equipment	<b>PPE</b>		
Poverty Reduction and Growth Trust	<b>PRGT</b>	United Nations Office for the Coordination of Humanitarian Affairs	<b>UN-OCHA</b>
Rapid Credit Facility	<b>RCF</b>		
Remittance Community Task Force	<b>RCTF</b>	The United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States	<b>UN-OHRLLS</b>
Rapid Financing Instrument	<b>RFI</b>		
South Asian Association for Regional Cooperation	<b>SAARC</b>		
Severe acute respiratory syndrome	<b>SARS</b>	United States	<b>US</b>
Sustainable Development Goals	<b>SDGs</b>	Value-added Tax	<b>VAT</b>
Special Drawing Rights	<b>SDR</b>	World Development Indicators	<b>WDI</b>
Small Island Developing States	<b>SIDS</b>	World Food Programme	<b>WFP</b>
Small- and Medium-Enterprise	<b>SME</b>	World Health Organization	<b>WHO</b>
Science, Technology, and Innovation	<b>STI</b>	World Trade Organization	<b>WTO</b>



## EXECUTIVE SUMMARY

This flagship report is a comprehensive assessment of where the Least Developed Countries (LDCs) stand, a year into the COVID-19 pandemic. The state of LDCs requires urgent attention and action from LDCs governments, development partners, the private sector and civil society alike. This report provides recommendations where such actions are most needed—from investment in people to sustainable structural transformation and the use of technologies to the mobilization of finance. These recommendations go well beyond recovery from COVID-19, but their implementation would ensure that LDCs can build back better and at the same time enhance sustainable resilience to future shocks and accelerate the achievement of their development goals.

Due to their multiple, long-standing structural impediments to sustainable development, including low human development and high vulnerabilities, LDCs were severely affected by COVID-19—directly and indirectly—in all priority areas of the IPoA. COVID-19 has not only taken a toll on health and livelihoods but also significantly affected international trade, through collapsing commodity prices, disruption of regional and global value chains for manufacturing and a virtual standstill of international tourism, leading to a sharp reduction in GDP growth and a rise in poverty, food and nutrition insecurity, and inequality. The pandemic has laid bare and further exacerbated pre-existing inequalities within and between countries and it is expected that the effects of COVID-19 will jeopardize LDCs' progress towards sustainable development for years to come.

With the Istanbul Programme of Action for the LDCs (IPoA) nearing its end and the next programme of action to be agreed by UN member countries in Doha, Qatar in January 2022, it is a crucial moment to take stock of progress and challenges of the last ten years, while thinking ahead to the next ten year programme of action for the LDCs, which coincides with the last ten years of the Sustainable Development Goals (SDGs).

### THE SPREAD OF COVID-19 AND DIRECT HEALTH EFFECTS

The impact of COVID-19 in LDCs has not been as great in absolute numbers as in many other countries, but due to weak health systems, gaps in social safety nets, scarce resources, and other compounding factors, the impact has been felt deeply. Investments must be made in all these areas and special attention must be paid to providing access to vaccines, in order to come out of this pandemic safely and build more resilient systems to withstand future shocks.

While COVID-19 cases seemed relatively low in LDCs at the beginning of the pandemic, they picked up in several countries towards the end of 2020. Towards end of March 2021 LDCs had more than 1.8 million COVID-19 cases. Among those most affected in their national health consequences, many are countries which compounded the COVID-19 crisis with an already critical political situation or the effects of other shocks.

Long ignored risks, such as the underinvestment in health and gaps in social safety nets, have heightened vulnerabilities in LDCs. Closing the gaps in water, sanitation and hygiene, which are among the cheapest measures, is critical to containing the spread of COVID-19 and other diseases. While health systems are weak and access to equipment for containment and protection very limited, several LDCs were able to build on experiences from previous epidemics in containing the spread of COVID-19 and produce face masks, hand sanitizers and other protective and medical equipment. However, the diversion of scarce funds to deal with COVID-19 affected other health services, including other essential vaccination programmes, disproportionately affecting the poor.

#### Main recommendations

- For public health policy in LDCs, testing, isolating and contact tracing all need to be increased. It will also be crucial to ensure that flexible responses are driven by high quality real-time data.
- LDCs' health care systems must be strengthened and better funded. The delivery of essential health services must be protected to avoid disruptions to other priority health services that should instead be assured even during acute phases of the pandemic.
- Adequate, affordable, and rapid access to new diagnostics and treatments should be ensured in support of pandemic responses and recovery efforts by LDC Governments.
- Effective COVID-19 vaccines should be global public goods and their equitable access must be ensured for everyone, everywhere through the full funding of the COVID-19 Vaccines Global Access (COVAX) Facility.

### THE CONSEQUENCES OF COVID-19 ON WELLBEING

In addition to health effects, COVID-19 has brought about significant disruption in everyday life, with wider socio-economic implications. Even before the pandemic, the rate of extreme poverty in LDCs, measured as the population living

below US\$1.90 per day, had only declined slowly in LDCs and was about 35.1 percent in 2018. Indications from the impact of COVID-19 on poverty show an upward trend, wiping out years of progress made in alleviating poverty.

Wages and employment of a large number of workers in LDCs were affected by the pandemic. As most workers in LDCs are in the informal economy, the lockdown affected them disproportionately as they have little cash reserves, no access to teleworking and weak social protection systems, and many were forced to maintain their working routines out of economic necessity. Due to their over-representation in labour-intensive low-skilled activities, women were most severely affected.

The COVID-19 pandemic caused an unprecedented disruption of education provision in LDCs, which was already low before the pandemic. The combination of being out of school and the loss of family livelihoods caused by the pandemic may leave girls especially vulnerable and exacerbate exclusion and inequality. These losses will likely accumulate into large and permanent learning losses as many children fall behind during school closures and never catch up.

While several LDCs have increased utilization of e-education and remote learning platforms, these depend heavily on access to electricity, Internet access, digital skills, online tools and access to appropriate devices. Thus, learning inequalities are widening—between developed and developing countries and between the rich and the poor in the same country.

#### Main recommendations

- The expansion of social protection programs, including cash transfers, has an important role to play in pandemic response and to support the generation of inclusive growth. Specific measures should be tailored towards women workers with care responsibilities at home, families that may resort to child labour as a coping strategy, as well as other vulnerable subgroups. For persons with disabilities it is essential to remove barriers to enrolling in social protection schemes, such as lack of accessible information.
- It will be important for LDCs to promote a job-rich recovery. Additionally, avoiding premature withdrawal of policy support, such as unemployment benefits and programmes to reskill and upskill will help to build back better after the pandemic. There is also a need to prepare for the future of work, especially in light of on-going technological transformation.
- Producing accessible digital and media resources based on the curriculum will not only allow a quicker response, but their use in ordinary times can also enrich learning

opportunities for children in and out of school. Furthermore, it is important to build teachers' capacity to manage a remote 'virtual' classroom, improve their presentation techniques, train them to tailor follow-up sessions with caregivers and blend technology effectively into their lessons.

### EFFECTS OF COVID-19 ON FOOD SECURITY, NUTRITION, AND AGRICULTURE IN THE LDCs

Most LDCs were affected by COVID-19 at a time when food security was already under threat and they were heavily affected by the disruptions of supply chains and increasing food prices. Poor nutrition and undernourishment have become increasingly localized in the LDCs, with 35.11 percent of the world's share in 2019. Since low-income households tend to spend a higher proportion of their income on food, the impact on their nutrition and food security can be significant. Logistic disruptions, loss of income, loss of school feeding programmes due to disruptions in school systems, and other associated impacts could likely have lifelong consequences for children in the LDCs as a result of greater difficulties in accessing an adequate diet.

Central to the COVID-19 response is providing services in rural areas and strengthening governance mechanisms adapted to the specific challenges that COVID poses to the agricultural sector.

The process of agricultural transformation and nutrition transition, accelerated by the changes brought by the pandemic, could represent an opportunity to support poverty eradication and, at the same time, promote better nutrition and health-related outcomes.

#### Main recommendations

- A substantial scale-up of resources is required as supporting smallholder agriculture can trigger structural transformation in the agriculture of the LDCs.
- Promoting diversification of agricultural productions, integrated farming systems, and eco-system-based strategies that combine productivity with the conservation and enhancement of natural capital can be fruitful.
- Extension services can play a crucial role in supporting smallholder agriculture. Support to promote the adoption of sustainable practices, such as eco-labels, certification systems, and other norms, can facilitate the integration of poor farmers into the food value chain.
- Develop financial instruments targeting producers' organisations like credit guarantee funds that can support investment plans and increase productivity

- Increased infrastructure development, better irrigation systems and facilities for technological solutions can support farmers in accessing information, markets and adding value to their products

## TRADE AND PRODUCTIVE CAPACITY WERE HIT HARD

The value of LDC merchandise exports declined 16 percent in the first half of 2020, more than the drop in world exports, due to the temporary decline in commodity prices and disruptions of supply chains. This further reduced the LDC share in global trade, which was already below 1 percent and well below the IPoA target. Sectors that are specifically affected include textiles and clothing, where factories closed due to cancellation of orders, and tourism, which came to a virtual standstill in many LDCs.

The recently launched African Continental Free Trade Agreement (AfCFTA) provides additional market access opportunities for African LDCs and is expected to spur accelerated industrialization through diversified productive capacities.

Micro, small and medium enterprises (MSMEs) constitute over 90 percent of firms in most LDCs, and more than 75 percent of them are estimated to be informal. MSMEs are ‘overrepresented’ in some of the sectors most affected by COVID-19, such as non-food manufacturing, accommodation and food services, retail and wholesale trade, travel, and transport. MSMEs often lack the resilience, flexibility and safety nets to deal with the adjustment costs triggered by the COVID-19-induced demand and supply shocks. These firms may be the first ones to exit while economies are locked down, or if the effects of the pandemic linger over a long period.

Many LDC governments provided short-term, ‘survivalist’ measures (such as wage support programs and credit support), designed to alleviate the immediate hardships facing MSMEs, but less were able to implement growth-oriented structural policies (such as measures to support innovation, training and redeployment, and streamlined regulations).

Access to clean, affordable energy will be critical to any attempt at building sustainable productive capacity. Energy transition investment can help reinvigorate the economy, support the recovery phase, and create a wide range of jobs. The recent rapid decline of renewable power generation costs is setting records and rendering renewable power to be the cheapest source of electricity in many LDCs. By placing renewable energy at the core of post-COVID green recovery plans, governments can signal long-term public commitment to the industry, boosting investor confidence and scaling up investments needed for renewable energy development.

### Main recommendations

- LDC governments should continue to facilitate MSMEs’ access to finance beyond the crisis. They can do this by setting up credit guarantee schemes, by encouraging banks to set aside dedicated funds to lend to MSMEs and by keeping the cost of credit low.
- The diversification of LDCs exports and integration into regional and global value chains, which would reduce their economic vulnerability can be promoted through enhanced duty-free quota-free market access, including by other developing countries as well as the implementation of trade facilitation measures.
- LDCs need to strengthen institutions dedicated to renewable energy policy, regulation, and standardization to drive change at the required scale and pace.
- LDCs need enhanced access to different sources of financing as well as dedicated support to build capacity and assist developers in the preparation of bankable renewable energy projects.

## MACROECONOMIC INDICATORS DETERIORATED IN ALL LDCs

On average, GDP in LDCs is estimated to have declined by 1.3 percent in 2020, which is well below previous rates and the IPoA target of 7 percent. It is expected that the recovery in LDCs will be slower than in other countries due to their structural vulnerabilities and exposure to multiple shocks at the same time.

The effects of COVID-19 are expected to lead to a significant decline in government revenue in most LDCs both in absolute terms and a share of GDP. At the same time, most LDCs have increased spending to address the health, social and economic challenges. However, the size of announced fiscal packages in most LDCs is much lower than in other developing countries, as many governments face fiscal constraints. LDCs collectively only managed to increase direct and indirect fiscal support by 2.6 percent of their GDP in 2020, while the size of the stimulus for the developed countries averaged 15.8 percent of their much larger GDP.

Due to the nature of the COVID-19 crisis, the associated loss of growth and investment, as well as deterioration of a country’s external position and debt position, depend not only on the conventional macroeconomic policy instruments but crucially on the effectiveness of public health measures as well as economic and social support to households and enterprises.

### Main recommendations

- LDCs need to reform their tax systems to make them more equitable and enhance their effectiveness.
- International support for tax reforms through capacity building and training is also crucial.
- International cooperation in combatting corporate tax avoidance needs to be enhanced to ensure LDCs are able to effectively tax cross-border activity and offshore assets.

## THE ROLE OF SCIENCE, TECHNOLOGY AND INNOVATION (STI) DURING A PANDEMIC

Digital technologies have great potential to bring economic and social development benefits to LDCs. For that to happen, considerable effort is required to empower and equip LDC governments and the private sector with the capacity to leverage it in areas ranging from tele-working, e-education, telemedicine, to digital finance. Ensuring universal equitable access requires emphasis on digital infrastructure and technologies both during the pandemic response and recovery phases, and during the resiliency-building efforts.

Governments can learn from each other to improve the strategic co-ordination of different policy bodies related to COVID-19 research and innovation. Collective solutions that provide a ‘one-stop shop’ for the centralization of information on funding opportunities can help ensure that appropriate conditions for collaborative research and sharing of preliminary research findings and data are in place to reap their full benefits.

### Main recommendations

- Extending digital technologies to remote areas, such as connecting the rural-urban supply chains, can be cost-effective and can fight pockets of informality and poverty in rural areas. This would also strengthen rural-urban linkages and drive rural transformation, if intermediate cities serve as transmission hubs.
- Invest in digital education and skills development to close the digital divide and increase human capacity so that LDCs will be able to reap the benefits of digital transformation.
- Digital fluency and life-long-learning systems will be required, especially in local environments that provide the required knowledge and adaptation possibilities for entrepreneurs.
- A whole-of-government approach, involving multi-sector and multi-partner co-ordination mechanisms is needed to leverage science, technology and innovation for LDCs.

Financing to Address the COVID-19 Crisis and Prepare for a Sustainable Recovery

External flows to the LDCs from remittances, Foreign Direct Investment (FDI), and Official Development Assistance (ODA) have seen a sharp decline during the COVID-19 pandemic. LDCs have the greatest need and the least access to development finance, and at the same time, the number of countries at risk of debt-crisis is rising. Solutions that look at long-term investment needs and sustainable development are required.

While remittances to LDCs had been increasing rapidly before the pandemic, they declined by around 2 percentage points in 2020. For other external flows like FDI and ODA the declining trend accelerated. At the same time debt levels were rising and LDCs accessed more non-concessional finance.

COVID-19 led to a sharp decline in FDI, including in sectors that are crucial for a sustainable recovery. Thus, investment promotion strategies need to be adapted to new sustainable development opportunities during the recovery after COVID-19, including resetting priorities and targeting investment and business activities supporting the SDGs as well as attracting impact investors facilitating green and digital investment.

Due to the rapidly increasing financing needs ODA is now needed more than ever by LDCs. But there are serious risks that overall ODA might be reduced over the coming years, partly due to lower GNI of development partners, and that LDCs will not be spared from this decline. Meeting the ODA commitments by DAC donors to provide 0.15-0.2 percent of their GNI to LDCs would significantly increase the availability of finance for a sustainable recovery.

While the Debt Service Suspension Initiative, in which 30 LDCs participated, provided much needed liquidity, its scope has been limited. Sustainable solutions to the debt challenges of LDCs need to include debt relief. The COVID-19 crisis highlights gaps in the current international sovereign debt restructuring architecture that should be addressed as soon as possible in order to reduce the likelihood of future crises.

### Main recommendations

- LDC specific ODA targets need to be met and at least 50 percent of ODA should be allocated to the LDCs. Enhancing its quality should include alignment with country priorities in line with the SDGs.
- Blended finance investments need to increasingly focus on risk reduction by investing in projects and sectors that increase resilience of economies and societies to future crises and contribute towards achieving the SDGs.



- In order to significantly enhance FDI in LDCs measures to promote investment need to be strengthened, ranging from investment guarantees and insurance schemes to capacity building for Investment Promotion Agencies.
- LDCs can augment South-South cooperation by translating their solidarity into strategic partnerships to make inroads in priority areas in order to embark on sustainable and inclusive recovery.
- Debt solutions such as debt-stock reductions and swift-er debt-restructuring should be considered. Official creditors could apply better terms to their current and future credits to LDCs, including a broad range of state contingent element to help countries better manage various future shocks. Debt relief should be integrated in a broader strategy that takes investment needs for long-term sustainable development into consideration. Technical assistance and capacity building for LDCs should be provided to strengthen their debt management.

## RESILIENCE PACKAGE FOR RECOVERY AND PREPAREDNESS FOR FUTURE SHOCKS

LDCs are severely impacted by the direct and indirect effects of COVID-19 in the achievement of all SDGs, which are often compounded by other shocks—from climate risks to conflict. If the spread of the pandemic and its debilitating impacts are not properly managed, the pre-existing conditions of LDCs, described above, will further worsen, leading to even higher vulnerabilities. Similar to the global financial crisis, the impacts of COVID-19 are likely to last longer in LDCs, even after the pandemic is contained.

This situation calls for building resilience in such a way that the systems are able to absorb threats and maintain their inherent structure and behavior and improve system function and capacity to counter disruptions and help avert systemic collapse. Countries need to design systems, including infrastructure, supply chains, economic, financial and public health systems, that are dynamic, smart and resilient. This can bring additional benefits on top of addressing the impacts of COVID-19 by making the national economic system stronger and resilient.

Given the depth, breadth and complexity of challenges that the LDCs have been facing in the context of various hazards and shocks, there is no silver bullet that can address all of them. A dedicated multi-hazard early warning system and a comprehensive multi-hazard crises mitigation and resilience

building mechanism for LDCs including its terms of reference, institutional mechanism and funding modalities could contribute to such efforts.

### Main recommendations

- A multi-hazard early warning system is an important tool to mitigate the impacts of various hazards to a greater extent. With its four diverse key elements—risk knowledge, monitoring and warning service, dissemination and communication, and response capability—this system will support LDCs to better position themselves against shocks and crises. LDCs need support to develop and implement modern multi-hazard early warning systems at the national and regional levels.
- Building resilience against various potential covariate shocks and crises is the first line of defense to protect lives and livelihoods of the people.
- The international community should consider establishing a comprehensive multi-hazard crises mitigation and resilience building mechanism for LDCs by leveraging existing measures and initiatives. A number of measures, including financial, regulatory and institutional, need to put in place to establish and operationalize this mechanism for LDCs.
- It is crucial for LDCs to secure fast-tracked and easy access to various risk mitigation and resilience-building funds at the regional and global levels, including funding for adaptation to climate change; and to get access to adequate bilateral financial and technical support for ex-ante and ex-post measures in this respect.

As the international community gathers around preparations for the Fifth UN Conference on the Least Developed Countries (LDC5), in the midst of continued uncertainties surrounding the pandemic duration, building back better has now become a central policy objective as a shared responsibility requiring strong global solidarity. New integrated approaches that go beyond the actions agreed in the IPoA and Sustainable Development Goals (SDGs) are needed to build systemic resilience to future shocks in all LDCs, through mechanisms that allow them to deal with risks associated to various types of shocks, both in terms of preparedness and recovery. This means going beyond increased support for LDCs and focusing on the creation of opportunities for LDCs to take the leadership in their own development and the building of inclusive societies.

## RÉSUMÉ

Ce rapport phare est une évaluation intégrale de la situation des pays les moins avancés (PMA), un an après le début de la pandémie de Covid-19. La situation des PMA exige une attention et des mesures urgentes de la part des gouvernements des PMA, des partenaires de développement, du secteur privé et de la société civile. Ce rapport fournit des recommandations là où ces actions sont les plus indispensables – de l'investissement dans les personnes à la transformation structurelle durable et de l'utilisation des technologies à la mobilisation des financements. Ces recommandations vont bien au-delà du redressement après Covid-19, mais leur mise en œuvre permettrait aux PMA de mieux se reconstruire tout en renforçant leur résistance durable aux chocs futurs et en accélérant la réalisation de leurs objectifs de développement.

En raison de leurs multiples obstacles structurels de longue date au développement durable, notamment leur faible développement humain et leur vulnérabilité élevée, les PMA ont été gravement touchés par la Covid-19 – directement et indirectement – dans tous les domaines prioritaires du Programme d'action d'Istanbul (IPoA). La Covid-19 n'a pas seulement fait des ravages sur la santé et les moyens de subsistance, mais a également fortement affecté le commerce international, grâce à l'effondrement des prix des produits de base, la perturbation des chaînes de valeur régionales et mondiales pour l'industrie manufacturière, et un quasi-arrêt du tourisme international, entraînant une forte réduction de la croissance du PIB et une augmentation de la pauvreté, des inégalités et de l'insécurité alimentaire et nutritionnelle. La pandémie a mis à nu et a exacerbé les inégalités préexistantes au sein des pays ainsi qu'entre ces derniers, et l'on s'attend à ce que l'impact de la Covid-19 compromette les progrès des PMA vers le développement durable pour les années à venir.

Alors que le Programme d'Action d'Istanbul pour les PMA touche à sa fin et que le prochain programme d'action doit être approuvé par les états membres de l'ONU à Doha, au Qatar, en janvier 2022, c'est un moment crucial pour faire le point sur les progrès et les défis des dix dernières années, tout en réfléchissant au prochain programme d'action décennal pour les PMA, qui coïncide avec les dix dernières années des Objectifs de développement durable (ODD).

### LA PROPAGATION DE LA COVID-19 ET LES EFFETS DIRECTS SUR LA SANTÉ

L'effet de la Covid-19 sur les PMA n'a pas été aussi important en chiffres absolus que dans de nombreux autres pays, mais en raison de la faiblesse des systèmes de santé, des lacunes

des filets de sécurité sociale, de la pénurie des ressources et d'autres facteurs aggravants, son impact a été profondément ressenti. Des investissements doivent être réalisés dans tous ces domaines et une attention particulière doit être accordée à l'accès aux vaccins, afin de sortir de cette pandémie en toute sécurité et de construire des systèmes plus résilients pour résister aux chocs futurs.

Alors que les cas de Covid-19 semblaient relativement faibles dans les PMA au début de la pandémie, ils ont augmenté dans plusieurs pays vers la fin 2020. Vers la fin mars 2021, les PMA comptaient plus de 1,8 million de cas de Covid-19. Parmi les pays les plus touchés dans leurs conséquences sanitaires nationales, beaucoup sont des pays qui ont dû faire face à la crise du Covid-19 avec une situation politique déjà critique, ou d'effets d'autres chocs.

Des risques longtemps ignorés, tels que le sous-investissement dans la santé et les lacunes des filets de sécurité sociale, ont accentué les vulnérabilités des PMA. Combler les lacunes en matière d'eau, d'assainissement et d'hygiène – qui sont parmi les mesures les moins coûteuses – est essentiel pour contenir la propagation de la Covid-19 et d'autres maladies. Alors que les systèmes de santé sont faibles et que l'accès aux équipements de confinement et de protection est très limité, plusieurs PMA ont pu s'appuyer sur les expériences des épidémies précédentes pour contenir la propagation de la Covid-19 et produire des masques de protection, des désinfectants pour les mains et d'autre équipement médical et de protection. Cependant, le détournement des rares fonds pour faire face à la Covid-19 a affecté d'autres services de santé, notamment d'autres programmes de vaccination essentiels, touchant de manière disproportionnée les pauvres.

### Principales recommandations :

- Pour la politique de santé publique dans les PMA, le dépistage, l'isolement et la recherche des contacts doivent tous être renforcés. Il sera également crucial de veiller à ce que les réponses flexibles soient guidées par des données en temps réel de haute qualité.
- Les systèmes de soins de santé des PMA doivent être renforcés et mieux financés. La prestation des services de santé essentiels doit être protégée afin d'éviter toute perturbation des autres services de santé prioritaires, qui devraient au contraire être assurés même pendant les phases critiques de la pandémie.
- Un accès adéquat, abordable et rapide aux nouveaux diagnostics et traitements devrait être assuré pour soutenir

les réponses à la pandémie et les efforts de rétablissement des gouvernements des PMA.

- Les vaccins Covid-19 efficaces doivent être des biens publics mondiaux et leur accès équitable doit être garanti pour tous, partout, grâce au financement intégral du Mécanisme d'Accès Mondial aux Vaccins Covid-19 (COVAX).

LES CONSÉQUENCES DE COVID-19 SUR LE BIEN-ÊTRE

Outre les effets sur la santé, la Covid-19 a entraîné des perturbations importantes dans la vie quotidienne, avec des implications socio-économiques plus larges. Même avant la pandémie, le taux d'extrême pauvreté dans les PMA, mesuré par la population vivant avec moins de 1,90 USD par jour, n'avait diminué que lentement dans les PMA et était d'environ 35,1 % en 2018. Les indications de l'impact de la Covid-19 sur la pauvreté montrent une tendance à la hausse, effaçant des années de progrès réalisés dans la lutte contre la pauvreté.

Les salaires et l'emploi d'un grand nombre de travailleurs dans les PMA ont été affectés par la pandémie. Comme la plupart des travailleurs des PMA appartiennent à l'économie informelle, ils ont été touchés de manière disproportionnée par le confinement, car ils disposent de peu de réserves d'argent, n'ont pas accès au télétravail et ont des systèmes de protection sociale faibles ; beaucoup ont été contraints de maintenir leurs habitudes de travail par nécessité économique. En raison de leur surreprésentation dans les activités peu qualifiées à forte intensité de main-d'œuvre, les femmes ont été les plus durement touchées.

La Covid-19 a provoqué une perturbation sans précédent de l'offre éducative dans les PMA, qui était déjà faible avant la pandémie. La combinaison de la non-scolarisation et de la perte des moyens de subsistance des familles causée par la pandémie peut rendre les filles particulièrement vulnérables et exacerber l'exclusion et l'inégalité. Ces pertes s'accumuleront probablement en pertes d'apprentissage importantes et permanentes, car de nombreux enfants prennent du retard pendant la fermeture des écoles et ne le rattrapent jamais.

Alors que plusieurs PMA ont augmenté l'utilisation de l'éducation en ligne et des plateformes d'apprentissage à distance, celles-ci dépendent fortement de l'accès à l'électricité, de l'accès à Internet, des compétences numériques, des outils en ligne et de l'accès aux appareils appropriés. Ainsi, les inégalités d'apprentissage se creusent entre les pays développés et les pays en développement, et entre les riches et les pauvres d'un même pays.

Principales recommandations :

- L'expansion des programmes de protection sociale, y compris les transferts en espèces, a un rôle important à jouer dans la réponse à la pandémie et le soutien envers une croissance inclusive. Des mesures spécifiques doivent être adaptées pour les femmes qui travaillent ayant des responsabilités familiales, aux familles qui peuvent avoir recours au travail des enfants comme stratégie d'adaptation, ainsi qu'aux autres sous-groupes vulnérables. Pour les personnes handicapées, il est essentiel de supprimer les obstacles à l'inscription aux régimes de protection sociale, tels que le manque d'informations accessibles.
- Il sera important pour les PMA de promouvoir une reprise riche en emplois. En outre, éviter le retrait prématuré du soutien politique, comme les allocations de chômage et les programmes de requalification et d'amélioration des compétences, aidera à mieux reconstruire après la pandémie. Il est également nécessaire de se préparer à l'avenir du travail, notamment dans la lignée de la transformation technologique en cours.
- La production de ressources numériques et médiatiques accessibles, basées sur le programme scolaire, permettra non seulement de réagir plus rapidement, mais leur utilisation en temps ordinaire pourra également enrichir les possibilités d'éducation pour les enfants, qu'ils soient scolarisés ou non. De plus, il est important de renforcer la capacité des enseignants à gérer une classe "virtuelle" à distance, d'améliorer leurs techniques de présentation, de les former à adapter les séances de suivi avec les soignants et d'intégrer efficacement la technologie dans leurs cours.

LES EFFETS DU COVID-19 SUR LA SÉCURITÉ ALIMENTAIRE, LA NUTRITION ET L'AGRICULTURE DANS LES PMA

La plupart des PMA ont été touchés par la Covid-19 à un moment où la sécurité alimentaire était déjà menacée et ils ont été fortement affectés par les perturbations des chaînes d'approvisionnement et l'augmentation des prix des denrées alimentaires. La mauvaise nutrition et la sous-alimentation se sont de plus en plus localisées dans les PMA, avec 35,11 % de la part mondiale en 2019. Puisque les ménages à faible revenu ont tendance à consacrer une plus grande proportion de leurs revenus à l'alimentation, l'impact sur leur nutrition et leur sécurité alimentaire peut être important. Les perturbations logistiques, la perte de revenus, la perte des programmes d'alimentation scolaire en raison des perturbations des systèmes scolaires, et d'autres impacts associés pourraient

probablement avoir des conséquences à vie pour les enfants dans les PMA en raison de plus grandes difficultés à accéder à une alimentation adéquate.

L'élément central de la réponse à la Covid-19 est la fourniture de services dans les zones rurales et le renforcement des mécanismes de gouvernance adaptés aux défis spécifiques que la Covid-19 pose au secteur agricole.

Le processus de transformation de l'agriculture et de transition nutritionnelle, accéléré par les changements apportés par la pandémie, pourrait représenter une opportunité de soutenir l'éradication de la pauvreté et, en même temps, de promouvoir de meilleurs résultats en matière de nutrition et de santé.

Principales recommandations :

- Une augmentation substantielle des ressources est nécessaire car le soutien à l'agriculture des petits exploitants peut déclencher une transformation structurelle de l'agriculture des PMA.
- La promotion de la diversification des productions agricoles, des systèmes d'exploitation intégrés et des stratégies fondées sur les écosystèmes qui combinent la productivité avec la conservation et l'amélioration du capital naturel peut être fructueuse.
- Les services de vulgarisation peuvent jouer un rôle crucial dans le soutien à l'agriculture des petits exploitants. Le soutien visant à promouvoir l'adoption de pratiques durables, telles que les écolabels, les systèmes de certification et autres normes, peut faciliter l'intégration des agriculteurs pauvres dans la chaîne de valeur alimentaire.
- Développer des instruments financiers ciblant les organisations de producteurs, tels que les fonds de garantie de crédit, qui peuvent soutenir les plans d'investissement et augmenter la productivité.
- Le développement accru des infrastructures, l'amélioration des systèmes d'irrigation et la mise en place de solutions technologiques peuvent aider les agriculteurs à accéder aux informations et aux marchés et à ajouter de la valeur à leurs produits.

LE COMMERCE ET LA CAPACITÉ PRODUCTIVE ONT ÉTÉ DUREMENT TOUCHÉS

La valeur des exportations de marchandises des PMA a diminué de 16 % au cours du premier semestre de 2020, soit davantage que la baisse des exportations mondiales, en raison de la baisse temporaire des prix des produits de base et des perturbations des chaînes d'approvisionnement. Cela

a encore réduit la part des PMA dans le commerce mondial, qui était déjà inférieure à 1 % et bien en deçà de l'objectif de l'IPoA. Les secteurs particulièrement touchés sont le textile et l'habillement, où les usines ont fermé en raison de l'annulation des commandes, et le tourisme, qui s'est pratiquement arrêté dans de nombreux PMA.

L'accord de libre-échange continental africain (AfCFTA) récemment lancé, offre des possibilités supplémentaires d'accès au marché pour les PMA africains et devrait stimuler une industrialisation accélérée grâce à des capacités de production diversifiées.

Les micro, petites et moyennes entreprises (MPME) constituent plus de 90 % des entreprises dans la plupart des PMA, et on estime que plus de 75 % d'entre elles sont informelles. Les MPME sont "surreprésentées" dans certains des secteurs les plus touchés par la Covid-19, comme l'industrie manufacturière non alimentaire, l'hébergement et la restauration, le commerce de détail et de gros, les voyages et les transports. Les MPME manquent souvent de résilience, de flexibilité et de filets de sécurité pour faire face aux coûts d'ajustement déclenchés par les chocs d'offre et de demande induits par la Covid-19. Ces entreprises peuvent être les premières à se retirer lorsque les économies sont bloquées, ou si les effets de la pandémie se prolongent sur une longue période.

De nombreux gouvernements de PMA ont pris des mesures de survie à court terme (telles que des programmes de soutien salarial et de soutien au crédit), destinées à atténuer les difficultés immédiates auxquelles sont confrontées les MPME, mais ils ont été moins nombreux à mettre en œuvre des politiques structurelles axées sur la croissance (telles que des mesures de soutien à l'innovation, à la formation et au redéploiement, ainsi qu'une rationalisation des réglementations).

L'accès à une énergie propre et abordable sera essentiel à toute tentative de création d'une capacité de production durable. Les investissements dans la transition énergétique peuvent contribuer à redynamiser l'économie, à soutenir la phase de reprise et à créer un large éventail d'emplois. La baisse récente et rapide des coûts de production d'énergie renouvelable établit des records et fait de l'énergie renouvelable la source d'électricité la moins chère dans de nombreux PMA. En plaçant les énergies renouvelables au cœur des plans de relance verte post-Covid, les gouvernements peuvent signaler un engagement public à long terme en faveur de ce secteur, en renforçant la confiance des investisseurs et en augmentant les investissements nécessaires au développement des énergies renouvelables.



Principales recommandations :

- Les gouvernements des PMA doivent continuer à faciliter l'accès des MPME au financement au-delà de la crise. Ils peuvent le faire en mettant en place des systèmes de garantie du crédit, en encourageant les banques à réserver des fonds spécifiques pour prêter aux MPME et en maintenant le coût du crédit à un niveau bas.
- La diversification des exportations des PMA et leur intégration dans les chaînes de valeur régionales et mondiales, qui réduiraient leur vulnérabilité économique, peuvent être encouragées par un meilleur accès au marché en franchise de droits et de quotas, y compris par d'autres pays en développement, ainsi que par la mise en œuvre de mesures de facilitation des échanges.
- Les PMA doivent renforcer les institutions qui se consacrent à la politique, à la réglementation et à la normalisation des énergies renouvelables afin de conduire le changement à l'échelle et au rythme requis.
- Les PMA ont besoin d'un meilleur accès aux différentes sources de financement ainsi que d'un soutien spécifique pour renforcer les capacités et aider les développeurs à préparer des projets d'énergie renouvelable monnayable.

LES INDICATEURS MACROÉCONOMIQUES SE SONT DÉTÉRIORÉS DANS TOUS LES PMA

En moyenne, on estime que le PIB des PMA aurait diminué de 1,3 % en 2020, ce qui est bien inférieur aux taux précédents et à l'objectif de 7 % fixé par l'IPoA. La reprise dans les PMA devrait être plus lente que dans les autres pays en raison de leurs vulnérabilités structurelles et de leur exposition à de multiples chocs simultanés.

Les effets de la Covid-19 devraient entraîner une baisse significative des recettes publiques dans la plupart des PMA, tant en termes absolus qu'en pourcentage du PIB. Dans le même temps, la plupart des PMA ont augmenté leurs dépenses pour faire face aux défis sanitaires, sociaux et économiques. Cependant, la taille des paquets fiscaux annoncés dans la plupart des PMA est beaucoup plus faible que dans d'autres pays en développement, car de nombreux gouvernements sont confrontés à des contraintes budgétaires. Collectivement, les PMA ne sont parvenus à augmenter le soutien fiscal direct et indirect que de 2,6 % de leur PIB en 2020, alors que le montant des mesures de relance des pays développés s'élevait en moyenne à 15,8 % de leur PIB, ce qui est bien plus important.

En raison de la nature de la crise Covid-19, la perte de croissance et d'investissement qui en découle, ainsi que la détérioration de la position extérieure et de l'endettement d'un pays, dépendent non seulement des instruments de politique macroéconomique classiques, mais aussi et surtout, de l'efficacité des mesures de santé publique ainsi que du soutien économique et social aux ménages et aux entreprises.

Principales recommandations :

- Les PMA doivent réformer leurs systèmes fiscaux pour les rendre plus équitables et renforcer leur efficacité.
- Le soutien international aux réformes fiscales par le biais du renforcement des capacités et de la formation est également crucial.
- La coopération internationale en matière de lutte contre l'évitement fiscale des entreprises doit être renforcée pour que les PMA soient en mesure de taxer efficacement les activités transfrontalières et les actifs offshore.

LE RÔLE DE LA SCIENCE, DE LA TECHNOLOGIE ET DE L'INNOVATION (STI) PENDANT UNE PANDÉMIE

Les technologies numériques ont un grand potentiel pour apporter aux PMA des avantages en matière de développement économique et social. Pour cela, des efforts considérables sont nécessaires pour donner aux gouvernements et au secteur privé des PMA les moyens de les exploiter dans des domaines du télétravail, de l'éducation en ligne, de la télémédecine et de la finance numérique. Pour garantir un accès universel équitable, il faut mettre l'accent sur l'infrastructure et les technologies numériques, tant pendant les phases de réponse et de rétablissement en cas de pandémie que pendant les efforts de renforcement de la résilience.

Les gouvernements peuvent apprendre les uns des autres pour améliorer la coordination stratégique des différents organes politiques liés à la recherche et à l'innovation concernant la Covid-19. Les solutions collectives qui fournissent un "guichet unique" pour la centralisation des informations sur les possibilités de financement peuvent contribuer à garantir que les conditions appropriées pour la recherche collaborative et le partage des résultats de recherche préliminaires et des données sont en place pour en tirer tous les avantages.

Principales recommandations :

- L'extension des technologies numériques aux zones reculées, comme la connexion des chaînes d'approvisionnement rurales-urbaines, peut être rentable et permettre de lutter contre les poches d'informalité et de pauvreté dans les zones rurales. Cela permettrait également de renforcer les liens entre les zones rurales et urbaines et de favoriser la transformation des campagnes, si les villes intermédiaires servent de centres de transmission.
- Investir dans l'éducation numérique et le développement des compétences pour réduire la fracture numérique et accroître les capacités humaines afin que les PMA soient en mesure de tirer parti de la transformation numérique.
- La maîtrise du numérique et les systèmes d'apprentissage tout au long de la vie seront nécessaires, notamment dans les environnements locaux qui offrent aux entrepreneurs les connaissances et les possibilités d'adaptation requises.
- Une approche pangouvernementale, impliquant des mécanismes de coordination multisectoriels et multipartenaires, est nécessaire pour mettre la science, la technologie et l'innovation au service des PMA.

FINANCEMENT POUR FAIRE FACE À LA CRISE DE LA COVID-19 ET PRÉPARER UNE REPRISE DURABLE

Les flux externes vers les PMA provenant des transferts de fonds, des investissements directs étrangers (IDE) et de l'aide publique au développement (APD) ont connu une forte baisse pendant la pandémie de COVID-19. Les PMA sont ceux qui ont le plus besoin et le moins accès au financement du développement et, dans le même temps, le nombre de pays menacés par la crise de la dette augmente. Des solutions qui tiennent compte des besoins d'investissement à long terme et du développement durable sont nécessaires.

Alors que les transferts de fonds vers les PMA avaient augmenté rapidement avant la pandémie, ils ont diminué d'environ 2 points de pourcentage en 2020. Pour d'autres flux externes comme l'IDE et l'APD, la tendance à la baisse s'est accélérée. Dans le même temps, les niveaux d'endettement ont augmenté et les PMA ont accédé à davantage de financements non concessionnels.

La Covid-19 a entraîné une forte baisse des IDE, y compris dans des secteurs cruciaux pour une reprise durable. Ainsi, les stratégies de promotion des investissements doivent être adaptées aux nouvelles opportunités de développement durable lors de la reprise après Covid-19, notamment en redéfinissant les priorités et en ciblant les investissements et les activ-

ités commerciales soutenant les ODD ainsi qu'en attirant les investisseurs d'impact facilitant les investissements verts et numériques.

En raison de l'augmentation rapide des besoins de financement, les PMA ont plus que jamais besoin de l'APD. Mais il existe des risques sérieux que l'APD globale soit réduite au cours des prochaines années, en partie en raison de la baisse du revenu national brut (RNB) des partenaires de développement, et que les PMA ne soient pas épargnés par cette baisse. Le respect des engagements pris par les donateurs du Comité d'aide au développement (CAD) de l'OCDE en matière d'APD, à savoir consacrer 0,15% à 0,2 % de leur RNB aux PMA, augmenterait considérablement la disponibilité des financements pour une reprise durable.

Si l'initiative de suspension du service de la dette, à laquelle 30 PMA ont participé, a permis d'apporter des liquidités bien nécessaires, sa portée a été limitée. Les solutions durables aux problèmes d'endettement des PMA doivent inclure l'allègement de la dette. La crise de la Covid-19 met en évidence les lacunes de l'architecture internationale actuelle de restructuration de la dette souveraine, qu'il convient de combler au plus vite afin de réduire la probabilité de crises futures.

Principales recommandations :

- Les objectifs d'APD spécifiques aux PMA doivent être atteints et au moins 50 % de l'APD doit être allouée aux PMA. L'amélioration de sa qualité devrait inclure l'alignement sur les priorités des pays en accord avec les ODD.
- Les investissements financiers mixtes doivent se concentrer de plus en plus sur la réduction des risques en investissant dans des projets et des secteurs qui augmentent la résilience des économies et des sociétés face aux crises futures et contribuent à la réalisation des ODD.
- Afin d'augmenter de manière significative les IDE dans les PMA, les mesures de promotion des investissements doivent être renforcées, allant des garanties d'investissement et des régimes d'assurance au renforcement des capacités des agences de promotion des investissements.
- Les PMA peuvent renforcer la coopération Sud-Sud en traduisant leur solidarité en partenariats stratégiques pour progresser dans les domaines prioritaires afin de s'engager dans une relance durable et inclusive.
- Il convient d'envisager des solutions en matière de dette, telles que la réduction de l'encours de la dette et une restructuration plus rapide de la dette. Les créanciers officiels pourraient appliquer de meilleures conditions à leurs crédits actuels et futurs aux PMA, y compris un large



éventail d'éléments conditionnels de l'État pour aider les pays à mieux gérer divers chocs futurs. L'allègement de la dette devrait être intégré dans une stratégie plus large qui tienne compte des besoins d'investissement pour un développement durable à long terme. Les PMA devraient bénéficier d'une assistance technique et d'un renforcement de leurs capacités pour améliorer la gestion de leur dette.

ENSEMBLE DE MESURES DE RÉSILIENCE  
POUR LA REPRISE ET LA PRÉPARATION AUX  
CHOCs FUTURS

Les PMA sont gravement touchés par les effets directs et indirects de la Covid-19 dans la réalisation de tous les ODD, qui sont souvent aggravés par d'autres chocs – allant des risques climatiques aux conflits. Si la propagation de la pandémie et ses effets débilissants ne sont pas correctement gérés, les conditions préexistantes des PMA, décrites ci-dessus, vont encore s'aggraver, entraînant une vulnérabilité encore plus grande. À l'instar de la crise financière mondiale, les effets de la Covid-19 risquent de durer plus longtemps dans les PMA, même une fois la pandémie endiguée.

Cette situation exige de renforcer la résilience de manière à ce que les systèmes soient capables d'absorber les menaces et de maintenir leur structure et leur comportement inhérents, et d'améliorer la fonction et la capacité du système pour contrer les perturbations et contribuer à éviter un effondrement systémique. Les pays doivent concevoir des systèmes, notamment des infrastructures, des chaînes d'approvisionnement, des systèmes économiques, financiers et de santé publique, qui soient dynamiques, intelligents et résistants. Cela peut apporter des avantages supplémentaires en plus de la lutte contre les impacts de la Covid-19 en rendant le système économique national plus fort et résistant.

Compte tenu de la profondeur, de l'ampleur et de la complexité des défis auxquels les PMA sont confrontés dans le contexte de divers dangers et chocs, il n'existe pas de solution miracle qui puisse tous les résoudre. Un système d'alerte précoce multirisque dédié et un mécanisme complet d'atténuation des crises multirisques et de renforcement de la résilience pour les PMA, y compris son mandat, son mécanisme institutionnel et ses modalités de financement, pourraient contribuer à ces efforts.

Principales recommandations :

- Un système d'alerte précoce multi-aléa est un outil important pour atténuer dans une plus large mesure les

impacts de divers risques. Avec ses quatre éléments clés divers – connaissance des risques, service de surveillance et d'alerte, diffusion et communication, et capacité de réponse – ce système aidera les PMA à mieux se positionner face aux chocs et aux crises. Les PMA ont besoin d'un soutien pour développer et mettre en œuvre des systèmes modernes d'alerte précoce multi-aléas aux niveaux national et régional.

- Le renforcement de la résistance face à divers chocs et crises covariantes potentiels constitue la première ligne de défense pour protéger les vies et les moyens de subsistance des populations.
- La communauté internationale devrait envisager d'établir un mécanisme global d'atténuation des crises multirisques et de renforcement de la résilience pour les PMA en s'appuyant sur les mesures et initiatives existantes. Un certain nombre de mesures, notamment financières, réglementaires et institutionnelles, doivent être mises en place pour établir et rendre opérationnel ce mécanisme pour les PMA.
- Il est crucial pour les PMA d'obtenir un accès rapide et facile aux divers fonds d'atténuation des risques et de renforcement de la résilience aux niveaux régional et mondial, y compris le financement de l'adaptation au changement climatique, et d'avoir accès à un soutien financier et technique bilatéral adéquat pour les mesures ex ante et ex post à cet égard.

Alors que la communauté internationale se rassemble autour des préparatifs de la Cinquième Conférence des Nations Unies sur les Pays les Moins Avancés (LDC5), dans un contexte d'incertitudes persistantes quant à la durée de la pandémie, mieux reconstruire est devenu un objectif politique central en tant que responsabilité partagée, nécessitant une forte solidarité mondiale. De nouvelles approches intégrées allant au-delà des actions convenues dans le cadre du Programme d'Action d'Istanbul (IPoA) et des objectifs de développement durable (ODD) sont nécessaires pour renforcer la résilience systémique aux chocs futurs dans tous les PMA, grâce à des mécanismes qui leur permettent de faire face aux risques associés à divers types de chocs, tant en termes de préparation que de redressement. Cela signifie qu'il faut aller au-delà d'un soutien accru aux PMA et se concentrer sur la création d'opportunités pour que les PMA prennent le leadership de leur propre développement et de la construction de sociétés inclusives.

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# INTRODUCTION

As the Istanbul Programme of Action (IPoA) is coming to an end, various assessments of its implementation are being conducted in the lead up to the Fifth UN Conference on the Least Developed Countries (LDC5). It is clear that progress in achieving the IPoA goals and objectives was slow and uneven among the 46 Least Developed Countries (LDCs), even before the COVID-19 crisis.

The United Nations (UN) defines the LDCs as the group of currently 46 Member States facing multiple, long-standing structural impediments to sustainable development and characterized by low human development and high vulnerabilities. These multifaceted impediments to sustainable development include remoteness from markets and smallness (with many being landlocked or small islands), low productivity, including in agriculture, and high burden of communicable disease as well as high prevalence of natural disasters. Quite a few are suffering conflict or emerging from one. The effects of these structural disadvantages do not just add up but are often mutually reinforcing.

In addition, LDCs have been facing challenges with respect to access to dedicated international support measures. For example, only few LDCs have been able to benefit from preferential market access and many continue to face obstacles in accessing development finance instruments. While LDCs make up 14 percent of the global population they account for only about 1.3 percent of global Gross Domestic Product (GDP) and around 1 percent of global trade and 1.4 percent of global Foreign Direct Investment (FDI).

Nevertheless, LDCs also achieved progress in various areas such as health, education, gender, access to information and communications technology (ICT), sustainable energy, export concentration and governance. However, such progress has often not been sufficient to narrow the gap vis-a-vis more advanced countries, especially in areas that are crucial for accelerating progress, such as tertiary education and broadband subscriptions. In addition, LDCs continue to be disproportionately affected by the climate crisis, with cascading effects of different shocks, often at the same time.

While LDCs did not fully meet the IPoA objective of half of them reaching the graduation thresholds, progress accelerated considerably. By 2011 only 2 LDCs had graduated from the category, while 4 others graduated between 2011 and 2020.

In addition, 16 LDCs are meeting the graduation thresholds in 2021 and are at different stages in the graduation process. However, they remain highly vulnerable to economic and environmental shocks.<sup>1</sup>

The COVID-19 pandemic directly and indirectly affected LDCs in all priority areas of the IPoA. COVID-19 has not only taken a toll on health and livelihoods but also significantly affected international trade, through collapsing commodity prices, disruption of regional and global value chains for manufacturing and a virtual standstill of international tourism, leading to a sharp reduction in GDP growth and a rise in poverty, food and nutrition insecurity, and inequality. The pandemic has laid bare and further exacerbated pre-existing inequalities within and between countries. The digital divide between the connected and not connected has widened. Fragile education systems in LDCs have struggled tremendously while limited social protection could only partially compensate for the loss in income. The agricultural sector was also affected by the disruption of markets. Together with the widening fiscal deficit, the drop in FDI, portfolio investments, remittances as well as high illicit financial flows and unsustainable debt levels, it is expected that the effects of COVID-19 will jeopardize LDCs’ progress towards sustainable development for years to come.

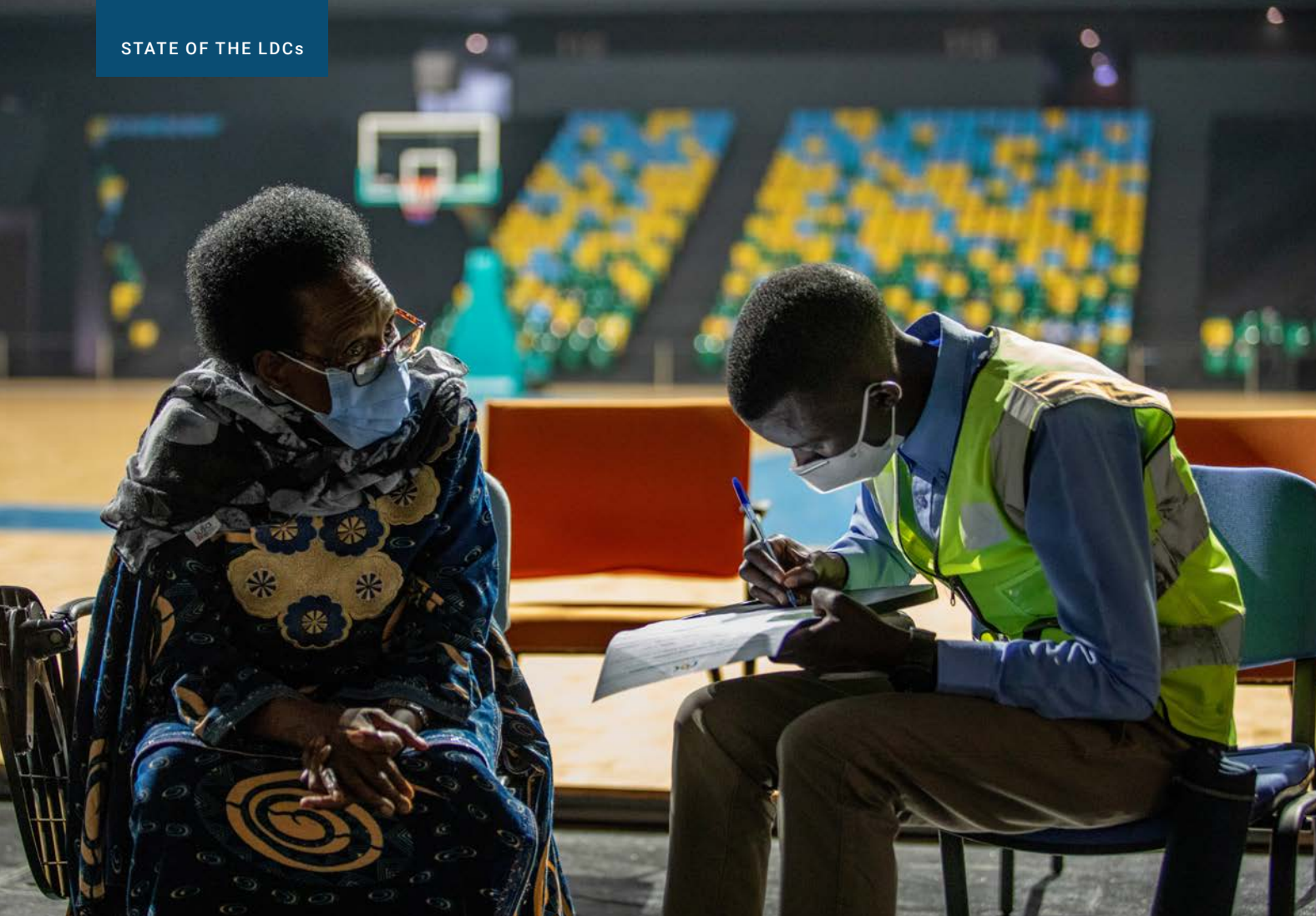
The group of LDCs has called for a global stimulus package for the least developed countries to be funded and implemented rapidly to address the impacts of COVID-19 and build back better. The underlying components of the stimulus package include, in the short run, (1) Emergency public health package for the LDCs; (2) Support for social protection systems; (3) Education support for students; (4) 0.15 percent of gross national income of DAC donors as ODA to LDCs; (5) Full debt cancellation; (6) Lifting trade barriers and scaling up aid for trade; (7) increased SDR allocations for LDCs; and (8) Protection of migrants of least developed countries and promotion of their remittances.<sup>2</sup> However, there is a need to develop measures to enhance sustainable resilience to various future shocks to lay the foundation for accelerated graduation from the category.

As the international community gathers around preparations for the Fifth UN Conference on the LDCs in the midst of continued uncertainties surrounding the pandemic duration, building back better has now become a central policy objective as a shared responsibility requiring strong global solidarity. The

<sup>1</sup> See UN document E/2021/33.

<sup>2</sup> See UN document A/74/843.





A volunteer helps a woman fill out paperwork before her COVID-19 vaccine in Rwanda. COVAX is the only global initiative that is working with governments and manufacturers to ensure COVID-19 vaccines are available worldwide to both higher-income and lower-income countries.

Photo: WHO/Andre Rugema

most urgent priority is to stop the pandemic. It is a moral responsibility of the global community to go beyond nationalistic interests and maintain focus on its poorest, most vulnerable members, since the pandemic will not be over anywhere—as a public health crisis or as a drag on the global economy—until it is under control everywhere.

New integrated approaches that go beyond the actions agreed in the IPoA and Sustainable Development Goals (SDGs) are needed to build systemic resilience to future shocks in all LDCs, through mechanisms that allow them to deal with risks associated to various types of shocks, both in terms of

preparedness and recovery. Focus should be on the transformation of systems from agriculture, digital economy and social protection to the international finance architecture, taking a more integrated approach. The capacity of LDCs and development partners to handle risk and jointly develop new solutions, including through the use of new technologies needs to be strengthened. This means going beyond increased support for LDCs but focus on the creation of opportunities for LDCs to truly take the leadership in their own development and the building of inclusive societies.

## A. SPREAD OF COVID-19 AND DIRECT HEALTH EFFECTS

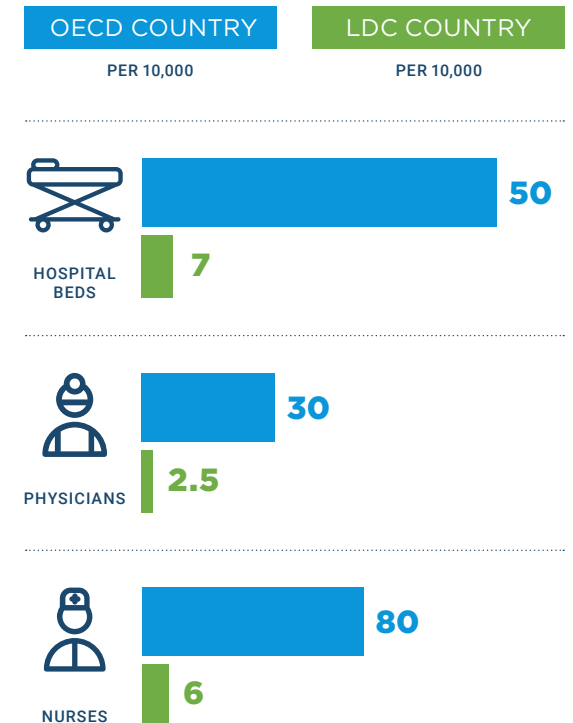
### A.1 THE STATE OF COVID-19 IN LEAST DEVELOPED COUNTRIES

With over 124 million confirmed cases and 2.7 million deaths world-wide, reported by the World Health Organization (WHO) (at the time of writing),<sup>3</sup> the COVID-19 pandemic is one of the greatest global challenges in the history of the United Nations. No country was ready to face the novel coronavirus, an invisible enemy that quickly spread across the globe wreaking havoc on even the most advanced public health systems and economies, causing immeasurable human suffering and an unprecedented global social and economic crisis. Grave concerns were immediately voiced about the disastrous effects the pandemic could have on the poorest countries with the weakest health care systems in the world, i.e. the least developed countries.

Almost one year later, the only solution to the COVID-19 pandemic seems to be finally within reach. Several effective vaccines have been developed but the pandemic will not be over anywhere—as a public health crisis or as a drag on the global economy—until it is under control everywhere. Equitable global distribution of effective vaccines is both a moral responsibility of the global community and a global public good requiring strong global solidarity. Until that is assured, the virus and its variants will continue to ravage the world.

Only a handful of least developed countries have so far been spared by the health effects of the virus, thanks to their extreme geographical remoteness further accentuated by the implementation of border closures and travel bans. The rest of the LDCs, especially in Sub-Saharan Africa and Asia, have seen the number of confirmed COVID-19 cases and deaths grow since the beginning of the pandemic, even if at a much lower rate than elsewhere at least initially. Figures A.1 and A.2 show the spread of COVID-19 in the LDCs as compared to other developing countries as well as high-income countries.

### Healthcare System Capacities: OECD countries versus Least Developed Countries



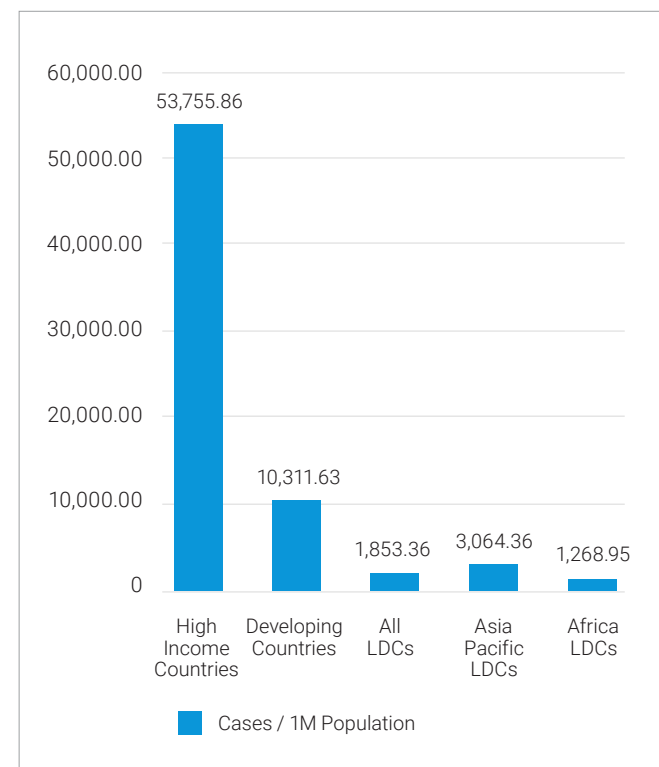
<sup>3</sup> The cutoff date for the data analysis in this section is 25 March 2021. All data is from the WHO database on COVID-19, unless otherwise stated. The database is constantly updated: <https://covid19.who.int/>.

Figures A.1 and A.2 show that the health outcome of the COVID-19 pandemic has been limited in LDCs relative to that in other countries. While LDCs account for about 14 percent of the global population, LDCs have reported only 2 percent of the confirmed global COVID-19 cases and 1 percent of the deaths. The comparatively lower health toll of the pandemic in LDCs has been attributed to different reasons, including early policy action and demographic factors. The figures might also be underestimated because of many factors, among which are relatively limited testing capacities and low health center attendance rates. The pandemic affected most LDCs later than countries in East Asia, Western Europe, and North America. They therefore had the time to adopt early containment and mitigation measures, such as quarantine, social distancing and travel bans, which prevented the pandemic from spreading, at least initially. As shown in this section, within the LDC group, the most affected were the Asian countries, especially Bangladesh and Nepal. African LDCs, on average, have recorded lower infection and mortality rates.

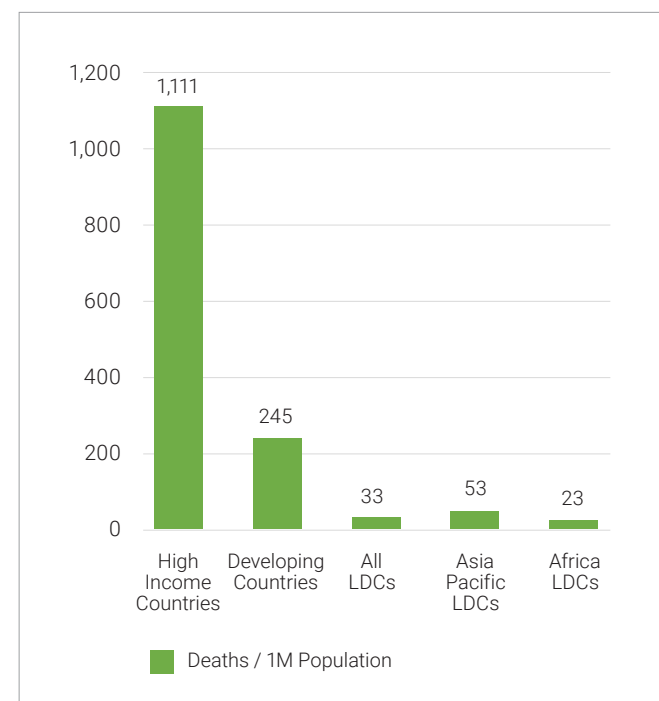
However, as confirmed cases continue to increase worldwide, the present analysis can only be partial. The ultimate impact of the pandemic on individuals and communities living in the most structurally disadvantaged group of countries in the world remains still quite uncertain. Any surge in infections could quickly lead to health crisis scenarios given the insufficient quantity and quality of personnel, equipment, infrastructure and medical supplies in most LDCs, which are a consequence of chronically under-funded health care systems and aggravated by their pre-existing load of infectious and non-infectious diseases.

Data visualization prepared by UNDP and adapted in table A.1 presents a series of indicators for the least developed countries showing the level of preparedness to respond and cope with the impacts of the still unfolding COVID-19 crisis. Highlighted here are the level of human development of the least developed countries, their healthcare system capacity and two indicators on connectivity. The level of human development and its inequality, together with healthcare system capacity, can portray countries' preparedness to respond effectively and efficiently to a health crisis. For example, as shown in the table A.1, an OECD country has on average 50 hospital beds, about 30 physicians, and 80 nurses per 10,000 people, compared to 7 hospital beds, 2.5 physicians, and 6 nurses in an LDC.

**Figure A.1: COVID-19 Cases / 1M Population**



**Figure A.2: COVID-19 Deaths / 1M Population**



**Source:** UN-OHRLLS calculations based on data from WHO (<https://covid19.who.int/>) and UN DESA Population – both accessed on 25 March 2021.

**Table A.1: Preparedness of least developed countries to respond to COVID-19**

HDI rank	Country	Human development			Health System			
		Human development index (HDI)	Inequality-adjusted HDI (IHDI)	Inequality in HDI	Physicians	Nurses and midwives	Hospital beds	Current health expenditure
		(value)	(value)	(%)	(per 10,000 people)			(% of GDP)
		2018	2018	2018	2010-2018	2010-2018	2010-2018	2016
131	Timor-Leste	0.626	0.450	28.0	7.2	17	59	4.0
132	Kiribati	0.623	..	..	2.0	48	19	11.9
134	Bhutan	0.617	0.450	27.1	3.7	15	17	3.5
135	Bangladesh	0.614	0.465	24.3	5.3	3	8	2.4
137	Sao Tome and Principe	0.609	0.507	16.8	3.2	23	29	6.0
140	Lao People's Democratic Republic	0.604	0.454	24.9	5.0	10	15	2.4
141	Vanuatu	0.597	..	..	1.7	14	17	3.7
143	Zambia	0.591	0.394	33.4	0.9	9	20	4.5
145	Myanmar	0.584	0.448	23.2	8.6	10	9	5.1
146	Cambodia	0.581	0.465	20.1	1.7	10	8	6.1
147	Nepal	0.579	0.430	25.8	6.5	27	3	6.3
149	Angola	0.574	0.392	31.7	2.1	..	..	2.9
153	Solomon Islands	0.557	..	..	2.0	21	14	5.2
156	Comoros	0.538	0.294	45.3	1.7	9	22	7.6
157	Rwanda	0.536	0.382	28.7	1.3	8	16	6.8
158	Nigeria	0.534	0.349	34.6	3.8	15	..	3.6
159	Tanzania (United Republic of)	0.528	0.397	24.9	0.4	4	7	4.1
159	Uganda	0.528	0.387	26.7	0.9	6	5	6.2
161	Mauritania	0.527	0.358	32.1	1.8	10	..	4.2
162	Madagascar	0.521	0.386	25.8	1.8	1	2	6.0
163	Benin	0.520	0.327	37.1	1.6	6	5	3.9
164	Lesotho	0.518	0.350	32.5	0.7	7	..	8.1
166	Senegal	0.514	0.347	32.5	0.7	3	3	5.5
167	Togo	0.513	0.350	31.7	0.5	3	7	6.6
168	Sudan	0.507	0.332	34.6	4.1	8	8	5.7
169	Haiti	0.503	0.299	40.5	2.3	7	7	5.4
170	Afghanistan	0.496	..	..	2.8	3	5	10.2
171	Djibouti	0.495	..	..	2.2	5	14	3.5
172	Malawi	0.485	0.346	28.7	0.2	3	13	9.8
173	Ethiopia	0.470	0.337	28.4	1.0	8	3	4.0
174	Gambia	0.466	0.293	37.2	1.1	16	11	4.4
174	Guinea	0.466	0.310	33.4	0.8	4	3	5.5
176	Liberia	0.465	0.314	32.3	0.4	1	8	9.6
177	Yemen	0.463	0.316	31.8	3.1	7	7	5.6
178	Guinea-Bissau	0.461	0.288	37.5	2.0	14	10	6.1
179	Congo (Dem Rep of the)	0.459	0.316	31.0	0.9	5	..	3.9
180	Mozambique	0.446	0.309	30.7	0.7	4	7	5.1
181	Sierra Leone	0.438	0.282	35.7	0.3	10	..	16.5
182	Burkina Faso	0.434	0.303	30.0	0.6	6	4	6.8
182	Eritrea	0.434	..	..	..	..	7	3.0
184	Mali	0.427	0.294	31.2	1.4	4	1	3.8
185	Burundi	0.423	0.296	30.1	0.5	7	8	6.2
186	South Sudan	0.413	0.264	36.1	..	..	..	..
187	Chad	0.401	0.250	37.7	0.5	4	..	4.5
188	Central African Republic	0.381	0.222	41.6	0.6	2	10	4.3
..	Somalia	..	..	..	0.2	1	9	..
..	Tuvalu	..	..	..	9.2	38	..	15.5
<b>Regions</b>								
	Arab States	0.703	0.531	24.5	11.1	21	15	4.9
	East Asia and the Pacific	0.741	0.618	16.6	14.8	22	35	4.8
	Europe and Central Asia	0.779	0.689	11.5	24.9	61	51	5.2
	Latin America and the Caribbean	0.759	0.589	22.4	21.6	47	20	8.0
	South Asia	0.642	0.520	19.0	7.8	17	8	4.1
	Sub-Saharan Africa	0.541	0.376	30.5	2.1	10	8	5.3
<b>Groups</b>								
	Least developed countries	0.528	0.377	28.6	2.5	6	7	4.2
	Developing countries	0.686	0.547	20.3	11.5	23	21	5.3
	Organisation for Economic Co-operation and Development	0.895	0.790	11.7	28.9	80	50	12.6
	<b>World</b>	<b>0.731</b>	<b>0.596</b>	<b>18.6</b>	<b>14.9</b>	<b>34</b>	<b>28</b>	<b>9.8</b>

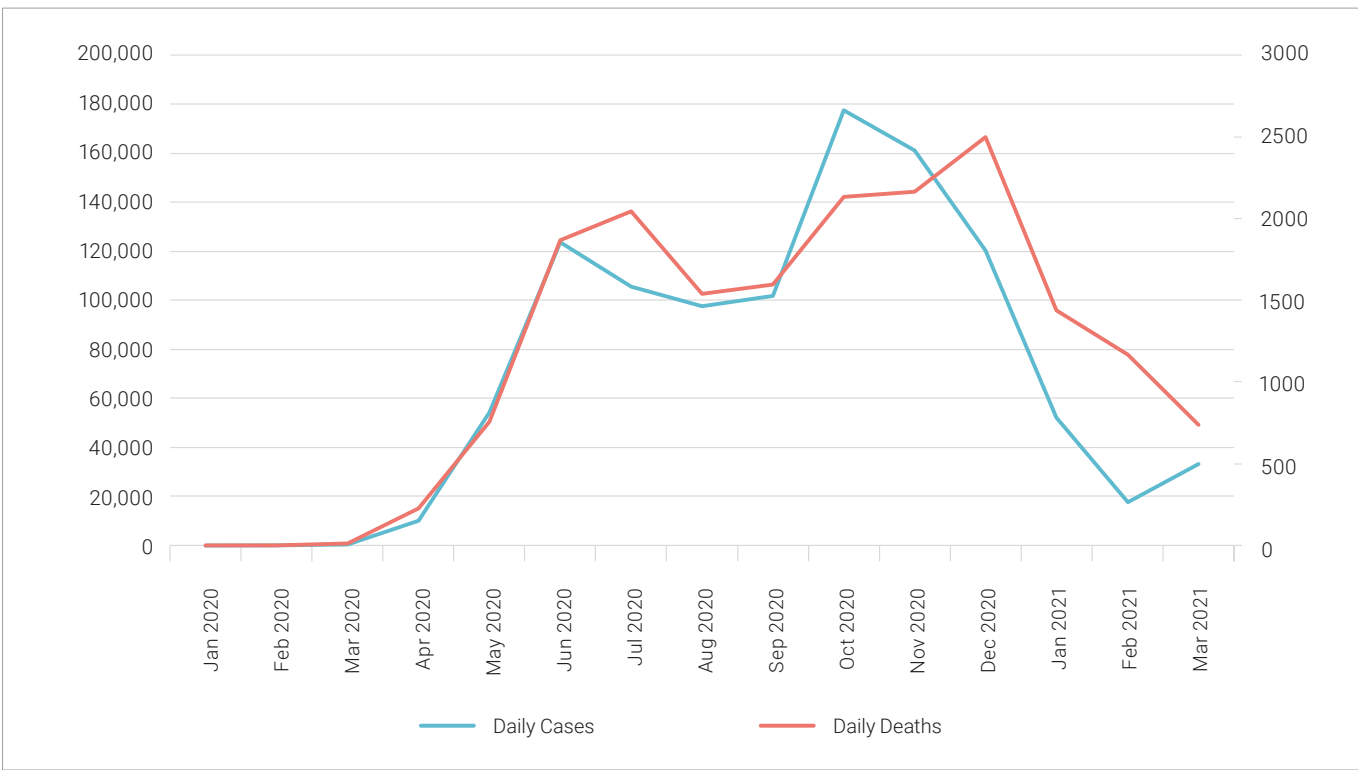
Low Medium-low Medium Medium-high High

There is no doubt that the LDCs were by far in the worst possible conditions to face a health and socio-economic shock such as the one brought by COVID-19. When the virus hit them, they were already lagging far behind on all SDGs. For instance, on average, two thirds of LDCs' urban population live in slums and access to basic sanitation services remains very low, in particular in rural areas.

It is against this backdrop that LDCs began to report COVID-19 epidemics of different intensities. At the outset it should also be noted that insufficient testing capacity may lead to underestimating the level of true infections in many of the LDCs (Hulland, 2020). In addition, data collected over such a wide range of countries and geographical areas will inevitably be of variable quality.

By 25 March 2021, in the Pacific region, only Solomon Islands had reported 18 cases – all except one in the month of October 2020 – while Vanuatu<sup>4</sup> recorded its first 'border' case in early November and another two cases on 8 March. No deaths from COVID-19 were reported by any of the Pacific LDCs.

**Figure A.3: Evolution of COVID-19 cases and deaths in Asia Pacific Least Developed Countries and Yemen from January 2020 to March 2021**



**Source:** UN-OHRLLS calculations based on data from WHO (<https://covid19.who.int/>) accessed on 25 March 2021.

<sup>4</sup> Vanuatu graduated from the LDC category on 4 December 2020.

**Table A.2: COVID-19 cumulative cases and deaths, and vaccine doses administered, total and per 1 million people in Asian LDCs (as of 25 March 2021)**

LDCs	CASES – TOTAL	CASES – PER 1M POPULATION	DEATHS – TOTAL	DEATHS – PER 1M POPULATION	VACCINE DOSES ADMINISTERED	VACCINES – PER 1M POPULATION
<b>Afghanistan</b>	56,177	1,443	2,466	63	34,743	892
<b>Bangladesh</b>	573,687	3,483	8,720	53	4,990,232	30,301
<b>Bhutan</b>	869	1,126	1	1	244,133-	316,393
<b>Cambodia</b>	1,792	107	4	0.2	328,526	19,650
<b>Lao PDR</b>	49	7	0	0	3,341	459
<b>Myanmar</b>	142,246	2,614	3,204	59	105,490	1,939
<b>Nepal</b>	276,056	9,474	3,019	104	1,634,903	56,111
<b>Timor-Leste</b>	335	254	0	0	-	-
<b>Yemen</b>	3,520	118	772	26	-	-
<b>Total</b>	<b>1,054,731</b>	<b>3,074</b>	<b>18,186</b>	<b>53</b>	<b>7,341,368</b>	<b>21,399</b>

**Source:** Data from WHO (<https://covid19.who.int>) accessed on 25 March 2021. Data on vaccine doses administered for Bhutan from Ministry of Health (<http://www.moh.gov.bt>).

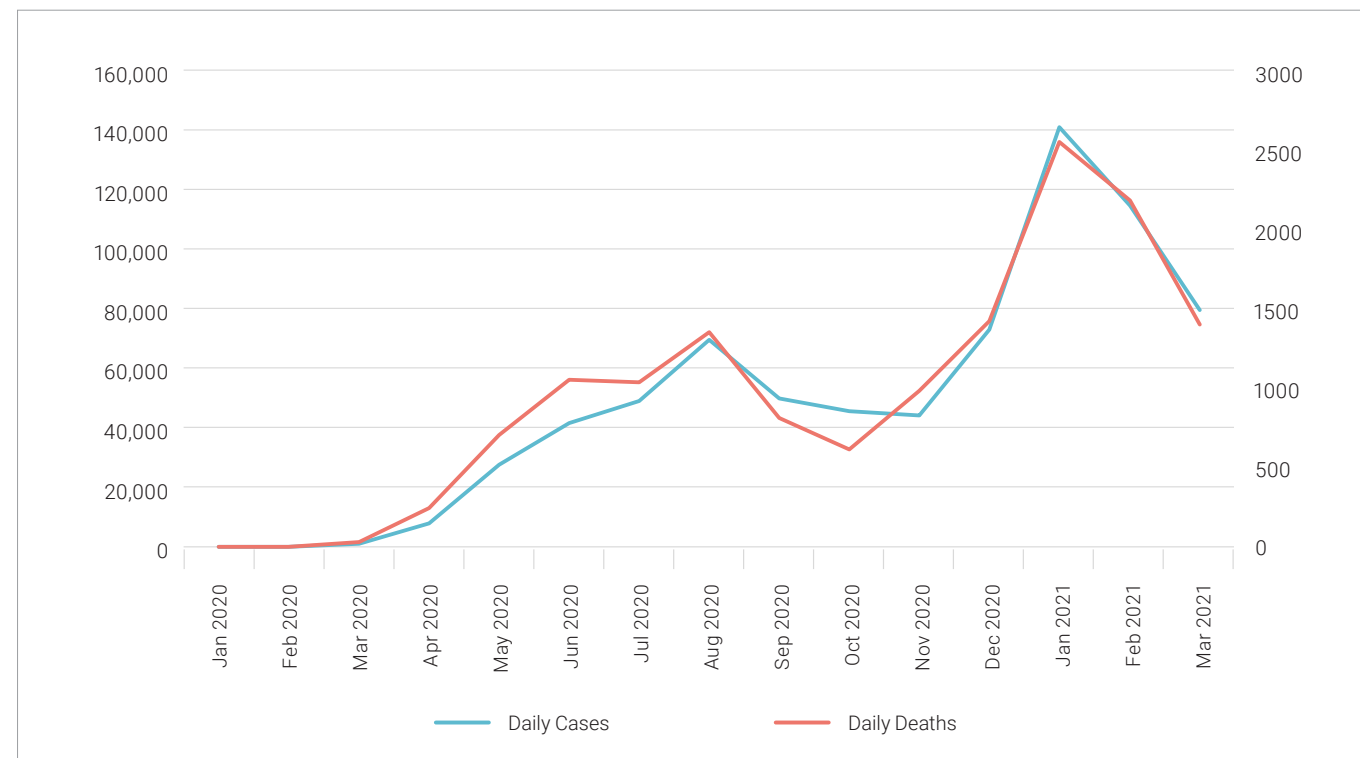
In Haiti, the only LDCs in the Americas, a total of over a thousand cases per 1 million people have been reported with 251 deaths or about 22 deaths per 1 million people.

The 33 Sub-Saharan African LDCs reported a total of just under five hundred thousand cases, which is less than the total cases in Bangladesh alone, and an average mortality rate that is less than a third of their Asian counterparts. In general, the African region remains among the least affected worldwide. In

2020, following increases in infections and deaths from May to July, COVID-19 cases declined in August and September, before plateauing in October and steadily increasing again starting in November with a peak reached in mid-January 2021 (see Figure A.4).



**Figure A.4:** Evolution of COVID-19 cases and deaths in African Least Developed Countries and Haiti from January 2020 to March 2021



Source: UN-OHRLLS calculations based on data from WHO (<https://covid19.who.int/>) accessed on 25 March 2021.

Just as in the Asian region, the situation in the African continent is highly heterogeneous and progress varies considerably (see table A.3 for country-by-country data).

Sao Tome and Principe, a small island LDC in the Gulf of Guinea with a population of barely 220,000, recorded 2,174 cases and 17 deaths. In table A.3, because of its small population count, it appears as one of the countries with the highest rates of infection and mortality in relative terms. Djibouti and Comoros are countries with populations slightly less than 1 million and also feature among those most affected.

Among larger African LDCs, Mauritania, The Gambia and Lesotho experienced over 50 deaths per million inhabitants. It is indeed concerning that, since late November 2020, steeper increases have been observed in most Sub-Saharan African LDCs, with notable signs of reduced adherence to public health and social measures. Many of these countries may soon reach critical levels given their low hospital capacities.

Strengthening the testing and surveillance capacity in LDCs remain remains of high priority. The analysis of the detected cases, severity and outcomes of the cases within a country is crucial if health experts and policy maker can have a clear picture

of where the pandemic is heading and what measures should be taken to curb the infection before it becomes uncontrollable. In some LDCs there is insufficient or no data available on testing to know how much is being done.<sup>5</sup> Even when infrastructure is available, a country's ability to detect the spread of the virus requires dedicated medical equipment, trained human resources and the availability of reagents to perform COVID-19 Polymerase chain reaction (PCR) tests. The WHO has been providing reagents to a large number of laboratories in Africa, as part of the influenza virological surveillance network. Synergies among Africa's Center for Disease Control and Prevention (CDC), the WHO and the West Africa Health Organization led to the increase in COVID-19 testing laboratories in Africa from 2 to 43 between February and March 2020.

Some LDCs with manufacturing capacity, such as Senegal and Bangladesh, repurposed industrial facilities to produce much needed medical goods such as face masks, hand sanitizers and personal protective equipment (PPE). In Uganda, a collaborative effort between Makerere University, Kiira Motors Corporation—a local car manufacturer—and the Ministry of Science, Technology and Innovation led to the production of low-cost ventilators.

<sup>5</sup> See testing rates per country at Our World in Data, a UK-based project that collates COVID-19 information, available at <https://ourworldindata.org/coronavirus>.

**Table A.3:** COVID-19 cumulative cases and deaths, and vaccine doses administered, total and per 1 million in African LDCs (as of 25 March 2021)

LDCs	CASES – TOTAL	CASES – PER 1M POPULATION	DEATHS – TOTAL	DEATHS – PER 1M POPULATION	VACCINE DOSES ADMINISTERED
Angola	21,757	662	530	16	70,612
Benin	6,818	562	90	7	-
Burkina Faso	12,559	601	145	7	-
Burundi	2,628	221	6	1	-
Central African Rep.	5,087	1,053	64	13	-
Chad	4,427	270	157	10	-
Comoros	3,666	4,216	146	168	-
Congo, Dem. Rep.	27,571	308	726	8	-
Djibouti	6,658	6,739	64	65	60
Eritrea	3,118	879	7	2	-
Ethiopia	188,902	1,643	2,674	23	Data pending
Gambia, The	5,255	2,174	161	67	691
Guinea	18,945	1,443	113	9	34,178
Guinea-Bissau	3,568	1,813	55	28	-
Lesotho	10,538	4,919	309	144	13,369
Liberia	2,042	404	85	17	-
Madagascar	22,616	817	355	13	-
Malawi	33,270	1,739	1,098	57	38,707
Mali	9,330	461	361	18	-
Mauritania	17,630	3,792	447	96	-
Mozambique	66,306	2,121	747	24	70,000
Niger	4,918	203	185	8	-
Rwanda	20,896	1,613	292	23	345,723
Sao Tome and Principe	2,157	9,842	34	155	6,027
Senegal	37,920	2,265	1,016	61	207,618
Sierra Leone	3,948	495	79	10	681
Somalia	10,214	643	441	28	1,910
South Sudan	9,890	884	106	9	-
Sudan	31,147	710	1,986	45	270
Tanzania, United Republic of	509	9	21	0	-
Togo	8,960	1,082	104	13	39,237
Uganda	40,687	890	339	7	28,761
Zambia	86,535	4,707	1,182	64	-
<b>Total</b>	<b>730,472</b>	<b>1,041</b>	<b>14,125</b>	<b>20</b>	

Source: Data from WHO (<https://covid19.who.int>) accessed on 25 March 2021.

## A.2 EARLY EFFECTIVE PUBLIC HEALTH RESPONSES, DEMOGRAPHICS AND OTHER FACTORS

At the outset of the pandemic, often before their first cases were identified, many LDCs adopted early public health responses and social measures, building on previous experiences with infectious diseases like human immunodeficiency virus (HIV), drug-resistant tuberculosis and Ebola. These measures ranged from recommendations to avoid handshakes and increase handwashing, social distancing and wearing of face masks to more restrictive measures, such as government-enforced school closures and cancellation of sports matches and religious gatherings.

The African Union (AU) acted swiftly, endorsing in March 2020 a joint continental strategy for COVID-19 outbreak in conjunction with the WHO. “The continent of Africa reacted aggressively”, John Nkengasong, the director of the Africa Centres for Disease Control and Prevention, stated (Moore, 2020).<sup>6</sup> The African CDC opened in January 2017 as the first continent-wide health agency. It was created on the heels of the 2014-2016 Ebola outbreak, which had claimed the lives of over 11,000 people in West Africa. It has been playing a central role in the response to the pandemic in the continent. The disease caused by the novel coronavirus is different, of course, from Ebola but the structure to respond to it, such as the incident-management system, rapid-response teams, trained contact tracers, logistics routes, and other public-health tools and protocols were already in place and just needed to be adapted to respond to the coronavirus.

By the end of March 2020, most countries had imposed travel bans on most affected Asian and European countries and had instituted mandatory quarantine periods for most travelers. LDCs closed their borders, allowing only cargo, freight and the expatriation of foreign nationals.

Airport staff from Sierra Leone to Uganda were wearing masks, taking temperatures and contact details long before their United States (US) and European counterparts took such precautions. Sierra Leone repurposed disease-tracking protocols that had been established in the wake of the Ebola outbreak in 2014, in which almost 4,000 people died in the country. The government set up emergency operations centers in every district and recruited 14,000 community health workers, 1,500 of whom were trained as contact tracers.

Senegal recorded its first case in late February 2020, the second confirmed case in Sub-Saharan Africa at the time. There were justified fears that the country lacked equipment for the treatment of coronavirus as there were just 12 beds with limited oxygen supplies. Based on previous Ebola and Cholera experiences, it was clear that the country needed to act quickly to contain the pandemic. Senegal’s Institute Pasteur was one of only two laboratories in Africa able to test for COVID-19 at the onset of the pandemic in early 2020. Just like Rwanda, Senegal closed its borders and announced curfews when there were still very few confirmed cases. Health ministries began contact tracing early. After lifting its national lockdown in April, Rwanda focused on controlling local transmission by imposing local lockdowns in high burden areas of Kigali. In addition, to minimize contact time with confirmed cases and therefore reducing the risk of contamination of health professionals in COVID-19 treatment centers in Kigali City, robots were deployed in May 2020. The 5 human-size robots are programmed to perform temperature screening, take readings of vitals, deliver video messages, and detect people not wearing masks then instruct them to wear masks properly.<sup>7</sup>

Uganda and Ethiopia also responded to their first cases with aggressive contact tracing and isolation and put considerable resources into checking their work. In early May 2020, Uganda completed its first rapid-assessment survey, a randomized sampling of 20,000 people; it uncovered only two new local cases. The Ugandan health authorities also tested around 1,000 truck drivers a day, coming from neighboring countries that had not been monitoring COVID-19 spread as aggressively. Ethiopia completed a door-to-door survey of its capital, Addis Ababa, in just three weeks, documenting symptoms and travel history for its five million residents, and testing anyone who was found to be at risk for the disease or symptomatic.

Lesotho declared a state of emergency, closed schools on 18 March 2020 and went into a three-week lockdown about 10 days later in unison with many other southern African neighbors. Only days after the lockdown was lifted—in early May—did the first cases get confirmed.

Like many other LDCs, Cambodia, with a weak and under funded health care system, could risk a devastating death toll if the COVID-19 disease took hold. Thanks to strict entry and quarantine requirements, the country has been able to keep

the number of cases to just 307 with zero deaths. Schools across much of the country reopened with a phased approach only in early November.

Timor-Leste has been fighting two infectious diseases simultaneously: dengue amid COVID-19 pandemic. It was assessed that the country’s expertise in managing dengue helped to respond to the pandemic, as the public health response relied on some of the same principles. Timor-Leste’s strategy relied on early intervention and a mandatory quarantine with particular attention given to Timorese returning from overseas and reinforced security and surveillance at the borders. All cases were identified before reaching the community. However, while Timor-Leste’s testing and tracing measures in response to COVID-19 have been praised by experts, the country’s low capacity of hospital services, raises concerns in terms of a potential second wave of the virus that could affect the country’s ability to respond to both diseases simultaneously, compounded with serious risks of hunger, as Timor-Leste is heavily dependent on food imports (Neves, 2020).<sup>8</sup>

Demographic factors, such as the proportion of young population—more resilient in case of infection—in LDCs compared to other countries, could also partly explain the lesser impact of COVID-19 in LDCs. Lower population density in some of the LDCs, especially in rural areas in Africa, may be another factor. Asian LDCs have comparatively higher population densities which favoured the spread of the pandemic. Poor households, who constitute the largest proportion of the population in least developed countries, are likely to be hit the hardest by COVID-19 since the majority live in crowded conditions implying that the infection rate, or the average number of people that each infected case will infect, in such crowded conditions is likely to far above estimates in high-income countries. Serious efforts are needed to interrupt the spread to these vulnerable communities.

In addition, the application of large-scale prevention measures that have worked in other countries such as frequent handwashing, limiting movement and social distancing face important barriers in least developed countries, including large informal settlements, lack of appropriate water and sanitation and high concentrations of marginalized communities, including millions of forcibly displaced people and refugees. According to UNICEF (2020, October), nearly three quarters of the people in the LDCs lack basic handwashing facilities at home,

and 7 out of 10 schools have no place for children to wash their hands with water and soap. Furthermore, in LDCs about 22 percent of healthcare facilities lack access to improved water and improved sanitation services (IFC, 2020).

Therefore, it is imperative that response measures be contextualized to address underlying individual and structural factors in LDCs that are likely to complicate a strategic response. Interventions also must be balanced with the need to maintain individual livelihoods and social cohesion. Governments are beginning to relax these interventions given the discussion that such interventions may cause more deaths from hunger and other diseases than the coronavirus itself. A careful application of interventions and lockdowns is still required to slow down the rate of transmission to levels which health systems can handle, while at the same time avoiding excessive lockdowns that may hurt the poorest.

For instance, workers who lose their jobs in urban areas due to economic lockdowns are likely to move back home to rural areas where large elderly populations reside, heightening health risks. Consequently, measures such as the provision of adequate water and sanitation subsidies, reliable food distribution and targeted restrictions of movement (e.g. from urban to rural) could be useful in mitigating the spread. Targeted social protection schemes are also extremely important. For example, Togo’s social protection program, Novissi, has been using insights from artificial intelligence (AI) and big data, in an experiment to identify the poor in greatest need for cash transfer delivery.<sup>9</sup>

## A.3 COVID-19 IMPACT ON OTHER DISEASES OR MEDICAL TREATMENTS

Secondary effects of the pandemic stem from the severe interruptions of social and economic activities adopted by LDCs and discussed in the following sections of this report, as well as from the potentially devastating effects of reduced delivery of other health services, including routine vaccination and malaria, Tuberculosis and HIV control programs.

In the context of poorly funded health care systems in LDCs, the supply and demand for other health services, not related to COVID-19 treatment, has also been affected, disproportionately impacting the poor (WHO, 2020c; Shadmi et. al, 2020). On the supply side, with so much effort concentrated on the fight

<sup>6</sup> <https://www.newyorker.com/news/news-desk/what-african-nations-are-teaching-the-west-about-fighting-the-coronavirus>; [https://www.francetvinfo.fr/sante/maladie/coronavirus/video-covid-19-une-epidemie-comme-ca-il-faut-lui-sauter-a-la-gorge-un-microbiologiste-francais-explique-pourquoi-l-asie-s-en-sort-mieux\\_4178323.html](https://www.francetvinfo.fr/sante/maladie/coronavirus/video-covid-19-une-epidemie-comme-ca-il-faut-lui-sauter-a-la-gorge-un-microbiologiste-francais-explique-pourquoi-l-asie-s-en-sort-mieux_4178323.html); <https://www.banquemonde.org/fr/news/feature/2020/04/03/in-the-face-of-coronavirus-african-countries-apply-lessons-from-ebola-response>.

<sup>7</sup> <https://www.afro.who.int/news/robots-use-rwanda-fight-against-covid-19>

<sup>8</sup> <https://www.abc.net.au/radio-australia/programs/pacificbeat/timor-dengue-fixed/12360020>; <https://thediomat.com/2020/06/timor-lestes-covid-19-response/>; <https://e-global.pt/noticias/lusofonia/timor-leste/timor-leste-lu-olo-e-governo-analisam-seguranca-fronteira/>

<sup>9</sup> See <https://cega.berkeley.edu/impact/togo-cash-transfers/>

against COVID-19, other conditions are bound to be neglected, such as malaria, maternal and child health conditions, and tuberculosis which account for some of the highest death rates among the poor and account for a substantial share of the disease burden. Previous studies have shown that during pandemics, all-cause mortality rises substantially (Nogueira et al., 2020; Sinnathamby et al., 2020; Michellozzi et al., 2020; Vestergaard et al., 2020; Kraindler et al., 2020). Since the burden of these conditions is already disproportionally borne by the poor, the pandemic is likely to reinforce these inequalities. On the demand side, people are likely to shun or forego care. This is likely due to the fear of contracting coronavirus in health facilities or a result of perceived reduction in the quality of health services as health resources are being concentrated towards the fight against the pandemic.

As COVID-19 causes substantial disruptions to health services, due to cases overburdening the health system or response measures limiting usual programmatic activities, many areas, notably countries in sub-Saharan Africa are facing increasing obstacles and challenges to sustaining the continuum of HIV and TB treatment in high-burden HIV/TB countries. The intersecting coronavirus, TB and HIV epidemics in countries where HIV and TB have the highest prevalence and incidence pose many challenges from the point of view of diagnostics, clinical management and post-COVID-19 epidemic TB incidence as COVID-19 pulmonary fibrosis may rapidly increase TB incidence (CDC, 2020; Hogan et al., 2020; Jiang et al., 2020; Gralinsky and Baric, 2015). The combination of COVID-19 with the high prevalence of other diseases hampers the delivery of appropriate care and prevention. Sudan was facing the re-emergence of polio after previously being declared polio-free, and malaria has reached the epidemic-level in 11 out of its 18 states. Furthermore, it is estimated that there was a 15 percent drop in the use of Measles-containing-vaccines (MCVs) during the first quarter of 2020 as compared to the same period the year prior.<sup>10</sup> Most activities foreseen in the Integrated Management of Childhood Illnesses (IMCI) plan were canceled and there was a 65 percent decrease in measles vaccination coverage among children under five years of age. In Yemen, thousands of people could be dying from undetected cases of cholera because COVID-19 has overwhelmed the country's health facilities (Oxfam, 2020).

Changes in the health services due to COVID-19 also affected neglected tropical disease (NTD) programmes. Due to

the risks, surgeries for trichiasis and hydrocele have been suspended, as well as community-directed treatments and school-based distribution strategies. Mass Drugs Administration (MDA) are delayed with potential impact on transmission (Molyneux et al., 2020). Furthermore, the consequential mental health morbidity and suicidal ideations will place an increased burden on already overstretched services, against the background of mental illness being the world's leading cause of morbidity (Molyneux et al., 2020). For instance, Bhutan mobilized a National Mental Health Response Team, comprising psychiatrists, clinical psychologists and counselors, involved in developing awareness and advocacy materials on mental health in times of COVID-19 (UNCT, 2020).

#### Fragile Settings

Among the LDCs most affected in their national health consequences, many are countries which compounded the COVID-19 crisis with an already critical political situation. Suffering from violent conflict often exacerbates the spread of infectious diseases, as seen in the recent resurgence of polio in Syria, cholera outbreaks in the conflict zones in Yemen, and the persistence of Ebola in insecure eastern regions of the Democratic Republic of the Congo (Bousquet & Fernandez-Taranco, 2020). On the one hand, the delivery of aid is hampered together with an appropriate response of a healthcare system already weakened (sometimes almost annihilated), but also often signifies a fairly widespread absence of trust in public institutions (Minoletti & Hein, 2020). The latter creates a climate where misinformation about actions to prevent the spread of the virus circulate, as well as situations where people presenting symptoms would not seek treatment, as they would believe they would not be treated adequately.

Additionally, in areas affected by armed conflict and violence, physical isolation is often not a possibility for those living in temporary shelters, camps, and crowded places, such as refugees and displaced persons, which are among the most vulnerable to the virus. Furthermore, the pandemic can in some cases catalyze existing tensions, with effects such as the risk of rise in acts of violence in the event of tensions between the population and government officials; the risk of the current crisis being instrumentalized by armed groups and that of xenophobic violence (AFD, 2020).

## A.4 POLICY RECOMMENDATIONS AND PROGRESS TOWARDS ENSURING EQUITABLE DISTRIBUTION OF EFFECTIVE VACCINES TO THE LDCs

The continuing COVID-19 pandemic and its multifaceted consequences have laid bare structural inequalities among and within countries. Inadequate health care systems have suffered a devastating blow. As we enter the second year of the pandemic, at the forefront of public policy worldwide should be the importance of strengthening health systems, emergency preparedness and the resilience of people in its broad sense.

Long ignored risks, such as the underinvestment in health and gaps in social safety nets, have heightened vulnerabilities that are costing the global economies hundreds of billion dollars. For example, handwashing is one of the cheapest, easiest and most effective ways to prevent the spread of the coronavirus, but in 2017 only 28 percent of people in LDCs had basic handwashing facilities with soap and water at home. Closing the gaps in water, sanitation and hygiene are critical to containing the spread of COVID-19 and other diseases.

Clear steps can be taken by all countries to stop the pandemic and implement recovery plans to address structural weaknesses and invest in more resilient societies. In its October 2020 Policy Brief, the UN Secretary General outlined a clear plan of action that has its core the quest for universal health coverage, as part of the Sustainable Development Goals (UN, 2020).

The most urgent action remains to control any further transmission of the COVID-19 virus. WHO has provided comprehensive guidance on effective public health measures. For public health policy in LDCs, testing, isolating and contact tracing all need to be increased. It will be crucial to ensure that flexible responses are driven by high quality real-time data. Understanding the factors that accelerate and those that mitigate the spread and mortality of COVID-19, while accounting for local realities, is fundamental for sound public health measures to tackle this pandemic. Vulnerable groups should be clearly identified so they can be properly and equitably supported during this long crisis. At a time of a pandemic, no single community should be marginalized.

LDCs' health care systems must be strengthened and better funded. The delivery of essential health services must be

protected to avoid disruptions to other priority health services that should instead be assured even during acute phases of the pandemic.

Adequate, affordable, and rapid access to new rapid diagnostics and treatments should be ensured in support of pandemic responses and recovery efforts by LDC Governments.

Perhaps most importantly of all, effective COVID-19 vaccines should be global public goods and their equitable access must be ensured for everyone, everywhere through the full funding of the COVID-19 Vaccines Global Access (COVAX) Facility. Led by the World Health Organization, Gavi, the Vaccine Alliance (GAVI) and Coalition for Epidemic Preparedness Innovations (CEPI), COVAX aims to accelerate the development and manufacture of COVID-19 vaccines, and to guarantee fair and equitable access for every country in the world. All 46 LDCs are included under the COVAX plans.

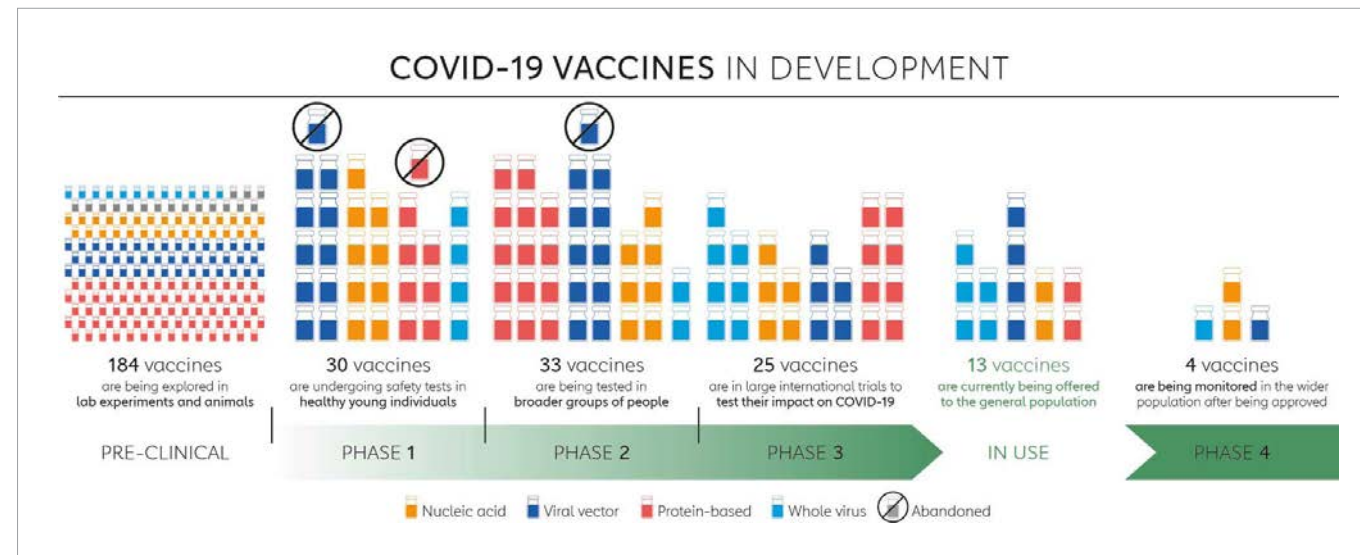
As shown in Figure A.5, many companies around the world have been working on the development of more than 180 vaccines that could be used as a preventive measure against the disease. Since the announcements in November 2020 of promising vaccines from BioNTech/Pfizer, Moderna and AstraZeneca, a light started shining at the end of the pandemic tunnel. More than ten vaccines have so far been approved for general use in people 18-years and older. The development of safe and extremely effective COVID-19 vaccines in such a short time is something close to a medical miracle and portends an end to the global crisis that dominated 2020 and still continues to ravage the world in early 2021.

BioNTech/Pfizer has already agreed to sell the vast majority of the 1.3 billion doses it aims to produce in 2021 to the US, EU, Canada, Japan and UK. Furthermore, its vaccine needs ultra-cold chain distribution, requiring transportation and storage temperatures at minus 70 degrees Celsius. Few facilities in the developing world are equipped to handle this delivery and storage infrastructure requirement. Moderna's vaccine has easier storage requirements and is part of the COVAX portfolio of vaccines. Both BioNTech/Pfizer and Moderna require two doses. The Johnson & Johnson vaccine, which received the US FDA emergency authorization on 27 February 2021, requires only a single dose.

The Oxford-AstraZeneca vaccine, which was approved in late December 2020 for emergency supply in the UK, could

<sup>10</sup> <https://www.who.int/health-cluster/news-and-events/news/Multiple-emergencies-Sudan/en/>



**Figure A.5: COVID-19 vaccines in development**

**Source:** GAVI: <https://www.gavi.org/vaccineswork/covid-19-vaccine-race> (accessed 25 March 2021) where a full list of all vaccines in development is made available.

be produced at many sites around the world as the company has partnerships with suppliers in India, Latin America, Russia and Thailand. The Serum Institute of India, the world's largest vaccine producer, has been manufacturing AstraZeneca Plc's Covishield and another formulation developed by Novavax Inc. The AstraZeneca vaccine is also part of the COVAX portfolio and can be stored in a domestic fridge. Based on a viral vector, it is also cheaper (around US\$4) than BioNTech/Pfizer and Moderna's mRNA vaccines—around US\$20 and \$33, respectively. AstraZeneca has also made a "no profit pledge".

At the global level, while more than 200 million doses have already been administered worldwide, the global roll out so far has highlighted vast inequalities. With many higher income countries securing deals directly with pharmaceutical companies, many lower income countries will rely on COVAX to gain access to Covid-19 vaccines. In support of its mission to expedite early availability of vaccines to lower-income countries, COVAX exercised an option via an existing agreement with the Serum Institute of India to receive its first 100 million doses of the Covishield vaccine manufactured by the Indian producer.<sup>11</sup> WHO, UNICEF, GAVI and many other partners have been working together to support countries in preparing for COVID-19 vaccine introduction, by providing resources and training for national and subnational focal points and

health workers to equip them with the necessary knowledge and skills. Countries are also asked to prepare national deployment and vaccination plans to ensure preparedness. By late February – early March 2021, campaigns had begun in both Africa and Asia with several LDCs, such as Rwanda, Sao Tome and Principe, Sudan and Cambodia, receiving deliveries of hundreds of thousands of doses of the Covishield vaccine.<sup>12</sup> While COVAX is on track to deliver at least 1.3 billion doses to 92 lower income economies in the GAVI COVAX Advance Market Commitment (AMC) by the end of the year, it is clear that further funding by development partners will be needed if COVAX is to fulfill its mission. In order to achieve its target of vaccinating a fifth of people in lower-income countries in 2021, COVAX needs US\$4.9 billion on top of the US\$2.1 billion already in its coffers. The initiative has so far received financial support by the UK and the EU. The former has pledged over US\$700 million for COVAX, and the EU has so far allocated over US\$1 billion to the effort. In addition, the Bill & Melinda Gates Foundation has committed US\$156 million.

In late January 2021, India's Prime Minister Narendra Modi announced that India's vaccine production and delivery capacity would be used for the benefit of all around the world in fighting the coronavirus crisis. Consignments of domestically produced coronavirus vaccines were sent under grant

assistance to Bhutan, the Maldives, Nepal, Bangladesh, Myanmar, Mauritius and Seychelles.<sup>13</sup> However, just at the time of writing, a soaring level of infections has led the Indian government to temporarily restrict exports of the national vaccine production, triggering setbacks for vaccination drives in many other countries. Covax announced that it had told its beneficiary countries that nearly 100 million doses expected in March and April would face delays because of "increased demand for Covid-19 vaccines in India."

The African Union secured a provisional 270 million COVID-19 vaccine doses for Africa through its COVID-19 African Vaccine Acquisition Task Team (AVATT).<sup>14</sup> Based on that, the Africa Medical Supplies Platform (AMSP), on behalf of the Africa Centres for Disease Control and Prevention, opened pre-orders, offering an equitable access of COVID-19 vaccines doses for 55 African Union member states. Afreximbank was expected to facilitate payments by providing advance procurement commitment guarantees of up to US\$2 billion to the manufacturers on behalf of the African Union member states.

The Africa Centers for Disease Control and Prevention started discussing with the Africa Union and partners about the need to create a "continental capacity" to produce COVID-19 vaccines, especially in view of the potential, in a few years, for regular, additional vaccination or boosting. Senegal is among the five African countries identified as having the necessary capacity.<sup>15</sup>

Important promises for equitable vaccine distribution have been made which is a great start in the right direction. However, vaccinating the world will entail complex obstacles of politics, cold-chain logistics and human behaviour at a scale never faced before. Diplomatic conversations are now underway to determine whether and how wealthy countries that purchased more doses than they need would be able to donate the surplus into COVAX. With the new US administration re-joining the WHO, there is hope that the United States will become an important partner in support of this globally crucial scheme.

It is a moral responsibility of the global community to go beyond nationalistic interests and maintain focus on its poorest, most vulnerable members since the pandemic won't be under control until it has been stamped out everywhere.

<sup>11</sup> <https://www.who.int/news/item/22-01-2021-covax-announces-new-agreement-plans-for-first-deliveries>

<sup>12</sup> The vaccine was granted Emergency Use Listing by the World Health Organization on 15 February <https://www.who.int/news/item/01-03-2021-first-covid-19-covax-vaccine-doses-administered-in-africa>

<sup>13</sup> <https://www.tribuneindia.com/news/nation/us-applauds-true-friend-india-for-gifting-covid-vaccine-to-several-countries-202513>

<sup>14</sup> <https://www.afreximbank.com/amsp-opens-covid-19-vaccines-pre-orders-for-55-african-union-member-states/>

<sup>15</sup> See <https://www.africanews.com/2021/03/11/africa-seeks-continental-capacity-to-produce-vaccines/>

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## B. THE CONSEQUENCES OF COVID-19 ON WELLBEING

The COVID-19 pandemic has brought about significant disruption in everyday life, with wider socio-economic implications globally. This section will focus on the following aspects to assess the consequences of COVID-19 on wellbeing in LDCs, which are closely related to several SDGs: poverty measurements; employment (including in the informal economy); and access to education, given the limited digital and Internet connectivity. For an assessment of the impact of COVID-19 on other well-being measures such as health and food security, see sections A and C. of this report, respectively.

### B.1 IMPACT OF COVID-19 ON POVERTY

LDCs have generally lagged behind on SDG 1 (poverty eradication), with the number of people living in extreme poverty in the LDCs rising from 340 million in 2010 to 349 million in 2018 (Akiwumi and Valensisi, 2020). Due to the challenges arising from conducting household surveys, there is often a lag of a few years in poverty estimates. World Bank pre-COVID data on poverty shows that the rate of extreme poverty in the LDCs, measured as the population living below US\$1.90 per day was about 35.1 percent in 2018 (see Figure B.1). While this shows modest reduction in poverty rates of approximately 5 percentage points since 2010, SDG 1 of eradicating poverty in LDCs is still far-fetched. Indications from the impact of COVID-19 on poverty show an upward trend, wiping out years of progress made in alleviating poverty. UN Women forecasts show that by 2030, poverty rates among females and males are expected to be at 32.7 percent and 32.2 percent, respectively (UN Women, 2020).

The figure also shows that reduction in the poverty gap, which reflects both the depth of poverty and its incidence, slowed down between 2010 and 2018, when it declined by only two percentage points<sup>16</sup>.

Recent projections by the World Bank<sup>17</sup> suggest that COVID-19 has led to an increase in extreme poverty globally by between 119 million and 124 million people, the largest increase in extreme poverty since 1990. While extreme poverty was predominantly rural before COVID-19, the World Bank projections

### Modest progress in poverty reduction in LDCs is reversed



Recent projections by the World Bank<sup>17</sup> suggest that COVID-19 has led to an increase in extreme poverty globally between

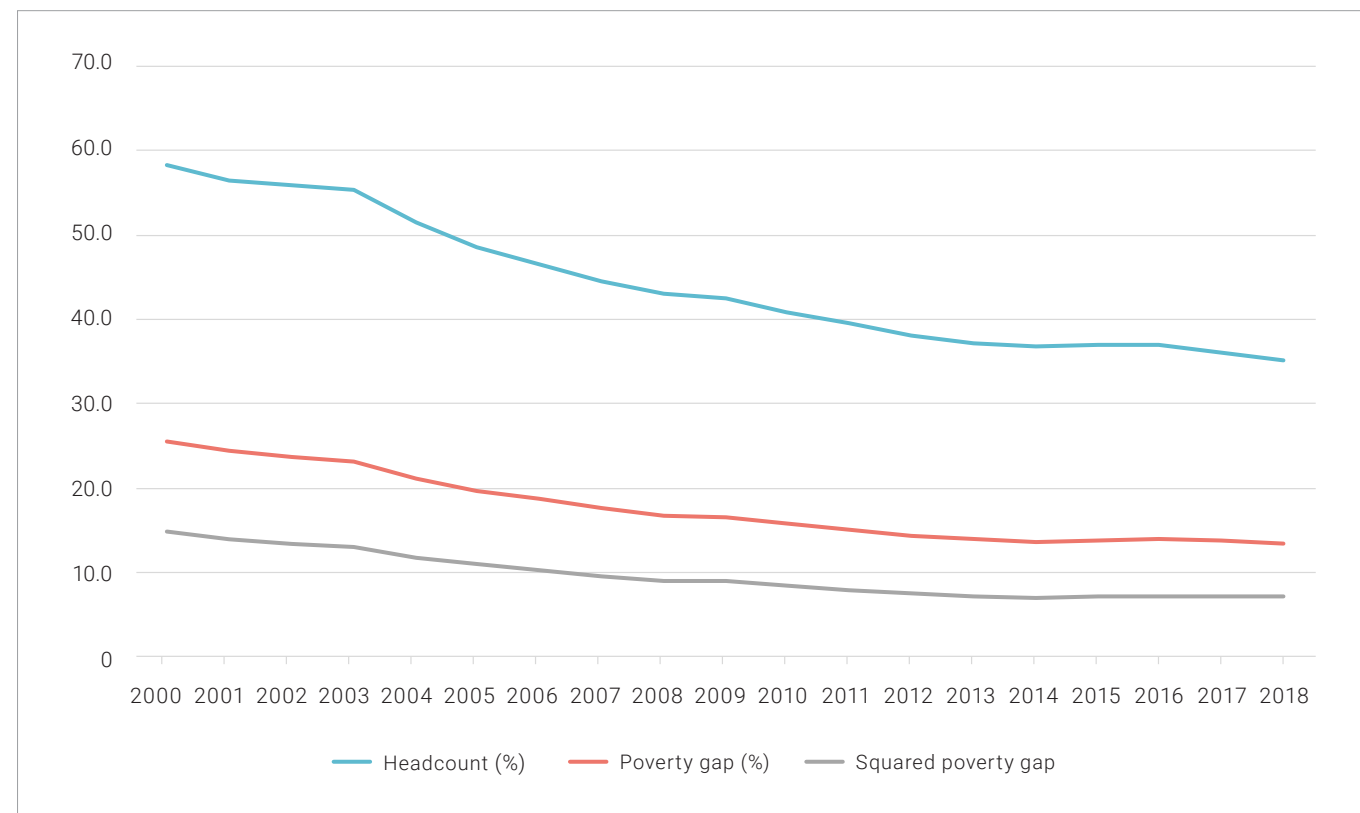
**119-124**  
MILLION PEOPLE

the largest increase in extreme poverty since 1990.

<sup>16</sup> The squared poverty gap, which puts more weight the further a poor person's observed income falls below the poverty line remained constant during this time period.

<sup>17</sup> <https://blogs.worldbank.org/opendata/updated-estimates-impact-covid-19-global-poverty-looking-back-2020-and-outlook-2021>



**Figure B.1: Poverty estimates using 2011 PPP and US\$1.90/day poverty line**

**Source:** PovcalNet: the online tool for poverty measurement developed by the Development Research Group of the World Bank. Available at <http://iresearch.worldbank.org/PovcalNet/povOnDemand.aspx>. Based on estimates from 43 LDCs (no data are available for Afghanistan, Cambodia, Eritrea and Somalia).

indicate that the new poor are more urban, better educated and work in industries such as informal services, construction, and manufacturing (Wall Street Journal, 7 October 2020).<sup>18</sup>

According to Sánchez-Páramo (2020), this finding was confirmed in countries such as Bangladesh and Ethiopia. In Ethiopia, where high-frequency monitoring surveys of COVID-19 impacts on households were used, 60.5 percent of urban households reported having suffered an income loss due to COVID-19, compared to 51.6 percent of rural households. However, it is important to caution that rural areas are also likely to experience a deterioration in living conditions, including among the existing poor. The effect arises through the loss of income channel arising from mobility restrictions, which increasingly affect farm and non-farm activities and access to markets in rural areas. In addition, in some instances, rural communities are also facing critical challenges as they integrate massive inflows of returning migrants in a context of limited access to food and supplies. People living with disabilities in both urban and rural areas are disproportionately affected by the changes brought about by the COVID-19 pandemic, as expressed in Box I.

The expansion of social protection programs has an important role to play in pandemic response and to support the generation of inclusive growth. Cash transfers are an especially promising avenue, as they are effective at improving a number of development outcomes. These include raising individuals' incomes and asset ownership, improving their nutritional status and mental health, and lowering their risk of experiencing illness or intimate partner violence. Digital payments can offer the opportunity to distribute cash transfers in a manner compliant with social distancing (Strohm and Goldberg, 2020).

However, social protection in LDCs is limited, which exacerbates vulnerability across all dimensions of human development. Coverage is hampered by limited institutional capacity, which presents challenges in reaching the most marginalized groups. As such, lack of social protection constitutes a major obstacle to economic and social development. Notwithstanding the commitment of many LDCs, as shown in their national development plans, voluntary national reviews and other policy documents, a lack of and limited resources are major constraints (UN-OHRLLS, 2020). Average spending on social

protection as a percentage of GDP in the LDCs is only 3 percent, which is less than half the average of 6.3 percent for middle-income countries. In at least eight of the LDCs, the estimated cost of a more comprehensive package of social protection (child, orphans, maternity, disability, and old age) would exceed 6.5 percent of GDP. This cannot be financed from domestic resources alone, as the average government revenue in the LDCs is only 15 percent of GDP (UN-OHRLLS, 2018).

## B.2 IMPACT OF COVID-19 ON THE LABOUR MARKET AND INCOME<sup>19</sup>

Several countries around the world introduced lockdown measures to try and curb the spread of COVID-19 and subsequently, flatten the curve. More than 30 LDCs had in place severe or very severe measures from early April to mid-May 2020. This included 15 LDCs with required workplace closures for all except essential sectors and 17 with closures required for some sectors. Due to the significant negative impact on employment and the economy, such measures were reversed. As of 30 June 2020, only 3 LDCs (Afghanistan, Eritrea and Sudan) had in place required workplace closures for all but key workers, while 19 had required closures for some sectors. However, as of 30 July 2020, over 80 percent of all workers in LDCs resided in countries with some form of workplace closures. This was largely a result of closures that were reintroduced in South Asia, for example, Bangladesh and Nepal.

While it is not yet clear how many have lost their jobs, either globally or in LDCs, as a result of the pandemic, anecdotal evidence exists. For example, in Timor-Leste, in about 17.6 percent of the households, one member lost their job. In about 5 percent of households, two or more members lost their jobs; 2.5 percent had two members becoming unemployed, and 2.3 percent had three members becoming unemployed (Government of Timor-Leste, 2020).

In general, the impact of the pandemic on jobs and income is through both economic demand and supply pathways. As indicated in section D., LDCs are experiencing an unprecedented demand shock due to COVID-19. The pandemic has led to a decrease in quantities and prices for LDCs' exports and drops in tourism and remittances. On the other hand, restriction of movement, mandated market closures at home and abroad, physical distancing, and other forms of supply side bottlenecks have adversely affected production prospects and the balance of payments in most LDCs. These multiple demand and supply side shocks are being felt deeply in the already fragile labour markets.

According to the Royal Government of Bhutan (2020), COVID-19 has had a significant impact on the tourism and related service sector. This has led to a decline in wages and income that may negatively impact livelihoods and poverty in the country. Furthermore, the repatriation of a substantial number of Bhutanese (mostly youth) from foreign countries has aggravated the unemployment pool in the nation. The Government further cautions that with widespread supply chain and demand disruptions, many businesses face insolvency. This has been reinforced by layoffs across the board resulting in lower household incomes and livelihood disruption.

As most workers in LDCs are in the informal economy, the lockdown – albeit short-lived – had immediate negative implications. This is because workers in the informal economy have little cash reserves, no access to teleworking and weak social protection systems. Informal workers, whether employed or self-employed, are most at risk of losing their jobs as confinement measures force them to stay home or keep their customers away. The fact that the pandemic has led to higher unemployment and inactivity is likely to lead to further informality, underconsumption, hunger and long-lasting poverty (see sub-section on poverty).

In addition, job losses are likely to be experienced in micro, small and medium enterprises (MSMEs). Emerging evidence shows that MSMEs are 'overrepresented' in sectors most affected by COVID-19, including non-food manufacturing and services such as accommodation and food, retail and wholesale trade, travel and transport – sectors in which barriers to entry are relatively low. MSMEs provide the bulk of jobs and are being particularly hit across Africa where informal firms dominate employment. In order to facilitate job creation in low-income communities, public works and urban programs are being launched or scaled up. In the Central African Republic, the largest cash-for-work program in the country supported by the World Bank has produced more than two million masks with the objective of producing 10 million, to provide two free masks for every citizen at the same time generating livelihood opportunities. In countries such as Ethiopia and Senegal, projects to accelerate slum upgrading activities and help generate work are underway.<sup>20</sup>

In Bangladesh, the informal sector and MSMEs, which employ 85 percent of the total employment, have been the worst-hit by COVID-19. As the government enforced general holidays, lockdowns, closures of factories and businesses to prevent the spread of coronavirus infections, production as well as income of workers has reduced significantly. This economic disruption has affected the livelihoods of millions of people

<sup>18</sup> <https://www.wsj.com/articles/coronavirus-has-thrown-around-100-million-people-into-extreme-poverty-world-bank-estimates-11602086400>

<sup>19</sup> Some of the content in this sub-section is based on a paper by ILO (2021).

<sup>20</sup> See <https://www.worldbank.org/en/news/factsheet/2020/06/02/world-banks-response-to-covid-19-coronavirus-in-africa>



employed in both formal and informal sectors of the country. The contagion effect will slow down the service sectors including tourism, transport, and entertainment due to lacklustre demand. The loss of jobs in these sectors will put more burden on the public exchequer through mounting demand for social safety. For workers' salary, the Bangladeshi Government has declared two support packages of total US\$764.27 million. The packages are—(i) Special Fund for Salary support to export oriented manufacturing industry workers worth US\$588.2 million and (ii) Social Protection (Cash transfer) Program for the export-oriented industry workers worth US\$ 176.5 million (Government of Bangladesh, 2020).

The ILO finds that the closure of workplaces and implementation of other containment measures as a result of COVID-19, combined with the rapid deterioration of economic conditions, led to immediate and massive losses in working hours during the second quarter of 2020. In low-income countries (most of which are LDCs), the decline in working hours is estimated at 13.9 percent, which is lower than all other income groups. This implies that many workers in poorer countries were forced to maintain their working routines out of economic necessity—especially the self-employed, daily wage labourers and low-skilled workers, not least because the nature of their work required physical proximity to others.

In the absence of the latest conventional labour market statistics, especially in LDCs, ILO and other international organisations have conducted several rapid labour market assessments to provide immediate, real-time support on assessing the employment and income impact of COVID-19. Both the modelled estimates and ad-hoc surveys point to large job losses.

Analogous to the finding on poverty, COVID-19 disproportionately affected those informal, low-skilled and low-productive urban employment, including retailing, transportation, construction, restaurants, personal services and domestic workers. ILO estimates suggest, for instance, that earnings for informal workers in the first month of the crisis might have declined by over 80 percent in low-income countries. A recent survey by ITC shows that 76 percent of firms (of all sizes) in the food and accommodation business were 'strongly affected' by the pandemic, and a further 14 percent said that they were 'moderately affected' (ITC, 2020a).

About 25 million informal workers are at risk of losing their jobs (ILO, 2020a). These workers are particularly vulnerable to the pandemic because they have no social and health protection; they lack bargaining power; and their remoteness and isolation

may deprive them of emergency assistance. According to ILO, lost incomes in the informal sector could raise poverty rates by 56 percentage-points in low-income economies (ILO, 2020b). With little hope of receiving any income support from their governments, the unemployed may be forced to sell off assets, borrow from 'loan sharks' or resort to child labor (FAO, 2020). Because informal workers must work for their own and their family's survival, lockdown measures could breed social tension and breach of confinement measures, compromise government efforts to deal with the crisis.

Furthermore, women in the labour force have been disproportionately affected by the pandemic. This is largely due to their over-representation in labour intensive low-skilled activities (see also ILO, 2020). These types of jobs also tend to be underpaid and undervalued, with hardly any social protection measures. Additionally, unpaid care obligations on the back-drop of school and child-care closures exacerbated this trend. In normal times, women provide around three quarters of all unpaid care work. The amount of time dedicated by women to unpaid care work increases with the presence of children in the household. During the pandemic, the closures of early childhood education centres, care services and schools, along with the unavailability of older relatives to provide support, have exacerbated care demands, affecting women more than men (Committee for the Coordination of Statistical Affairs, 2020; ILO, 2020).

These findings reinforce the immediate need for more secure and reliable social protection for workers in the informal economy, especially women.

There is also some evidence that the pandemic has accelerated the adoption of new technologies as firms looked to cut costs and adopt new ways of working. A recent report by the World Economic Forum (2020)<sup>21</sup> while not focused on poorer countries such as LDCs, warned that by 2025, half of all work tasks will be handled by machines. This is because, millions of routine or manual jobs would be displaced by technology, affecting the lowest paid, lowest skilled workers the most. These findings were based on surveys conducted with employers in select developed and emerging economies. On the other hand, roles that relied on human skills such as advising, decision-making, reasoning, communicating and interacting would rise in demand. There has specifically been a surge in demand for workers who can fill green economy jobs, roles at the forefront of the data and AI economy, as well as new roles in engineering, cloud computing and product development (see also section F on the role of STI during a pandemic).

If left unchecked, this is likely to further increase poverty and inequality. There is a need to provide stronger support for reskilling and upskilling for at-risk or displaced workers. There is also a need to create incentives for investments in the markets and jobs of tomorrow; provide stronger safety nets for displaced workers in the midst of job transitions (World Economic Forum, 2020).

The IMF warns that much of the fiscal policy support, such as cash transfers and job retention support are gradually waning, with many having expired by the end of 2020. As Kristalina Georgieva states, "in order to reduce uncertainty and strengthen the bridge to recovery, it is important to avoid premature withdrawal of support" (Georgieva, 2020).

### B.3 EFFECT OF COVID-19 ON ACCESS TO EDUCATION AND OTHER SOCIAL SERVICES

Prior to COVID-19, the LDCs made modest progress in increasing enrolment rates at the primary levels. According to the Report of the Secretary-General on the implementation of the IPoA (UN-OHRLLS, 2020), the proportion of children out of school in primary-age education dropped from 18.7 percent in 2011 to 17.7 percent in 2018. However, the out of school rate for LDCs remains double the world average of 8.1 percent. Furthermore, literacy rates improved, increasing from 57.6 percent in 2011 to 64.8 percent in 2018. However, more than 350 million people in the LDCs did not possess basic reading and writing skills. As argued by Azevedo et al., (2020), before the COVID-19 outbreak, the world was already tackling a learning crisis, with 53 percent of children in low- and middle-income countries (all LDCs fall under these two income categories) living in Learning Poverty—unable to read and understand a simple text by age 10.

COVID-19 pandemic caused an unprecedented disruption of education provision globally. This not only affected the daily lives of students and their families but also led to learning losses and a potential increase in educational inequality. Even in developed countries, some studies conducted thus far find significant negative impacts. Maldonado & De Witte; 2020 found that students of the 2020 cohort in Belgium experienced significant learning losses in all tested subjects. They further found that schools with a more disadvantaged student population experience larger learning losses. In the US, Dorn et al., (2020) found that poor students are less likely to have access to high-quality remote learning or to a conducive learning environment, such as a quiet space with

minimal distractions, devices they do not need to share, high-speed internet, and parental academic supervision. While these two studies are focused on developed countries, the situation in LDCs is even more challenging.

The situation is worse, particularly in the Sahel region where nationwide school closures due to COVID-19 came at a time when a very large number of schools had already been closed for several months because of severe insecurity, strikes, or climatic hazards. In general, COVID-19 is worsening the situation of education in Sub-Saharan Africa where, prior to the pandemic, 47 percent of the world's 258 million out-of-school children lived (30 percent due to conflict and emergency (UN, 2020b).

As found by some studies, including Azevedo et al., (2020) who conducted a multi-country assessment, COVID-19 could result in a loss of 0.6 years of schooling adjusted for quality, bringing down the effective years of basic schooling that children achieve during their schooling life from 7.9 years to 7.3 years. The combination of being out of school and the loss of family livelihoods caused by the pandemic may leave girls especially vulnerable and exacerbate exclusion and inequality — particularly for persons with disabilities and other marginalized groups.

However, the real concern is not just that a few months of learning will be lost in the short run, but that these losses will accumulate into large and permanent learning losses as many children fall behind during school closures and never catch up (Kaffenberger, 2020). Some lessons have been learned in previous health crises. The closure of schools was a common response in the different countries of West Africa that faced the Ebola crisis. A reduction in attendance after schools reopened was also documented with a 7 percent reduction in Guinea, 13 percent in Sierra Leone and 25 percent reduction in Liberia. In most cases, this was attributed to loss of household income (World Bank, 2016a, 2016b, 2016c).

Furthermore, the United Nations (2020b) Policy Brief highlights that the total number of children not returning to their education after the school closures is likely to be even greater. School closures make girls and young women more vulnerable to child marriage, early pregnancy, and gender-based violence—all of which decrease their likelihood of continuing their education.

In relation to the pandemic, Kaffenberger (2020) modelled post-COVID-19 learning scenarios using data from seven low- and middle-income countries (LMICs), among them Senegal

<sup>21</sup> See also <https://www.bbc.com/news/business-54622189>

and Zambia, to estimate long-term learning loss. The author found that without mitigation, children could lose more than a full years’ worth of learning from a three-month school closure because they will be behind the curriculum when they re-enter school and will fall further behind as time goes on. This reflects both time out of school and additional learning regression. The results of the study suggests that the long-term repercussions for children’s learning could be devastating, with today’s Grade 3 students losing as much as 1.5 years’ worth of learning (or more) by the time they reach Grade 10 as a consequence of their time out of school. Governments can, however, introduce measures that mitigate some or all of these consequences. Some of these measures, including effective remediation efforts immediately upon return to school, could reduce long-term learning loss for the cohort of Grade 3 students by half. In addition, they will need to begin planning for reopening, putting in place the tools for remedial programmes and, if feasible, beginning to train teachers remotely. As they do so, they should consider how they can build programmes and train teachers in ways that can continue to produce benefits beyond the period immediately following reopening.

Conti et al., (2020) found that not attending school can have immediate adverse effects on children’s learning and, more precisely, on the acquisition of foundational skills. Children who are recently out of school perform far behind children who continued to attend school. Second, the foundational reading skills gap between these two groups widens with age. For the 9–11 age group, in Madagascar, children who recently left school are 11 percentage points less likely to demonstrate foundational reading skills while in the Democratic Republic of the Congo, the gap is about 1.5 percentage points. In Bangladesh, the gap is 17 percentage points. For older children, aged 12–14, the largest gap among the three LDCs in the sample was observed in Bangladesh where recently out-of-school children are 25 percentage points below those who continued to attend. The smallest gap is seen in the Democratic Republic of the Congo at 5 percentage points. The gap in Madagascar was about 21 percentage points.

Access to online and remote learning is a major challenge in LDCs. In 2019, Internet adoption in LDCs was at 19.1 percent (State of Broadband Report, 2020). Furthermore, skill gaps in using available online platforms and devices makes access to and use of online tools even more complex (UNESCO, UNICEF, World Bank, 2020) and amplifies the digital divide. As highlighted above, prior to the pandemic, many LDCs were facing a learning crisis. Now, with increased utilization of e-education and remote learning platforms that depend heavily on high-speed Internet access, learning inequalities

are widening – between developed and developing countries and between the rich and the poor in the same country (see also Sharma, 2020).

After adjusting the percentage of primary school-age children facing school closures to account for households with access to the Internet, the effective out-of-school rate increases substantially everywhere, even under the optimistic assumption that all children with internet access will be able to continue their education online. Being out of school—even for a limited amount of time – is expected to have long-term impacts on learning, earning potential and wellbeing (Committee for the Coordination of Statistical Affairs, 2020; ILO, 2020).

In some LDCs such as Bhutan, the Government put its’ focus on investment in technology and innovation, to put the economy back in its path to recovery and growth, and to create jobs of the future. E-learning technology and teaching was introduced and mobile vouchers to students without access to the internet have been provided to facilitate distance learning. In addition, teachers are encouraged to visit and teach students without access to e-learning and other facilities (Royal Government of Bhutan, 2020).

Given the challenge of reaching children with remote learning in poor countries, schools were reopening with fully in-person teaching and learning (Dreesen et al., 2020). In general, for many countries, immediate policy responses were aimed at ensuring continued curriculum-based learning through a range of remote learning modalities including online, TV/ radio, paper-based take-home materials or other approaches (UNESCO; UNICEF; World Bank, 2020).

In addition, there are disparities for asset ownership that are useful for remote learning. For example, Dreesen et al., (2020) found that TV ownership rates among urban households were more than double that of rural households with the largest disparities appearing in sub-Saharan Africa. While rates of radio ownership between rural and urban households are more level across countries, the rates of radio ownership vary significantly. Taken together, and given large differences in access to technologies, these results show that no single delivery channel for remote learning is sufficient to reach all children and the rural poor are far more likely to be left out by technology-enabled remote learning. Nevertheless, the study by UNESCO, UNICEF and the World Bank (2020) found that among low- and lower-middle-income countries, radio was widely used and rated as very effective by about 16 percent and fairly effective by 65 percent of countries. Poorer countries relied more heavily on broadcast media, including

radio (93 percent) and television (92 percent), to provide education content remotely during school closures, while the use of online platforms is lower, at 64 percent, likely due to low internet penetration in these environments.

In Timor-Leste, among those who watched education shows on television, 20.7 percent were in other municipalities, and 36.2 percent were in the Capital, Dili. This shows that there is a need to invest in e-education system to facilitate the learning processes for all students in Timor-Leste (Government of Timor-Leste, 2020).

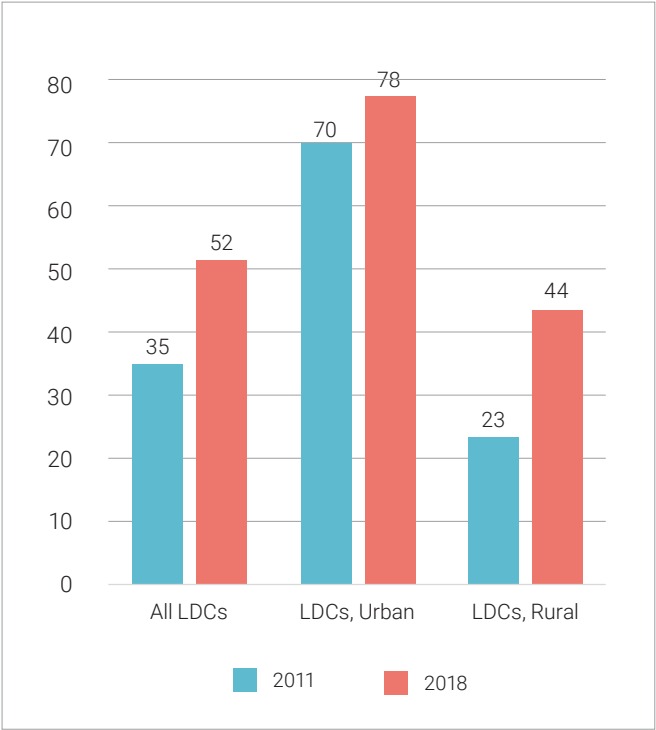
Ultimately, there is need to take action to increase connectivity. This includes the provision of internet access at subsidized or zero cost, providing devices at lower cost to be used for educational purposes and access to online learning platforms through mobile phones (UNESCO, UNICEF, World Bank; 2020). Initiatives like Giga, an ITU-UNICEF partnership aims to provide internet connectivity to schools in the developing world, including many LDCs.

Producing accessible digital and media resources based on the curriculum will not only allow a quicker response, but their use in ordinary times can also enrich learning opportunities for children in and out of school. Furthermore, it is important to build teachers’ capacity to manage a remote ‘virtual’ classroom, improve their presentation techniques, train them to tailor follow-up sessions with caregivers and blend technology effectively into their lessons (Conto et al., 2020).

LDCs face additional structural challenges, which impacted on being able to effectively respond to the pandemic. For example, households with no access to electricity were unable to use the internet. The majority of households in rural areas do not have access to electricity. While access to electricity in the LDCs increased significantly, from 35 percent in 2011 to 52 percent in 2018, disparities persisted across countries and between rural and urban areas (see figure B.2).<sup>22</sup>

Investments in electricity and connectivity infrastructure will democratize access, increasing options for remote learning delivery, speeding up response during school closures and providing opportunities for working from home, whenever possible (see Conto et al., 2020).

**Figure B.2: Access to electricity (percent)**



**Source:** World Bank world development indicators.

<sup>22</sup> Access to renewable energy in LDCs is further discussed in Box II.

B.4 CONCLUSIONS AND RECOMMENDATIONS

The consequences of COVID-19 pandemic have been devastating around the world, affecting not just the health sector but many other aspects of the social-economic fabric. Indeed, it is being shown to is likely to further increase poverty and inequality within and across countries.

It will be important to protect the already-existing poor people and those that have been pushed into poverty by the pandemic. Given the differences between those groups, an effective response calls for the adaptation of safety net programs designed to support both groups through the use of innovative targeting and delivery mechanisms, and for an economic recovery that reaches those in the informal sector in both rural and urban areas. This should include timely cash transfers as well as food or in-kind distributions. Specific measures should be tailored towards women workers with care responsibilities at home, families that may resort to child labour as a coping strategy, as well as other vulnerable subgroups (Sánchez-Páramo, 2020; FAO, 2020).

It will be important for LDCs to promote a job-rich recovery. However, this will require addressing key challenges, including increasing the proportion of quality, formal jobs; supporting vulnerable and hard-hit groups (such as women, youth and informal workers) and generating fairer labour market outcomes; and securing international solidarity and support (ILO, 2020). Additionally, avoiding premature withdrawal of policy support, such as unemployment benefits will help to build back better after the pandemic. Sustained international support is critical to tackle the economic and employment impacts of the pandemic in the LDCs. Far more bilateral and multilateral support and new financial facilities will be essential to help LDCs fund their responses at each of the different stages of the pandemic crisis (ILO, 2021). Workers, especially those at risk of losing jobs, will need to be supported so that they can reskill and upskill. There is also a need to prepare for the future of work, especially in light of on-going technological transformation.

Given the unprecedented changes in the school system brought about by COVID-19, there is a need to invest in e-education system so that all students everywhere can benefit. There is need to provide affordable internet access and devices to utilize during online learning. Furthermore, to avoid adverse long-term effects resulting from unexpected school closures, Governments must take strong efforts to minimize dropout rates – brought about by child labour, poverty, early marriages, etc. – once schools reopen. It will be essential to re-structure the education systems so that they become more resilient and sensitive to the diverse needs of children all across the world (Sharma, 2020).

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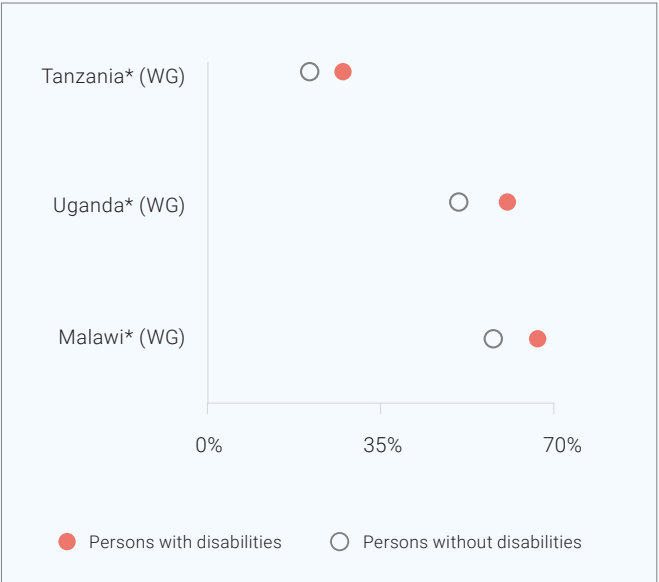
Box I: Effects of COVID-19 on persons with disabilities

An estimated 1 billion people live with a disability globally, and around 80 percent of those are living in developing countries (World Bank, 2011).

Very limited data is available on persons with disabilities living in LDCs. A small, but growing body of empirical evidence from selected LDCs show, even before the pandemic, persons with disabilities are more likely to live in poverty. In addition, the disadvantages they experience extend to many sectors, including education, employment, health care, nutrition, and access to water, sanitation, energy, information and justice.<sup>23</sup>

Persons with disabilities, particularly those in LDCs are likely to be among the worst affected due to attitudinal, environmental, and institutional barriers that are magnified due to the COVID-19 pandemic. The crisis is likely to increase the risk of poverty, experience acute food insecurity, higher rates of violence, neglect, and abuse among persons with disabilities. These inequalities are heightened for women and girls with disabilities who are often subjected to double discrimination due to their gender and disability status.

Figure I.1: Percentage of households with and without persons with disabilities living under the international poverty line (US\$1.90 a day) in 3 LDCs



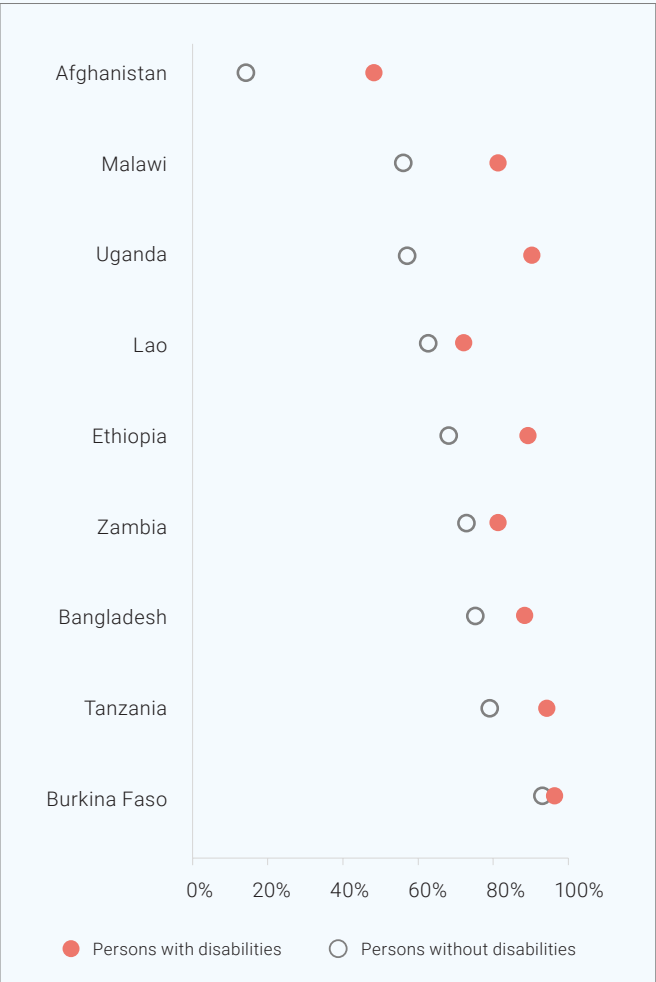
Source: UN (2018).

A comparative study across 22 countries, of which 9 were LDCs, using multidimensional poverty rates, show consistently higher rate of poverty in households with disabilities.

The study also found poverty gaps were largest in districts with the poorest infrastructure and access to healthcare services, suggesting that overall accessibility and service delivery has a critical role to play in improving the conditions of persons with disabilities.

The persistent poverty gap between persons with disabilities and persons without disabilities in LDCs will be widened by the impacts of the pandemic unless the response to address the socio-economic impacts of COVID-19 are disability-inclusive.

Figure I.2: Multidimensional poverty rates, for persons with and without disabilities, in 9 least developed countries, in 2002–2014



Source: UN (2018).

<sup>23</sup> UN General Assembly, Report of the Secretary General on Inclusive development for and with persons with disabilities, 20 July 2020, A/75/186, available at <https://undocs.org/A/75/187>

### Impact of poverty

Persons with disabilities are less likely to be employed in the formal sector, and therefore have less access to social protection systems and decrease their resilience to loss of income during the pandemic. The majority of persons with disabilities, especially women with disabilities are employed in the informal sector, which is significantly impacted by lockdown and curfews, leading to loss of their only sources of income.

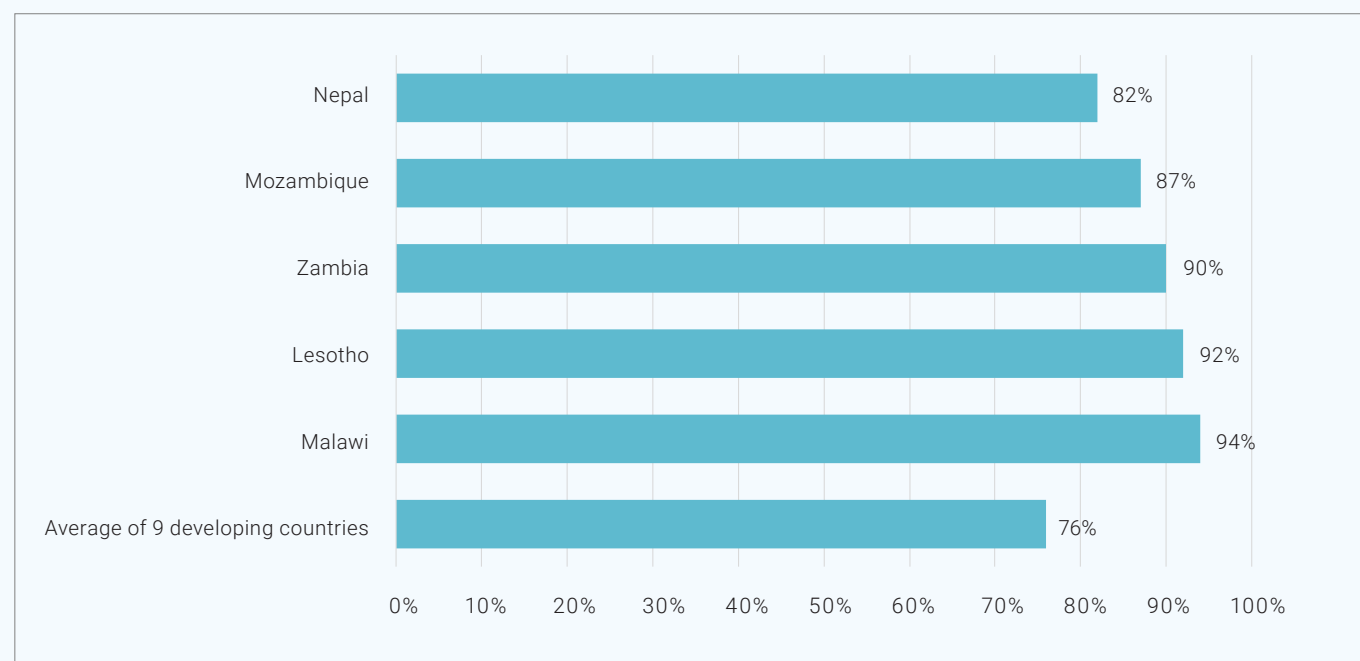
Households with disabilities are likely to have fewer assets and coping mechanisms to absorb shocks. They are also less likely to be able to afford to stockpile food and medicines to counter suspension of services. Extended lockdowns are likely to increase their vulnerabilities, including food insecurity, shortage of medicine, affordability of hygiene products to protect from COVID-19.

The lack of income represents a disproportionate burden on persons with disabilities and their households, which typically face extra costs related to disability (accessible housing and equipment, assistive devices, specific goods, and services), pulling them more rapidly into poverty.<sup>24</sup>

Social protection is critical to reducing vulnerability and exposure to poverty. While coverage is low in most LDCs for all people, social protection services remain largely inaccessible to persons with disabilities. Disability targeted benefits are even more scarce with only 1 percent of persons with severe disabilities receiving such benefits in low-income countries (UN, 2018).

The 2018 UN Disability Report presents evidence from 9 developing countries, including 5 LDCs (Malawi, Lesotho, Zambia, Mozambique and Nepal), indicating that on average, among people with disabilities who needed welfare services, 76 percent were not able to receive these services (with higher rates for the LDCs with available data) (see Figure I.3). The Report further notes that access to social protection programmes, even disability-targeted ones, has been shown to be restricted by a variety of barriers. Persons with disabilities are not always informed of social protection programmes in their area and benefit packages offered may not be adapted to their needs.

**Figure I.3: Percentage of people who needed but did not receive welfare services in 5 LDCs**



Source: UN (2018).

<sup>24</sup> [https://www.ohchr.org/Documents/Issues/Disability/COVID-19\\_and\\_The\\_Rights\\_of\\_Persons\\_with\\_Disabilities.pdf](https://www.ohchr.org/Documents/Issues/Disability/COVID-19_and_The_Rights_of_Persons_with_Disabilities.pdf)

There is very limited evidence on disability-targeted social assistance in response to COVID-19. According to the IMF, in Lesotho Public Assistance has also been expanded for three months to add vulnerable groups such as children, elderly, disabled, and those working in the informal sector.<sup>25</sup>

The Public Assistance Program is Lesotho's oldest safety net program, and it includes two components: permanent assistance and temporary assistance, which, is designed to provide assistance up to six months (World Bank, 2016). Similarly, São Tomé and Príncipe announced plans to expand social assistance such as World Bank supported cash-transfer program, and increased support to vulnerable groups including persons with disabilities.<sup>26</sup>

### Access to healthcare

Even before the pandemic, 80 percent of persons with disabilities living in countries with lower levels of GDP per capita report poorer health compared with 20 percent in countries with highest levels of income (UN, 2018). Persons with disabilities face a greater risk of contracting COVID-19 and higher mortality rates because of underlying health conditions as well disability-based discrimination in accessing healthcare services, which have been amplified during the pandemic.

Persons with disabilities in LDCs are less likely to have access to information on COVID-19 in accessible formats, PPE tailored to their impairments, access to technology, as well as assistive technologies needed for telehealth, making them more vulnerable to COVID-19. For instance, given that masks make it impossible to read lips or see facial expressions, deaf and hard of hearing persons will benefit better from face shields (UN, 2020).

Persons with disabilities, especially those in rural populations with lack of access to water and sanitation may be also at a disadvantage in practicing sanitary protection measures for COVID-19.

Emerging evidence also suggests an increase in mental health illnesses associated with anxiety, lockdown and isolation putting an additional strain on mental healthcare systems.

The WHO has issued disability-inclusive guidelines that are in line with international human rights conventions.

Disability inclusion is central to the 2030 Agenda to leave no-one behind. In May 2020, the UN Secretary General issued a brief on disability-inclusive response to COVID-19 outlining the overacting areas for action.

<sup>25</sup> <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19#S>

<sup>26</sup> <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19#S>

A disability-inclusive response to COVID-19 will increase the resilience of healthcare systems and help address persistent barriers to access to healthcare for persons with disabilities in LDCs.

### Recommendations

As persons with disabilities are most severely affected by COVID-19, including access to services and opportunities, their interests need to be central to the response. Thus, the following actions are recommended:

- Strengthen national policies and programmes to mainstream the rights of persons with disabilities in COVID-19 response and recovery.
- Promote disability-inclusion in existing and expanded social protection programs including through targeted support and benefit schemes to account for additional costs associated with disability.
- Remove barriers to enrolling in social protection schemes including special schemes established to address the impacts of the pandemic, such as lack of accessible information, absence of documentation, lack of accessibility of grant offices, unclear disability eligibility criteria and stigma associated with certain types of disabilities, particularly mental illnesses.
- Promote policies and practices to eliminate negative disability-bias in access to medical treatments, including triage decision-making and access to testing for COVID-19 and vaccinations, when available.
- Consult with organisations of persons with disabilities, in particular with organizations of women and girls with disabilities, in all stages of COVID-19 response and recovery.
- Ensure more equitable and safe provision of basic water and sanitation services to persons with disabilities, including in rural areas.
- Seize opportunities to promote telehealth, online education and telecommuting by increasing accessibility and affordability of technology and assistive devices for persons with disabilities in LDCs.

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C. EFFECTS OF COVID-19 ON FOOD SECURITY, NUTRITION, AND AGRICULTURE IN THE LDCs

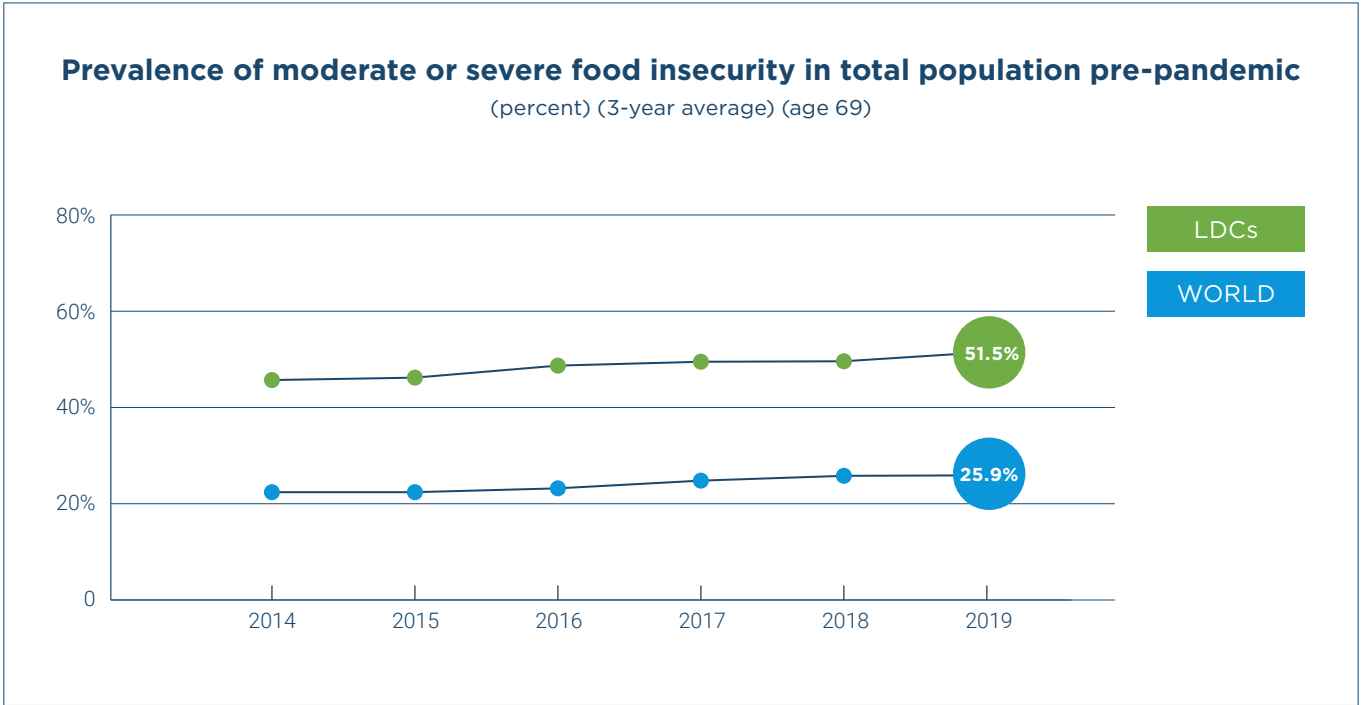
An analysis of the food and agriculture sector in the LDCs shows the interconnectedness of health, poverty, and economic development. The demographic profile and structural features of the economy of the LDCs make agriculture a sector with extraordinary growth potential. Increasing productivity in agriculture is crucial for poverty reduction and often benefits the poorest and most vulnerable (Christiaensen et al., 2018). Agricultural growth can also positively impact other areas of human development, such as health and nutrition. Rising agricultural productivity can also reduce poverty by freeing up labor for non-farm agricultural activities or non-agricultural activities. In many LDCs, where food is primarily locally produced and consumed, increasing productivity growth in agriculture can facilitate the transfer of labor to non-farm activities without necessarily increasing food insecurity to poor or vulnerable populations.

The severe lockdown measures imposed by high income countries to contain the pandemic illustrates the importance of strong social safety nets that provide protection against severe disruptions caused by these measures. With extremely weak social protection systems, the disruptions caused by the pandemic have increased the cost and impact the availability

of food in the LDCs. In the absence of social protection schemes, hunger and malnutrition will increase dramatically in the LDCs, particularly in countries that were already facing a difficult situation prior the pandemic.

Countries affected by conflict, natural disasters, or other humanitarian crises face additional challenges. They require special and additional support in the short term to prevent the risk of starvation and severe food insecurity. Development and trading partners, multilateral organizations, and other relevant actors can support the efforts of LDCs to set the basis of agricultural development and enhancement in productivity conducive to poverty reduction and sustainable development.

COVID-19 is likely accelerating worrisome trends in the LDCs. Before the pandemic, the number of people suffering from hunger in the LDCs was already rising, increasingly placing LDCs as the locus of hunger and undernutrition. In the Solomon Islands, COVID-19 mitigation measures have reduced agricultural production, food and incomes and dietary diversity declined (Lese et al., 2021). In Ethiopia, dietary diversity declined in poorer households (IFPRI, 2020).





In Sudan, the socio-economic crisis, on top of the economic crisis suffered by the country, has led to an increase in food prices. In the Central African Republic, the economic impact of COVID-19 adds to the difficulties caused by displacements and escalated violence. In Sierra Leone and Liberia, the socio-economic consequences of lockdowns and the sharp drop in remittances have led to an increase in food prices and higher food insecurity. In Somalia, reduced incomes originated by the socio-economic effects of COVID-19 have been particularly challenging for urban populations and those receiving remittances (WFP, 2021). Unless financial resources are made available to LDCs, the long-term consequences for the human and economic development of people living in the LDCs will be dramatic, with increased poverty, inequality and malnutrition.

Unlike the process leading to structural transformation illustrated by the successful development experiences of the past, industrialization is lagging in most LDCs. The process of rapid urbanization experienced by many LDCs is not matched with the growth in employment opportunities and higher income offered by the manufacturing sector, which reduces the path of migrating from low-income agricultural activities to higher income activities in urban areas experienced by other developing countries in the path for the LDCs. On the contrary, people are moving from low productivity agricultural activities to the low-productivity informal sector in urban and peri-urban areas. This transition has led to relatively low progress in poverty rates and an increase in the absolute number of poor people.

### C.1 AN OVERVIEW OF THE STATE OF FOOD INSECURITY AND NUTRITION IN THE LDCs

Agricultural productivity remains a significant determinant of development outcomes in the LDCs. Agriculture still employs

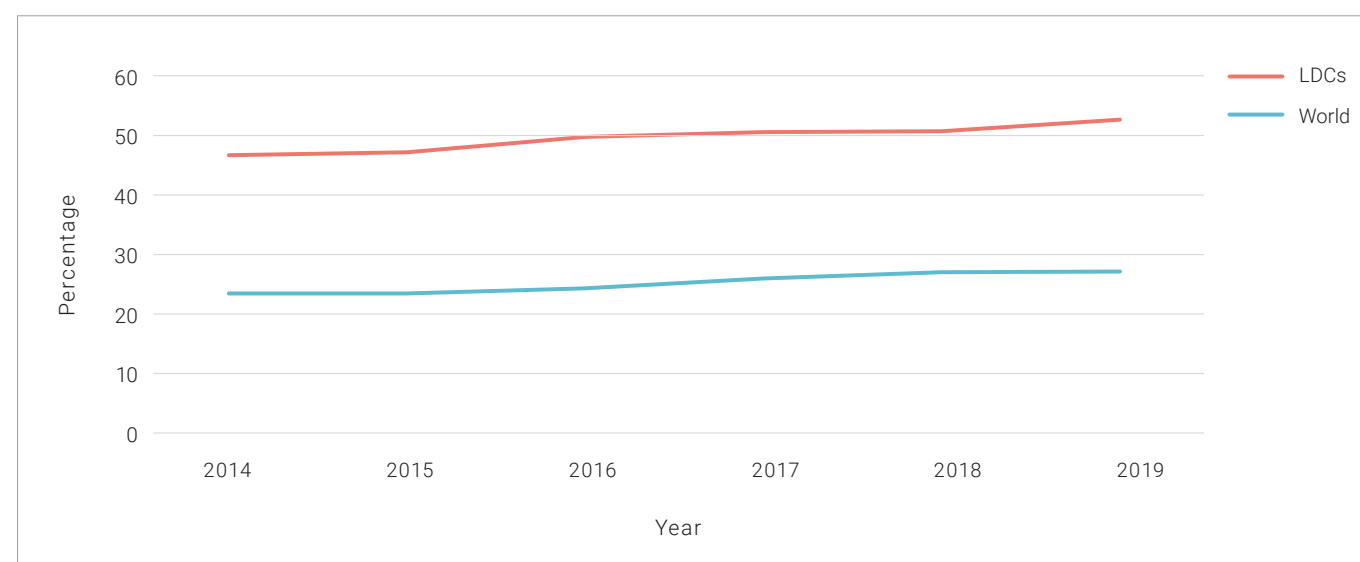
more than half of the population and constitutes the primary income source for rural areas, although there is a perceptible decrease in the levels of the population employed in agriculture. In 2019, 55 percent of the population of LDCs was employed in agriculture, down from 60.4 percent in 2011. The importance of rural areas remains very high, although it has consistently declined as many countries are experiencing rapid urbanization. In 2019, 65.9 percent of the population of the LDCs lived in rural areas, a decline from 70 percent in 2011.

Although agriculture produces more than enough calories to meet basic dietary needs worldwide, the number of undernourished people in the LDCs has not declined. The prevalence of undernourishment has remained virtually unchanged since the establishment of the IPoA at around 23 percent. The number of people unable to cover their nutritional needs has, however, risen considerably from 198.8 to 241.5 million.

This represents an increase of 21.5 percent in the absolute number of people affected by undernourishment during the decade of the implementation of the IPoA. These numbers suggest a trend where bad nutrition and undernourishment become increasingly localized in the LDCs, with 35.11 percent of the world's share, a substantial increase from 29.5 percent in 2010.

Limited access to food is a persistent threat for millions of people in the LDCs. In 2019, 51.5 percent of the population lived, according to estimates from the FAO, under moderate or severe food insecurity. This represented an increase from 45.7 percent in 2014. The average for the LDCs is almost double the world's average of 25.9 percent in 2019. Since 2014, the prevalence of severe food insecurity in the LDCs has increased from 17.6 percent to 20 percent in 2019.

**Figure C.1: Prevalence of moderate or severe food insecurity in total population (percent) (3-year average)**



### Diet quality and nutrition

The linkage between low diet quality and poor nutritional outcomes is now well (Meenakshi, 2016; Neumann et al., 1999; Schönfeldt & Hall, 2012; Tzioumis & Adair, 2014)<sup>27</sup>. The average dietary supply shows a higher weight of energy-rich foods in the LDCs. However, there are significant differences within countries based on social group and rural vs. urban population. LDCs also show lower protein intake, which is associated with poor nutrition outcomes. The average supply of protein (g/cap/day—3-year average) has increased from 31.9 for the period 2009-2011 to 55.1 for the period 2015-2017, although still substantially lower than the world average of 79.9 for the period 2015-2017. The average supply of protein of animal origin (g/cap/day—3-year average) was 10.1 for the period 2009-2011 and 11.8 g/cap/day for the period 2015-2017 in the LDCs, also significantly lower than the world average of 31.3 for 2015-2017.

### Micronutrient deficiencies prevent progress in human development

Micronutrient deficiencies aggravate undernourishment and can have severe consequences in the long-term development of children. The prevalence of undernourishment illustrates how health, economic, and food safety are inextricably linked (FAO, 2020). Increased immunization and control programmes for malaria and other diseases and improving nutritional status go hand in hand in reducing poverty and vulnerability of marginalized communities. The affordability of a micronutrient-rich diet is crucial for vulnerable groups in the LDCs. Rising real incomes is extremely important to ensure access to a healthy diet. Without sufficient income or safety nets, the poor are unable to make the choices for a healthy diet. Education, infrastructure, storage, and retailing are also relevant factors. Public policies can contribute to reducing prices for more nutritious foods in the LDCs. Increasing the productivity of farms and addressing off-farm bottlenecks, such as infrastructure deficiencies, are also crucial. Public interventions aimed at diversifying agricultural production can also contribute to improving access to a higher-quality diet.

The most widely known micronutrient deficiency, iron deficiency, causes anemia affecting millions of people in the LDCs, particularly women and children. Iodine, Vitamin A, folic acid, or zinc deficiencies affect large parts of the population. Iron deficiency, which affects 30 percent of the world population, including in developed countries, is exacerbated in the LDCs as a result of high levels of undernourishment, severe food insecurity, as well as the prevalence of infectious and other diseases such as malaria, hookworm infestation, schistosomiasis, and tuberculosis. These deficiencies severely reduce

the ability to lead a fulfilling and productive life. For children, it can lead to cognitive disabilities and obstacles in their development, particularly for the poorest and most vulnerable. Reducing micronutrient deficiencies contributes to poverty reduction and sustainable development. Poor nutrition outcomes have a direct impact on children's health and wellbeing. The proportion of severely stunted children decreased from 34.6 percent in 2015 to 31.2 percent in 2019, which represents a decrease from 48 to 45 million. Despite this progress, child developmental problem remains substantially higher than the world average of 21.3 percent in 2019. The proportion of children moderately or severely wasted in the LDCs was 10.9 percent. Investment in education, particularly targeting school age groups, providing accurate information about dietary risks and better regulation on labeling and marketing to provide adequate information to consumers, is also essential. Supplementation programmes and strategies for diet diversification can bring positive results. Still, they require scaled up resources and technical capacities, which is challenging for LDCs with already strained public budgets and now additionally burdened under the challenges raised by fighting COVID-19.

### Food waste

Food waste is an important issue for LDCs. Addressing it can contribute to improve nutritional outcomes and can also have positive economic impacts. A study in circumscribed areas in LDCs illustrates the scale of the challenge. In the United Republic of Tanzania, it was estimated that in 2013, food waste was 119 kg per capita in the studied area. In Zambia it was 78 kg of food waste per capita in 2012; 189 kg of food waste per capita in Rwanda in 2013; and Ethiopia 92 kg of food waste per capita in 2017 (UNEP, 2021). Disruptions in food systems in the onset of the COVID-19 pandemic may contribute to eFood waste is commonly associated with dislocations in transportation and distribution systems, and lack of adequate storage and refrigeration. It may also be due to early harvesting in low-income settings, because of the need for cash or immediate food access. One of the main challenges of addressing food waste has been to measure and monitor it properly to identify effective interventions and to understand its impact on food security and nutrition, as current evaluation tends to focus on the place in the value chain where food waste occurs rather than its broader societal impact. This challenge is particularly severe in many LDCs due limited data availability and low institutional capacity. Methodological progress and greater attention have improved data availability in recent years but there is still work to be done. Disruptions in food systems in the onset of the COVID-19 pandemic may contribute to exacerbating these existing food waste challenges.

<sup>27</sup> In the LDCs, the average dietary energy supply adequacy (3-year average), as a percentage of the Average dietary Energy Requirements (ADER), was 94 percent for the period 2017-2019, a slight increase from the 93 percent of 2010-2012. The average share of dietary energy supply derived from cereals, roots, and tubers (kcal/cap/day – 3-year average) was 58 percent for 2015-2017, higher than the world average of 50 percent for the world for the same period.

## C.2 COVID IMPACT ON FOOD SECURITY AND NUTRITION

Millions of people in the LDCs already faced moderate or severe food insecurity before the onset of the pandemic. Loss of income resulting from lockdown and reduced mobility measures or lower demand for export crops can negatively impact parts of the food supply chain. Reduced demand from restaurants, hotels, or higher-value items such as meat and fresh fruits results from the reduction of income of urban dwellers. Since low-income households tend to spend a higher proportion of their income on food, the impact on their nutrition and food security can be significant. The larger share of unbanked workers in the informal sectors in the LDCs will be significantly affected. School closures may also negatively impact lower-income households since many rely on school meal programmes. People living in informal settlements in cities are likely to be severely affected by the crisis and face higher food insecurity.

Short-term and seemingly temporary shocks triggered by COVID-19 outbreaks may result in entrenched long-term problems that further exacerbate the challenges to improve food security and will increase the vulnerability of broader social groups and systems. Social protection measures should be put in place to support affected groups, particularly those most vulnerable. Poor smallholder farmers and their families should be included in social protection schemes.

### Increase dependence on food imports

LDCs have become more dependent on food imports. The value of food imports in total merchandise exports (3-year average) was 24 percent for 2015/2017 up from 15 percent for the period 2010-2012. Border closures and restrictions may impact countries highly dependent on imports for a large part of their food needs. Simultaneous restrictions by various countries may have a negative impact on regional food balances and create food shortages if not adequately managed, particularly for landlocked LDCs relying on neighboring transit countries for access to food. Countries dependent on services, oil imports, food imports, remittances, or other exports for good whose demand has plummeted are particularly vulnerable. In building more resilient food systems LDCs may benefit from a holistic approach that considers economic, social and environmental aspects in an integrated manner. The systems thinking that has characterized recent discourse in the agriculture and development space can help LDCs and their partners to identify trade-offs and design better policies to promote food system's transformation that is consistent with sustainable development. Countries should identify measures to better balance their food sourcing portfolios. Devel-

opment partners, from donors to multilateral system organizations should assist countries with ecological limitations to address their own food needs domestically with the resources and technical support to assist them in building more resilient food systems, including by supporting the creation of adequate infrastructure, such as grain storage capacity and other similar measures.

### Negative impact on remittances

Lower remittances caused by job losses and returns of migrants will severely impact low-income households or smallholder farmers relying on them for purchasing inputs. The remittances of migrants contribute to food security. A substantial reduction will impact rural livelihoods in areas of origin heavily. Around 40 percent of remittances flow to rural areas, representing in some cases 60 percent of the total annual income. In addition, the decline in remittances is expected to increase the cost of bank operations in affected LDCs and thus limit the availability of credit for agricultural smallholder farmers and small- and medium enterprises (SMEs) in the agricultural sector (see also Section G).

### The indirect impact of COVID-19 on children may be large

Many clinical facts of COVID-19 remain unclear. However initial evidence suggests a lesser impact on children, particularly when compared to older age groups, although there have been concerning cases of serious complications. The indirect impact of the pandemic will surely have a negative impact on children if left unaddressed. Logistic disruptions, loss of income and other associated impacts could likely have lifelong consequences for children in the LDCs as a result of greater difficulties in accessing an adequate diet and due to disruptions on school systems. Reallocation of the scarce health resources of the public health systems in LDCs will likely have a negative impact on maternal and child mortality (Robertson et al., 2020). Children in low-income settings and marginalized communities are at far higher risk and, ultimately, will determine the future path of their societies (Clark et al., 2020).

### Limited fiscal space to address the pandemic

LDCs already faced severe pressure on their budgets to accommodate pressing social needs. Declining revenue as a result of lower economic activity or reduced budget support by donors will increase the dilemma faced by public authorities in the short term. Countries affected by a surge in COVID-19 cases will shift resources to address the direct health impact, limiting the ability of the Government for meaningful interventions in other areas. Shifting resources from agriculture and education to remediate the immediate health emergency will result in additional challenges.

The diversion of resources to address the immediate crisis risks leaving relevant ministries and agencies without resources to support the needs of agriculture at a time of crisis. Thus, the linkages between the calls for debt reduction and other measures to expand the policy space of countries and food security are closely related. Prevent liquidity shortages and support people's nutrition at a time of crisis helps to prevent population at risks of falling into acute food insecurity and generating additional income and growth opportunities.

### Trade and logistics

Trade restrictions, border closures and a spike in transportation costs will reduce diet diversity. Supply chains of high nutrient foods are more vulnerable due to being more perishable. This adds to the limitations posed by insufficient infrastructure in LDCs, particularly the low coverage of cold chain transport network when compared to other countries. Also, shifting priorities in budget allocation to address the most immediate challenges posed by the health emergency will hamper government supported school feeding programmes or healthcare nutrition programmes and may have a significantly negative impact on women and children. Beyond supply chain disruption, loss of income of vulnerable groups will lead to shifts in diet towards less diverse and high-quality diets as they will substitute food rich in nutrients to preserve their caloric intake.

Logistical and communications obstacles constitute an additional challenge for LDCs. In Myanmar, an assessment by the International Food Policy Research Institute (IFPRI) among agricultural input retailers reported higher prices of key agricultural inputs due to a rise in transportation costs originated by COVID. Input retailers expected lower revenues in 2020 (Goeb et al., 2020). Urban areas are dependent on the provision of food from rural areas, but farmers also need access to markets to acquire critical inputs. For some LDCs, the impact of measures taken to reduce the effects of the pandemic, particularly movement limitations, may interfere with the planting periods for essential staples. Slow harvests will also negatively impact seasonal workers.

### The challenges faced by rural areas is compounded by weak national infrastructure and limited capacity

Coordination mechanisms that involve relevant ministries and government agencies, private sector, civil society and UN and other multilateral organizations are essential instruments to face the pandemic. At the national level, Government coordination mechanisms must include agriculture ministries and relevant agencies.<sup>28</sup> Monitoring the entire chain of food

systems will be crucial to reduce the negative impact that the pandemic will have on smallholder farmers and those facing, or at risk thereof, acute food insecurity. Ministries of Agriculture and relevant agencies must be part of national and regional coordination mechanisms.

Central to the COVID-19 response is providing services in rural areas and strengthening governance mechanisms adapted to the specific challenges that COVID poses to the agricultural sector, particularly since a significant focus has been placed on urban areas as they were most affected at the onset. COVID-19, however, is increasingly impacting rural areas, particularly in African LDCs,<sup>29</sup> where there are fewer resources and infrastructure to address the health emergency. Providing relevant information to rural areas in LDCs poses a challenge. Lower literacy levels and substantially lower Internet penetration creates additional difficulties to provide factual and accurate information about the pandemic and the resources, tools, and recommended practices to address it in rural areas in LDCs. The ramifications of a crisis in rural areas for the agri-food system and the national food supply chain are manifold. Rural areas are less connected to government institutions in many LDCs. This reality is likely to be exacerbated due to the direct and indirect impact of the pandemic. Dedicated programmes to address the impact of COVID-19 in rural areas are essential, particularly given the lower attention to the rural sector in the initial batter of policy responses by governments and partners. The Rural Poor Stimulus Facility (RPSF) established by IFAD constitutes an excellent example of mobilizing resources to support smallholder farmers rapidly and, at the same time, build resilience and start addressing some of the bottlenecks and gaps mentioned in this report. Adequately funding mechanisms, such as IFAD's RPSG is crucial to ensure the rapid deployment of resources and prevent disruptions in the food supply chain.

Smallholder farmers in LDCs will face heightened difficulties in accessing inputs or financial resources due to COVID-19. This only exacerbates the existing challenges in connecting with expertise and specialized knowledge that can enhance productivity, such as a better understanding of soil characteristics, knowledge about best practices for specific crops, or training about the proper use of pesticides and fertilizers.

Weak transportation systems, poor infrastructure, and a high degree of informality pose a critical challenge for food security. Upgrading the domestic food supply chain gains urgency in light of the burden posed by COVID-19. Upgrading the wholesale market structure to support smallholder farmers

<sup>28</sup> IFPRI has a portal that compiles policy responses to COVID at <https://public.tableau.com/profile/ifpri.td7290#!/vizhome/CPRPORTAL/Overview?publish=yes>. Agriculture ministries are often left out of coordination mechanisms.

<sup>29</sup> <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19-10-april-2020>



can not only contribute to improvement in the traditional supply chain but constitutes a priority of strategic importance.

A major challenge for vulnerable populations in the LDCs, particularly children, is the severe deficits of micronutrients. Restrictions in the movements of goods and the impact to the harvesting season due to movement limitations and lockdowns will only amplify this problem. Reduced imports and local production will likely exacerbate deficits in micronutrients and have long-term consequences for the health of the most vulnerable. Measures put in place to protect consumers from the impact of COVID-19 tend to concentrate on staple foods. Mali has set price limits on rice, bread, cooking oil, and sugar. Rwanda on staple foods.<sup>30</sup> These policies, taken to ensure access to basic staple food by the population, stimulates consumption of staple foods, particularly by vulnerable and poor households, reducing the consumption of healthier and more diverse foods. These issues emphasize the urgency of diversification strategies for smallholders that can directly contribute to better nutritional outcomes from the point of view of production, but also because of higher income generated. Policies promoting complementary activities, which can go from beekeeping to milk production or fishing, can make a difference. It is also time for assessing crop selection strategies based on nutritional composition and not solely yield.

The process of agricultural transformation and nutrition transition, accelerated by the changes brought by the pandemic, could represent an opportunity to support poverty eradication and, at the same time, promote better nutrition and health-related outcomes. Although the agricultural policy is context-sensitive and must consider specific local factors, promoting diversification of agricultural productions, integrated farming systems, and eco-system-based strategies that combine productivity with the conservation and enhancement of natural capital can be fruitful. The design of a new approach could be articulated from a regional perspective, emphasizing the importance that cooperation among neighboring countries can have in addressing the challenges caused by the pandemic to the agricultural sector and achieving better economic and nutritional outcomes.

Extensions services play a crucial role in supporting smallholder agriculture. They can also support an integrated approach that favors a balanced approach that includes production and nutrition as part of the design of interventions at the local level. Support to promote the adoption of sustainable practices, such as eco-labels, certification systems, and other norms, can facilitate the integration of poor farmers into the food value chain. The extreme vulnerability of the agriculture

sector as a result of COVID-19 highlights the vital role played by extension services. It can act as an essential provider of information about COVID-19 in rural areas, particular in light of the rapid introduction of new rules and compliance directives to fight the pandemic. Extension services can also provide timely and accurate information about the situation in rural areas to the Government for the planning, mitigation, and support of vulnerable populations. The need to keep food production chains functioning benefit from the support of extension services, where mismatches in supply, disruption to transportation systems, or storage facilities place extension systems in a critical position to find temporary solutions through, for example, the promotion of 'short value chains'.

There are examples of partnerships with the private sector focusing on reaching out to consumers in remote rural areas to enhance the availability of micronutrient fortified foods. In Mozambique, the National Committee for Food Fortification brings Government and industry together to expand the distribution of fortified products such as vitamin A, wheat flour with zinc, iron, etc. Another kind of partnership supports chain consumer behavior through marketing and advertising promoting positive associations of healthy foods and consumption. Other type of partnership focuses on developing fortified foods. The Iodine Network, for example, promotes the eradication of iodine deficiencies worldwide (Gómez & Ricketts, 2013). As a result of the negative effects of the pandemic in the national food supply system, building partnerships with the private sector to mitigate the impact of disruptions to the supply system and tapping innovation systems to provide solutions to smallholder agricultures will be critical.

#### **LDCs in conflict and in the midst of humanitarian crises in the time of COVID-19**

The Security Council in resolution 8267th adopted on 24 May 2018, expressed its concern about the level of global humanitarian needs, highlighting that the majority of food insecure people living in countries affected by armed conflict. The resolution also highlights the link between violence and food insecurity.

The difficulties faced by LDCs in conflict and post-conflict situations are compounded by the health and economic impacts of the pandemic. In Yemen, two-thirds of the population require support to access food and face the threatening prospect of starvation. The Secretary-General of the United Nations has called for increased support to meet the challenges of a staggering humanitarian crisis. The Under-Secretary-General for Humanitarian Affairs and Emergency Relief Coordination, Mark Lowcock, has indicated that honoring pledges

and increased funding is crucial to prevent starvation among large segments the population in LDCs. In Sudan, more than 9 million people are facing acute food insecurity and require urgent action. In addition to conflict induced displacements, COVID-19 prevention measures and high inflation rates have impacted access to food by the vulnerable groups. In Somalia, severe flooding, desert locust infestation, the socioeconomic impact of COVID-19,<sup>31</sup> and the cumulative impact of previous shocks have placed more than 1 million people in a situation of acute food insecurity. Large-scale humanitarian assistance and government support prevent broader segments of the population from falling into acute food insecurity. In the Democratic Republic of the Congo, the prevalence of high food insecurity among vulnerable people is driven by a mix of conflict, flooding, and a deteriorated economic environment. In the regions of Ituri, North Kivu, South Kivu, Tanganyika and Maniema, approximately 6.6 million people have lived in a situation of displacement since 2016. Lockdown and movement restrictions due to COVID-19 may have had a negative impact on food prices. Also, in South Kivu, Tanganyika, Haut Lomami, and Haut Katanga, around 500,000 people have lost almost a third of their food reserves, which, paired with a high prevalence of plant and animal diseases, will likely impact agricultural production. Direct food assistance to support the most vulnerable populations should be paired with programmes to restore livelihoods and to rebuild and strengthen production systems. Between August 2020 and February 2021, it is likely that around 4 million people will face acute insecurity and require urgent assistance in Haiti. The poor harvest due to below regular rainfalls was compounded by the devastating impact of hurricane Laura, a Category 4 Atlantic hurricane, which was the strongest on record since 1856. In Ethiopia, population displacement due to conflict and climate change, the worst invasion of desert locust in the last 25 years and high inflation exacerbated by COVID-19 prevention measures has placed an estimated 8.5 million people in a situation of food insecurity. Internally displaced people returning to their areas of origin has faced challenges to access food as a result of the limited success of livelihood restoration programmes and higher food prices.

### **C.3 STRENGTHENED SUPPORT FOR SMALLHOLDER FARMERS AND AGRICULTURE AND ADDRESSING THE CHALLENGES OF COVID-19**

#### **Integrating urban and rural areas**

The dietary transition of part of the population in the LDCs towards a more significant weight for purchased and processed food will have important implications for agriculture.

This process increases the demand for feed grains and other inputs, thus expanding the possibilities for producers and agribusinesses. In addition, increasing urbanization will transform the relationship between rural and urban areas. The increasing importance of urban centers and the need to generate employment opportunities to a growing urban population calls for strengthening, or in many cases developing, the missing linkages of the food value chain. The expansion of the food supply chain at the local and regional level can contribute to a better integration of urban and rural areas (FAO, 2017) and a more balanced development model that addresses the needs posed by increasing urbanization with the need to promote sustainable development in rural areas. Food markets will expand and can provide opportunities for developing the national food value chain and promote domestic private sector development. SMEs can generate jobs and income in the agribusiness processing, logistics, transportation, storage, or provision of inputs or retail distribution, to cite a few sectors within the food value chain. Agribusiness has the potential to promote production capacity development, promoting food safety and fostering human development through inclusive employment. Promoting the expansion of domestic small and medium-sized businesses and generating off-growth employment can facilitate a genuinely inclusive food supply chain. In the LDCs, developing the domestic food value chain can be a useful tool to reduce poverty, and it also has multiplier effects on other sectors.

#### **Better support for smallholder farmers and small-scale agriculture**

Small farms are responsible for around 36 percent of the value of the world's agricultural supply. Family farms operate approximately 75 percent of the world's agricultural land (Lowder et al., 2016). Smallholder farmers are the backbone of agriculture in LDCs. The prevalence of small farms in LDCs should not be equated with a homogenous agricultural landscape as there is a great diversity of smallholder farmers. One way to explore this heterogeneity is to examine the relationship of farmers to the food value chain. Noncommercial farmers tend to practice subsistence agriculture and often supplement agricultural income with casual labor in the informal sector. Smallholder farmers engaged in market-oriented activities have a more stable relationship with buyers and other actors within the food value chain. They have better access to inputs and can establish more predictable relationships through formal contracts. They also have better access to financing. Mapping these differences is crucial to design policies to support the diversity of actors in the agricultural sector in the LDCs.

<sup>30</sup> <https://www.ifpri.org/blog/ifpris-covid-19-policy-response-cpr-portal-identifying-trends-and-implications-food-systems>

<sup>31</sup> <https://www.who.int/news-room/feature-stories/detail/covid-19-locusts-flooding-who-and-triple-threat-in-somalia>



Traditional food value chains are characterized by direct linkages between smallholder farmers and distribution in wet, local markets. Market offers tend to vary with seasonality, and micronutrient offer is characterized by low-priced vegetable and fruits. These typologies have been present in most LDCs, nonetheless the rapid urbanization has also led to the appearance of other modalities that combine the expansion of more modern retail enterprises with actors in traditional value chains. Although there is limited data availability for LDCs, evidence points to better affordability of micronutrients and staple foods rich in calories in more conventional food value chains (Gómez & Ricketts, 2013). A more recent study points to the linkages in the modernization of retailing and diet quality, focusing on increasing ultraprocessed foods driven by the rapid rise in modern supermarkets in urban areas (Khonje & Qaim, 2019). Countries experiencing a nutrition transformation may suffer the double burden of undernutrition and obesity across different sectors of their populations, in some cases showing increases in the number of people undernourished and at the same time displaying a rise in the number of people overweight.

Domestic markets are the primary destination for smallholder farmers in the LDCs. The importance of primary markets is likely to increase. Wholesale markets serve both traditional and modern retailers. The pandemic has brought to the fore the importance of strong domestic supply chains. Informal urban food markets have been severely affected as a result of the pandemic. Lockdowns and movement limitations, reduced transportation options or the difficulty in following social distancing measures in densely packed urban settings poses a significant risk for consumers and workers. Informal food traders are a critical part of the food supply chain in many LDCs. The difficulties of extending the social safety nets to informal workers constitute an additional challenge in designing an effective response to the pandemic in the LDCs. A key metric that will illustrate the success or failure of the fight against COVID-19 in the LDCs will be the ability of governments and their partners to reach informal workers. The role of informal workers in the food supply chains of LDCs makes supporting them not only a humanitarian imperative but a strategic goal.

#### C.4 ACCESS TO FINANCE

Lack of access to finance constitutes a crippling constraint for farmers. The inability to have access to credit constitutes a severe limitation to capitalize on business opportunities. Lack of access to insurance prevents them from effectively managing risk and increases their vulnerability. It is necessary to

develop financial instruments targeting producers' organizations to strengthen cooperation, input shops, and that helps connect agricultural villages with markets. Credit guarantee funds can support investment plans and increase productivity. The landscape of development finance can change substantially as a result of the interaction of three different sectors: agricultural development actors, information and communication technology and financial institutions. The interaction of these three areas can help streamline existing mechanisms or create new opportunities for farmers. Besides new financing instruments and models, the level of resources dedicated to supporting smallholder agriculture and trigger structural transformation in the agriculture of LDCs requires a substantial scale-up of resources.

Formal financial institutions play an essential role in supplying credit to the agricultural sector. In many countries, state banks provide short-term capital, often responding to the priorities established by governments. Microfinance institutions also provide resources, particularly in Asia. In some LDCs, social lenders offer short term finance to producer organizations, often backed by buyer contracts. Although still incipient in many LDCs, some of them are transition starting to explore longer-term finance options. Commercial banks often reach only a segment of the agricultural sector, lending to actors in the food value chain and only indirectly reaching small farmers through the intermediations of buyers or input providers. Other providers of finance include non-governmental organizations (NGOs). For example, the One Acre Fund serves over one million smallholder farmers in Burundi, Malawi, Kenya, Rwanda, the United Republic of Tanzania, and Uganda (Goldman et al., 2016). Close attention to the modalities used by public authorities to finance investment can also be a tool for poverty reduction.

Improving access to land, credit and technology for women can help reduce inequality and increase agricultural productivity. Women often face disadvantages in accessing and owning land (Goldstein & Udry, 2008). Limited productivity in agriculture can be partly attributed to the disadvantages faced by women as a result of institutional or norm-based factors (Doss, 2011). Intra-household equity, behavior change, food safety, and access to clean water and sanitation must be addressed in an integral manner to harness the potential that agriculture has for poverty reduction.

Supporting social safety nets can play a crucial role in supporting agriculture as a driver of poverty reduction. Ethiopia, with the support of donors, created two programmes adapted to the conditions of regions. The Agricultural Growth Programme

(AGP) support areas with optimal climatic conditions for agricultural production with support to improve productivity and market performance. The Productive safety Net Program (PSNP) supports chronic food insecure areas, affected by recurrent droughts (Berhane et al., 2017). Limited fiscal space and severely strained public budgets emphasize the key role of the United Nations through its country teams, other international organizations and development partners through bilateral and multilateral cooperation initiatives through the provision of budget support as well as in-country programmes. Development partners should explicitly include social protection programmes as part of their development cooperation programmes.

#### C.5 PROMOTING RURAL INFRASTRUCTURE AND THE DOMESTIC FOOD VALUE CHAIN

A bottleneck for productivity increase and growth in the agricultural sectors in most LDCs lies in the lack of infrastructure. Developing infrastructure that facilitates supply links for greater market access, transport, distribution, processing and retailing and that connects small towns and intermediary cities in the near rural farmlands. Connecting farmers to markets and developing the national food supply chain necessarily passes through infrastructure development. Better irrigation systems and facilities for storage is also crucial. The development of digital infrastructure, both hardware and software, is key to facilitate access to finance, critical market information and data that can help to increase productivity. Technological solutions adapted to the specific needs of farmers in LDCs can support them in accessing crucial information about the proper use of inputs in a safe manner, understand the potential risk of diseases and pests and get valuable know-how to increase the added value of agricultural production. Increased connectivity can also help farmers to access development and information services that would enable them to adopt improved production strategies.

#### C.6 LEVERAGING SCIENCE, TECHNOLOGY AND INNOVATION FOR AGRICULTURE

Generating relevant innovations to support resource-poor smallholder farmers in LDCs should be a priority. Technological developments that are relevant to the context of smallholder agriculture in LDCs can enhance productivity and can enable poorer smallholder agricultures to access the downstream food value chain and prevent them of being marginalized as a result of strict standards set by processors and retailers engaged in international trade. The inability to adopt high-yield seeds, together with limited access to inputs or technical

knowledge, poor infrastructure, and limited access to credit, explains the limited progress in increasing productivity.

The expansion of off-farm employment and agri-food employment can help address poverty and inequality in rural areas, facilitating access to agronomic knowledge and resources is key. Enhanced agricultural education and extension services can support people living in rural areas. ICT can provide solutions not available a few years ago and act as a key tool to disseminate key information. In addition, the proliferation of low-cost devices equipped with sensors and leveraging the power of machine learning algorithms could help increasing productivity. Artificial intelligence systems that would require large computational infrastructure a few years back can now be used in broader contexts. Governments in LDCs could develop capacities to train neural networks to be sensitive to local conditions and trained models could be deployed in rural areas, providing tools that can help manage the efficient use of inputs, identification of plant diseases and treatments, etc. These are some examples that illustrate the potential that new technologies can have for LDCs. The key remains to develop domestic capacities to better adapt such technologies to be relevant in the local context.

Extreme weather events and land degradation exacerbate the challenges faced by the agriculture sector in the LDCs. Access to land, finance and technical support to support the engagement of smallholder farmers in the supply chain would address one of the main obstacles faced by farmers in LDCs, their difficulties in connecting with the middle of the supply chain as a vehicle to access markets. Strengthening or establishing public inspection and quality assurance services along the entire food supply chain to ensure that inputs provided to farmers are adequate and up to required standards helps building trust in products of smallholder farmers and facilitates their access to additional markets. Quality assurance mechanisms could support the assessment of soil quality and food safety.

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D. TRADE AND PRODUCTIVE CAPACITY WERE HIT HARD

The IPoA recognizes the role of a dynamic private sector in enabling innovation, trade and growth; in creating and supporting productive employment opportunities; and ultimately, in promoting structural change and sustainable development in LDCs. Even before COVID-19 reached the LDCs, they were severely affected by the disruption of global mobility and trade and declining commodity prices. The COVID-19 pandemic and the measures adopted by most LDCs such as lockdown, movement restrictions and travel bans caused a downturn in economic activities and created a shock in both demand and supply.

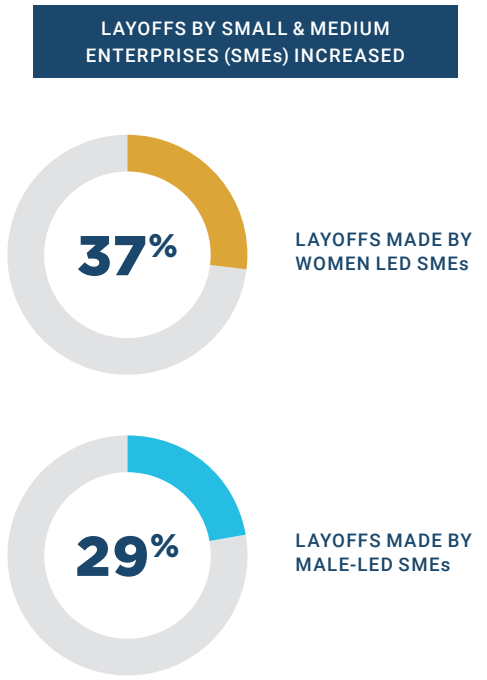
D.1 TRADE-RELATED IMPACTS

The pandemic-induced disruptions to production and global supply chains, which is estimated to cause world trade volumes to shrink by 32 percent in 2020 (WTO, 2020a), has severe impacts on LDCs’ economies. These are magnified by several other indirect or induced impacts on trade, for example the appreciation of the US dollar, trade hostilities between the US and China, and the risk of further protectionist responses. Containment measures such as additional inspections, reduced hours of operation, roadblocks, and border closures have been inflating transport and trade costs, decreasing the export competitiveness of already-vulnerable economies, in particular the landlocked countries, of which 17 are LDCs.

The pandemic has led to widespread calls for governments to liberalize imports of and reduce tariffs on medical supplies, protective garments, testing kits, and sanitary products. Tariffs on several of these products tend to be rather high: for example, most favored nation (MFN) tariffs on soap in Africa average 25 percent and are designed to protect domestic soap producers (UNECA, 2020). Most of the other tariffs, however, are revenue-seeking since LDCs typically lack the capacity to produce those goods.

On the other hand, a number of countries (of all income levels) did adopt measures to ban or restrict exports of medical products, food and agricultural products as the pandemic threatened to disrupt their supply. These export prohibitions tend to have disproportionately larger impacts on LDCs, which prompted the WTO LDC Group to issue a communiqué to all non-LDC members, urging them to refrain from imposing

Trade and Productivity were hit hard LDCs’ exports are estimated to have declined by 6.8% in 2020



restrictions that could compromise LDC governments' response to the pandemic (WTO, 2020c). While export bans and restrictions have subsequently been lifted, this highlighted the dangers of an uncooperative trade policy and emphasized the need for an open, rules-based, world trading system for global stability, security and progress.

COVID-19 could cause long-term adverse changes to the global trade landscape as persistent demand-side effects lead to calls for import protection. Escalating trade tensions between the US and China have ripple effects across global supply chains and may lead to more countries becoming more inward-looking (Jean, 2020). These changes could have significant deleterious effects on LDC trade and hurt their recovery prospects.

#### Increasing exports but stagnating share in world trade

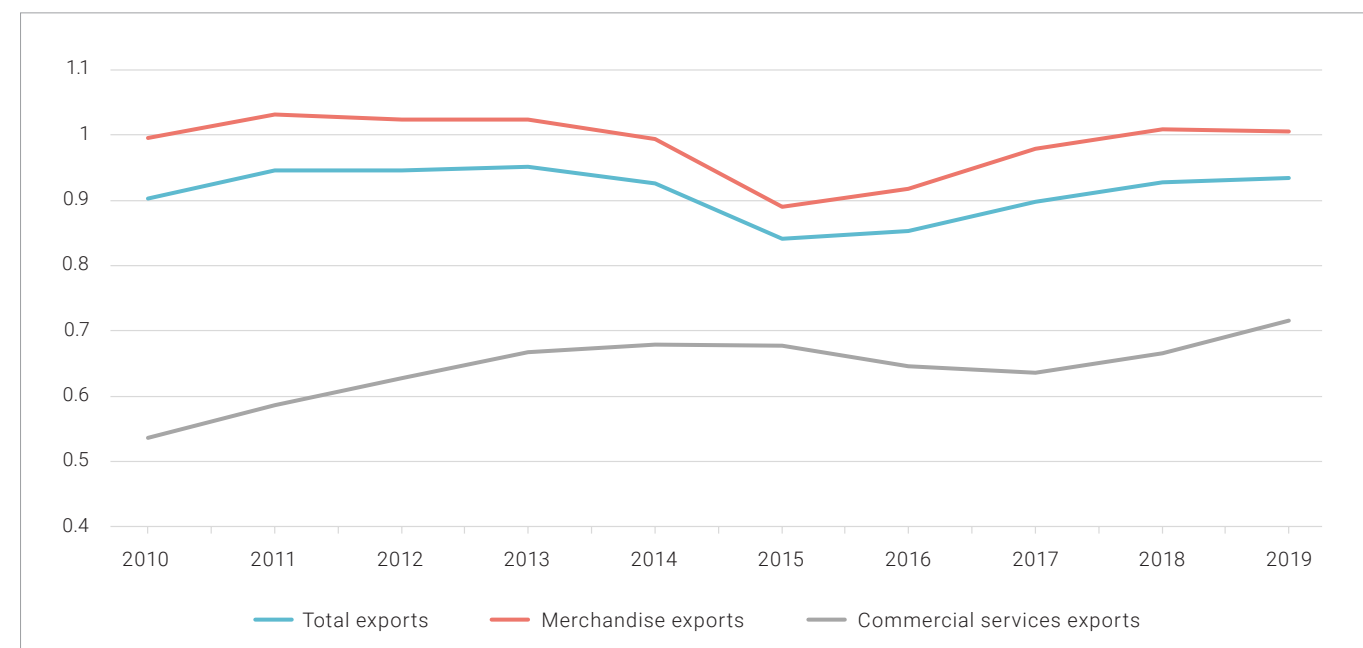
LDC total (goods and services) exports increased by 35 percent to reach US\$234 billion over the course of the past decade (2010-2019). This performance was mainly driven by LDCs' services exports, which more than doubled over this period, albeit from a low base (US\$ 20.9 billion). Merchandise exports have increased more slowly—by 25 percent—to US\$ 190.3 billion in 2019. In percentage terms, however, LDCs' share of global trade has edged only marginally up—from 0.90 percent in 2010 to 0.94 percent in 2019 while their share of merchandise exports has stagnated at 1 percent during this period (Figure D.1). On such trends, LDCs have a long way

to go before doubling their export share and the IPoA target could not be achieved by the end of 2020.

The value of LDC merchandise exports declined 16 percent in the first half of 2020, more than the drop in world exports (-13 percent), further reducing the LDC share in global trade. The combined merchandise trade deficit of LDCs in 2020 was forecasted to exceed the record level reached in 2019 (US\$91 billion) (UNCTAD, 2020c). This adverse development can be attributed to a sharp decline in commodity prices, such as oil and minerals, hitting some of the African commodity-dependent exporters particularly hard. About half of the decline in LDC exports was due to the terms-of-trade effect; in volume terms, LDC exports were down 8.1 percent, compared to 10.1 percent for world trade, in the first six months of 2020 (WTO, 2020b).

The collapse in LDC exports could wipe out much of the gains achieved by some countries, such as Bangladesh, which had managed to more-than-double its share of world exports between 2010 and 2019. Bangladesh's exports fell 31 percent in March-June 2020 compared to the same period the year before, more than the LDC average of -23 percent. On a positive note, more recent data points to an uptick in global and LDC trade. Based on current GDP projections, the WTO forecasts that LDCs' export volumes could terminate the year with a 6.8 percent decline—lower than the decline in the first half of the year, followed by a 7.6 percent rebound in 2021, depending on the recovery in major trading partners of LDCs.

**Figure D.1: LDC shares of world exports (percent)**



Source: WTO (n/d). Accessed on 12 November 2020.

The pandemic has also increased a global trend towards import substitution as it exposed the risks of relying too heavily on imports, especially of essential goods. Senegal has renewed its policy emphasis on self-sufficiency with a view to reducing dependence on imports of staple food like rice. The Uganda Development Bank has received additional funding for the development of industrial parks that could accelerate both import substitution and export promotion efforts. Zambia has suspended duties on imports of concentrates in the mining sector and Ethiopia has removed taxes on raw material imports for the production of essential goods (World Bank, 2020a; IMF, 2020).

#### Collapse in commodity prices

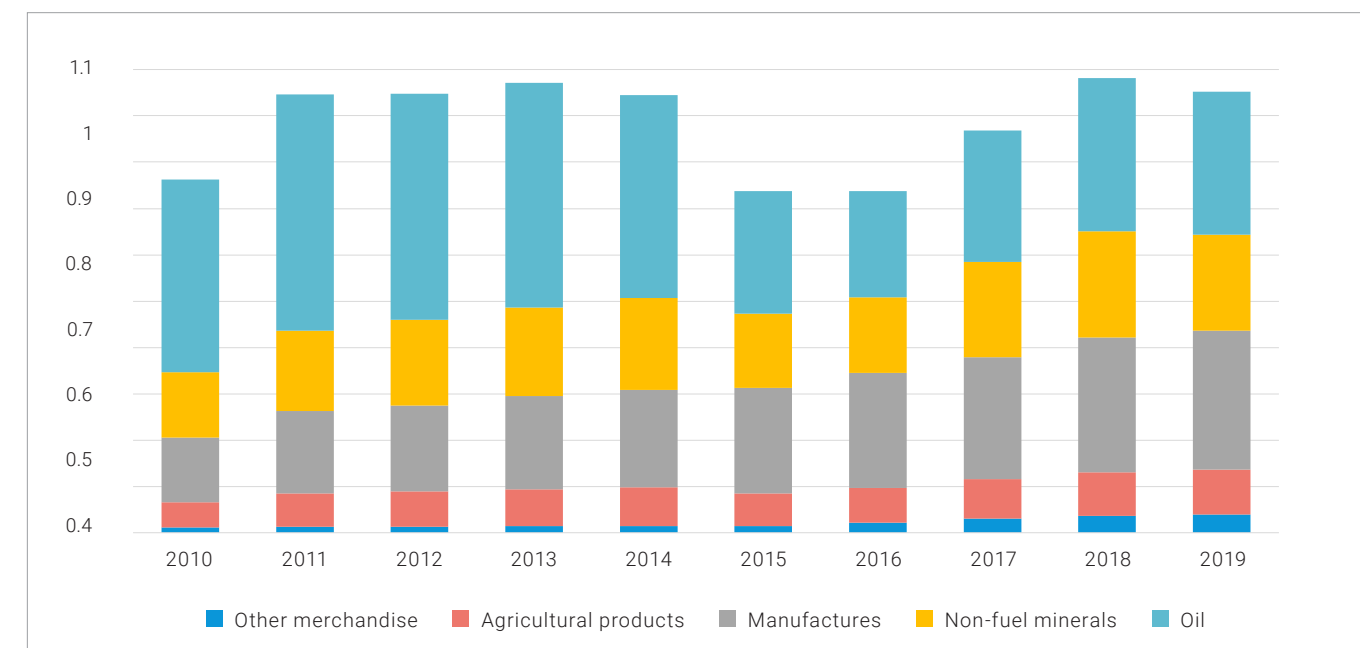
Much of the rise in value of LDC merchandise exports, especially over the recent period 2016-2018, can be attributed to hikes in the prices of primary goods, such as oil and minerals, reflecting high demand in developing countries, notably China. However, commodity prices generally fell in 2019, and the pandemic accentuated the decline in the prices of oil and selected minerals in the first half of 2020 (fuel prices fell by 36 percent in January to July 2020 compared to the corresponding period in 2019 (UNCTAD, 2020c), which have since recovered (see section E.). This temporary rapid price drop together with reduced quantities exported, has caused a drastic decline in earnings in 2020 for fuel exporters such as Angola, Myanmar and Sudan, and smaller yet significant losses for non-oil mineral exporters like the Democratic Republic of the Congo,

Mozambique, the United Republic of Tanzania and Zambia (IMF, n/d).

#### Concentration of Products and Partners

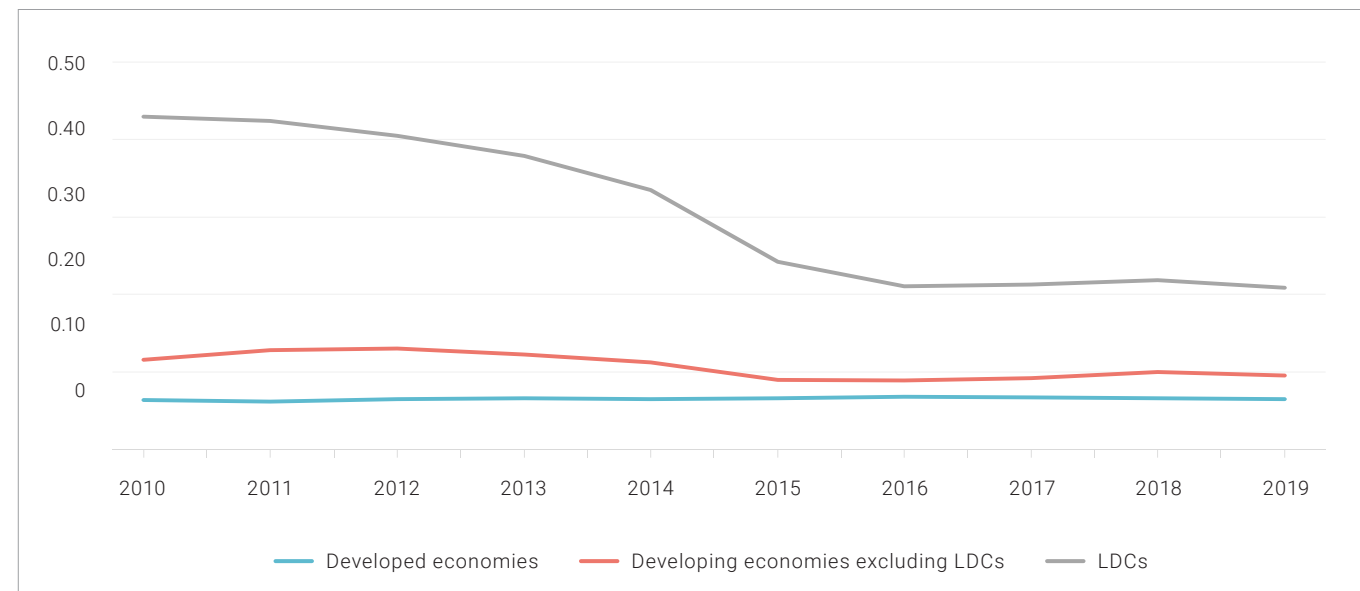
LDCs share of global exports has been consistent since 2008 at around 1 percent, despite the IPoA target of doubling that proportion (UNCTAD, 2020c). LDCs have achieved a fair degree of export diversification since 2010, marked by a shift away from commodity dependence to manufactured products (and services) (Figure D.2). The share of oil in LDC exports has declined steadily from 54.5 percent in 2010 to 32.3 percent in 2019 while the share of manufactured exports has increased from 18.2 percent to 31.5 percent over the same period. This positive development, however, is tempered by smaller increases in the shares of agricultural products and non-fuel minerals. Moreover, the aggregate picture obfuscates the heterogeneous performance of LDCs, and the underlying causes. For example, the declining share of oil in LDC exports is due to a long-term decline in oil prices since 2011, causing an erosion in the value of exports of LDC fuel exporters of the order of 6.1 percent annually between 2011 and 2019. In addition, LDCs such as Angola and Chad continued to rely on the export of crude oil and oil products, representing more than 70 percent of total exports in 2017 (AUC and OECD, 2021). Manufactured exports grew 6.7 percent per year during this period, but it was limited to a handful of LDC clothing-and-apparel exporters, notably Bangladesh, Cambodia and, to a lesser extent, Madagascar (WTO, 2020c).

**Figure D.2: LDC exports by main product group, 2010-2019 (USD billion)**



Source: UNCTAD (n/d). Accessed on 14 November 2020.



**Figure D.3:** LDCs' merchandise export product concentration index

Source: UNCTAD (n/d). Accessed on 14 November 2020.

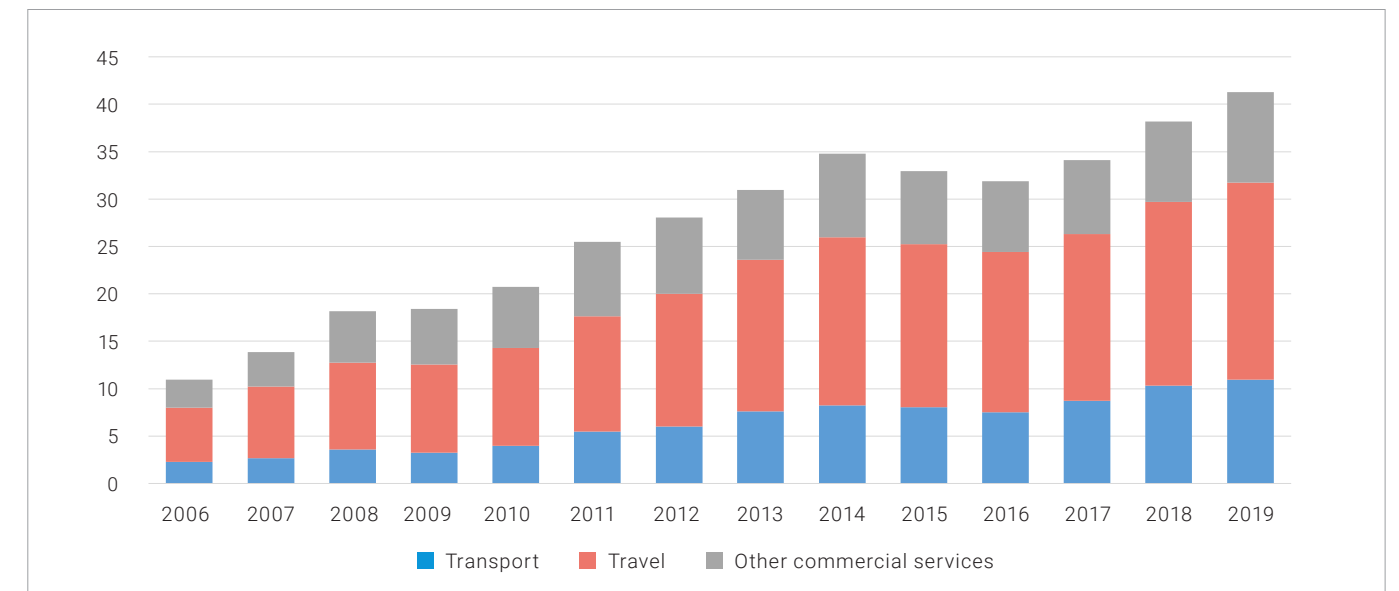
The merchandise export product concentration ratio leveled off at 0.21 percent in 2019—at half of its 2010 level (Figure D.3). However, the decline in the index was particularly steep until 2016 and has since then bottomed out.

The impact of COVID-19 on LDCs' export concentration is difficult to ascertain. On the one hand, oil exports are likely to recover as commodity prices rebound and global production picks up. On the other hand, the pandemic has raised awareness on the need for greener production and consumption and an accelerated shift towards renewable energy. This will surely reduce the demand for oil over the medium to long term.

The picture is not very different for the composition of LDC services exports. While these exports have more than doubled in value between 2010 and 2019, there has been little diversification away from traditional services, such as transport and travel (Figure D.4). Other commercial services, including financial, business and IT-enabled services, have seen their aggregate share decline from 30.8 percent to 22.1 percent over the same period.

However, there is significant variation in services export concentration across LDCs. Five countries—Bangladesh, Cambodia, Myanmar, the United Republic of Tanzania and Ethiopia—account for about half of all LDC services exports. Smaller countries, especially some small island LDCs, whose economic livelihoods depend critically on travel and tourism, are virtually absent at the global level. Such heavy reliance on travel-related services, which comprised almost half of all LDCs' commercial service exports in 2019, is a key reason for their increased vulnerability to external shocks. The hospitality sector has been the hardest hit by the pandemic, and recovery is expected to be slow.

Thus, while the pandemic has underscored the importance of a diversified economic base, diversification is likely to remain elusive for most LDCs—in the short term at least—as they focus on rebuilding productive capacity in existing sectors.

**Figure D.4:** LDCs' export of commercial services by sub-sector, 2010-2019 (UD\$ billion)

Source: WTO (n/d). Accessed on 1 December 2020.

The evolution of LDCs' merchandise-export destinations tells another story of concentration. Once LDCs' main export markets, the EU, and North America (especially, the US) have seen a steady erosion of their share over the years. In 2000, for example, North America and the EU (including the UK) absorbed 55 percent of LDC exports. This share was down to 33 percent in 2019. Other countries, notably developing countries, have emerged as more important markets for LDCs' merchandise exports. The growth of south-south trade is driven both by regional integration and by China's quest for raw materials and inputs. China's share has more than doubled in the past two decades, rising from 12 percent to 25.7 percent in 2019, and much of its imports has come from African LDCs, such as Angola and Sudan (for oil) or Zambia (for copper).

While the trend in LDC export market diversification is a welcomed development, some LDCs continue to rely on a few countries for their exports. Haiti, for example, exported 82.4 percent of its goods to the US in 2018 while 57 percent of Angola's exports went to China (WTO, 2020c). In six LDCs (Angola, Chad, Democratic Republic of the Congo, Sao Tome and Principe, Sierra Leone and South Sudan) exports to China, the EU and the US exceeded 70 percent of total exports in 2017 (AUC and OECD, 2021).

Unfortunately, as global supply chains collapsed during the pandemic, diversified markets did not offer sufficient protection to LDCs. For example, Bangladesh and Cambodia have similar levels of export market concentration: the top five markets account for 51 percent of each country's exports in 2018,

one of the lowest concentration ratios across LDCs. Yet, the two countries fared very differently under the influence of the pandemic: Bangladesh saw its exports cut in half in the second quarter of 2020 relative to the first while Cambodia's exports expanded by 13.5 percent during this period (ibid.). Bangladesh's top five markets (Germany, the US, the UK, Spain, and France) were all hit hard by the pandemic, which, to a large extent, explains why its exports fell so drastically. Cambodia, on the other hand, relies much less on the European market and exports more to neighboring countries like Japan and China, which together accounted for 15 percent of its exports in 2018. Both China and Japan were able to contain the pandemic while it raged in Europe and the US. In addition, Cambodia was able to benefit from a surge in demand for bicycles in Europe with exports of bicycles and electronics growing 30.3 percent (ADB, 2020) (Box D.1). In addition to the demand for bicycles, its close geographical proximity with export markets ensured that Cambodia could keep exports flowing while global supply chains had broken down. This observation highlights the role regional markets and regional supply chains can play as critical buffers in times of crisis.

The global fall in demand represents a loss of market for exporting businesses. Some have managed to divert part of their sales to the domestic market, but not enough to allow full-scale operation. Most LDCs have not taken any explicit actions to support businesses to find new markets. Where measures have been proposed they have mostly been limited to reductions in import barriers for essential goods, preferential treatment for SMEs in public procurement, and

support (grants, procurement) for the production of health-care products in short supply. In Vanuatu, the government has subsidized shipping costs to major markets for farmers and Ethiopia is providing logistical support for trade. Other measures, such as production subsidies for cash crops in the Solomon Islands and in Vanuatu, can also indirectly facilitate market access by helping farmers stay competitive. Import liberalization could have a positive impact on MSMEs over the long term as it allows them to source inputs at lower cost, and thus to be more competitive.

In Africa, the launch of the African Continental Free Trade Area (AfCFTA) in July 2019, which came into effect in January 2021, provides an excellent opportunity for growth and (market) diversification (Gondwe, 2020). It has the potential to increase intra-African exports of agricultural products by 49 percent by 2035 and lift up to 68 million people out of poverty (World Bank, 2020b). The AfCFTA can spur the development of regional value chains, providing an opportunity for LDCs to integrate into the continental market, whether as provider of intermediates or exporter of final products. In the Asia-Pacific region, ESCAP (2020) has called for greater regional cooperation in addressing the impacts of transport-related restrictions and in bridging the infrastructure divide, which tends to isolate the LDCs and low-income countries.

### Manufacturing

The manufacturing sector has been a key driver of development in several LDCs, some of which (e.g. Bangladesh, Cambodia, and Myanmar) are at the graduation threshold. In Bangladesh, for example, employment in the clothing industry increased from 200,000 in the 1990s to over 4 million by 2018, contributing to growth (8 percent in 2019) and poverty reduction in the country (UN DESA, 2020). The manufacturing sector also connects other LDCs—cotton producers, for example, in the case of garments—to global supply chains, enabling them to accumulate productive capacity.

The sharp decline in global demand resulting from COVID-19 is bearing down heavily on LDCs dependent on manufactured exports. In the clothing sector, for example, the collapse of fashion retail in major developed-country markets has led to cancellation of orders, causing an unprecedented demand shock. This, coupled with the domestic supply shock resulting from mandated factory closures, has already led to factory closures or downsizing, leaving thousands of workers unemployed. In countries like Lesotho, where the garment industry employs 42 percent of the workforce, the secondary impacts of the COVID-19 crisis on LDCs become very obvious. In Bangladesh, where the clothing industry accounts for nearly 95 percent of exports, about 1 million garment workers, of which a majority are women, have been laid off or furloughed (UN DESA, 2020).

### Box D.1: Cambodia finds a lifeline in bicycles amid the pandemic and trade sanctions

The Asian Development Bank (ADB 2020) revised the GDP growth forecast for Cambodia for 2020 from -5.5 percent to -4.0 percent following strong growth in manufactured exports other than garments, travel goods and footwear. This improved performance is credited to a surge in the exports of bicycles and electronics, which increased 30.3 percent year-on-year in the first half of 2020.

Data from the Cambodian Ministry of Commerce reveals that 1.1 million units of regular bicycles were exported in the first 6 months of the year, of which half were shipped to Europe. By end-September 2020, bicycle exports amounted to 1.5 million units, 40 percent of which went to three European countries – Germany, Belgium, and the Netherlands. Cambodia has now surpassed Taiwan, the leading supplier of bicycles to the EU for the past 20 years. However, it is too early to tell if this spurt in bicycle exports is due to increased realization of the need for ecologically friendly approaches amid the pandemic, and if it will last.

The bicycle industry was confronted with the threat of losing much of its European market when the EU issued a notification in February 2019 advising the Cambodian authorities that it had begun investigation into allegations of labor rights abuse, which, if proven correct, could lead to the suspension of duty-free trade preferences for Cambodian exports of garments, travel goods and footwear, bicycles and electronics, and sugar. Fortunately for Cambodia, the withdrawal of the Everything But Arms (EBA) initiative was partial and did not impact bicycle exports. From this perspective, the increase in bicycle exports earlier in 2020, is more a consequence of the selective EU trade sanctions against Cambodia than a cause for celebration.

In any case, bicycles have remained consistently in high demand throughout the year 2020 and are said to increase even further in 2021. Cambodia is optimistic that bicycle exports to international markets will continue to grow even when the COVID-19 pandemic is over, since bicycle use is trending upwards as an increased awareness of and concern for the environment among younger generations.

**Sources:** Bike Europe (2020), ADB (2020), The Phnom Penh Post (2021)

### Agricultural producers

Due to relatively low income-elasticity of demand and the fact that bulk shipment requires less human contact, global trade in agricultural products has been more resilient to the pandemic than trade in other products (WTO, 2020d). This does not however mean that COVID-19 has left the agriculture sector unscathed. The supply chain of the seed industry has been extensively disrupted, causing delays and constraining access to quality seeds on the international market (Gnych, 2020).

Globally, food and agricultural exports increased by a modest 2.5 percent in the first quarter of 2020. Yet, agricultural trade performance has varied across regions, countries and products, and the evidence suggests that the pandemic may be taking its toll on this sector too. For example, while world agricultural exports rose by 0.6 percent in April 2020 relative to April 2019, for LDCs, they fell by about 3 percent on average, and for some countries, the decline was far bigger (ibid.). Ethiopia presents an interesting case with respect to agricultural exports: On one hand, Ethiopia is one of the rare LDCs that has seen a steady increase in its agricultural exports throughout the first quarter, much of which is credited to the exports of coffee and oilseeds, Ethiopia's main exports. On the other hand, cut flowers, the country's third most-important export product, did witness drastic losses, as demand slumped and borders closed, but has since been on a course to recovery (Box D.2).

### Box D.2: Ethiopia's flower industry blooming again

Ethiopia is Africa's fastest growing economy, with growth averaging 9.5 percent annually over the period 2011-2019. The Ethiopian flower industry is a successful case of diversification into non-traditional exports, growing rapidly to become the second largest exporter to European (mainly Belgium, France and Germany) within two decades since the late 1990s. The industry employs more than 150,000 workers, about 85 percent of them women, and generates nearly USD500 million in export revenue.

The COVID-19 pandemic hit the country at a time when it was well on course to achieving its national target for commodity exports—USD2.68 for the fiscal year ending July 2020. In the first nine months, exports reached USD2.09 billion, 10 percent higher than the same period the previous year. However, the flower industry sustained a major blow following the closing down of European borders in mid-March 2020. The unique characteristics of the industry—its high degree of integration into the global flower supply chain, the perishability of the product, and the complex just-in-time logistics – make it particularly vulnerable to crises like COVID-19. The Ethiopian Horticultural Exporting Producers Association (EHPEA) reports losing USD25 million in export earnings in the months of March and April alone as horticulture farms dumped millions of flower stems for which there was no market. Despite concerted efforts by the industry and the government to protect employment and livelihoods, some job losses were inevitable.

However, the situation started improving in May 2020 as some European countries (like Germany and the Netherlands) eased lockdown restrictions, allowing flower exports to rise to USD32.8 million by the end of the month. Industry operators say that the measures taken to mitigate the adverse impacts of the pandemic on the horticulture sector—such as reduced freight costs on Ethiopian Airlines, the temporary suspension of the export duty on flower exports (USD3.80 per kg) and liquidity support to distressed firms—have given them an edge over competitors. There is now hope for a quick recovery of the industry—especially since the majority of skilled workers were retained and Ethiopia suffered relatively low rates of infection, morbidity and mortality from COVID-19.

**Sources:** Beyene, S. and T.M. Gebrewolde (2020); Fortune (2020); New Business Ethiopia (2020); Floral Daily (2020)

## Tourism and travel

The tourism and travel sub-sector are a vital source of income in LDCs around the globe, with GDP and employment shares of around 10 percent each (Vickers, Ali and Ramsay, 2020). Tourism has always been vulnerable to external economic shocks since its demand is highly income-elastic. COVID-19 has not just caused a sharp decline in incomes in developed countries—LDCs’ traditional tourist markets—but the demand-side impact has also been amplified by lockdown measures and border closures as countries throughout the world tried to contain the pandemic. Moreover, unlike other goods and services, which shifted to online modes of delivery as confinement measures took hold, this option did not apply to tourism, which, requires consumption at the place of supply.<sup>32</sup>

Former LDCs like Cabo Verde, the Maldives and Samoa have graduated from LDC status thanks largely to their tourism sector. Prolonged restrictions on international travel, continued border closures and health protocols will hurt tourism dependent LDCs disproportionately—more so since the pandemic has come at a time when the tourism industry in several African LDCs (e.g. Sierra Leone and Uganda) was just recovering from the deleterious effects of the 2018 Ebola crisis (ibid.). The International Air Transport Association IATA (2020) estimates that 5 million jobs will be lost in aviation and aviation-related sectors in Africa in 2020, erasing some US\$37 billion of the region’s GDP.

The tourism-dependent Small Island Developing States (SIDS) among the LDCs were particularly exposed to the impacts of the pandemic (Box D.3). They have faced substantial revenue losses and, in the absence of alternative sources of foreign exchange, and saw a deterioration of their balance of payments and spiraling external debt (Coke-Hamilton, 2020). The pandemic also erased a substantial part of the SIDS’ capacity to withstand climate change-induced extreme weather events and increase their vulnerability to climate change related extreme weather events in general. Measured by the direct and indirect contributions of travel and tourism activities in GDP, dependency on tourism is also particularly high in Cambodia with more than 30 percent of GDP and moderately so in Lao People’s Democratic Republic and the United Republic of Tanzania with more than 10 percent of GDP (UNCTAD, 2020a). The United Republic of Tanzania re-opened its air-travel in May 2020 and resumed international and regional flights with testing and health screening but without quarantine requirements, thereby continuing to promote tourism to the country. The Ministries of Tourism and Health were quick to establish joint containment and evacuation systems for tourists in national parks and upgraded health facilities to ensure that the United Republic of Tanzania remains attractive for tourists (EIF, 2020).

<sup>32</sup> COVID-19 has also brought opportunities to non-traditional services, such as e-Commerce, cross-border consulting etc. For a discussion of some of these see section F.

## Box D.3: Vanuatu’s tourism industry: building back sustainably

The Government of Vanuatu acted promptly to contain the pandemic by closing borders as early as 26th March 2020. This action proved fruitful since the country registered just one case and is now COVID-19-free. However, the stringent prevention measures took a toll on tourism, the mainstay of Vanuatu’s economy, representing approximately 75 percent of total export earnings. To make things worse, Vanuatu was hit by a category 5 cyclone in April 2020, causing massive damage to infrastructure and agriculture, and wiping out over half (54 percent) of the country’s GDP. The Asian Development Outlook 2020 estimates the economy to shrink by 9.8 percent in 2020, one of the highest rates of economic contraction in the region. Recovery in 2021 will remain subdued, with a projected GDP growth of 1 percent. The Australia and New Zealand Banking Group projects tourism arrivals to fall by 84,000, threatening some 21,000 jobs in the country.

The reduction in tourist arrivals has also depleted government reserves, part of which was used to fund a stimulus package to sustain employment in this period of crisis. Short of funds, the government was forced to close the COVID-19 interest-free loan scheme operated by the Vanuatu National Provident Fund as early as the first week of May 2020.

As borders re-open, Vanuatu is adopting a new approach to tourism promotion that places a premium on sustainability and inclusive development in line with the national Sustainable Tourism Policy. The country has partnered with Planet Happiness to carry out annual surveys to measure the happiness and well-being of its residents. The survey findings will help strengthen Vanuatu’s position as one of the most sustainable destinations in the Pacific.

**Sources:** IMF (2020a); Mariano (2020); Vickers, Ali and Ramsay (2020).

At the same time, the crisis might present itself as an opportunity for LDCs to differentiate their tourism offerings and increasingly offer holidays in natural, non-urbanized environments, integrating conservation, ecology, creative industries and cultural heritage—such as chimpanzee rehabilitation in The Gambia or visiting gorillas in Rwanda.

In addition, governments have started strategies to increase demand locally (“staycations”) and focus on domestic and regional offerings (EIF, 2020). Some countries have established “green corridors” or “travel bubbles” with other countries—these are agreements to open borders to each other’s nationals for business and/or leisure travel and include detailed health protocols but allow travel. No bubble has been established with/among LDCs, but Japan and Vietnam as well as Malaysia and Singapore have established such bubbles. Based on these examples and economic considerations regarding the importance of the partner as a tourism market, these bubbles could ease restarting tourism and thereby provide a perspective for the tourism industry (ADB, 2020).

A recent survey by IATA finds that a year after the pandemic led to border closures and quarantine requirements with emerging vaccination programs, people are becoming more confident to travel again, which could also be a good sign for tourism dependent LDCs. However, about 84 percent of travelers will not be ready to travel, if it involves quarantine at the destination (IATA, 2021).

## D.2 IMPACT ON PRODUCTIVE CAPACITY

Limited productive capacities constrain LDCs’ ability to sustain economic growth, diversify their economies, boost resilience to shocks and achieve effective integration into the global economy. The IPoA called on LDCs to build “a critical mass of viable and competitive productive capacity” in key sectors of the economy through investments in four priority areas: physical infrastructure, energy, technology and innovation, and private sector development. This call for action could not have been more relevant during the COVID-19 crisis: LDCs that had a more diversified production and export base, better infrastructure (including ICT and institutional capacity), and larger and well-established businesses were more likely to weather the economic fallout of the pandemic.

### Physical Infrastructure and transport

LDCs’ economic infrastructure deficit is acute and persistent and severely hinders private sector development. Most of the infrastructure in LDCs is financed by public resources, with the exception of ICT. This is partly related to the assumption of high risk, when investing in LDCs, especially, if those are in situations of fragility. Institutional investors, such as pension funds, have unfortunately not played the role in infrastructure financing in LDCs it was hoped they would.

Only 22 percent of roads are paved in LDCs compared to 43 percent in developing countries and 88 percent in OECD economies. In addition, there is a wide rural-urban infrastructure divide, with rural roads not only unpaved and missing, but also disconnected from urban centers. This makes both trade and service delivery more costly and hinders emergency help to reach rural areas quickly.

Infrastructure projects have been delayed by the pandemic, especially in resource constrained LDC economies, and private investors may be more reluctant to finance such projects as their risk appetite diminishes in times of uncertainty. Thus, public, and blended finance are needed to provide the infrastructure necessary for reaching the SDGs (see section G.).

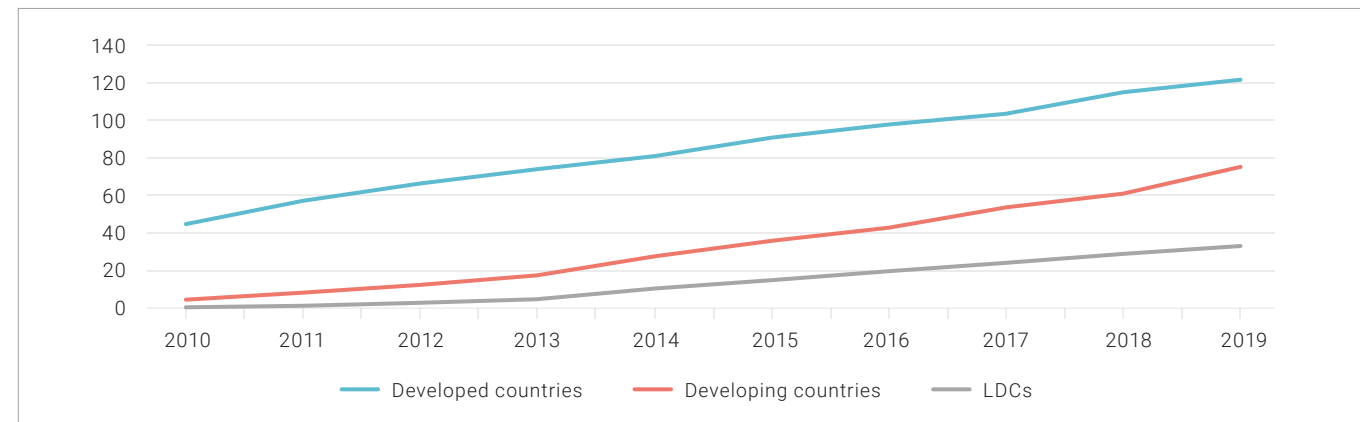
### Information and Communications Technology

In the area of ICT, the IPoA goal is for LDCs to develop a modern and inclusive ICT infrastructure, including affordable mobile broadband and internet connectivity, and to promote the digitalization of services. While mobile subscriptions have increased 127 percent over the past decade to reach 75 per 100 inhabitants in 2019, they are still well below rates of other developing countries. The most significant gains have been in the area of mobile broadband connectivity, with the number of subscriptions increasing over 80-fold, albeit starting at virtually zero in 2010. This is the fastest rate of growth across all country-groups even though the average for developing countries has increased more rapidly since 2013, with the gap between LDCs and the former widening in recent years (Figure D.5). Conversely, LDCs’ ICT-infrastructure deficit is biggest in the domain of internet access, with only 19 percent of LDC populations using the internet in 2019, compared to 47 percent in developing countries, and progress has been slow (Figure D.6).

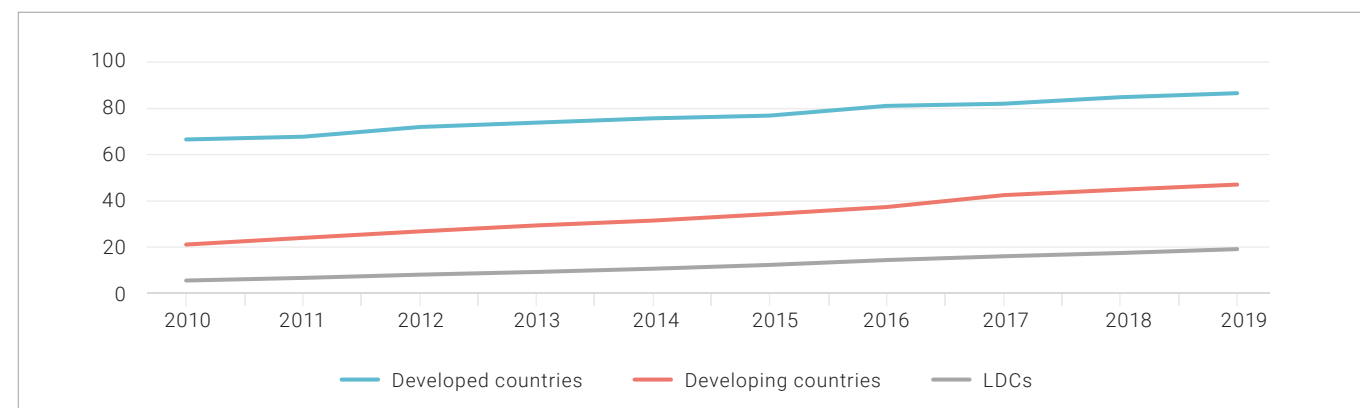
In addition, internet access is uneven between urban and rural areas—for several reasons, including poor access to electricity, spotty internet infrastructure, and lack of digital skills and literacy. The average for LDCs also masks substantial variations at the country level: African LDCs and Haiti trail behind the Asia-Pacific LDCs. These differentials have important implications for the international competitiveness of LDCs as digitization becomes a key determinant of productivity in a larger range of sectors.

The pandemic has magnified the economic impacts of the digital divide. Due to limited internet availability and affordability, African LDCs rank in the bottom third of all countries, making e-Commerce and online education a remote possibility for most people. Moreover, as digital solutions were adopted by businesses to overcome lockdown-related restrictions, LDCs with low levels of digital readiness are more at risk to be left further behind (UNCTAD, 2020b).



**Figure D.5. Active mobile broadband subscriptions per 100 inhabitants**

Source: World Bank (n/d.a). Accessed 20 November 2020.

**Figure D.6: Share of population using the Internet**

Source: World Bank (n/d.a). Accessed 20 November 2020.

Digitization can help enhance social and economic resilience in the face of the pandemic (see also section F). Emerging evidence suggests that countries with the best digital infrastructure could mitigate about half of the economic impact of the pandemic. The mitigation capacity of digitization varies across countries, businesses and sectors depending on their level of digital uptake. LDCs lack the digital strength to build resilience against the pandemic, as evidenced by very low levels of internet penetration—only 7 percent internet penetration in Africa, and across all of the LDCs only one in five people use the internet (ITU, 2020).

The COVID-19 pandemic underlined the important role of technological advancement and innovation as enablers for structural transformation and created a political momentum for accelerating the digital transformation. For LDCs the use of new technologies could be key to re-invigorate their manufacturing sector and by ensuring strong and forward-looking linkages with, for example, agriculture and mining sectors value addition could be promoted. Digital tools could make agricultural activities more productive and support manu-

facturing and services to be more connected. This requires agro-industrialization policies that have the potential to reallocate resources from labor-intensive and less productive activities towards more capital and technology-intensive ones that are more efficient.

Although the pandemic underscored the importance of digitization, few LDCs took explicit measures to encourage and facilitate digital transactions and online modes of service delivery other than accelerating the rolling out of e-government and appealing on the private sector to adopt teleworking practices where possible.<sup>33</sup> In Mozambique, the government suspended commissions on digital transactions. Such nominal interventions may be the way to go in digital environments distorted by policy as well as infrastructure-related constraints.

There is an urgent need to ensure affordable broadband connectivity to enable LDCs to reap the benefits of digitization and innovation. This requires appropriate policies and regulation as well as addressing digital infrastructure, broadband access, availability, safety and affordability, skills, entrepre-

neurship, inclusion, data protection, protection of intellectual property rights and cybersecurity.

### Energy

While LDCs have made some progress in expanding power supply, just about half (51.6 percent) of their populations had access to electricity in 2018, compared to 87.6 percent in LMICs. Box II. describes recent developments with respect to access to energy, including urban-rural disparities in more detail.

The COVID-19 pandemic has had important impacts on the power sector, which has implications for the resilience of the sector itself, and for its role in supporting recovery efforts (RES4Africa and UNECA, 2020). The decline in demand for power, as economic activity slowed down during periods of lockdown, along with government actions to delay or waive payment of electricity bills, have reduced revenues for utilities, forcing some into a liquidity crunch that could affect future investments and the security of power supply (Bouille and Dane, 2020). Off-grid suppliers have also been hit by the pandemic-induced squeeze in electricity demand, and as private operators, received little financial support from the government.

Poor access to electricity in rural areas of LDCs affects service delivery even in normal times and many firms in LDCs are subject to disruptions in production because of frequent power outages. In 2019, more than 10 cases of power cuts were registered per month across LDCs; 8.8 cases occurred in sub-Saharan Africa, compared to 6.9 in other developing countries (World Bank, n/d.b). These disruptions are likely to have deepened by the pandemic, and if electricity production remains subdued post-COVID-19, it delays LDCs' recovery.

### The impact of COVID-19 on MSMEs

Over the past decade, LDCs have taken an array of measures—varying in depth and ambition—to support private sector development. However, a number of systemic and institutional constraints continue to impede the growth of the private sector. This includes among other things access to technology, which is discussed in section F.

MSMEs, which constitute over 90 percent of firms in most countries, represent a large share of the private sector (World Bank, n/d.c). In LDCs, more than 75 percent of them are estimated to be informal (UNCTAD, 2019).

Due to their size and mode of operation, MSMEs are particularly impacted by the pandemic and its consequences. MSMEs operate on tight margins, with often limited resources facing major liquidity constraints (Gibbens, 2020). Low and declining productivity among MSMEs erodes their competitiveness and weakens their resistance to external shocks. MSMEs lack the safety nets that larger firms can fall back on during times of

crisis (Hutchinson, 2020). These adverse characteristics are amplified in LDCs, making MSMEs particularly vulnerable to the effects of COVID-19.

MSMEs tend to depend on a limited number of suppliers and are therefore more prone to supply chain disruptions. As shown in the example of Cambodia above, evidence suggests that MSMEs operating in regional supply chains, especially in regions with a lower number of COVID-19 cases, were less affected by disruptions in supply chains caused by the pandemic (OECD, 2020b). Those relying on global networks were not only more vulnerable, they may also find it more difficult to rebuild connections once the pandemic wears out as former partners may have shifted to new alliances (ibid.).

MSMEs are 'overrepresented' in some of the sectors most affected by COVID-19, such as non-food manufacturing, accommodation and food services, retail and wholesale trade, travel, and transport—sectors in which entry barriers are relatively low. A recent survey by ITC shows that 76 percent of firms (of all sizes) in the food and accommodation business were 'strongly affected' by the pandemic, and a further 14 percent said that they were 'moderately affected' (ITC, 2020). Only few LDC-MSMEs are involved in trade but those that are need assistance to stay afloat since external markets and value chains have been disrupted and liquidity has dried up.

As described, MSMEs often lack the resilience, flexibility and safety nets to deal with the adjustment costs triggered by the COVID-19-induced demand and supply shocks. While some firms shifted to online delivery and teleworking to keep operations going through lockdowns, many were not able to make this transition, either because they were digitally challenged or the nature of their business does not allow modes of digital supply (e.g. personal services). These firms may be the first ones to exit while economies are locked down, or if the effects of the pandemic linger over a long period (OECD, 2020b).

Access to finance for MSMEs has become more challenging due to the pandemic (Goodhart, Tsomocos and Wang, 2020). A survey of Small Businesses in the LDCs finds that more than half of MSMEs were expecting a reduction in annual revenue for 2020 and one third reported that they were at risk of closing down in less than 3 months, with 40 percent of women led MSMEs reporting such a risk. Women entrepreneurs, especially those operating in the informal sector and in already vulnerable economic situations, have been hit hard by the pandemic (see for example Box D.4). 37 percent of women led SMEs had to make layoffs as compared to 29 percent of male-led SMEs. These layoffs were concentrated in textile, craft, utilities, energy, catering and tourism.<sup>34</sup> These processes contribute to the large reductions in employment described in section B.

<sup>33</sup> Among LDCs, Bhutan, Bangladesh and Cambodia are leading the way in e-government, according to UNDESA (2020).

<sup>34</sup> Information based on "The State of Small Businesses in the LDCs: Taking the Pulse of SMEs in the LDC Markets During COVID-19"—a unique survey encompassing more than 20 business sectors, featuring over 2,300 SMEs, spanning all 47 LDCs, see: Homepage—UN Capital Development Fund (UNCDF).

Efforts to expand liquidity and reduce its cost to MSMEs are unlikely to be effective if they are not accompanied by loan guarantee schemes. 33 percent of MSMEs in the survey mentioned above did apply for new loans and 31 percent used their phones and/or digital platforms for sales. Many severely affected MSMEs asked for grants and subsidies rather than loans, since access to loans is already limited during normal times, especially for the smallest ones. Many MSMEs struggle to meet the conditions for qualifying for a bank loan, resulting in only 21.5 percent of MSMEs using a bank loan in Sub-Saharan Africa, which is the lowest number across regions worldwide (World Bank (n/d.c). In addition, business services essential to supporting loan applications are often underdeveloped or uncompetitive, and come at a high cost to small firms. Bangladesh and Myanmar proposed a loan guarantee scheme for exporters, agricultural producers, and SMEs in reaction to COVID-19. Another promising measure by the central bank of Nepal is the requirement that commercial banks set aside a specific proportion of their deposits to advance MSMEs and firms in the agriculture, energy and tourism sectors.

The fiscal stimulus measures aimed at supporting MSMEs have varied by country and in magnitude. In addition to the loan guarantees mentioned above, they included wage assistance to workers in both the formal and informal sectors, moratoria on loan repayments, tax deferral or cancellation, subsidization or reduction of utility costs, and sponsored training for workers in affected sectors.

Table D.1: SME policy responses in selected LDCs

COUNTRY	LABOR			DEFERRAL					FINANCIAL INSTRUMENTS			STRUCTURAL POLICIES			
	(Partial) Redundancies	Wage subsidies	Self-employed	Income/ Corporate tax	Value Added Tax (VAT)	Social Security and pension contributions	Rent/utilities/ local tax	Debt moratorium	Loan guarantees	Direct lending to SMEs	Grants and subsidies	New markets	Teleworking/digitalization	Innovation	Training and redeployment
Angola				✓	✓	✓		✓		✓					
Bangladesh		✓						✓	✓		✓				
Cambodia		✓		✓		✓		✓		✓	✓				✓
Ethiopia								✓							
Haiti								✓							
Lao's People Dem Rep								✓			✓				
Madagascar								✓							
Myanmar				✓					✓	✓	✓				
Mozambique				✓		✓	✓			✓			✓		
Nepal		✓		✓	✓	✓		✓							✓
Rwanda	✓			✓	✓			✓		✓	✓				
Senegal								✓			✓				
Uganda				✓		✓									
Vanuatu				✓							✓	✓			
Zambia					✓										

Source: Compiled using data from OECD (2020a) and World Bank (2020a)

<sup>35</sup> The table is constructed by mapping the Word Bank SME support instruments into the OECD classification (OECD, 2020a). Some measures, such as wage support, liquidity support and monetary measures, VAT refunds, trade-related measures, etc. cannot be easily mapped into the OECD classification.

Box D.4: The impacts of COVID-19 on Africa’s women informal cross-border traders

The closing of borders in the first half of 2020, among the restrictive measures implemented by African governments to contain the pandemic, has left many women cross-border traders in difficult situations. Women, who represent 70 to 80 percent of informal traders in Africa, are suffering important losses of income due to unsold goods— much of which was wasted because of its perishable nature – and the inability of their customers to pay for goods bought previously.

This situation has forced many women to use their capital for survival, undermining their ability to recover when economic activity resumes. Moreover, since a significant proportion of informal cross-border trade is in staples and other agricultural products, the lockdown has disrupted essential supplies, threatening food security in the region.

Women cross-border traders were already feeling the repercussions of the unfolding economic crisis as disruptions in transport and in the food supply chain had severed their sources of procurement. These micro-entrepreneurs are among the millions of MSMEs in Africa who are being disproportionately affected by the current crisis, while having no social protection.

Since they operate in the informal sector, there is a risk that government support programs elude them. Hence, it is crucial that policy responses are designed in a way that recognize the contribution of informal cross-border trade to economic livelihood and poverty alleviation and address this specific situation. In the near term, measures to support cashflows and to extend social safety nets (e.g. cash transfers, minimum wages, food vouchers, subsidies) to informal cross-border traders will be most welcome. Over the longer term, government policy should encourage these micro-enterprises to register as formal businesses while addressing the persistent problems of financial exclusion, border delays, and lack of entrepreneurial skills among women. Crucially, gender must be mainstreamed into all government policy responses to COVID-19.

Sources: Zarrilli, S. (2020). “What future for women small-scale and informal cross-border traders when borders close?” UNCTAD, 8 May 2020.

The prevalence of deferral measures conforms to MSMEs’ wishes, as expressed for example in the ITC survey, which suggests that MSMEs considered tax waivers and temporary tax relief most helpful, ahead of financial support (ITC, 2020). In Angola, in addition to deferring tax payments and social security contributions by employers, the government has also provided a 12-month tax credit on the payment of VAT on the imports of capital goods and inputs used in the production of essential products. Such short-term measures aimed at boosting domestic productive capacity could also have longer-term effects.

Wage support has been less popular among LDCs compared to other policy interventions. It has been used by some of the manufacture exporters (e.g. Bangladesh and Cambodia) to support workers in the apparel and textile industry. In Nepal, wage support has partially compensated workers in the formal sector while those in the informal sector have been given an opportunity to participate in public-works projects for a subsistence wage. Wage assistance schemes are a strategic instrument to preserve jobs and ensure that MSMEs stand ready to bounce back once the pandemic wears out.

The Informal economy

Informality is an endemic feature of LDCs, with about 70 percent of the workforce being employed informally (ILO, 2018a). Specific groups such as women, youth, children, indigenous people, and migrants, are over-represented in the informal sector (FAO, 2020). In developing countries, over 90 percent of agricultural workers are informal (ILO, 2018b).

Informal workers, whether employed or self-employed, were most at risk of losing their jobs as confinement measures force them to stay at home or keep their customers away. In rural areas, the disruption of agri-food supply chains and markets due to lockdowns has increased joblessness and often poverty. About 1.6 billion informal workers were at risk of losing their jobs (ILO, 2020a). These workers are particularly vulnerable to the pandemic since they are not having social and/or health protection, lack bargaining power, and their remoteness and isolation may deprive them of emergency assistance. According to ILO, lost incomes in the informal sector could raise poverty rates by 56 percentage-points in low-income economies (ILO, 2020b). With little hope of receiving any income support from their governments, the un(der)-employed may be compelled to sell off assets, borrow additionally or force their children to work (FAO, 2020). Depending on daily income, lockdown measures had a particular difficult impact on informal workers, breeding social tension and transgressive behavior (breach of confinement measures), and compromising government efforts to deal with the crisis.



### D.3 BUILDING TRADE AND PRODUCTIVE CAPACITY—SUSTAINABLY

The crisis has laid bare “the vulnerability and inequalities inherent in current development models and the global economy” (UN DESA, 2020:4). This calls for coordinated, sustainable policy responses in ‘building back better’, and advancing the SDGs.

As governments across the world continue to fight the pandemic and prepare for recovery, there is a call for fiscal stimulus packages to encourage decoupling and a move towards sustainable solutions (ESCAP, 2020). A resilient recovery to ‘build back better’ can create broad-based economic opportunities while tackling climate change (Logan, 2020).

Access to clean, affordable energy will be critical to any attempt at building sustainable productive capacity. Renewable energy is not just climate-friendly, it also makes economic sense. The costs of renewable energy technologies have decreased and become a more attractive option compared to conventional fossil fuel-based power plants. Data for 2019 shows that solar PV module prices have declined by about 90 percent and wind turbine prices by 55 to 60 percent over the past decade (IRENA, 2020).

Renewable energy presents several advantages, especially in situations of fragility (Logan, 2020). Renewable distributed generation technologies near the point of use, instead of centralized generation sources from power plants, offer greater resilience to physical disruption or damage. They can play a major role in extending access to electricity in remote, rural areas, and contribute to plugging both the infrastructure and the digital divides in LDCs. In addition to their propensity to create ‘good’ jobs, green technologies optimize on naturally abundant renewable energy sources, reducing the pressure on LDCs’ external accounts.

There is an opportunity and an urgent need for the international community to assist and support LDCs, which include some of the countries most vulnerable to climate change and shocks, in contributing to the global climate-change mitigation and adaptation efforts by investing in resilience-building and crisis preparedness. International financial institutions can help LDCs to align their domestic financial systems with sustainability goals, integrate climate risks in their prudential frameworks, and scale up climate-finance support to LDCs (Volz, 2020). Multilateral development banks should stop financing carbon-intensive projects and align their portfolios with the Paris Agreement. The United Nations has called on Member States to build ‘transformational partnerships’ to drive the green energy transition (UN, 2020a).

### Box D.5: Face masks made in post-conflict Central African Republic

The COVID-19 crisis hit the Central African Republic as it was recovering from years of violent conflict that has left the country and its health care system in tatters. The economic fallout of the pandemic could force more than 140,000 people into extreme poverty, according to recent World Bank estimates. As the country responded to the crisis, it was among the very first in Africa to mandate the use of face masks.

The Central African Republic urgently needed to produce 10 million masks of WHO standards locally. The country rose to the challenge by setting up the LONDO project, with assistance from the World Bank. The largest cash-for-work program in the country, the project has saved both lives and livelihoods. It has contracted 300 local SMEs and recruited some 18,000 tailors. The project has generated US\$17 million in income and raised household revenues by 10 percent. More importantly, it has empowered workers, especially women, to launch their own businesses.

**Sources:** World Bank (2020c).

Currently, the LDC Fund is the only facility dedicated to climate action in the LDCs. However, the Fund is under-capitalized and inadequate to meet the adaptation needs of LDCs, especially in the wake of the pandemic. Climate finance for developing countries increased to US\$78.9 billion in 2018 but will likely fall short of the goal of mobilizing US\$100 billion by 2020 (OECD, 2020c). Moreover, it is unlikely that a significant portion of these funds will flow to LDCs. An extra US\$5 billion is urgently needed to enable LDCs to respond adequately to their current priorities (UN, 2020b). There is thus an imperative need for added support from the international community to ensure that “no one is left behind” as the world recovers from the pandemic.

Moreover, the world and LDCs must build on what has been achieved in the areas of gender equality, equity and poverty alleviation (UN DESA, 2020) as they invest in productive capacity in the recovery from COVID-19. There were numerous cases of small businesses in LDCs rising up to the occasion and re-engineering their production facilities to produce masks, sanitizers, and related products, which are less sophisticated and easier to comply with health standards, albeit at the lower end of the value chain. In the Central African Republic (see Box D.5), community-based projects, supported by the government and development partners, have emerged to produce face masks—both as their supplies fell short of demand as an income-generating activity—in environmentally sustainable ways.

The tourism sector worldwide is also embracing sustainability as the new normal. Besides Vanuatu (see Box D.3), several other LDCs that depend heavily on the tourism industry are actively pursuing sustainable initiatives. In Africa, where economic recovery efforts have been marred by the weak financial capacity of governments (see below), focusing on sustainable strategies is crucial to ensuring the survival of tourism as an economic sector on which millions depend for their livelihood.

### D.4 CONCLUSION AND THE WAY FORWARD

While LDCs are not major players in global markets, some have nevertheless grown into large exporters of manufactured products, such as clothing, and were adversely impacted by the disruption of global value chains and the sharp decline in demand in developed-country markets. Mineral-exporting LDCs have been hit twice by the pandemic: demand for their commodities has decreased along with global industrial activity, and commodity prices have declined. LDCs dependent on travel and tourism, have been feeling the full impact of the crisis as measures to contain the pandemic, such as confinement and border closures, stopped the flow of tourists

for already more than a year, with travel restrictions continue being in place.

Going forward, it is important to learn from the weaknesses that the pandemic has revealed.

LDCs must close the digital divide, which will become increasingly important in the future for countries to remain competitive. LDCs can draw inspiration from peers like Senegal, which developed an e-commerce platform connecting users with SMEs selling essential goods, or Cambodia, which is piloting a project to provide e-commerce solutions to help contain the economic impact of COVID-19 (Adhikari, 2020). Where available, the roll out of e-government services ensured that public administrations continued to deliver certain services even during lockdowns, online learning platforms helped maintain a sense of normalcy in the education sector, and e-commerce and remote working technologies sprang up to help firms continue operations when customers and employees could not leave their homes. The development of digital services will not only lead to a more diversified economy, but also a more resilient and more productive one.

The crisis has highlighted the need for an alternative model of sustainable development that protects and builds on achievements in gender equality, women’s empowerment, and environmental sustainability. As societies build back, it is important that they do so in sustainable ways, encouraging a shift towards greener methods of production, sustainable patterns of consumption and investment in sustainable productive capacity and renewable energy. This shift in economic behavior will ensure healthier and more resilient societies, and will accelerate progress towards the SDGs, several of which have been seriously compromised by the pandemic.

The pandemic shows the need for resilience. There is a need for structural reforms and while the political costs of reforms are generally higher in a recession (Ciminelli et al., 2019), the prevailing crisis may well present a good opportunity to undertake structural reforms.

LDCs must take urgent measures to encourage domestic investment and to attract larger amounts of FDI. This requires cutting away persistent impediments to doing business, such as cumbersome bureaucracy, inadequate investor protection and trade barriers. Getting electricity continues to be a major obstacle to business development in many LDCs. Governments should act swiftly to increase access to electricity and ensure greater reliability in power supply. They should prioritize renewable sources of energy, which, can create higher-value, green jobs, further steering LDC economies down the path of structural transformation. Moreover, liquidity support to the



business sector alleviates the perennial access-to-credit constraint. An important lesson for governments is that, if liquidity support can help save jobs and keep businesses afloat during the pandemic, it can surely boost business development and job creation in normal times. Furthermore, LDC governments should continue to facilitate MSMEs' access to finance beyond the crisis. They can do this by setting up credit guarantee schemes, by encouraging banks to set aside dedicated funds to lend to MSMEs and by keeping the cost of credit low.

LDCs must ramp up efforts to diversify their domestic productive base and exports, focusing on higher value-added products and services. Supply-chain disruptions have underscored the need for LDCs to enhance food security and build self-sufficiency. The need for diversification is especially urgent in the oil exporting LDCs. International organizations, such as the United Nations and the World Bank, regional development banks, and development partners must move quickly to work with LDC governments on a blueprint for industrial and export diversification consistent with their national development strategies, or provide the necessary support for implementation of industrial strategies where they exist.

Insufficient infrastructure remains a key constraint and challenge for most LDCs. Investment in infrastructure can serve as a foundation for economic development and growth. Building sustainable infrastructure will help ensure delivery of development benefits over a long term and LDC governments should develop policies geared towards diversification and build infrastructure that is required to support industrialization, including agriculture, mainly focused on production of high value products and agro-processing, manufacturing, services (tourism, creative industries) and technology and innovation. Achieving regional integration for Africa requires hard infrastructure (ports, roads, railways and telecommunications), soft infrastructure (regulations, customs, business environment) and increased breadth and depth of integration (market access, trade and integration beyond trade). The recently launched Af-CFTA provides additional market access opportunities and is expected to spur accelerated industrialization through diversified productive capacities in line with the attainment of broader Agenda 2063 goals. This shows significant opportunities for accelerated economic expansion that would yield real benefits to LDCs and has the potential to mobilize greater domestic and foreign investments.

The WTO Trade Facilitation Agreement (TFA), can address high trade costs incurred by LDCs and facilitate the integration of these countries in regional and global value chains. However, LDCs will need extended support to help them build sustainable capacity to implement their commitments under the TFA. The LDCs, as a group, issued a communication<sup>36</sup> asking non-LDC members to refrain from imposing export prohibitions or restrictions on medical goods and food and to facilitate flows of these goods for LDCs' domestic use, including through the effective implementation of the WTO Trade Facilitation Agreement's provisions on transit.

While duty-free and quota-free market access for LDCs, which is also increasingly granted by other developing countries, had only limited effects on the trade expansion of LDCs in the past, it can significantly contribute to export diversification into products with higher value addition, where preference margins are higher. In this respect more flexible rules of origin would allow the increased utilization of preferential market access, especially if it is complemented with supply-side measures (UN-OHRLLS, 2018).

In conclusion, there is an urgent need for structural transformation in LDCs and added support from the international community, including through enhanced Aid for Trade, to ensure that "no one is left behind" as the world and LDCs recover from the pandemic. It is clear however, that there is no "one size fits all" approach or a single pattern of improving productive capacities. Strategies geared towards increasing trade and developing productive capacities must address the context-specific realities of LDCs and harness their respective comparative advantages.

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Annex Table D.2: Government policy responses to COVID-19 in selected LDCs

ECONOMY	CONTEXT	FISCAL MEASURES	MONETARY & MACRO-FINANCIAL MEASURES	EXCHANGE RATE & BALANCE OF PAYMENTS MEASURES
Bangladesh	<ul style="list-style-type: none"><li>With close to half a million officially registered cases, Bangladesh is the hardest hit of all LDCs.</li><li>The economy severely impacted by a decline in remittances and drop in garment exports</li><li>Effects of the pandemic compounded by monsoon floods.</li></ul>	<ul style="list-style-type: none"><li>A Tk. 50 billion (US\$588 million) stimulus package (refinance scheme) for the export sector announced on March 31.</li><li>The scheme provides government loans to firms to help firms pay employees' wages. Amount of facility increased by an additional Tk.60 billion. following pressure from factory owners</li><li>Interest subsidy on working capital loans</li><li>Social measures, such as income support, housing and health insurance for government employees</li></ul>	<ul style="list-style-type: none"><li>Repo rate reduced from 6 percent to 4.75 percent, cash reserve ratios slashed</li><li>Advance-deposit ratio and investment deposit ratio cut to enable banks increase credit to the private sector</li><li>Export Development Fund recapitalized to US\$5 billion and lending rate cut to 1.75 percent</li><li>Credit guarantee scheme for exporters, farmers and SMEs set up</li><li>Agriculture subsidy program introduced</li><li>NBFIs to waive interest charges and suspend loan interest payments</li></ul>	<ul style="list-style-type: none"><li>Foreign exchange rules relaxed to provide foreign currency to nationals held up abroad by travel restrictions</li><li>Regular intervention by Bangladesh Bank to stabilize the exchange rate relative to the dollar</li></ul>
Comoros	<ul style="list-style-type: none"><li>Health crisis largely contained, with only 7 official deaths reported</li><li>However, the pandemic came less than a year after cyclone Kenneth, which caused major damages to the economy.</li></ul>	<ul style="list-style-type: none"><li>Increase in health care spending to address the country's capacity constraints in this sector</li><li>Deferral of tax payments for registered businesses</li><li>Import taxes on good, medicines and hygiene products reduced by 30 percent</li><li>US\$25 World Bank facility to support agriculture and tourism</li></ul>	<ul style="list-style-type: none"><li>Central bank reserve requirements reduced to 10 percent</li><li>Restructuring of commercial loans</li><li>Freezing of interest payment on some commercial loans</li></ul>	<ul style="list-style-type: none"><li>Peg against euro maintained</li><li>Inflationary pressures monitored</li></ul>
Ethiopia	<ul style="list-style-type: none"><li>State of emergency declared on April 8 lifted in early September, along with some travel restrictions</li><li>Ethiopia mainly affected by the grounding of Ethiopian Airlines, a major contributor to the economy; commodity exports (flower, coffee, etc.) also impacted</li><li>Flights resumed in July</li><li>Weak health situation of the country exacerbated by other public health challenges, such as outbreaks of cholera and measles</li><li>About 30 million people confronted with critical food shortages</li></ul>	<ul style="list-style-type: none"><li>A COVID-19 Multi-Sectoral Preparedness and Response Plan of US\$1.64 billion (1.6 percent of GDP) announced on April 3</li><li>The Plan will provide emergency shelter and food to vulnerable groups, and support to farmers and to the education sector.</li><li>A package of economic measures (including tax relief and tax debt forgiveness) to support firms</li><li>Additional measures to support FDI, enterprises and jobs adopted</li></ul>	<ul style="list-style-type: none"><li>A total of 48 billion birr (1.44 percent of GDP) provided by the central bank to boost liquidity and facilitate debt restructuring by commercial banks</li></ul>	<ul style="list-style-type: none"><li>No measures</li></ul>
Haiti	<ul style="list-style-type: none"><li>The pandemic aggravates the existing economic situation, characterized by political instability and social unrest.</li><li>Remittances severely affected</li><li>Businesses allowed to reopen after July 20, except for the textile industry, which was allowed to resume activities on April 20</li></ul>	<ul style="list-style-type: none"><li>Government stimulus plan amounting to 2.12 percent of GDP</li><li>Increased health care and security spending (by 1.74 percent of GDP)</li><li>Income support to workers and households</li></ul>	<ul style="list-style-type: none"><li>Cuts in lending rates</li><li>Lower reserve requirements</li><li>Easing of loan repayment obligations for 3 months</li><li>Waiving of interbank payment fees</li></ul>	<ul style="list-style-type: none"><li>No measures</li></ul>



<b>Nepal</b>	<ul style="list-style-type: none"> <li>National lockdown, imposed at end-March, lifted on July 22 but further restrictions imposed to contain the pandemi</li> <li>International flights resumed on September 2; tourist sites allowed to open on November 13</li> </ul>	<ul style="list-style-type: none"> <li>A range of social measures (food rations and subsidies on utility bills for the most vulnerable; wage support to those in the informal sector)</li> <li>Additional measures to support healthcare, businesses (mainly loans) and jobs announced in the budget speech</li> </ul>	<ul style="list-style-type: none"> <li>Liquidity-enhancing measures (reduction in cash reserve ratio, cuts in policy rates and lending rates)</li> <li>Limit on banks' total loans raised to from 80 percent to 85 percent of deposits</li> <li>Nepal Rastra Bank requires commercial banks to lend at least 40 percent of their loans to MSMEs and firms in the agriculture, energy and tourism sectors</li> </ul>	<ul style="list-style-type: none"> <li>Ban on imports of luxury goods imposed</li> </ul>
<b>Sao Tome &amp; Principe</b>	<ul style="list-style-type: none"> <li>The average daily number of COVID-19 reported cases is currently zero</li> <li>Deterioration in economic conditions following introduction of confinement measures</li> <li>Most businesses operational since October 2020.</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of a health contingency plan</li> <li>Social assistance (cash transfers) to the most vulnerable</li> <li>Wage support to small businesses</li> <li>Financial assistance to workers losing jobs in both formal and informal sectors</li> <li>Government procurement of essential inputs for farmers</li> <li>Solidarity tax on public servants</li> </ul>	<ul style="list-style-type: none"> <li>Policy rate and minimum cash ratio reduced</li> <li>Some prudential ratios eased for a 3-month period to boost liquidity</li> <li>Call on banks to reduce bank fees and grant a moratorium on loan repayment</li> <li>Liquidity support to businesses</li> </ul>	<ul style="list-style-type: none"> <li>No measures</li> </ul>
<b>Solomon Islands</b>	<ul style="list-style-type: none"> <li>Only one confirmed case of COVID-19, and no deaths</li> <li>Business activity, with certain exceptions, allowed to resume on May 8, but international passenger flights suspended until January 2021</li> <li>Disbursement of US\$28.5 in emergency financing under Rapid Credit Facility (RCF) in June 2020</li> </ul>	<p>Economic stimulus package amounting to 2.6 percent of GDP adopted to provide social assistance and support economic recovery. Key measures include:</p> <ul style="list-style-type: none"> <li>Payroll support for non-essential public workers</li> <li>Wage/employment support for youth and women</li> <li>Subsidies for copra and cocoa production</li> <li>Investment support to firms in productive and resource sectors</li> <li>Tax and utility relief</li> <li>Equity injection in government-owned companies</li> <li>Infrastructure investment</li> </ul>	<ul style="list-style-type: none"> <li>Expansionary monetary policy stance maintained</li> <li>Cash reserve ratio reduced from 7.5 percent to 5 percent</li> <li>Export Finance Facility to assist exporters</li> <li>Appeal to commercial banks to grant a 3- to 6-month moratorium on all loan repayments</li> </ul>	<ul style="list-style-type: none"> <li>No measures</li> </ul>
<b>Vanuatu</b>	<ul style="list-style-type: none"> <li>No confirmed cases of COVID-19</li> <li>State of Emergency, declared on March 26, extended until end-December</li> <li>International flights allowed since May 12 subject to strict preventive measures</li> <li>Other businesses operating normally. A plan for recovery of the tourism sector currently being worked out – with the aim to create a 'travel bubble'</li> </ul>	<p>A fiscal package worth 4.5 percent of GDP announced in March 2020. Key measures include:</p> <ul style="list-style-type: none"> <li>Deferral and cancellation of taxes, fees and charges for businesses</li> <li>Employment stabilization payments to employees (for 4 months) and employers</li> <li>Commodity support to producers of copra, kava, cocoa and coffee</li> <li>Shipping support to facilitate farmers' access to major markets</li> <li>Suspension of secondary school fees</li> </ul>	<ul style="list-style-type: none"> <li>Policy rate reduced from 2.9 percent to 2.25 percent</li> <li>Reduction of commercial banks' CAR from 12 percent to 10 percent</li> <li>Reactivation of the Banks' Import Substitution and Export Finance Facility, and the Disaster Reconstruction Credit Facility</li> </ul>	<ul style="list-style-type: none"> <li>No measures</li> </ul>

**Source:** Compiled from the IMF Policy Tracker (IMF, 2020): <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19>

## Box II: The role of sustainable energy in recovery

The COVID-19 pandemic has highlighted the importance of reliable, affordable, and sustainable energy systems—from powering healthcare services to enabling communication and information technologies, social distancing and community resilience.

And yet, in LDCs, only 52 percent of the population have access to electricity. The access data hides disparities between countries and regions, as well as urban and rural areas (OHRLLS et al, 2020). The access to electricity data hides disparities between simply having access and the reliability and affordability aspects of electricity. Only 16 percent of the population in LDCs had access to clean fuels and technologies for cooking, exposing households, particularly women and children to air pollution increasing their vulnerability to respiratory illnesses including COVID-19.

There is a strong business case for centering recovery plans around energy transition in LDCs—to alleviate poverty, increase resilience of healthcare systems including in fighting the pandemic and to build back better.

Renewables are becoming the go-to option for many countries outpacing fossil fuels in new power capacity additions since 2012 and have emerged as the default choice for new projects globally where data analysis have shown the performance of renewable energy investments assets to have proven more resilient to the global turmoil than their traditional counterparts (IRENA, 2020). Moreover, over the recent months, renewables have proven to be the most resilient energy sources throughout the pandemic crisis.

In this context of post-COVID recovery, governments have an immense opportunity to establish a more resilient future by adopting strategies to deploy renewables-based energy systems supplemented by measures taken to address emerging needs.

Renewable energy is essential for both: short-term response to the pandemic for powering essential services, such as health facilities to refrigerate vaccines, clean water, electronic and contactless payments, distance/E-learning, as well as the medium to long term response as it brings a range of socio-economic benefits, such as improving energy access and security, green jobs, environmental benefits, and higher economic growth.

It is also an opportunity for governments to establish or make upward adjustments on their renewable energy targets to take account of additional procurement of new renewable energy generation capacity. Furthermore, recovery measures should

be aligned with countries' renewable energy ambition as included in the SDGs and 2020 revised Nationally Determined Contributions (NDCs) under the Paris Agreement.

### Current energy landscape in LDCs

LDCs have made considerable progress in increasing access to electricity. Looking at the decade of the IPoA, the percentage of population with access to electricity has grown by 49 percent, from 35 percent in 2011 to 52 percent in 2018 for the group of LDCs (OHRLLS et al., 2020).

Despite this progress, the annual increase in electrification between 2016 and 2018 is lower in LDCs compared with the global average. Looking across the different regions, 13 Asia-Pacific LDCs reached an average electrification rate of 83 percent, while the rate in the 33 African LDCs and Haiti was much lower at 36. Stark differences exist between rural and urban areas. In 2018, on average, 78 percent of the urban population in LDCs had electricity access, compared with only 39 percent of rural populations (OHRLLS et al., 2020).

Furthermore, 10 LDCs featured among the 20 countries as having the largest energy access deficits in 2018 (IEA et al., 2020). For the same period, expansion of electricity kept up with population growth in only five out of the 10 LDCs (Bangladesh, Myanmar, Sudan, United Republic of Tanzania, and Uganda).

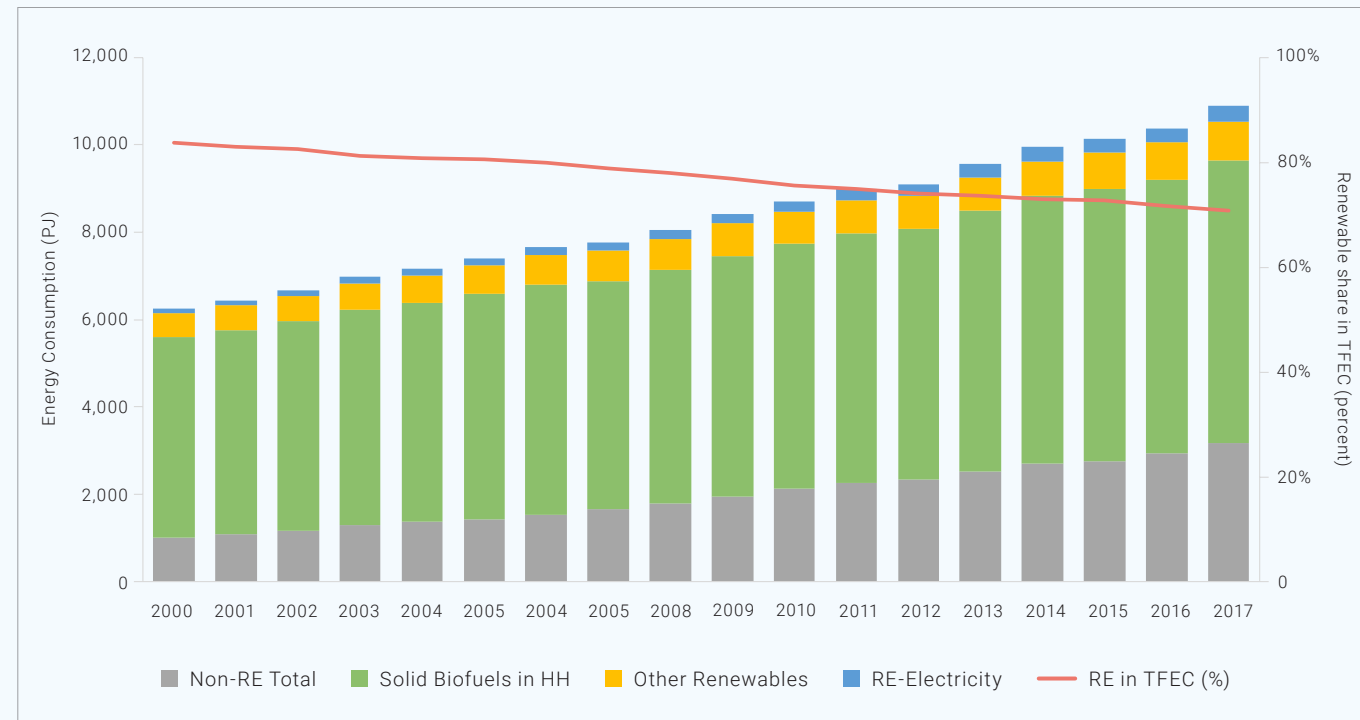
On a positive note, LDCs have benefited from a positive development in off-grid solutions, where renewables, including solar home systems and mini-grids, have seen a faster expansion than non-renewables since 2009.

Recovery plans should seek to boost these positive trends by prioritizing decentralized renewable energy solutions in electrifying health and education facilities especially in rural areas that are typically underserved.

### Opportunities for renewables in economic recovery

Across LDCs, the average share of renewable energy in total final energy consumption (TFEC) reached 70.8 percent in 2017, a decrease from 75.6 percent in 2010 (IEA; UNSD, 2019) (Figure II.1). This overall share of renewables is high compared to the global average because a large percentage of the population relies on traditional uses of biomass—wood fuel, and crop and animal residues—for cooking and heating. Excluding traditional uses of biomass, the share of renewables in total final energy consumption reached 11.4 percent in 2017, up only marginally from 11.1 percent in 2010 (IEA; UNSD, 2019).



**Figure II.1: Total Final Energy Consumption and Share of Renewables by Technology Type in LDCs**

Source: IEA; UNSD (2019).

Despite the immense potential of the energy sector in LDCs, these countries rarely benefit from larger financing schemes to the same extent as more prosperous, developing countries. For instance, public financial flows to developing countries in support of clean and renewable energy, reached a total of US\$ 21.4 billion in 2017, of which only 12 percent reached the least developed countries in 2017 (OHRLLS et al., 2020).

Harnessing opportunities with sustainable energy at the heart of recovery plans can offer a range of benefits for LDCs. Investments in energy have a significant GDP multiplier—it is estimated that for every US dollar invested in the transition towards renewable energy, an additional US\$0.93 of GDP growth above business as usual is expected to occur (SE4All, 2020).

Energy transition investment can help reinvigorate the economy, support the recovery phase, and create a wide range of jobs. Estimates indicate, each million dollars invested in renewables or energy flexibility would create at least 25 jobs, while each million invested in efficiency would create about 10 jobs (IRENA, 2020).

### Policy recommendations

#### Enabling Environment & Institutional Framework

- Policy makers and independent regulators have a critical role to play in policy and regulatory reforms by setting up comprehensive, supportive, integrative, enabling, and clear policies that accelerate investments in the renewable energy sector and shift the energy paradigm.
- To support policy implementation, governments may set-up regulatory instruments such as: auctions, feed-in tariffs and payment premiums; standards for electric utility quotas and renewables; net metering and billing; bio-fuel blend obligations/mandate; renewable heat obligations and mandate; and tradable renewable energy credits, etc.
- In order to achieve successful renewable energy deployment, countries are advised to strengthen or develop institutions dedicated to renewable energy policy, regulation, standardization, finance, etc., to drive change at the required scale and pace.

### Renewable Energy Investments, Financing and Private Sector Involvement

- The recent rapid decline of renewable power generation costs is setting records and rendering renewable power to be the cheapest source of electricity in many LDCs. The cost declines have attracted investments into the renewable energy sector.
- By placing renewable energy at the core of post-COVID green recovery plans, governments can signal long-term public commitment to the industry, boosting investor confidence and scaling up investments needed for renewable energy development.
- Further, countries are advised to establish a framework to enhance facilitation, collaboration and co-ordination among private renewable energy firms and financial institutions from domestic and international markets. This will increase financial institution knowledge of the renewable energy sector while giving private renewable energy firms more understanding of the inner working of the financial system. Close co-operation of this kind will help reduce the perception of risk in the renewable energy sector and thus encourage financing.
- Governments and development partners could also extend public finance resources—in particular; climate funds, concessional finance, guarantees, grants, subordinated debt,—to address investment constraints and spur private financing to scale renewable energy deployment at scale.
- At international level, the Climate Investment Platform announced in September 2019 by the International Renewable Energy Agency (IRENA), UNDP, the multi-partner Sustainable Energy for All initiative, in cooperation with the Green Climate Fund (GCF) aims to mobilize energy-transition investments on a scale commensurate with climate goals. Sub-regional investment forums, which will be organized by IRENA starting 2021 are intended to create enabling conditions, improve access to finance, build capacity and assist developers in the preparation of bankable renewable energy projects.

### Resource Assessment and Planning

- To enable policy makers, project developers, financiers and other stakeholders to make informed decisions on renewable energy development and to accelerate this energy transformation, there is need to evaluate the quantity and quality of renewable energy resources from

a technical, economic and market perspectives. Countries should therefore prioritize undertaking renewable energy resource assessments, make results publicly available on a central repository and conduct suitability site analysis for project development and investments.

- The outcomes of resource assessments provide essential input into long-term planning. On the basis of these results, governments are advised to develop Long-Term Energy Scenarios (LTES) and energy plans in order to quantitatively analyze optimal utilization of renewable energy resources, the direction of future energy and climate policy and develop more elaborate scenarios, so as to evaluate concrete, least-cost, low-emissions investment pathways to providing reliable and affordable renewable energy systems.

### Capacity Building and Skills Development

- The availability of well-trained and skilled human capital is essential to meet countries renewable energy ambitions. Countries are advised to design and set up educational and training programmes to build local human resource capacity to plan, evaluate, develop, manage, operate, and maintain renewable energy projects.
- Such skill development could be achieved through developing close partnerships among governments, education, and training institutions as well as industry players at local and international level to ensure skills development matches the continuously evolving needs of the renewable energy sector.
- Further, education and training programmes should be matched to the specific circumstances and employment potential along the value chain of energy transition technologies, in the countries. Additionally, to ensure high-quality performance, governments could establish framework for certifications or qualification schemes on renewable energy skills.
- Governments are also advised to adopt just and inclusive job transition policies to limit labour market disruptions— i.e., the job losses and misalignments, that can be expected to occur in the phase out of coal and other fossil fuel energy systems during the renewable energy driven low-emission developments.

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E. MACROECONOMIC INDICATORS  
DETERIORATED IN ALL LDCs

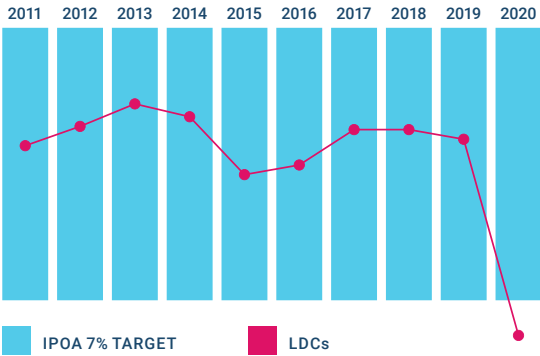
As described in the previous sections, the COVID-19 crisis in LDCs is both a demand shock as well as a disruption of supply caused by a combination of COVID-19 itself, domestic measures to contain the spread of the virus and especially external spillovers. The global recession affects LDCs through a reduction in trade, capital and remittance flows leading to reduced or negative GDP growth. Consequently, government revenue and expenditure as well as price and exchange rate stability are also affected. The uncertainties related to the spread and duration of the pandemic have also increased the vulnerability of LDCs.

E.1 DECLINE IN GDP

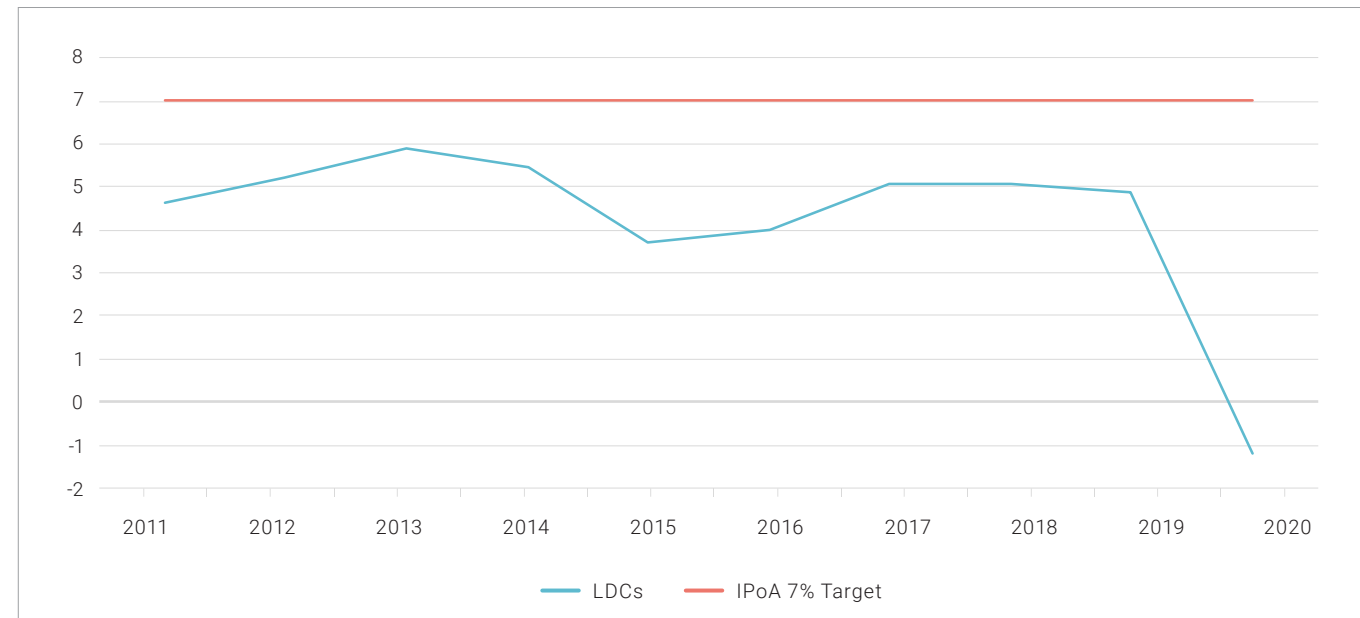
Limited growth in LDCs was insufficient to accelerate economic and social progress and significantly reduce poverty even before the pandemic. Average growth in the least developed countries stood at 4.7 percent between 2011 and 2019. Weak growth rates in many advanced and emerging economies and the steep fall in international commodity prices after 2011 ultimately had an impact on growth rates in the least developed countries. In 2019, average growth in the least developed countries was 4.9 percent, a slight improvement from 4.3 percent in 2011. The recovery in economic growth for the least developed countries, which commenced towards the end of 2016, mirrored the cyclical upturn in global activity, driven by factors such as rising investment, increased industrial production and trade, and strengthened consumer confidence. Growth in the least developed countries is influenced in large part by domestic drivers of growth, commodity prices and vulnerability to natural hazards and other exogenous shocks (UN, 2020a).

Estimates of GDP growth rates have been revised downwards throughout 2020, both for the world and for groups with large overlaps with LDCs. On average, GDP in LDCs is estimated to have declined by 1.3 percent (while global GDP declined by 4.3 percent) in 2020, according to latest available projections by UN DESA (UN DESA, 2021). This is a quite stark difference to the projected 5.1 percent GDP growth in LDCs at the beginning of 2020 and well below the IPoA target of 7 percent (figure E.1). This sharp decline in the growth rate is mainly driven by reduced external demand, falling commodity prices, decline in tourism, remittances and foreign investment, and higher borrowing costs in addition to the domestic effects of COVID-19 and measures to contain it, which

Macroeconomic indicators  
deteriorated in all LDCs  
GDP growth fell drastically



This sharp decline in the growth rate is mainly driven by reduced external demand, falling commodity prices, decline in tourism, remittances and foreign investment, and higher borrowing costs in addition to the domestic effects of COVID-19 and measures to contain it, which also suppress domestic demand.

**Figure E.1: Annual GDP growth in LDCs (percent)**

Source: UN DESA (2021).

also suppress domestic demand. Thus, commodity exporters and countries with large tourism sectors or strong trade links with China, the Euro Area and the US are severely affected (UN DESA, 2021 and World Bank, 2020a).

In many LDCs the effects of the pandemic are compounded by other disasters. Several LDCs in East Africa are also affected by a locust infestation, which has damaged agricultural crops and thus increased food prices. At the same time cyclone Harold had a devastating impact on Solomon Islands and Vanuatu in April 2020 as cyclone Amphan had in Bangladesh. In other countries like Afghanistan and Yemen GDP growth is also hampered by conflict (World Bank, 2020a; ADB, 2020b).

Tourism dependent LDCs, which include Cambodia, Comoros, The Gambia, Sao Tome and Principe, Vanuatu are also affected severely, as tourism presents a significant share of GDP, employment, fiscal revenue and foreign exchange. Globally tourist inflows are only expected to return to 2019 levels by around 2023 (IMF, 2020a and 2020c).

The most severe decline in GDP in 2020 of more than 6 percent is projected for Afghanistan, Kiribati, Nepal, Sao Tome and Principe, South Sudan, Timor-Leste, and Vanuatu (UN DESA, 2021). In Angola, real GDP is expected to decline for the fifth year in a row as the pandemic has worsened existing vulnerabilities, including high export concentration and declining access to capital (IMF, 2020a).

In some non-resource intensive countries, including Bangladesh, Benin, Lao People's Democratic Republic, Malawi,

Myanmar, Rwanda and United Republic of Tanzania GDP growth is expected to be more resilient and stay in positive territory in 2020. Except for Lao People's Democratic Republic and Malawi, all of these countries had high growth rates of more than 6 percent in 2019 (UN DESA, 2021).

For Malawi, a small but positive growth rate of 0.2 percent is estimated for 2020. With no major exports of oil and minerals and a relatively small international tourism sector, Malawi was not fully exposed to the worst shocks in the global economy. GDP growth was driven by a higher than average maize harvest and the implementation of domestically financed development projects. However, disruptions of supply chains, political uncertainties and electricity outages had a negative effect. Also, remittances declined by around 13 percent (IMF, 2020e).

One major concern is the continued high uncertainty of the effects of COVID-19 on both the global and domestic economy, which makes the design of adequate measures even more difficult in already vulnerable countries. In many LDCs this uncertainty is compounded by scarce availability of data, which makes planning challenging. The social and economic effects will not only depend on the spread of the virus, which increased towards the end of 2020, but also on the impact on domestic and international demand and supply as well as the effectiveness of public policy responses like shutdowns and the behavioral changes related to the pandemic. There is empirical evidence that in countries that started reopening of the economy when the number of new COVID-10 cases

was still high and rising, mobility and economic activity did not increase significantly. Some LDCs introduced or reintroduced lockdown measures in the second half of 2020 leading to a downward revision in growth projections, while in others a second wave of COVID-19 infections had the same effect (AfDB, 2020 and IMF, 2020c).

Several forecasts expect that recovery in many LDCs will be slower than in many other countries (IMF 2020a). In addition, the prospects for 2021 are highly uncertain and come with major downside risks. Important sectors like tourism and transport may take longer to recover as demand might only rebound once the pandemic is fully contained, meaning it might take several years before output reaches 2019 levels again (see also section D.). The downside risks are interconnected and mutually reinforcing, resulting in high uncertainty. These include the possibility of subdued commodity prices for a longer time, which would affect public finances of commodity exporters. The tightening of financial markets combined with high debt burdens and capital outflows have made it more difficult and expensive to finance necessary measures to contain the effects of COVID-19 and to refinance maturing debt. In addition, climate change related shocks will continue to affect LDCs and in some of them the security situation has been deteriorating and there is the risk of social unrest (AfDB, 2020).

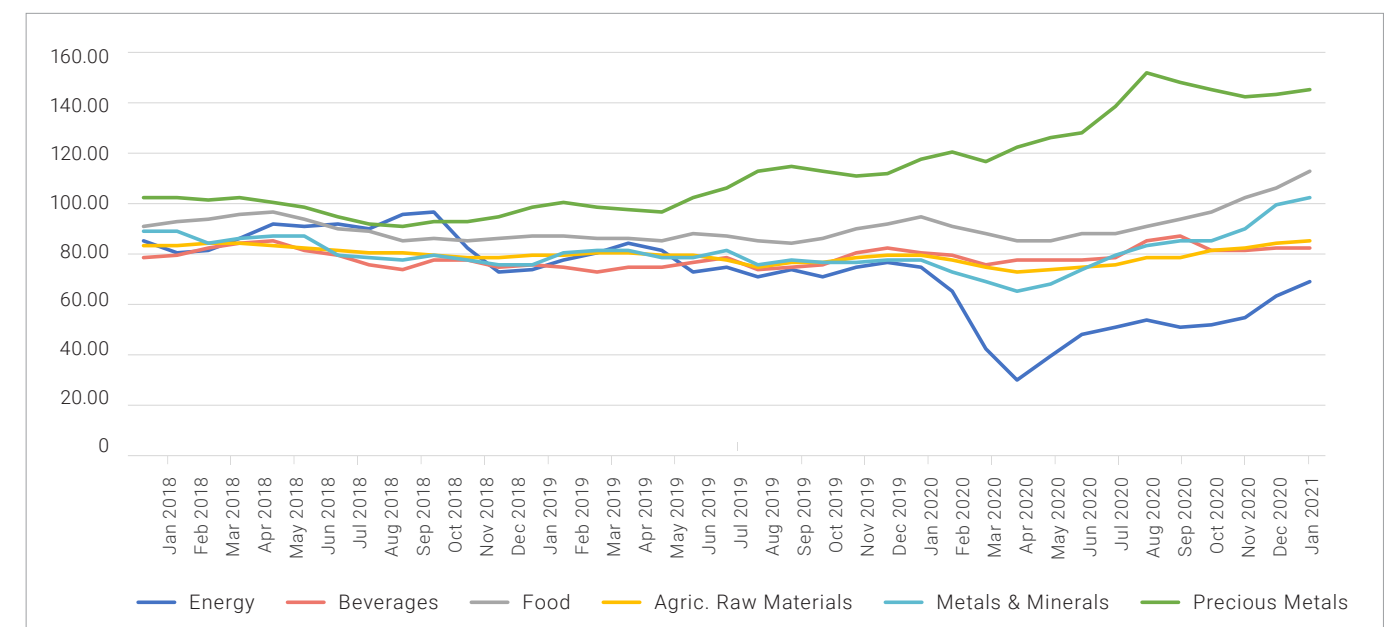
However, there are also factors that contribute to the resilience of LDCs, which could enhance the growth recovery, including the lower share of deaths from COVID-19 (see also section A.), and relatively strong domestic consumption as well as external buffers (AfDB, 2020).

## E.2 PRICE VOLATILITY, EXCHANGE RATES, MONETARY POLICIES

Drivers of inflation have been pointing in different directions and overall inflation has been relatively stable in LDCs, especially core inflation, which does not include food and basic energy (AfDB, 2020).

While commodity prices for key exports of LDCs remained relatively stable in 2018 and 2019, they changed drastically in 2020 (see figure E.2). Energy prices dropped sharply in the Spring but mostly recovered to the levels a year earlier by January 2021. Prices of agriculture commodities, including food as well as metals and minerals only dropped slightly and have reached levels well above the previous 3 years, especially for food and metals and minerals. By contrast, prices of precious metals which had started to raise in 2019, continued their increase throughout most of 2020 and leveled off towards the end. For 2021 modest increases of most commodity prices are expected but forecasts are subject to heightened uncertainties as they depend on the overall recovery of the world economy (World Bank, 2020b).

In selected goods price volatility increased due to disruptions of supply chains, export bans and an increase in air freight rates. This applies for example to medical supplies and equipment (like PPE and ventilators), for which most LDCs have no capacity to manufacture. Likewise, food shortages have led to increasing local food prices (see also section C.). As food has a high share in overall consumption in LDCs this could drive up inflation. However, monetary tightening might not get inflation rates down as the price hikes are caused by supply shortages both domestic and through imports (Addison et al., 2020).

**Figure E.2: Commodity price indices for key LDC exports (2010=100)**

Source: World Bank (2021).



On average, consumer price inflation in LDCs is estimated to have increased from 11.7 percent in 2019 to 21.4 percent in 2020, however with very wide variations. In many LDCs inflation has been modest or even negative as increasing food prices were balanced by the decline in demand as well as falling oil and commodity prices (ADB, 2020a and AfDB, 2020). However, the consumer price index in some LDCs has increased by more than 20 percent in 2020, driven by currency depreciations and disruptions to supply chains, especially for food and energy. These include Angola, Democratic Republic of the Congo, Ethiopia, Haiti, South Sudan and Sudan (UN DESA, 2021).

During the first months of 2020 the changes in exchange rates in LDCs have varied, depending on the structure of the economies, and the exchange rate regimes in place. For most LDCs no large-scale depreciation of exchange rates has occurred in 2020. However, the loss of export earnings, tourism and remittances contributed to significant currency depreciations in some LDCs, including Angola, Ethiopia, Mozambique and Zambia, where they were not only temporary but lasted until the end of 2020, making imports, including of food and agricultural inputs more expensive, which could further increase food insecurity (AfDB, 2020; Addison et al., 2020 and UN DESA, 2021).

In the current situation, currency depreciation cannot be expected to spur demand for their exports or attract tourism since this shock is systemic. Currency weakness will likely worsen the economic situation for many of low-income and fragile states whose debt is in foreign currency, further depressing local demand and resulting in declining GDP (Sayeh, and Chami, 2020).

### Monetary policy

Many LDCs have used monetary policy to ease liquidity constraints during 2020. Despite occasional price increases some central banks have eased their monetary stances (e.g. Democratic Republic of the Congo) while others have lowered reserve requirements to free up liquidity (Mozambique), or implemented asset purchase programmes (Rwanda) (World Bank, 2020a). Many LDCs have cut policy rates significantly according to the IMF tracker of COVID-19 policies (IMF, 2020b).

Other LDCs introduced facilities to inject liquidity into the banking system ranging from 0.5 percent of GDP in Angola to 3 percent of GDP in Zambia. Banking authorities also used flexibility provided in regulatory frameworks, including for loan restructuring operations (IMF, 2020a).

The regional central bank (BCEAO) for the West-African Economic and Monetary Union (WAEMU), which covers Benin, Burkina Faso, Guinea-Bissau, Mali, Niger and Togo (in addition to Cote d'Ivoire, which is not an LDC), has taken steps to better satisfy banks' demand for liquidity and mitigate the negative impact of the pandemic on economic activity. This included reduction of interest rates, relaxation of collateral requirements, and encouraging commercial banks to extend debt service periods. In addition, the BCEAO launched in April 2020 a special 3-month refinancing window at a fixed rate of 2.5 percent for limited amounts of 3-month "Covid-19 T-Bills" to be issued by each WAEMU sovereign to help meet immediate funding needs related to the current pandemic (IMF, 2020b).

A number of LDCs implemented measures to stimulate the use of e-money and reduce the use of cash, mainly using reduced transaction fees and increased balance and transaction limits (IMF, 2020b).

### External balances

The median current account deficit of LDCs had been declining since 2012 from 7.6 percent to 4.9 percent of GDP in 2018.<sup>37</sup> The pandemic has shown declining remittances and other inflows, and because of that current account deficits are expected to worsen again (AfDB, 2020). The effects on the trade balance are unclear as the decline in exports might be offset by reduced imports due to the disruption of supply chains. While trade declined sharply from March to May 2020, it started to recover in the second half of 2020. Also a few export items faced increased demand, for example bicycles from Cambodia (see section D.). Imports of capital goods and inputs like fertilizers also declined significantly in many LDCs. One notable exception is Myanmar, where imports increased significantly, largely of capital and investment goods for government infrastructure projects. Net oil importers benefit from the drop in oil prices (ADB, 2020a).

On average, it is expected that COVID-19 will have a negative terms of trade shock for most LDCs at least in the short run (Addison et al., 2020). This comes on top of their already large exposure to risks related to price volatility of their main exports and a decrease of terms of trade over the past decade (UN-OHRLLS, 2018).

External reserves in LDCs had been low and stagnant before the pandemic with a median reserve cover of around 4 months of imports in 2018. They were at very low rates in several LDCs with less than 1 months of imports covered in Burundi, the Democratic Republic of the Congo and Sudan and less

than 2 months in Djibouti, Lao People's Democratic Republic, and Zambia. This leaves very limited space for the import of essential goods as well as payment of external debt obligations (AfDB, 2020).

### Reduced investment

Investment, both domestic and foreign is expected to decline further due to the pandemic, from already low levels. Many companies need existing access to capital (both savings and access to lending) to survive during the pandemic, so less financing is available for investment. At the same time, in several sectors longer-term earning expectations have been revised downwards, especially in extractives (mining and oil and gas), also reducing investment (Addison et al., 2020).

Many LDCs have experienced delayed or reduced FDI, driven by the COVID-19 shock (see section G.). Portfolio flows to Africa are also expected to decline by more than 50 percent, due to the global recession and more risk aversion by investors (AfDB, 2020).

While resources of firms have been depleted and access to capital reduced through the recession caused by the pandemic, increased investment that is aligned with the SDGs is crucial for building back better. Thus, measures that have been proposed to support the LDCs before the crisis, especially the dedicated investment promotion regime need to be urgently implemented, as discussed in section G.

## E.3 FISCAL DEFICITS INCREASING

### Decline in revenue from different sources

Before the pandemic the median tax-to-GDP ratio in LDCs increased very slowly, from 13.3 in 2011 to 16.2 in 2018, well below the level of higher income countries, and insufficient to meet the SDGs. These low ratios are due to their economic structures, high poverty rates, weak tax administration and the nature of their tax systems. In several LDCs the rate was lower than 10 percent. LDCs rely predominantly on taxes on goods and services followed by income taxes, with low (and often falling) shares of corporate taxation and very limited property taxes. Most of the increase in taxes came from taxes on goods and services, including the introduction of value added tax (VAT) in several LDCs, which generally has a regressive effect as the poor spend a larger share of their income on consumption. However, challenges, such as the handling of VAT credits and the management of VAT registrations, as well as possible regressive effects, remained. In addition,

tax administration capacity in LDCs is relatively low, with a much lower proportion of staffing compared to high-income countries and the collection of tax revenue is challenging due to a large informal economy (UN-OHRLLS, 2017; UN, 2020a and 2020b).

Another challenge for LDCs is the role of international tax agreements, financial secrecy jurisdictions and tax havens in facilitating tax evasion and illicit tax avoidance that involves wealth transfers across borders. Resource extraction is often under-taxed and multilaterals investing in LDCs use tax avoidance strategies that exploit gaps and mismatches in tax rules to artificially shift profits to low- or no-tax locations (UN-OHRLLS, 2017).

The effects of COVID-19 are expected to lead to a significant decline in government revenue in most LDCs. Government revenues in Sub-Saharan Africa are projected to be on average 2.3 percentage points of GDP below pre-COVID-19 projections, with oil exporters and tourism dependent countries hit particularly hard, for example Mozambique with a decline of 5.27 percentage points. Also, for Asian LDCs government revenue is expected to decline from Myanmar (1.34 points) and Bangladesh (1.57 points) to Yemen (2.79 points), Lao People's Democratic Republic (3.53 points), Cambodia (4.62 points) and Nepal (5.60 points). As customs duties are a major component of tax revenue in many LDCs, with a median share of 14 percent in 2018<sup>38</sup>, the decline in exports is affecting them disproportionately. However, there are also a few LDCs (Burkina Faso, Chad, Haiti, Niger, and Senegal where real revenues are projected to increase, mainly because of grants (IMF, 2020a and 2020d).

It is expected that tax revenue will not only decline in absolute numbers but that the tax to GDP ratio will further decline in LDCs as the reduction in domestic tax and non-tax revenues will be larger than the decline in GDP, which is a general pattern during recessions in low-income countries. In addition, public revenues will decline as governments reduce taxes in order to stimulate the economy and as physical tax collection becomes more difficult during the pandemic (OECD, 2020a).

### Increase in expenditure

In many LDCs the initial response to the health effects of COVID-19 included increased spending for health care, improving testing infrastructure and enforcing containment measures. In order to support both the population and businesses affected by the pandemic governments need to

<sup>37</sup> OHRLLS calculation based on WDI data.

<sup>38</sup> According to OHRLLS calculations based on WDI data.

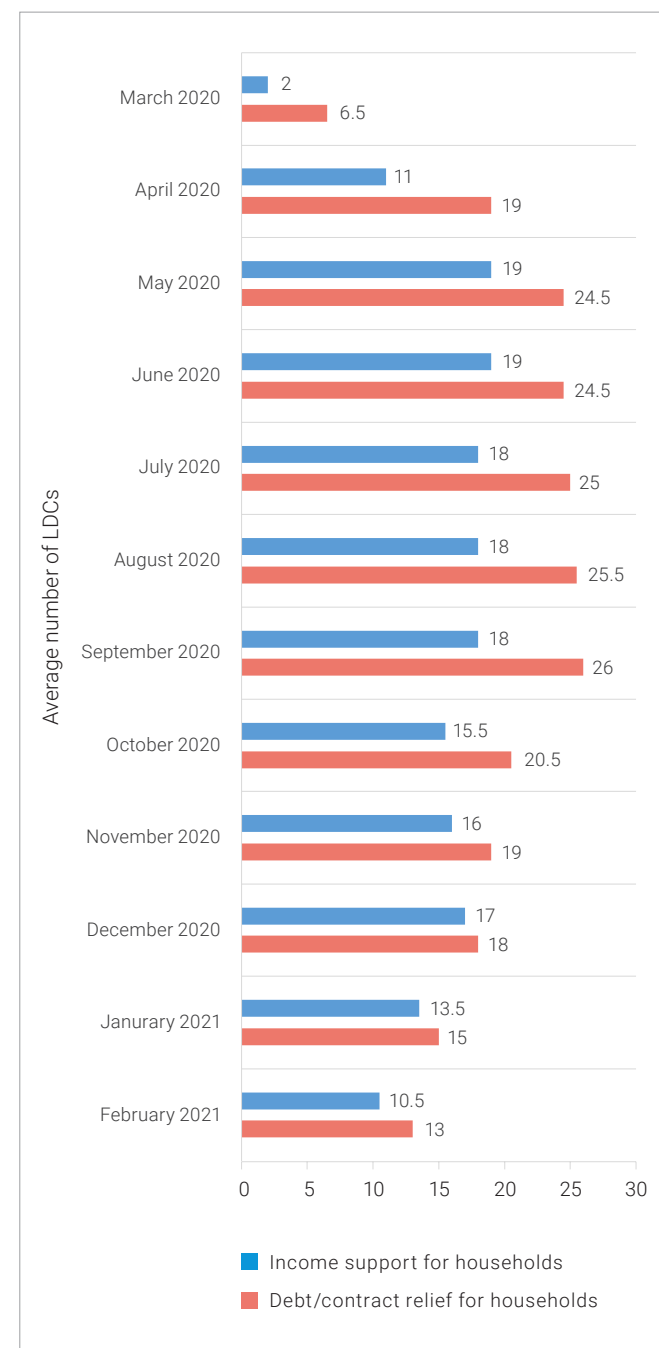
increase spending for social protection and business support but this is putting additional fiscal pressure on LDC governments (World Bank, 2020a). Only a few LDCs still have considerable fiscal space. For example, Timor-Leste used its Petroleum Fund to approve a health response and economic stimulus package equal to 9 percent of GDP (ADB, 2020a).

According to the Oxford Covid-19 Government Response Tracker (OxCGRT) the Central African Republic was the first LDC to implement income support measures of limited coverage as of 14 March 2020.<sup>39</sup> This was followed by Mauritania (25 March), Solomon Islands (27 March) and Nepal (30 March). In May and June, the number of LDCs providing income support had risen to 19 (out of 43 LDCs for which information was collected). However, from July several LDCs started phasing out support measures. A few LDCs started new payments in the Fall, but others continued to phase out measures. By February 2021 around 11 LDCs on average provided some income support measures to households (Figure E.3).

Contract relief for households started even earlier with the Democratic Republic of the Congo providing relief as of 1 March followed by Rwanda and Sierra Leone (both 18 March), Bangladesh (19 March), Haiti and Uganda (22 March). By May an average of 25 LDCs provided contract relief (out of the 43 LDCs with available information) and by September the average number had reached its peak at 26 LDCs according to the OxCGRT.<sup>40</sup> By February 2021 only 13 LDCs on average provided contract relief to households (Figure E.3).

The size of announced fiscal packages in most LDCs is much lower than in other developing countries as many governments face fiscal constraints in their ability to mitigate the impact of the crisis through greater spending, due to deteriorating financial conditions and vanishing fiscal space. LDCs collectively only managed to increase direct and indirect fiscal support by 2.6 percent of their GDP (which amounted to only US\$17 per capita), while the size of the stimulus for the developed countries averaged 15.8 percent of their GDP (almost US\$10,000 per capita). This challenge of LDCs to respond to COVID-19 with large fiscal responses will likely see their long-term growth and development path adjust downwards relative to the pre-crisis trends and will derail further the objective of reducing inequality between countries (UN DESA, 2021).

**Figure E.3: Average number of LDCs providing support to households**



Source: Hale et al. (2021).

In many LDCs the increased spending is coming in part at the cost of current and capital spending in other areas. The West African Economic and Monetary Union, which includes Benin, Burkina Faso, Guinea-Bissau, Mali, Niger and Togo, has provided additional space by temporarily suspending convergence criteria to allow greater flexibility of policy responses for member countries (AfDB, 2020; IMF, 2020a and 2020b).

According to the IMF Database of Country Fiscal Measures in Response to the COVID-19 Pandemic (with information as of end 2020) additional spending or foregone revenues due to COVID-19 in the areas of health care as well as social and economic measures varies widely among LDCs, with a few reporting more than 5 percent of GDP (Guinea-Bissau, Chad, Rwanda, Kiribati, Tuvalu, Lesotho, and Timor Leste), while 11 LDCs reported less than 1 percent of GDP (Table E.1). In addition to increased health expenditure, measures include expansion of social assistance programmes, including food distribution, support for private sector entities (wage support, interest subsidies), subsidies to the agricultural sector, tax rebates and exemptions.

Some LDCs also provided liquidity support, with Cambodia providing 2.3 percent of GDP, while Chad Guinea Bissau, Benin, Nepal, Lesotho, Niger, and South Sudan provided between 1 and 2 percent of GDP (Table E.1). Tax administrations have adjusted or simplified procedures for companies, including extended payment deadlines and temporary reductions in penalties or interest for outstanding arrears. In a few countries outstanding debts have been waived. For example, in Ethiopia debts from before 2015 have been written off and penalties and interest on outstanding taxes between 2015 and 2018 have been waived. Such waivers provide an incentive to self-disclose and thus could enhance tax compliance and revenue in the future (Granger et al., 2020).

Some LDCs are using measures that are supposed to address immediate financing needs of firms but would be revenue neutral in the longer term, including accelerated payment of invoices (Chad, Sierra Leone) and temporary deferment of the payment of taxes or social security contributions until a future date (Chad, Sierra Leone, Togo, Uganda) (IMF, 2020a).

### Fiscal deficit

Fiscal deficits in LDCs have been widening before COVID-19 resulting in limited fiscal space. Thus, many LDCs entered the current crisis with significantly less fiscal space than it had at the beginning of the global financial crisis a decade earlier (UN-OHRLLS, 2017 and IMF, 2020a).

Due to COVID-19 fiscal deficits in most LDCs are expected to increase. On average for LDCs they are projected to increase by almost 2 percentage points of GDP from 3.4 percent in 2019 to 5.3 percent in 2020. The largest deficits of more than 8 percent are expected in Burundi, Guinea-Bissau, Kiribati, Malawi, Timor-Leste, Tuvalu and Yemen. In several LDCs, the fiscal deficit as a share of GDP is projected to increase dramatically, for example by 28 percentage points in Kiribati, 12 points in Vanuatu, 9 points in Togo and 7 points in Mozambique due to COVID-19 related expenditures (see Table E.2). Some countries are also trying to contain fiscal deficits. For example, Angola increased several taxes in July to offset pandemic-related tax relief measures leading to a deficit of less than 3 percent of GDP. Angola was also among the first LDCs to discontinue support measures. Bangladesh used off-budget measures and reduced capital spending to contain the deficit, which only increased by 1.4 percentage points in 2020. The average fiscal deficit for LDCs is projected to narrow slightly in 2021 assuming growth recovers and anti-crisis measures are scaled down as projected (IMF, 2020a and 2020d).

Many LDCs have financed growing fiscal deficits through concessional finance and in some cases increasing external debt but in several LDCs governments domestic borrowing also rose sharply (ADB, 2020a).

<sup>39</sup> The database records income support if the government is covering the salaries or providing direct cash payments, universal basic income, or similar, of people who lose their jobs or cannot work. (Includes payments to firms if explicitly linked to payroll/ salaries). See Hale et al. (2021).

<sup>40</sup> The database records contract relief if a government is freezing financial obligations (e.g. stopping loan repayments, preventing services like water from stopping, or banning evictions).

## E.4 CONCLUSIONS AND RECOMMENDATIONS

The initial economic conditions of LDCs have a large impact on their economic resilience. This includes their economic structure, fiscal space, level of debt and the robustness of external buffers. Countries that are commodity dependent or have large fiscal and current account deficits, high debt levels and low external reserves are likely to be the least resilient (AfDB, 2020).

Growth that relies more on domestic demand than on often concentrated exports (both in few products and markets) would be more resilient but the necessary transformation will take time and considerable policy effort. The vulnerability of LDCs, with often small size, remoteness, and high vulnerability to natural disasters make it exceptionally difficult to reorient away from tourism, commodities, and remittances (IMF, 2020c).

The fundamental constraints of LDCs already forced them to dedicate scarce resources to address vulnerabilities in their macroeconomic fundamentals after the economic and financial crisis of 2008. This crisis had not only resulted in reduced growth but also altered their development path through changes in strategic investment and development plans due to more stringent credit conditions, reduced Official Development Assistance (ODA) and decreasing revenue, features that are already reappearing in the current crisis (UN-OHRLLS, 2018).

Due to the nature of the COVID-19 crisis, the associated loss of growth and investment as well as deterioration of a country's external position and debt position depend not only on the conventional macroeconomic policy instruments but crucially on the effectiveness of public health measures as well as economic and social support to households and enterprises. Furthermore, success in managing the pandemic includes management of expectations, which requires effective communication through various means, including reaching the poorest and most disadvantaged communities (Addison et al., 2020).

The phasing out of fiscal and monetary policy interventions will need to be carefully calibrated, maintaining a balance between reducing support too early, which could lead to additional suffering by the most affected people or business failures with long-term effects on the economy, or maintaining interventions for too long, which could create risks for fiscal, macroeconomic and financial stability. As uncertainties remain high exit strategies need to be flexible but also coherent and credible (AfDB, 2020).

Fiscal and monetary measures in LDCs should channel liquidity to SMEs, households, and informal workers, in order to deal with the effects of COVID-19 and boost fiscal multipliers to lay the foundation for a successful recovery. It is crucial to support individuals and firms to resume their activities and repair the damage sustained during the pandemic (OECD, 2020a).

The pandemic could also present an opportunity to further reform the tax system to make it more equitable and enhance its effectiveness due to the notion that this unprecedented crisis requires bold measures. There is evidence that introducing new taxes is less difficult at a time of major policy reforms, as it allows for the impacts of a wide range of policy measures to be balanced. There is also widespread agreement that increased public expenditures to protect the vulnerable and build resilience against future shocks is needed, which could enhance a sense of solidarity, including larger contributions to government revenue for those who are able to pay. It could also give a boost to reforms of domestic revenue mobilization efforts, including broadening of the tax base and enhancing compliance that are under way in many LDCs. Digitizing tax systems can also contribute towards improving tax collection and transparency of public financial management. To compensate for higher spending and lower revenues during the crisis the tax to GDP ratio, which is very low in most LDCs, needs to increase in the medium term. Likewise, an increased use of property taxes and taxes intended to improve health, such as on tobacco, should be considered (Granger et al., 2020; OECD, 2020b and UN, 2020c).

While many companies are negatively affected by COVID-19 there are also some that have received windfalls due to increasing prices (for example for gold) or increased demand, like IT services. These firms could contribute more to tax revenue through temporary increases to the rate of corporate income tax. Countries could also introduce a solidarity tax for individuals with high income or wealth as income and property taxes are under-utilized in many LDCs (Granger et al., 2020).

Another area to increase domestic resource mobilization are the reduction of subsidies and incentives. For example, due to the historically low oil prices fuel or energy subsidies could be reduced to free resources for social spending as they are often benefitting the rich more than the poor. This would at the same time contribute towards fostering a greener economy (Granger et al., 2020).

In addition to efforts by the LDCs themselves, they need support to enhance their tax systems, including through capacity building and training. Transparency, including the monitoring of domestic revenues, aid, and the spending of both, will be critical. Support needs to be better coordinated and also include equipment, especially modern IT systems. International tax cooperation has improved recently but needs to focus more on LDCs (UN-OHRLLS, 2017 and Gaspar et al., 2020).

Further work will also be needed with respect to international cooperation in combating corporate tax avoidance to ensure that low income and low capacity countries, such as LDCs, are able to effectively tax cross-border activity and offshore assets. Currently only 8 LDCs are part of the Multilateral Convention on Mutual Administrative Assistance. This will not only require financial support, including assistance to build digitalized tax systems as well as capacity in developing analytical and interpretative skills to be able to act on information from the country-by-country reporting of the Base Erosion and Profit Shifting (BEPS) Package, but more significantly a review of international standards and instruments may be needed. It is essential to ensure wide and more inclusive participation of developing countries, including LDCs, in international discussions on tax norms. (OECD, 2020b and UN, 2020b and 2021).

Due their limited fiscal space LDCs will face difficult choices in upcoming budgets as most government planning efforts will require considerable revision. Due to the increase in poverty and the need to enhance basic services for health, education, water, and sanitation etc. as well as social protection, there will be a need to reduce spending in other areas. Thus, prioritization of expenditures, especially investments, needs to be done in line with meeting long term development goals including the SDGs, with a focus on addressing inequality, including gender inequality. Spending for crucial sectors that contribute to resilience and wellbeing of the most disadvantaged groups needs to be ringfenced. In addition, stimulus packages need to be well timed and contribute towards restoring fiscal sustainability. Incentives should be targeted towards investments that strengthen resilience, generate decent employment, and prioritize SMEs (Gaspar et al., 2020; OECD, 2020b and UN, 2020c; IMF, 2020d).

In addition, LDCs need continued and increasing access to financial resources to be able to protect their people and economies from the worst effects of COVID-19 and to ease adjustments and maintain confidence in currencies. While some liquidity has been provided quickly by international organisations there is a need to replenish resources, enhance debt relief and expand Special Drawing Rights (SDRs) (Addison et al., 2020). This is further discussed in section G.



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Table E.1. Summary of Country Fiscal Measures in Response to the COVID-19 Pandemic

	ABOVE THE LINE MEASURES			LIQUIDITY SUPPORT		
	Additional spending or foregone revenues			Subtotal	Below the line measures: equity injections, loans, asset purchase or debt assumptions.	Contingent liabilities: Guarantees and Quasi-fiscal operations
	Subtotal	Health sector	Non-health sector			
Afghanistan	2.9	0.4	2.5			
Angola	0.5					
Bangladesh	1.3	0.1	1.2			
Benin	2.6	1.4	1.2	1.6	0.7	0.9
Bhutan						
Burkina Faso	4.3	1.9	2.4			
Burundi	4.9	1.9	3.0			
Cambodia	2.6	0.4	2.2	2.3		2.3
Central African Republic	1.2	0.7	0.4			
Chad	5.7	0.7	5.0	1.8	1.8	
Comoros	2.8	2.0	0.9			
Congo, Dem.Rep.	1.1	0.2	0.9			
Djibouti	2.4	0.8	1.6			
Eritrea						
Ethiopia	1.5	0.5	1.0	0.6	0.6	
Gambia, The	2.9	0.8	2.1			
Guinea	1.8	0.8	1.0	0.1		0.1
Guinea-Bissau	5.2	4.3	0.8	1.8	1.8	
Haiti	1.3	1.0	0.2			
Kiribati	9.6	3.5	6.0			
Lao PDR	0.0	0.0	0.0			
Lesotho	10.2	2.0	8.2	1.3		1.3
Liberia	2.1	2.0	0.1			
Madagascar	1.5	0.8	0.7			
Malawi	0.6	0.4	0.2			
Mali	2.2	0.4	1.9			0.0
Mauritania	4.9	0.6	4.3			
Mozambique	4.8	0.8	4.0			
Myanmar	0.9	0.2	0.7	0.3	0.3	
Nepal	1.8	1.3	0.5	1.4	1.4	
Niger	0.8	0.3	0.4	1.3	0.6	0.6
Rwanda	6.3					0.0
São Tomé and Príncipe	3.1	1.5	1.6			
Senegal	3.2	0.6	2.6	0.5		0.5
Sierra Leone	3.3	1.0	2.3			
Solomon Islands	2.9	1.2	1.7	0.7	0.7	
Somalia	0.1	0.2	-0.1			
South Sudan	0.2	0.1	0.1	1.2	1.2	
Sudan	0.9	0.5	0.5			
Tanzania, United Republic of	0.0	0.0	0.0			
Timor-Leste	13.0					
Togo	2.9	1.6	1.3			
Tuvalu	9.9	0.0	9.9			
Uganda	0.6	0.3	0.3	0.4	0.4	
Vanuatu	4.6	0.0	4.6	0.7	0.7	
Yemen	0.5	0.1	0.4			
Zambia	2.1	0.3	1.8	0.3	0.3	

Source: IMF (2021)

Note: Estimates as of end-December 2020. Implementation of the measures could span across 2020, 2021, or beyond. Numbers in U.S. dollar and percent of GDP are based on January 2021 World Economic Outlook Update.

**Table E.2:** General government net lending/borrowing (percent of GDP)

	GENERAL GOVERNMENT NET LENDING/BORROWING (% OF GDP)										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Africa</b>											
Angola	3.40	8.08	4.13	-0.30	-5.72	-2.92	-4.52	-6.30	2.19	0.79	-2.81
Benin	-0.28	-0.98	-0.22	-1.37	-1.65	-5.55	-4.29	-4.20	-2.98	-0.54	-3.74
Burkina Faso	-4.06	-2.04	-2.76	-3.55	-1.74	-2.09	-3.09	-6.88	-4.36	-3.47	-6.09
Burundi	-3.64	-3.49	-3.79	-1.81	-3.75	-7.21	-6.78	-4.77	-6.76	-8.26	-9.52
Central African Republic	-1.35	-2.14	0.35	-5.94	-3.94	-0.59	1.07	-1.06	-0.97	1.43	-2.29
Chad	-4.15	2.39	0.47	-2.07	-4.18	-4.38	-1.94	-0.23	1.94	-0.17	-0.64
Comoros	4.20	0.86	1.96	10.49	-0.33	2.60	-4.48	0.35	-1.04	-2.20	-3.90
Congo, Dem. Rep.	-1.00	-0.99	1.75	1.87	-0.02	-0.41	-0.50	1.36	-0.05	-2.05	-1.90
Djibouti	-1.05	-1.19	-2.04	-4.25	-6.88	-15.42	-8.31	-4.53	-2.78	-0.85	-1.52
Eritrea	-17.69	-6.00	-5.59	-8.02	-0.36	-3.14	-1.66	-6.04	4.21	-1.61	-5.16
Ethiopia	-1.32	-1.61	-1.17	-1.93	-2.58	-1.95	-2.34	-3.24	-3.03	-2.53	-3.55
Gambia, The	-2.93	-3.01	-2.82	-5.56	-3.94	-5.38	-6.40	-4.98	-6.06	-2.53	-3.78
Guinea	-9.66	-0.94	-2.51	-3.87	-3.21	-6.89	-0.15	-2.06	-1.06	-0.47	-3.71
Guinea-Bissau	-0.23	-1.35	-2.12	-1.67	-2.44	-3.16	-5.34	-1.32	-4.92	-4.61	-8.27
Lesotho	-8.24	-14.70	-1.54	-2.87	3.07	-1.27	-8.56	-1.84	-4.17	-5.60	-7.31
Liberia	1.14	-4.32	-2.81	-5.96	-3.12	-4.40	-3.74	-4.79	-5.10	-4.55	-3.54
Madagascar	-0.76	-2.04	-2.24	-3.40	-1.96	-2.85	-1.11	-2.10	-1.33	-1.42	-5.52
Malawi	1.83	-4.12	-1.77	-6.43	-4.84	-6.34	-7.28	-7.33	-5.50	-6.36	-9.19
Mali	-2.57	-3.42	-0.96	-2.37	-2.89	-1.82	-3.94	-2.86	-4.77	-1.68	-6.20
Mauritania	-0.45	0.07	1.67	-0.66	-2.64	-2.44	0.13	0.53	3.42	2.75	-3.28
Mozambique	-3.50	-4.41	-3.62	-2.59	-10.26	-6.66	-5.48	-2.92	-6.85	-0.15	-7.06
Niger	-0.98	-2.19	-0.83	-1.93	-6.11	-6.75	-4.46	-4.12	-3.00	-3.56	-4.82
Rwanda	-0.64	-0.86	-2.37	-1.26	-3.90	-2.67	-2.26	-2.52	-2.58	-5.19	-7.72
Sao Tome and Principe											
Senegal	-3.91	-4.90	-4.15	-4.33	-3.39	-3.66	-3.27	-2.97	-3.64	-3.83	-6.23
Sierra Leone	-5.00	-4.54	-5.16	-2.39	-3.61	-4.55	-8.46	-8.78	-5.59	-2.74	-6.37
Somalia											
South Sudan		4.61	-14.81	-3.47	-9.08	-17.05	-15.10	3.26	6.32	0.34	-1.89
Sudan	0.11	-2.33	-7.37	-5.76	-4.72	-3.82	-4.56	-6.45	-7.92	-10.89	-6.83
Tanzania, United Republic of	-4.70	-3.51	-4.06	-3.81	-2.91	-3.17	-2.08	-1.16	-1.93	-1.72	-1.86
Togo	-2.30	-6.27	-6.48	-5.20	-6.85	-8.83	-9.54	-0.28	-0.78	2.13	-7.12
Uganda	-4.65	-2.04	-2.39	-3.19	-2.74	-2.55	-3.56	-2.75	-2.74	-5.02	-6.55
Zambia	-2.43	-1.78	-2.83	-6.21	-5.80	-9.54	-6.10	-7.59	-8.43	-8.14	-6.00
<b>Average, Africa</b>	<b>-1.11</b>	<b>0.26</b>	<b>0.26</b>	<b>-2.44</b>	<b>-4.13</b>	<b>-3.81</b>	<b>-3.52</b>	<b>-3.77</b>	<b>-2.15</b>	<b>-2.57</b>	<b>-4.23</b>
<b>Asia and the Pacific</b>											
Afghanistan	0.92	-0.67	0.18	-0.63	-1.72	-1.38	0.13	-0.67	1.63	-1.06	-2.79
Bangladesh	-2.68	-3.59	-2.98	-3.38	-3.08	-3.98	-3.36	-3.34	-4.64	-5.36	-6.80
Bhutan	7.91	-1.76	-2.47	-5.93	2.94	-0.20	-1.93	-4.79	-2.58	-1.15	-5.46
Cambodia	-3.80	-4.70	-4.53	-2.62	-1.64	-0.65	-0.30	-0.78	0.68	3.21	-2.40
Kiribati	-8.26	-19.33	-6.32	12.39	38.76	47.38	23.16	40.38	-1.68	15.02	-13.24
Lao People's Dem. Rep.	-1.47	-1.43	-2.34	-4.03	-3.13	-5.57	-5.06	-5.49	-4.66	-5.02	-6.42
Myanmar	-4.96	-4.43	-2.65	-1.72	-1.32	-2.78	-3.87	-2.86	-3.40	-3.92	-6.02
Nepal	-0.77	-0.82	-1.34	1.81	1.53	0.66	1.35	-3.09	-6.65	-4.56	-7.93
Solomon Islands	5.03	7.47	3.27	3.64	1.84	-0.01	-4.17	-3.44	0.85	-1.66	-5.59
Timor-Leste	-19.79	-25.08	-39.12	-14.37	-37.53	-33.06	-55.19	-33.38	-28.08	-32.08	-17.52
Tuvalu	-24.12	-9.13	10.02	29.30	-6.14	15.32	28.21	3.21	32.04	-8.60	-12.30
Vanuatu	-2.52	-2.13	-1.63	-0.23	-3.48	-9.31	-3.94	-1.20	7.67	4.64	-7.62
Yemen	-4.06	-4.51	-6.32	-6.90	-4.14	-8.75	-8.53	-4.91	-7.85	-5.32	-9.21
<b>Average, Asia and the Pacific</b>	<b>-2.86</b>	<b>-3.50</b>	<b>-3.15</b>	<b>-3.03</b>	<b>-2.56</b>	<b>-3.89</b>	<b>-3.54</b>	<b>-3.29</b>	<b>-4.24</b>	<b>-4.50</b>	<b>-6.51</b>
<b>Latin America and the Caribbean</b>											
Haiti	-2.68	-2.47	-4.71	-7.01	-6.28	-2.50	0.03	0.04	-1.72	-2.28	-5.87
<b>Average, all LDCs</b>	<b>-1.76</b>	<b>-1.11</b>	<b>-1.96</b>	<b>-2.70</b>	<b>-3.57</b>	<b>-3.83</b>	<b>-3.50</b>	<b>-3.53</b>	<b>-3.06</b>	<b>-3.44</b>	<b>-5.32</b>

Source: IMF (2020f)

## F. THE ROLE OF SCIENCE, TECHNOLOGY AND INNOVATION (STI) DURING A PANDEMIC: HOW CAN STI HELP TO BUILD BACK BETTER

The important role of Science, Technology and Innovation (STI) for development is recognized in a plethora of reports and international agreements. In 2001, the Human Development Report stressed that “technologies are tools of human development that enable people to increase their incomes, live longer, be healthier, enjoy a better standard of living, participate more in their communities and lead more creative lives” (UNDP, 2001). In the SDGs, specific aspects on STI were included in the Means of Implementation and Global Partnership section, including specific STI targets in SDG 17.6 to 17.8.

The COVID-19 pandemic has highlighted the central role of STI and digitalization: from prevention and treatment of the health crisis to new and innovative ways of learning, working, communicating and the growing importance of e-Commerce and digital finance.

The section highlights key STI challenges that LDCs were facing prior to the COVID-19 pandemic and highlights the increasing role played by STI during the pandemic, including teleworking, e-education, telemedicine and digital finance.

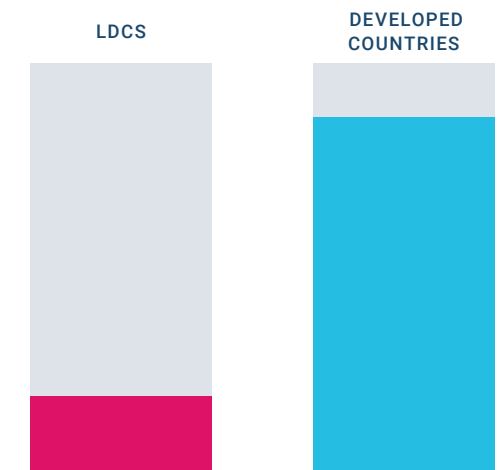
### F.1 STI CHALLENGES IN LDCs<sup>41</sup>

LDCs are often unable to benefit from the economic and social benefits related to technological development. One of the causes for this can be found in structural limitations, as there are marked gaps between LDCs and other countries in the area of STI. Traditional development approaches based on the trickle-down assumption that increasing imports of capital goods and direct foreign investment would lead, through the diffusion of technology and innovation, to development gains, does not happen to the extent expected. Low levels of investment in research and development, low enrolment rates in higher education and thus a limited supply of skilled labor, and inadequate or unstable policy and regulatory environments capable of promoting progress, all play a role in the poor state of science, technology and innovation in LDCs.

While data on STI indicators in LDCs are scarce, those LDCs with data show a significant lag in major indicators relating to STI. The ratio of research and development expenditure



**In general, access to the internet remains a key challenge that hampers adoption of STI in LDCs**



**Most of the offline population live in LDCs, where only 19% use the internet, compared with 87% in developed countries**

<sup>41</sup> See also Chibuye and Zampetti, 2019

as a share of GDP (WDI, World Bank)<sup>42</sup> was 0.6 percent or less between 2011 and 2017, compared to more advanced economies, which were allocating approximately 2 percent of their much larger GDP towards research and development. This presents a key hurdle to building competitiveness and capacity to absorb and adapt to existing state-of-the-art technologies. Since research and development drives both imitation and invention, data on this indicator captures important dimensions of the process of innovation. It facilitates advances at the technological frontier and enables catch-up through absorptive capacity (Cirera and Maloney, 2017). Countries that have managed to sustain catch-up growth have done so by increasing the level of expenditure on research and development and related innovation capabilities (Lee and Kim, 2009; Lee and Mathews, 2013).

The importance of increased investment in research and development has been highlighted by COVID-19. More investment is needed in technological and broadband infrastructure as well as in capacity-building to adapt to existing technologies. The lack of high-speed connectivity in LDCs poses a major challenge. Inadequate connectivity prevents access to the most promising broadband applications for education, health, finance, and other sectors, as well as to global and regional knowledge networks. Most LDCs face great difficulties in making broadband internet access available and affordable for all (AUC and OECD, 2021). In the context of the pandemic, investment was needed in the pharmaceutical industry and technologies such as AI, which can assist in developing drugs and vaccines and in managing related services and resources (UN, 2020).

In general, access to the internet remains a key challenge that hampers adoption of STI in LDCs. Most of the offline population live in LDCs, where only 19 percent use the internet, compared with 87 percent in developed countries (State of Broadband Report, 2020). Some key reasons for this large gap are the cost of using the internet and the lack of necessary skills.

The COVID-19 pandemic has underscored the pressing need for countries to elevate STI in both policy and practical terms. There is need for more research, collaboration, data, and knowledge sharing to cope with the immediate impacts of the coronavirus crisis and the subsequent economic crisis (UNCTAD, 2020b). The world has witnessed unprecedented openness and collaboration in science. The EU mobilized research and innovation to tackle the crisis and within just three months of working together, established closer coordination of actions taken by the Member States and the European

Commission, joining forces in providing financial support, creating new funding opportunities, refocusing existing projects, sharing data, setting mechanisms to match great ideas with market opportunities and much more (European Union, 2020).

Patent indicators offer a useful measure to characterize the STI environment where both firms and researchers operate and also provide a more standardized measure of a particular type of knowledge output (Cirera and Maloney, 2017). In order to create adequate incentives for private sector technological innovations that drive economic growth, governments need to create an effective and targeted regulatory environment that promotes innovation. Governments can encourage registration of intellectual property by streamlining application procedures, reducing the cost of registration and adapting enforcement mechanisms (AUC and OECD, 2021). However, technological change, especially in LDCs, is not only about innovating at the frontier, but also about adapting existing products and processes to achieve higher levels of productivity as applicable to their local contexts. Connecting local technological needs to international technological opportunities is a particular challenge for many developing countries, especially LDCs (Bordoff, et al., 2006, Chibuye and Zampetti, 2018). Citizens of LDCs, comprising both residents and non-residents, filed only 1,536 patents in 2018, compared with 960 in 2011 (WDI, World Bank).<sup>43</sup> As a share of global figures, that number is almost zero.

Even after patenting, it can be challenging in many LDCs to scale their efforts due to lack of funding. For example, during the COVID-19 pandemic, an 18-year-old natural science student in Ethiopia developed 30 separate COVID-19 related inventions, including low-cost ventilators, warning devices that prompt people against touching their faces and a contactless electrical soap dispenser. Thirteen of these inventions have now been patented but a lack of funding is hampering scaling efforts. In his community Welkite, a rural town 160 kilometers from the Ethiopian capital Addis Ababa, a local university has produced 50 of his dispensers and distributed them to various public places including hospitals (Gakpo, 2020).

As the new technologies require skilled workers, another important indicator for ease of STI enhancement is availability of relevant skills. Manyika et al., (2017) highlight that in the 19th century, technological changes raised the productivity of lower-skill workers and created new opportunities for them, at times replacing the craftsmanship of higher-skill artisans. However, with the advent of information technology and the internet, the reverse has happened: the productivity of higher-skill workers,

especially those engaged in abstract thinking, or with creative and problem-solving skills, has increased, while the relative demand for lower-skill workers has not.<sup>44</sup> UN DESA (2018) noted that middle-skill jobs have been particularly affected by automation and AI, with wide-ranging distributional effects. Since 1970, the real wages of high-skilled workers have risen faster than those of both medium- and low-skilled workers. Hence, the new wave of automation will extend to many non-routine tasks, putting low and medium skills more at risk than higher ones. While literacy rates increased from 57.6 percent in 2011 to 64.8 percent in 2018 in LDCs, more than 350 million people do not possess basic reading and writing skills (UN-OHRLLS, 2020). Gross enrollment for secondary education increased from 40 to 46.7 percent between 2011 and 2019. Once disaggregated by gender, gross enrollment for secondary education among females increased from 37 percent to 44.8 percent between 2011 and 2019.<sup>45</sup> As argued by authors such as Nelson and Phelps (1966) and Piketty (2014), higher level of education should speed up the process of catching up with technological frontier. A report by UN-OHRLLS and ITU (2018) found that secondary school enrolment has by far the highest explanatory power for internet use. There is clearly a need to improve education and training in LDCs, if they are to compete in the global economy.

Another illustrative way to depict skills development is to estimate the number of publications in peer reviewed journals. Yet again, LDCs lag far behind. The LDCs published only some eleven journal articles for every 1 million people in 2018, a marginal increase from 6 in 2011. In comparison, in the OECD area, about 1,000 scientific and technical journal articles were published for every 1 million people in 2011 and 2018 (WDI, World Bank).<sup>46</sup>

Given the important role of innovation and technologies in economic activity, the LDCs will be left further behind if current trends persist. In order for LDCs to catch-up, they will need to embrace the on-going transformation processes driven by technology, while ensuring that the net effect on the labor market and productivity is positive. This would significantly contribute to eradicating poverty and fostering economic growth in the LDCs (Chibuye and Zampetti, 2019).

While it is possible for LDCs to leapfrog to frontier technologies, there is need to deal with structural constraints, including enabling universal access to electricity and broadband Internet connections (see also section D.). Additionally, attainment of a minimum level of education is required to utilize digital

technologies. This demonstrates that leapfrogging to frontier technologies also requires advances related to achieving other SDGs such as “to ensure healthy lives” (SDG 3), “to ensure inclusive and equitable quality of education” (SDG 4), and “to build resilient infrastructure” (SDG 9). In order to bridge the technology and development divides, national development strategies will therefore need to target both basic infrastructure development and human capital accumulation (UN DESA, 2018). There is need to create an enabling environment that allows for, inter alia, the development of the required infrastructure.

## F.2 THE INCREASING ROLE OF STI DURING COVID-19

The COVID-19 pandemic led to a need for immediate adjustments in society's socio-economic fabric. For the overall impact of COVID-19 on various social sectors, see also section B. on well-being.

### Tele-working

In order to strike a balance between maintaining economic activity and containing a public health-crisis, an important measure taken by governments across the world to contain the spread of COVID-19 was to encourage those who can work from home to do so. As of mid-April 2020, 59 countries had implemented telework for non-essential publicly employed staff (ILO, 2020). And whether in lockdown or not, governments across the world encouraged employers to allow working from home to foster physical distancing.

However, as noted in section B., while this shift was observed among a significant proportion of workers in rich countries, many workers in poorer countries, such as LDCs, were forced to maintain their working routines out of economic necessity. This was especially the case among the self-employed, daily wage labourers and low-skilled workers, largely because the nature of their work required physical proximity to others.

In addition, inadequate access to the internet in LDCs is a significant impediment. Recent research by the World Bank found that globally, one in every 5 jobs can be done from home. However, in poorer countries, only one in every 26 jobs can be done from home (Sanchez et. al., 2020). The authors further argued that COVID-19 is likely to exacerbate inequality, especially in richer countries where better paid and educated workers are insulated from the shock. The overall labor market burden of COVID-19 is bound to be larger in poor countries, where only a small share of workers can work from home and social protection systems are weak or non-existent. Globally,

<sup>42</sup> Available at <https://data.worldbank.org/indicator/GB.XPD.RSDV.GD.ZS>

<sup>43</sup> Available at <https://data.worldbank.org/indicator/IP.PAT.NRES> and, <https://data.worldbank.org/indicator/IP.PAT.RESD>

<sup>44</sup> See also World Economic Forum (2020).

<sup>45</sup> Available at <https://data.worldbank.org/indicator/SE.SEC.ENRR?locations=XL> and <https://data.worldbank.org/indicator/SE.SEC.ENRR.FE?locations=XL>

<sup>46</sup> Data available at <https://data.worldbank.org/indicator/IP.JRN.ARTC.SC> and <https://data.worldbank.org/indicator/SP.POP.TOTL>



young, poorly educated workers and those on temporary contracts are least likely to be able to work from home and more vulnerable to the labor market shocks from COVID-19. Therefore, lack of internet access among the majority of people in LDCs creates another layer of distributional inequality.

### e-education

During the pandemic, several countries deployed various technologies to advance online learning, distance, and remote learning systems. Analogous to tele-working, the demand for remote learning has also exposed a stark digital divide across and within countries. For a more detailed discussion on e-education during the pandemic, see section B.

As noted in section B., prior to the COVID-19 pandemic, many LDCs were facing a learning crisis. With increased utilization of e-education and remote learning platforms that depend heavily on high-speed internet access, learning inequalities are widening—between developed and developing countries and between the rich and the poor in the same country (Sharma, 2020).

In some LDCs, Telecommunication companies launched special data packages to help with online learning. Nepal Telecom launched “Happy Learning Pack” to manage online classes in the country (ITU, 2020a). In Malawi, the College of Medicine and the Telecom Network Malawi plc launched a partnership in which students will be offered 10GB data bundle for online learning and have access to over 10,000 books on Buku Digital Library (ITU, 2020b).

Given the large differences in access to technologies, no single delivery channel for remote learning is sufficient to reach all children and the rural poor are far more likely to be left out by technology-enabled remote learning. A survey by the World Bank (World Bank, 2020a) found that alternative EdTech solutions such as Interactive Radio Instruction (IRI) were deployed in many LDCs including Bangladesh, Nepal, Democratic Republic of the Congo, Ethiopia, Guinea, Lesotho, Madagascar, Malawi, Mali, Nigeria, Somalia, Sudan, the United Republic of Tanzania and Zambia.

### Telemedicine

While many sectors have been affected by the pandemic, the health sector has had a direct hit (see section A.). Telemedicine and e-health alternatives were used by many countries to help control the spread of COVID-19. As found by Whitelaw et al., (2020), countries that have maintained low COVID-19

per-capita mortality rates appear to share strategies that include early surveillance, testing, contact tracing, and strict quarantine. The scale of coordination and data management required for effective implementation of these strategies has, in most successful countries, relied on adopting digital technology and integrating it into policy and health care. As noted by Dizioli et al. (2020), the use of testing to identify and isolate positive cases is even more effective in controlling the epidemic in countries with a higher share of poorer households. They argue that if half of asymptomatic infectious people were identified, deaths would be reduced by almost three-fourths within a year. Poor people benefit the most, with their COVID-19 fatality rate dropping by about three-fourths with improved massive testing, compared to a fall of about half for the more well off.

Whitelaw et al. (2020) further found that the technologies for screening of infections deployed by some rich countries included AI, digital thermometers, mobile phone applications, thermal cameras and web-based toolkits. For contact tracing, global positioning systems, mobile phone applications, real-time monitoring of mobile devices and wearable technology was utilized. Similarly, as digital technology typically requires the use of the internet and mobile phones, digital health initiatives can amplify socioeconomic inequalities and contribute to health-care disparities. In addition, health systems suffer from significant technology underinvestment and weak education systems and digital learning outcomes remain barriers to increasing AI skills and talent (Broadband Commission for Sustainable Development, 2020).

Some LDCs adopted various technologies to help fight the pandemic as indicated in section A. In some instances, companies added hand sanitizers to their production lines. In Uganda, the World Bank-funded Africa Center of Excellence PHARMBIOTRAC (Pharm-Biotechnology and Traditional Medicine) formalized PharmSan and fast-tracked the production of hand sanitizers. The hand sanitizers were in supermarkets and pharmacies in Mbarara town from March 2020 on and were being sold at much lower prices than other similar products on the markets. It has been well received and accepted by the community. From production to market, the entire process takes about 2 weeks, and the team is working rigorously towards optimizing the process further to enhance the quality and quantity while maintaining the low price. Thus, the pandemic has offered an opportunity to build experience in emergency response and to innovate using minimal resources (Gangwar and Bassett, 2020).

In Somalia, the Federal Ministry of Health launched the Coronavirus Information Service on WhatsApp. The new service, which is free-to-use, provides a central source of accurate, trustworthy, and up-to-date information about COVID-19. The Coronavirus Information Service is an automated ‘chatbot’ service which allows Somali people to get answers to the most common questions about COVID-19 from the Somali Ministry of Health, 24 hours a day. Enabling two-way conversations on WhatsApp, the Coronavirus Information Service has been built on the WhatsApp Business API, using Infobip’s global communication platform to enable the sharing of timely and vital information about the virus (ITU, 2020d).

Similarly, both Vodacom Tanzania and the Democratic Republic of the Congo are prioritizing network optimization for areas that need improvement as well as network resilience. Vodacom DRC offers VodaEduc, a zero-rated learning platform. It is providing an SMS broadcast to its entire customer base with information and updates from Government around the pandemic. Furthermore, Vodacom DRC is also offering the government a zero-rated short code that allows the general public to call into specialized Ministry of Health agents to ask about COVID-19 symptoms and guidance. It has also zero rated all government websites and applications that inform the public about the pandemic. Additional data allocations have been provided to SMEs and work from home services have been extended to all Vodacom enterprise customers in the region (ITU, 2020e).

## F.3 DIGITAL FINANCE

As noted by UNCDF (UNCDF, 2020), digital finance has played a direct role in fighting the spread of the pandemic, through for example, reducing cash transactions to encourage social distancing efforts. Mobile financial services have allowed people to continue receiving salaries and wages from their employers, conduct mobile money transfers to families, pay bills and where possible, shop online. While most of these efforts have been predominant in richer countries, some LDCs such as Togo have set up cash grants designed to support informal workers during the three months of state-mandated social distancing—an unconditional cash transfer grant that gives each worker 30 percent of the minimum wage. Citizens sign up via mobile phone, and the transfer is delivered by mobile money.

According to UNCTAD (2020a), digitalization is changing the mindset of customers and the culture of purchasing goods and services offered through digital channels. The trend is powered by investments in e-payment solutions to stimulate a cashless economy. The COVID-19 pandemic has accelerated this trend, particularly in Africa. The most consistent trend in

payment innovations across countries is QR-based payments. Working examples of such payment solutions have been reported in Bangladesh, Bhutan, Cambodia, Nepal, Senegal, Togo, Uganda<sup>47</sup> and Zambia, and recently launched in Lao People’s Democratic Republic. In Uganda, mobile phone provider MTN, made mobile money transfers between customers free for 30 days during the COVID-19 outbreak to limit contagion through the exchange of money. Some LDCs such as Cambodia, Togo, Nepal, Bhutan and Zambia are improving interoperability of digital payment options. They have scaled up national payment infrastructures to support the use of non-cash options—bank accounts, cards and mobile money wallets from different providers. However, greater efforts towards seamless cross-border e-payments are needed. The World Bank (World Bank, 2020b) asserts that putting women at the center of digital payment programs can help countries to mitigate exclusion risks and minimize the impact of COVID-19 on women and girls. A World Bank project in Zambia is helping to increase access to livelihood support for extremely poor women and access to secondary education for disadvantaged girls in extremely poor households.

Despite ongoing efforts, many people in LDCs are left behind as inclusive services, like mobile money, are not prevalent enough and government cash disbursements and other services cannot be accessed virtually. For example, in a cash-based economy like Myanmar where a large majority of the population use prepaid plans for their mobile phone, being able to reload credits by purchasing a physical top-up card is the only way to stay connected. To ensure that daily recharge can be done, thousands of retail shops and distribution points had to stay open. Telenor, Myanmar’s sales and distribution teams across the country, continue to move around to ensure that they are well-stocked with top-up cards for customers (ITU, 2020f).

Even before the COVID-19 pandemic and as noted by the Report of the United Nations Inter-agency Task Force on Financing for Development (2019), by expanding financial breadth and expanding access to financial services, digitally enabled innovation in the financial sector (fintech) has the potential to help reduce (gender) inequality, while also stimulating economic growth. Yet, ever more granular machine learning allows financiers to discriminate more accurately. Individuals may be priced out due to data analysis and the predictability of certain events (e.g., health insurance might not be offered to individuals whose data suggest they are higher risk). This increasing ability to target clients poses new policy challenges in trying to best reconcile equity and

<sup>47</sup> Between 2015 and 2019, mobile money transactions in Uganda more than doubled in value, from about \$9 billion to \$20 billion, according to the country’s central bank.

efficiency considerations. At the same time, there is a growing recognition of the downsides and potential risks of technology adoption, particularly for more vulnerable populations including women and children, who are at risk of cyber stalking, online aggression and hate speech, or internet-enabled child abuse, exploitation, or bullying (State of Broadband Report, 2019).

F.4 CONCLUSIONS AND RECOMMENDATIONS

Digital technologies have great potential to bring economic and social development benefits to LDCs. For that to happen, considerable effort is required to empower and equip Governments and the private sector with the capacity to leverage it. The impact of COVID-19 on the global population demands that we build the world back better, including using STI to help recover from the pandemic and become more resilient to future systemic shocks. Ensuring universal equitable access requires emphasis on digital infrastructure and technologies both during the pandemic response and recovery phases, and during the resiliency-building efforts (Broadband Commission for Sustainable Development, 2020). Extending digital technologies to remote areas, such as connecting the rural-urban supply chains, can be cost-effective and can fight pockets of informality and poverty in rural areas. In addition, 73 percent of people in Africa will continue to live in intermediary cities and rural areas, which means developing broadband infrastructure beyond the ICT hubs, can yield high returns. This would also strengthen rural-urban linkages and drive rural transformation, if intermediate cities serve as transmission hubs (AUC and OECD, 2021).

The COVID-19 pandemic had created a political momentum for accelerating digital transformation with digital as the new paradigm for development. There is a need to invest in digital education and skills development to close the digital divide and increase human capacity so that LDCs will be able to reap the benefits of digital transformation. While digital literacy is a first step, digital fluency and life-long-learning systems will be required, especially in local environments that provided the required knowledge and adaptation possibilities for entrepreneurs.

Similarly, the OECD (2020) calls for a whole-of-government approach, involving multi-sector and multi-partner co-ordination mechanisms. Governments can learn from each other to improve the strategic co-ordination of different policy bodies related to COVID-19 research and innovation. Collective solutions that provide a ‘one-stop shop’ for the centralization of information on funding opportunities can help ensure that appropriate conditions for collaborative research and sharing of preliminary research findings and data are in place to reap their full benefits.

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Box III: The role of South-South cooperation in sustainable recovery in LDCs

From the outset of the pandemic, South-South cooperation has taken a prominent role in strengthening the capacity of LDCs to fight against the pandemic in areas such as mobilizing resources, coordinating policy responses, and promoting peer learning and experience sharing.

LDCs took swift actions to save lives and protect livelihoods and leveraged South-South cooperation to ease the shortage of medical supplies. Bangladesh's vibrant pharmaceutical industry provides access to COVID-19 medicines to millions of people at home and in other developing countries and LDCs. Remdesivir, an antiviral drug used to treat COVID patients, can be produced at a tenth of the originator cost in Bangladesh. According to Export Promotion Bureau data, Bangladesh pharmaceutical exports go to more than 120 countries including 31 LDCs. To buffer the direct hit on its booming garment industry, Bangladesh has successfully repurposed its garment industry to expand production of PPE to meet pent-up demand. (Gay et al., 2020; Vickers et al., 2020).

Policy coordination at the regional and sub-regional levels through South-South cooperation was a contributing factor in LDCs' initial success in containing the spread of the virus. The Africa Medical Supplies Platform (AMSP),<sup>48</sup> launched by the African Union, has ensured equitable and efficient access to critical medical supplies for Member States of the African Union which is home to 33 LDCs. This online procurement system for supplies and equipment unlocks immediate access to an African and global base of vetted manufacturers and procurement partners, and enables African Union Member States to purchase certified medical equipment such as diagnostic kits, PPE and clinical management devices with increased cost effectiveness and transparency. The Caribbean Community and Common Market (CARICOM), which includes Haiti, the only LDC in Latin America, has also joined the platform to access critical medical supplies to fight the COVID-19 pandemic.

As an expression of solidarity, Southern partners have provided assistance to LDCs to lessen the health and economic impacts of the pandemic. China, Cuba, India, Qatar and Turkey sent medical teams, and provided equipment and food aid to

help LDCs strengthen their testing and treatment capacity and ease the shortage of critical supplies at the height of the pandemic. To improve access to vaccines, China and India are also contributing to the supply of vaccines to the most vulnerable countries.

Southern partners have also increased their financial support to LDCs. China pledged US\$2 billion over two years to help developing countries cope with the impact of the pandemic. India proposed a common electronic platform for all South Asian Association for Regional Cooperation (SAARC)<sup>49</sup> nations to share and exchange information, knowledge, expertise and best practices for jointly combating the COVID-19 pandemic. In addition, India pledged US\$10 million for the SAARC COVID-19 Emergency Fund. The fund has so far collected US\$15 million after Nepal, Maldives, Bhutan, Bangladesh and Sri Lanka also came forward with contributions for the initiative. Turkey provided financial assistance to 10 LDCs over US\$1 million (CDP, 2021). Kuwait, United Arab Emirates, Saudi Arabia and Qatar also provided support both directly to LDCs as well as through multilateral channels.

South-South financial cooperation has provided much-needed liquidity support to LDCs and alleviated their financial constraints to address the health crisis and counter the socio-economic fallouts of the pandemic.

Since the outbreak of the pandemic, the southern-based development banks such as the African Development Bank (AfDB), the Islamic Development Bank (IsDB), the New Development Bank of the BRICS (NDB) and the Asian Infrastructure Investment Bank (AIIB) have rolled out lending programmes to assist Member States including many LDCs to fight the pandemic.

AfDB set up a COVID-19 Response Facility worth of US\$10 billion to help African countries deal with the health and socio-economic crisis. AIIB created a COVID-19 Crisis Recovery Facility, offering up to US\$13 billion financing to public and private sector entities in any AIIB member including Asian LDCs facing serious adverse impacts of COVID-19 for 18 months starting from April 2020. The IsDB has announced a comprehensive integrated response package worth up to US\$ 2

<sup>48</sup> The Africa Medical Supplies Platform (AMSP) is developed by the African Union, Africa Centres for Disease Control and Prevention (African CDC) and in partnership with African Export-Import Bank (Afreximbank), United Nations Economic Commission for Africa (ECA) with the support of leading African & international Institutions, Foundations & Corporations as well as Governments of China, Canada & France, and other technology & knowledge partners include Vaya and Baobab Circle. It was launched in July 2020.

<sup>49</sup> The South Asian Association for Regional Cooperation (SAARC) is composed of eight member states: Afghanistan (LDC), Bangladesh (LDC), Bhutan (LDC), India, Maldives, Nepal (LDC), Pakistan and Sri Lanka, with its headquarters in Kathmandu, Nepal.



billion to help countries respond, restore and restart. “The 3Rs” package has delivered immediate action through South-South and North-South operations to strengthen health systems, finance trade and SMES and support economic recovery of IsDB members. The relief package covers LDCs such as Benin (US\$20 million), Burkina Faso (US\$9 million), Chad (US\$ 20 million), Djibouti (US\$7.4 million), Guinea (US\$20 million), Mali (US\$22.5 million), Mauritania (US\$0.9 million), Mozambique (US\$28 million), Senegal (US\$132.8 million), Sierra Leone (US\$10 million), Sudan (US\$35 million), and Uganda (US\$13.8 million).

In the course of building back better, South-South cooperation is taking on more importance for LDCs to mobilize financial resources, increase technology transfer and build resilience against future public health crisis. Regional integration driven by south-south trade can help LDCs to turn the unprecedented challenge into a transformational opportunity to advance green, sustainable and inclusive development.

The AfCFTA<sup>50</sup> can facilitate creation of an environment conducive to establishing regional value chains and champions in pharmaceuticals, which can be leveraged as a springboard for nurturing African multinationals and creating jobs and prosperity (Banga et al., 2020). The AfCFTA will improve access to products essential to respond to COVID-19. “Trade corridors” or “green lanes” expedite and ensure the free flow of essential commodities and are essential to mitigate the impact of the pandemic. Adopting a regional approach to developing these value chains would enable State Parties to use their comparative advantages, attract investment in the necessary infrastructure, and create economies of scale. It would also ensure that State Parties without the capacity to produce these products would be able to access them from within the region. The AfCFTA could accelerate these regional value chains through prioritization and coordination, and through liberalizing key

inputs and service sectors essential to manufacturing critical medical equipment in addition to transport and telecommunications (Signé et al., 2020).

South-South cooperation also plays an important role in improving food security in developing countries through mobilizing Southern expertise, particularly replicable and adaptable innovations and solutions, and technology transfer in agricultural production. The pandemic provides an opportunity for developing countries to share lessons and experiences of food management and beyond and to establish south-south distribution mechanisms that could be activated in response to the kind of emergency conditions currently being experienced (UNCTAD, 2020). Turning more towards regional markets in the South may help generate economies of scale, create employment and foster diversification and production upgrading. By undertaking more high value adding activities within a region, regional value chains offer opportunities to move up the value-added ladder and accelerate transformation (UNCTAD, 2019).

LDCs can tap into the potential of South-South cooperation in developing regional agri-food value chains to efficiently allocate resources, increase production and raise availability of food, thus lowering prices and increase consumption. Various regional and sub-regional communities and free trade arrangements such as COMESA<sup>51</sup>, ECOWAS<sup>52</sup>, AfCFTA, SAARC and ASEAN<sup>53</sup> to name a few have put LDCs in a unique position to develop regional collaboration in food value chains. In addition, to mount effective defense against the current locust plague in some LDCs and other natural calamities threatening food security, LDCs need to boost resilience at the regional and sub-regional levels with coordinated approach. Knowledge and experience sharing, and policy coordination through South-South cooperation is vital.

COVID-19 also presents an opportunity for LDCs to fast-track digital transformation through South-South cooperation, with increasing investment in infrastructure by the southern partners in LDCs in recent years. There is vast scope to increase investment on ICT infrastructure and expand access to internet in households and government operations and business transactions across LDCs. South-South cooperation is a vehicle for LDCs to increase access to digital technology and investment. Finance from the South and cost-effective technologies, as well as training and skills development provided by Southern partners can help LDCs leapfrog digitization.

Moving forward, LDCs can leverage the opportunity presented by COVID-19, and as a group augment South-South cooperation by translating their solidarity into strategic partnership to make inroads in priority areas in order to embark on sustainable and inclusive recovery (Gay et al., 2020). LDCs statement on a global stimulus package in response to COVID-19, and the collective position on request for extension of the transition period provided under Article 66.1 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) are among such coordinated approaches. In preparations for the Fifth UN Conference on the Least Developed Countries,

LDCs can work with their Southern partners to further secure commitment to provide greater market access and additional LDC-specific support measures including support for smooth transition of graduating countries. In the next programme of action for LDCs, the role of South-South cooperation in increasing access to technology including digital technology and renewable energy, and development financing including climate finance can also be strengthened.

<sup>50</sup> The African Continental Free Trade Area (AfCFTA) Agreement entered into force on 30 May 2019. The operational launch of the AfCFTA, originally scheduled for July 2020, is now postponed to 1 January 2021 due to the COVID-19 pandemic. To date, 30 countries have both signed and approved ratification of the AfCFTA Agreement which include 16 LDCs in Africa, namely, Rwanda, Niger, Chad, Guinea, Uganda, Sierra Leone, Mali, Senegal, Togo, Mauritania, Djibouti, Ethiopia, The Gambia, Burkina Faso, São Tomé and Príncipe, Angola. Of the 55 AU member states, Eritrea has yet to sign (TRALAC, 2020).

<sup>51</sup> The Common Market for Eastern and Southern Africa (COMESA) is a free trade area with 21 member states, including 13 LDCs in Africa, namely Djibouti, Eritrea, Ethiopia, Somalia, Sudan, Comoros, Madagascar, Burundi, Malawi, Rwanda, Uganda, Zambia, Democratic Republic of the Congo.

<sup>52</sup> The Economic Community of West African States (ECOWAS), comprising 11 LDCs in West Africa and the Sahel region, namely, Benin, Burkina Faso, The Gambia, Guinea, Guinea Bissau, Liberia, Mali, Niger, Senegal, Sierra Leone and Togo.

<sup>53</sup> The Association of Southeast Asian Nations (ASEAN) consists of 10 member states including three LDCs, Cambodia, Lao People's Democratic Republic and Myanmar.

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G. FINANCING TO ADDRESS THE COVID-19 CRISIS AND PREPARE FOR A SUSTAINABLE RECOVERY

As described in section E., COVID-19 has at the same time led to increased needs for spending to address the health, social and economic crisis as well as sharply reduced domestic revenues due to a decline in economic activity, including a decline in export revenues, further reducing their already limited fiscal space.

At the same time inflows of external finance, which for LDCs play a larger role than for other groups relative to their GDP, especially FDI and remittances, have also declined sharply. In fact, the combined losses of domestic revenue, remittances, FDI and receipts from tourism alone due to the COVID-19 effects are estimated to outpace ODA that LDCs received in 2018. This means that the financing gap to achieve the SDGs has further widened and external financing needs are projected to have more than doubled in 2020 compared to averages in previous years. Thus, LDCs would need support by development partners – both bilateral and multilateral – to avoid an increase in poverty and the destruction of several years of development gains. In addition, they need new measures to address their often high levels of external debt (OECD, 2020d; Hurley et al. 2020 and UN, 2021).

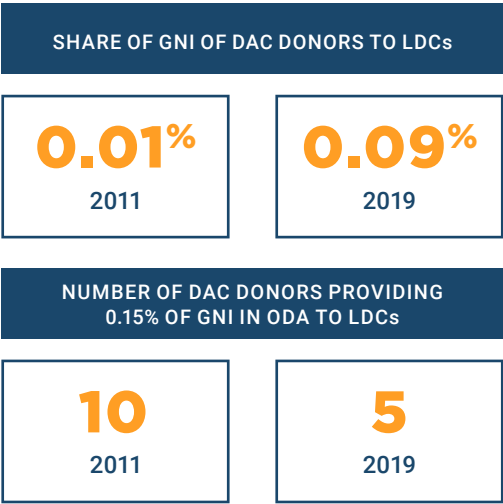
G.1 FDI EXPERIENCED SHARP DECLINES

For many LDCs FDI plays an important role as a source of finance to foster economic growth, help create jobs and reduce poverty levels. It can be an important channel through which the private sector in LDCs can become integrated in global value chains, drive diversification and provide technical know-how. Independent of the COVID-19 crisis, there are policy reasons explaining the relatively limited number of FDI received by LDCs. Poor investment climate conditions and investment promotion capabilities resulting in lower investment competitiveness and the perception of higher political risk as well as lower levels of confidence by investors for FDI in LDCs hamper many LDCs in their ability to attract FDI (G20, 2020a). However, LDCs receive only a small share of global FDI, and the COVID-19 crisis has further reduced global FDI activities in 2020 and exacerbated several of the pre-existing and structural vulnerabilities of LDCs. FDI inflows in LDCs were already on a declining trend since 2015, with a small uptick in 2018.

Overseas Development Assistance slows as needs grow



Fulfillment of ODA commitments decreased



In 2019 FDI declined by 6 percent (to US\$ 21 billion or 1.4 percent of world FDI), driven by shrinking flows to Asian LDCs. However, FDI to the African LDCs increased by 17 percent to US\$ 12 billion. In four of the five largest FDI recipients (Myanmar, Ethiopia, Mozambique and Bangladesh) FDI declined significantly. In Bangladesh for example, FDI inflow fell by 31 percent to US\$ 1.8bn from fiscal year 2019 to fiscal year 2020 (ADB, 2020a). Only in Cambodia FDI increased, stemming partly from reinvested earnings, making it the largest LDC recipient in 2019 (UNCTAD, 2020a).

In January 2021, UNCTAD reported a fall of global FDI of 42 percent in 2020 compared to 2019. FDI flows to developing countries declined by 12 percent, which was less than expected mainly due to resilient investment in China. The decline in FDI flows to Sub-Saharan Africa was 11 percent but higher in some countries like Ethiopia with a decline of 17 percent. Senegal was one of the few countries with an increase in FDI in 2020, due to investments in energy (UNCTAD, 2021).

Furthermore, declines in greenfield and project finance announcements were much higher in developing countries with 46 percent overall (63 percent in Africa), which are crucial for productive capacity and infrastructure development (UNCTAD, 2021). Investor confidence has fallen due to supply and demand shocks, which has resulted in the delay of many greenfield projects and led to fewer cross-border M&A activity. The outlook for FDI to LDCs for 2021 is extremely weak, uncertain and dependent upon the duration of the crisis. In addition, declines in corporate profits drive decreases in reinvested earnings, which accounts for more than 50 percent of FDI globally. However, pre-COVID-19 data suggests that the importance of reinvested earnings in LDCs varies significantly depending on the country. The share of reinvested earnings in FDI was only 5 percent in Lesotho or Niger, but about 37 percent and 33 percent in Mali (UNCTAD, 2020a).

Many LDCs are highly dependent on investment in natural resources, which is being negatively affected by the oil and commodity price shocks and/or the export of other raw materials, which are affected by the slowing demand at the global level. For example, FDI to Mozambique decreased by 27 percent due to the slowdown of implementation of offshore gas projects (UNCTAD, 2020c), despite efforts by the involved companies, together with the Ministry of Health, undertaking preventive measures and implementing health protocols, to make sure the project is well-placed to continue (Total LNG Project Mozambique, 2020). A delay in investment in export-oriented manufacturing like textiles and infrastructure projects is also expected, which will negatively affect

diversification (UNCTAD, 2020a). Those LDCs that have already established economic zones or industrial parks (like Bangladesh, Cambodia, Myanmar, Ethiopia and Senegal) have it easier to recover and continue attracting FDI and serve the global production network (EIF, 2020a). However, many companies will see declines in revenues and profits, leading to delayed investments or cut reinvested earnings and potentially a larger focus on their home markets.

Another source of income and investment is tourism, on which a number of LDCs are highly dependent, and which has also seen a fall of FDI. The OECD expects international tourism to have fallen by around 80 percent in 2020 (OECD, 2020j) and the UN World Tourism Organization (UNWTO) estimates the loss in export revenues from international tourism to be eight times that recorded in 2009 amid the global financial crisis (UNWTO, 2020). Prolonged restrictions on international travel, continued border closures and health protocols are hurting tourism dependent LDCs disproportionately.

Countries have undertaken different steps to facilitate investment despite of the COVID-19 crisis, such as the acceleration of approval procedures, an increased use of online tools, a reduction of fees and an automatic renewal of permits. Benin has used an eRegistration system (MonEntreprise.bj) to ease registration of more than 6,000 businesses via an electronic platform between the start of the lockdown (16 March) and mid-July 2020. Among those were 3 percent of non-Beninese origin (EIF, 2020a). Governments in Bhutan, Lesotho and Mali have also used eRegistration systems with the support of UNCTAD to provide essential support to businesses (UNCTAD, 2020a). In April 2020, Myanmar was quick to adapt a COVID-19 Economic Recovery Plan “Overcoming as One: COVID-19 Economic Recovery Plan (CERP)”, which includes an active investment promotion and facilitation policy. A set of measures such as easing of permits and fast-track approvals and licenses for companies that produce COVID-19 related medical equipment and supplies as well as for investment in labor-intensive and infrastructure projects, are supposed to promote investment from domestic and foreign investors. In addition, the investment application fees were reduced by 50 percent (Government of the Republic of the Union of Myanmar, 2020). Some LDCs have taken new measures to support inward FDI in 2020. For example Ethiopia introduced measures to facilitate logistics in the export and import process (such as free railway transport of manufacturing goods between Ethiopia and Djibouti); removed taxes from the import of raw materials for the production of COVID-19 essential goods and lifted the minimum price for horticulture exports (IMF, 2020a).

Based on the World Bank Global Pulse Survey (September 2020), three in five multinational enterprises (MNEs) report adopting digital technologies such as data science applications, distributed ledgers and the internet of things, to improve their supply chain management, optimize capacity, maintain inventory, and manage logistics. About 14 percent reported shifting production sites closer to consumers (World Bank, 2020c). FDI flows are influenced by strategic decisions of MNEs, which in turn are driven by trends such as increased digitization and the emergence of sustainability and SDG-related incentives that have been accelerated by the COVID-19 pandemic (OECD, 2020d). With value-chains disrupted and the call for more resilient value chains, some MNEs may consider diversifying suppliers and production sites, which could have a long-lasting impact on the global trade and investment landscape, but also create new opportunities for market entrants. While the character of FDI flows beyond 2020 will be influenced by global trends and structural changes in the international production landscape, LDCs and especially their Investment Promotion Agencies can implement strategies and policies that make use of these changes.

In addition, some countries have started to adapt investment promotion strategies that target investment and business activities supporting the SDGs. Rwanda provides an example for offering investment incentives via preferential tax rates to investors in the generation, transmission and distribution of solar, geothermal, hydro, biomass, methane and wind energy. In addition, Ethiopia created an eco-industrial park in 2016 designed for the textile and apparel industry that is powered mostly by hydroelectricity (EIF, 2020a), which can serve as an example for other countries, as well.

The response by Investment Promotion Agencies (IPAs) has been mixed, with almost half of all African IPAs not mentioning COVID-19 by mid-May 2020 (UNCTAD, 2020a).

## G.2 INTERNATIONAL MIGRATION AND REMITTANCES

### Migration

Globally, migrant workers represent 4.7 percent of the labor force, almost half of them women (ILO, 2020). According to World Bank data around 45 million LDC citizens were living in other countries in 2017.

COVID-19 affected international migration between LDCs and other countries through the rise in unemployment in host countries as well as via travel restrictions. The COVID-19 pandemic left many migrant workers initially stranded in their host countries, unable to travel back. During the year, with travel

restrictions easing and rising unemployment in the face of tighter visa and mobility restrictions, increased return migration was reported across all parts of the world. Nevertheless, the World Bank expects 2020 to be the first year to mark an actual fall in the stock of international migrants (World Bank, 2020e).

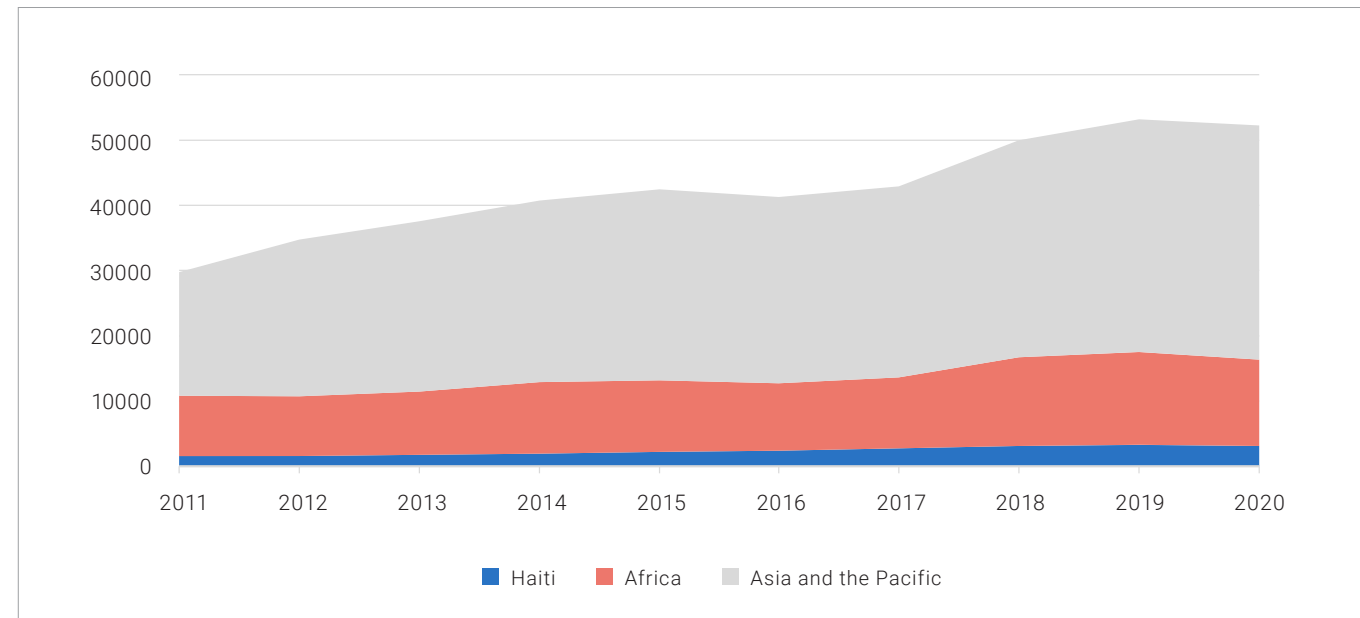
The adverse effects of the crisis (loss of employment and income as well as exposure to COVID-19) have been especially severe for migrants. Migrant workers are particularly vulnerable to COVID-19 infection, if they are living in dormitories or camps and often work in occupations that cannot be undertaken from home (World Bank 2020e). Migrants originating in LDCs are over-represented in informal sectors and often have unstable employment, are among the first to lose their jobs and cannot access social protection measures. Migrant workers that are employed in health care, agriculture and food-processing face more health-related risks and many migrant workers are employed in sectors like hospitality and domestic work, which are hardest hit by the crisis. Migrants could also face significant barriers to re-entering the workforce in host countries due to mobility restrictions, lack of skills and qualifications recognition, or difficulties meeting administrative requirements. Others are affected by wage cuts, non-payment of wages and deteriorating working conditions. The measures put in place around the world disrupting national and international transport services are restricting mobility. Thus, large numbers of international migrants are stranded abroad or unable to return to the countries in which they were employed because of closed borders (ILO, 2020 and IOM, 2020).

Protecting the lives and livelihoods of migrant workers will have positive effects in home and host countries as it will also ensure supply of critical goods and services and contribute to overall public health. Thus, migrant workers should be included in national social protection responses in line with international human rights and international labor standards (ILO, 2020). Most OECD countries have offered access to testing and to emergency health care for migrants, including those in an irregular situation, if they contracted COVID-19 (OECD, 2020f).

### Remittances

Remittances are private cash transfers that are mainly used to enhance access to food, education and health care but also to start small businesses. In times of crisis they can provide a safety net for LDCs in terms of compensating for reduced household income, access to hard currencies, and financing trade balances. Furthermore, they are a source of tax revenue for governments especially through value-added tax, trade, and sales taxes (Sayeh and Chami, 2020).



**Figure G.1: Migrant remittance inflows to LDCs by region (US\$ million)**

Source: World Bank (2020).

Remittance flows to LDCs had increased relatively rapidly from US\$28.2 billion in 2011 to US\$ 52.1 billion in 2019, which corresponds to around 5 percent of GDP (Figure G.1). This growth was mainly driven by Asia-Pacific LDCs, which now account for around 70 percent of all remittances to LDCs. However, remittances inflows are concentrated in a few LDCs, with six countries (Bangladesh, Haiti, Myanmar, Nepal, Senegal, and Yemen) accounting for around 75 percent of total remittance flows. For some smaller countries, remittances amounted to 20 percent of GDP or more, including, Haiti, South Sudan, Nepal and Lesotho (World Bank, 2020e).<sup>54</sup>

The importance of remittances is not only determined by its share in GDP but more so by the number of people who depend on them, which is about 800 million people worldwide (IOM and WFP, 2020). According to a recent Afrobarometer survey in 6 African LDCs more than a quarter of the population reports that they are dependent on remittances with The Gambia (47 percent) and Lesotho (38 percent) reporting the highest shares. In many cases this dependence is related to unemployment or cash related problems. The greatest impact of declining remittances is likely to be for people facing multiple deprivations. For example, in 8 African LDCs included in the survey more than half of the people who depend on remittances have no bank account or mobile internet access (Kalanitryan and McMahon, 2020).

Remittances are expected to decline significantly in 2020 and 2021 due to job losses, especially in the service sectors most reliant on migrant workers and shutdowns that fail to recognize remittance agents as essential services. While remittances are often countercyclical, COVID-19 hit both host and home countries of migrants at the same time. During April/May 2020 remittances declined significantly, and then recovered partially in June/July 2020, when many governments lifted their containment measures. The quick recovery could be an indication that migrants shifted from informal transfer channels to official channels including bank transfers. It could also indicate that migrants are using their savings, or were able to access cash transfers offered by host country governments either directly or indirectly through their employers, but there is only limited information available at the time of writing (IOM and WFP, 2020).

While the World Bank estimated steep declines in remittances to low- and middle-income countries earlier in 2020, the average decline of remittances from 2019 to 2020 to LDCs was estimated at 2 percent (Figure G.1). Several LDCs that are highly dependent on remittances experienced much larger declines up to 27 percent for Mozambique and 20 percent for Lesotho. However, the decline is expected to be more prolonged, well into 2021 and likely beyond (World Bank, 2020e). This decline is largely due to weaker economic growth and uncertainties

around jobs in host countries leading to a fall in wages and employment of migrant workers in host nations. The return of migrants, who brought their savings with them partially accounts for the lower than expected decline but will contribute to the prolonged duration. To some extent currency devaluations in remittance receiving countries could offset the decline in the value of remittances (Kalanitryan and McMahon, 2020).

Bangladesh stands out as an exception to the general pattern: according to first estimates, remittances were expected to fall by 25 percent compared to 2019. Emerging evidence shows that officially recorded remittances have rebounded and even exceeded pre-COVID-19 levels (reaching up to US\$20 million in 2020, compared to about US\$18 million in 2019). This may be due to a shift in flows from informal to formal channels and due to the reaction to damages from floods in Q3 2020 (IOM and WFP, 2020). bKash, the mobile financial service in Bangladesh saw increased remittance inflows with an increase of 150 percent on daily average in April compared to the first quarter of 2020 (ADB, 2020b).

While the decline in remittances in 2020 is less significant than initially expected, it does not change the reliance of many people in low- and middle-income countries on them. The relative importance of remittance flows as a source of external financing for low- and middle-income countries is expected to rise, because foreign direct investment is expected to decline even stronger. The decline in remittances will affect fiscal and trade balances, and subsequently reduce countries' ability to finance and service their debt (World Bank, 2020a).

The decline in remittances will not only reduce household income in recipient countries and thus increase poverty but also affect the private sector. Banks rely on remittance inflows as a cheap source of deposit funding since these flows are altruistically motivated. Due to the decline in remittances these banks are now likely to see their cost of operations increase, and their ability to extend credit will be greatly reduced. At the same time, less remittances will be available to finance productive activities of recipients directly (Sayeh and Chami, 2020). In addition, foreign exchange markets declined, making liquidity management and rebalancing an issue for service providers, especially those operating in rural areas (RCTF, 2020a). The decline of average costs of sending remittances slowed in recent years and amounted to 6.8 percent in the first quarter of 2020 (down from around 9 percent at

the beginning of 2011), but still more than twice the 3 percent commitment contained in the Addis Ababa Action Agenda (and SDG target 10.c).<sup>55</sup> Sub-Saharan Africa continued to have the highest average cost, at about 8.5 percent. Remittance costs across many African corridors and small islands in the Pacific, including many LDCs, remained above 10 percent (World Bank, 2020e).

Remittance service providers play an important role in ensuring availability for senders and receivers. The physical closure of many locations has increased the use of digital financial services. Many providers that allow people to send and receive money across borders saw an increase in new customers and transfers with the beginning of the COVID-19 pandemic (ADB, 2020b). Western Union reported an increase of 21 percent in digital transactions in Q1 2020. Despite this, comprehensive digital solutions will not be in place quickly and require a digital ecosystem and infrastructure in receiving countries that is often not in place, yet (RCTF, 2020a). The COVID-19 pandemic might accelerate the usage and popularity of digital platforms of online money transfer and banking services. In Bangladesh, the pandemic has reaffirmed post offices and their infrastructure in the delivery of remittances. Bangladesh has about 10,000 post offices, which is more than it has bank offices, and has set up agreements with banks and MTOs to deliver remittances, thereby being a substantial part of the emerging digital financial services structure in Bangladesh. The Bangladesh Post Office also launched Nagad, which facilitates the day-to-day transaction needs of increasing parts of the un(der)banked population. Nagad combines the electronic money transfer system with postal cash systems (RCTF, 2020b).

Mobile-phone services are increasingly used for transfer of remittances and have contributed to reduced costs. However, remittance service providers are not classified as essential services. As such, their services have been interrupted or their working hours reduced. The services that remain available during the pandemic are in general priced lower than those that preceded the COVID-19 measures. Some remittance service providers have also removed their fees and have been using social media to raise awareness of digital payment instrument. In Uganda for example, the telecom company MTN waived temporary fees on mobile money transfers (Brookings Institute, 2020). And in April 2020, the Central Bank of South Sudan launched its first international mobile money service (m-Gurush) to facilitate remittance inflows and outflows (World Bank, 2020e).

<sup>54</sup> In The Gambia, Yemen, Comoros, Kiribati, Senegal and Tuvalu remittances were 10 percent or more of GDP.

<sup>55</sup> These costs are based on sending USD 200 through official remittance channels.

Ethiopia with its large public sector economy, is pursuing a range of privatization reforms that may also benefit the flow of remittances. During Q2 2020, the Ethiopian Telecommunications Authority has accepted proposals and expressions of interest from telecom operators, which would open the Ethiopian telecommunication sector besides the state-owned monopoly Ethio-Telecom. In addition, a new directive<sup>56</sup> allows non-financial institutions (e.g. Fintechs) to start offering payment processing and related services in Ethiopia by acquiring a payment operator license. These steps could introduce more competition into the market, possibly expanding availability and decrease costs for accessing remittances (FinDev, 2020).

However, a large percentage of migrant workers and their families back home are unbanked or under-banked and are facing challenges in meeting the due diligence requirements of digital channels (World Bank, 2020a).

On the international level and in response to the UN Secretary General's call for an urgent and coordinated response, IFAD together with the African Union and the World Bank, launched the Remittance Community Taskforce (RCTF) to come up with immediate and short-term measures to address the impact of COVID-19 on remittances. About 40 organisations have joined the RCTF to develop a coordinated and concerted effort to raise awareness of the impact of the COVID-19 crisis on the more than 1 billion people that are directly involved in remittances.

Switzerland and the UK, in partnership with the World Bank, have launched a Call to Action to keep remittances flowing, to raise awareness about the importance of remittances for low-and middle-income countries, identify key measures to mitigate the impact of COVID-19 on remittances, highlight them for the attention of policymakers, regulators and remittance service providers and generate momentum. The call has grown into a coalition of 47 stakeholders on remittances (World Bank, 2020e).

### G.3 CONCESSIONAL FINANCE UNDER THREAT

#### ODA

Countries in the north have launched an unprecedented financial response and stimulus packages after the devastating impact of the COVID-19 pandemic became obvious and these have been revised upwards several times, amounting to trillions of US dollars. In OECD countries debt to GDP ratios rose by 20 to

30 percentage points of GDP in 2020. It is estimated that for low-income and African countries, which are mostly LDCs, an average of additional finance amounting to 6 percent of their GDP would be needed to address the COVID-19 induced crisis (OECD, 2020d).

While the swift action by major multinational and other donors as well as the debt relief provided through the G20/Paris Club initiative provided some relief for LDCs, their needs have not been met.

ODA to LDCs by Development Assistance Committee (DAC) members was already declining in real terms over the past decade. After an increase in ODA from DAC donors to LDCs from 2017 to 2018, it declined by 6 percent in 2019. The average share of gross national income (GNI) provided as ODA to the LDCs from DAC donors declined from 0.1 percent in 2011 to 0.09 percent in 2019. In 2019, only 5 donor countries—Denmark, Luxembourg, Norway, Sweden and United Kingdom—met the IPoA the target of committing 0.15 percent or above of their gross national income as ODA to the LDCs, compared to ten donor countries in 2011 (Table G.1). The share of total ODA allocated to LDCs declined from 33 percent in 2011 to 30 percent in 2019 and the percentage of ODA to LDCs in the form of grants declined from about 93 percent in 2015 to 90 percent in 2018 (UN, 2020a). Gross ODA disbursements made up 5.1 percent of GDP and around 40 percent of government spending of LDCs in 2018, which makes it a larger share of the financing mix than for other groups. As ODA plays an even larger role in resources for social sectors, such as health care or water and sanitation, for which it is difficult to attract private finance, it has a crucial role in containing COVID-19 (OECD, 2020d).

On 9 April 2020, the DAC of the OECD published a joint statement that acknowledged that “ODA is an important means of supporting national responses to the COVID-19 crisis, within the framework of sustainable development and its five components – people, peace, planet, prosperity and partnership.” It committed to “strive to protect ODA budgets, encourage other financial flows to support governments and communities in partner countries” and to “endeavour to support Least Developed Countries and other countries with specific needs via a coherent and coordinated humanitarian-development-peace response.” (OECD, 2020a). On 10 November 2020 in a high-level meeting Communique the DAC reaffirmed “the important contribution of ODA to the immediate health and economic crises and longer-term sustainable development,

particularly in Least Developed Countries (LDCs)”. It stated that it “will continue working to find ways to mobilize more official and private resources for sustainable development, including promoting more—and more effective—blended finance, with special attention to LDCs.” However, no concrete commitments were made at the meeting.

While data is sparse and no country specific data is available for 2020 at the time of writing, there are indications that bilateral ODA has been declining. For example, in the first seven months of 2020 total ODA commitments reported to the International Aid Transparency Initiative were 5 percent lower than for the same period in 2019.<sup>57</sup> Among DAC donors the picture is mixed with some increasing bilateral ODA while others reduced their commitments. However, overall an increase in spending over the early months of 2020 was observed as commitments by multilateral donors increased by 31 percent. While there are no comprehensive data, it is projected that the share of ODA allocated to LDCs remained largely stable and some donors like the EU explicitly mentioned them as priorities in their response plans (Hurley et al., 2020 and OECD, 2020i).

If DAC countries retain the same ODA to gross national income (GNI) ratios for LDCs than before the crisis, the expected decline in their GNI would lead to a decline in ODA beyond 2020, which might occur due to their own budget pressures. While there have been some announcements in support of a global sustainable recovery, there are indications that funds earmarked for the COVID-19 response were repurposed from existing programmes and responses to other crises, which can create challenges for long-term predictability and continuity. In addition, the repatriation of international staff limited access to information and data, making it difficult to manage risks and learn about effectiveness of approaches as donor countries were not fully prepared for the magnitude of the crisis. Likewise, coordination of donors was limited and depended on country leadership. For example, in Mozambique, existing government mechanisms led by the Prime Minister enabled a fast response leading to enhanced capacity of the health system to respond to COVID-19 (OECD, 2020d, i).

Several multilateral donors have reacted fast and made additional finance available to developing countries, including LDCs, within a few weeks after COVID-19 started spreading around the globe, mainly through front loading of concessional resources. However, the unprecedented scale of the crisis affecting all countries also exposed financial capacity constraints and multilateral ODA accounted for only around one third of total ODA before 2020 (OECD, 2020e and UN, 2021).

The United Nations has established various funds related to supporting countries in the fight against COVID-19 and its effects. For example, in April 2020, the Secretary-General established the COVID-19 Response and Recovery Fund with the aim to support the implementation of the global framework for an immediate socioeconomic response through the UN country teams. Its goals are to: (1) Enable Governments and Communities to tackle the emergency; (2) Reduce Social Impact and Promote Economic Response and (3) Help countries to recover better. The fund especially targets those low- and middle-income countries who are not included in the Global Humanitarian Appeal. While a significant proportion of the UN's existing US\$17.8 billion portfolio of sustainable development programmes has been repurposed towards COVID-19 needs in 2020, additional funds are required. However, while the aim was to mobilize additional US\$2 billion over the full course of its operation from April 2020 to April 2022, as of end 2020, the total commitment was US\$70 million and more than 16 LDCs benefitted from the Multi-Partner Trust Fund (MPTF)<sup>58</sup> (UN, 2020d).

The COVID-19 Global Humanitarian Response Plan (GHRP), which is complementary to the MPTF is a joint effort by members of the Inter-Agency Standing Committee (IASC), including UN, other international organizations and NGOs facilitated at global level by OCHA. It aims to respond to the direct public health and indirect immediate humanitarian consequences of the pandemic, particularly on people in countries already facing other crises and covers the most urgent and direct health impacts by the pandemic. It aggregates relevant COVID-19 appeals and inputs from various other international organizations (UN, 2020d). The financing requirements for the GHRP over a period of nine months (April – December 2020) were originally estimated at US\$2 billion and increased in several stages to be provided on a grant basis to fight the pandemic in the most vulnerable and low-income countries. The Response Plan of US\$9.5 billion was 38 percent funded as of 17 November 2020 (OCHA, 2020).

The IMF has provided more than US\$5 billion emergency financing support to LDCs, with over 60 percent of LDCs benefitting from at least one of the following four categories of programmes: catastrophe containment and relief trust (debt relief service); extended credit facility (lending arrangements for balance-of-payments problems); rapid financing instrument and rapid credit facility (arrangements to provide liquidity).

<sup>56</sup>Licensing and Authorization of Payment Instrument Issuer Directive No. ONPS/01/2020, National Bank of Ethiopia

<sup>57</sup>However, the IATI data does not account for debt relief and does not entail ODA disbursements from all donors, so these figures only provide a proxy.

<sup>58</sup>Latest figures from Trust Fund Factsheet—UN COVID-19 Response & Recover (undp.org).

The IMF also doubled access to its emergency financing facilities – the Rapid Credit Facility (RCF) and Rapid Financing Instrument (RFI). The RCF provides rapid concessional financial assistance with limited conditionality. RCF is a concessional financial assistance instrument with a zero-interest rate, a grace period of 5.5 years and a final maturity of 10 years. RFI is provided in the form of outright purchases and is only available to low-income countries with urgent balance of payments needs. As of 4 March 2021, 29 LDCs received funding from RCF. The RFI provides rapid financial assistance. It is designed for cases where a full-fledged economic programme is either not necessary or feasible. As of 4 March 2021, 8 LDCs received funding from RFI (IMF, 2020c).

The Extended Credit Facility (ECF) provides financial assistance to countries with protracted balance of payments problems. The ECF was created under the Poverty Reduction and Growth Trust (PRGT) as part of a broader reform to make the Fund's financial support more flexible and better tailored to the diverse needs of low-income countries (LICs), including in times of crisis. Access to this facility is conditional upon the country having a formal programme with the IMF. As of 4 March 2021, 7 LDCs benefited from the ECF (IMF, 2020c).

The World Bank Group has also enhanced different financing options. The focus of the World Bank's support is to help countries protecting the poor and vulnerable, support businesses and to generate a faster economic recovery. On 2 April 2020, it launched its dedicated COVID-19 Fast Track Facility for emergency health support, initially benefitting 12 LDCs, a number that increased to 35 by 4 March 2021. The World Bank also increased International Development Association (IDA) resources (which are mainly relevant for LDCs) by around one third in fiscal year 2020 (which ended in June) as compared to 2019, and has increased further during the pandemic into 2021, due to the recent IDA replenishment. In addition, the Bank also provides emergency funding and trade finance from the International Finance Cooperation and expedited loan guarantees from the Multilateral Investment Guarantee Agency (MIGA). This aims to address purchases of medical equipment, provide working capital for firms and support governments' short-term funding needs (World Bank, 2020b and 2020d).

In addition, many regional development banks have provided rapid support towards the LDCs among their constituencies, including the AfDB, ADB, AIIB, which announced the largest commitments accessible to LDCs in April. The AfDB announced in April a US\$10 billion COVID-19 Response

Facility aiming to assist regional member countries and private sector firms in their fight against COVID-19 (AfDB, 2020). The ADB also announced in April a US\$20 billion COVID-19 Response Package offering short-term support to combat the immediate health consequences of COVID-19 and addressing the mid-to-long-term economic and financial impact of the pandemic. To assist increased financing needs to respond to COVID-19, the AIIB created the COVID-19 Crisis Recovery Facility, which can be used for addressing the health sector's needs, increasing economic resilience or to address liquidity constraints for clients in infrastructure and other productive sectors and to which US\$5-10 billion were allocated in April (UN, 2021).

Overall, many MDBs have focused their support on LDCs, playing an important countercyclical role, with unprecedented speed and scale of their immediate reaction to the crisis. However, there are indications that their current financial capacity will not be sufficient to respond to the needs of developing countries, including LDCs, in the medium to long term (UN, 2021).

One area, where finance is also lacking is the Access to COVID-19 Tools (ACT) Accelerator, including the COVAX, its vaccines pillar as indicated in section A. Total commitments stood around US\$5.8 billion towards the end of 2020, falling short by US\$3.7 billion of the needs, with a further US\$23.7 billion required in 2021.

Even before the COVID-19 crisis, blended finance, which is the strategic use of development finance to mobilize commercial finance towards the SDGs, with a focus on unlocking investment that the private sector would not have done on its own, remained limited in LDCs. They continue to receive only 6 percent of private finance mobilized by official development finance interventions, amounting to approximately US\$13.4 billion between 2012 and 2018. While private finance was mobilized in 45 LDCs it is still relatively concentrated in a few countries. Private finance mobilized in LDCs is concentrated in selected sectors, where revenue can be generated, such as energy and banking as well as financial services, while social sectors are mostly excluded. COVID-19 makes the mobilization of new private finance even more challenging in the short term given the risk premiums in LDCs. Development finance providers mostly focused on protecting existing investments, safeguarding their portfolios and preserving jobs. However, there are a few examples of proposed new blended finance initiatives aiming at tackling the COVID-19 crisis (OECD and UNCDF, 2020).

One example of a new blended finance initiative that is expected to benefit many LDCs is the three-year Fight COVID-19 social bond issued by the African Development Bank, floated on the Luxembourg Stock Exchange and significantly oversubscribed, raising US\$3 billion, the largest dollar-denominated social bond launched in the international capital markets at the time of issuance (AfDB, 2020).

#### New Special Drawing Rights (SDRs)

There has been a general agreement among G20 countries to the issuance of new SDRs by the IMF, which could be used to reduce liquidity constraints with no conditions attached. Such SDRs would supplement official reserves and help restore confidence and thus contribute to a resilient and lasting recovery of the global economy. Of a new general allocation of 500 billion, which would be based on the current distribution, LDCs would only receive 2.27 percent or 11.35 billion<sup>59</sup> (UN, 2020c and 2021).

Thus, another proposal that is supported by many policy makers is the reallocation of SDRs from developed countries that do not require them, to countries with liquidity challenges. This could be done through a Trust Fund at the IMF, like the Poverty Reduction and Growth Trust (PRGT), which would enhance the IMF's lending capacity. Currently unused SDRs amount to US\$129.7 bn and some countries have started lending them to the IMF. This option would provide liquidity at relatively low cost, while developed countries who do not need their SDRs and are willing to exchange them for foreign

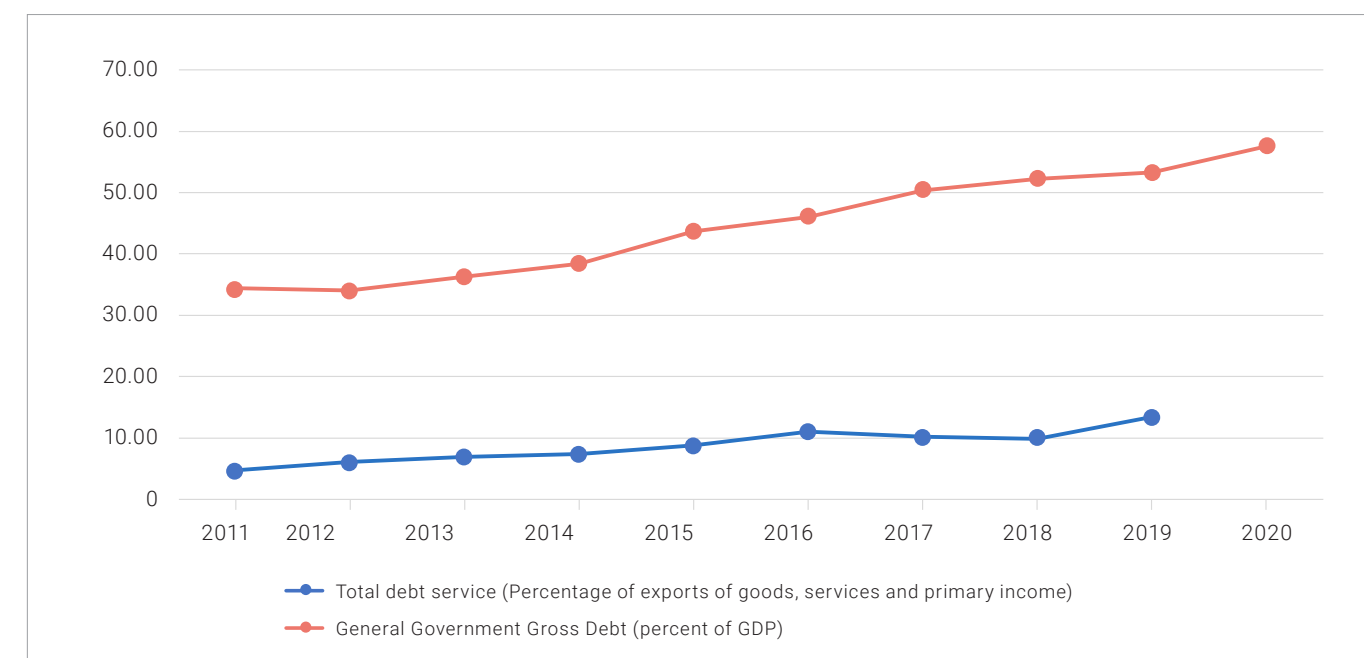
currency would earn an interest on excess SDRs. In addition, the SDRs made available can be tailored to specific uses and countries most in need. Several countries have started to allow the IMF to use their unused SDRs in that way (Kharas and Dooley, 2020 and UN, 2020c).

#### G.4 LDCs NEED DEBT RELIEF

The effects of COVID-19 on resource flows, fiscal deficits and liquidity of LDCs, as described in section E., is increasing debts of many of them towards unsustainable levels. Many LDCs had experienced unsustainable debt levels in the past and several benefitted from debt relief initiatives. By end 2011, 25 LDCs had reached the completion point of the heavily indebted poor countries (HIPC) and Multilateral Debt Relief Initiative (MDRI), reducing their debt levels considerably. Thereafter three more LDCs (Comoros and Guinea in 2012, Chad in 2015) reached completion point. Somalia reached the decision point for HIPC in March 2020, leading to the immediate non-ODA debt cancellation of US\$ 1.4 billion in debt owed by Somalia to Paris Club creditors.

However, subsequently the stock of LDC debt increased again from US\$198 billion in 2011 to US\$385 billion in 2019 (IMF, 2021). Average public debt in LDCs rose continuously from 34 percent in 2011 to 53 percent of GDP in 2019 and jumped to 58 percent in 2020. Total debt service as a percentage of exports of goods, services and primary income increased from an average of 5 percent to 13 percent over the same period (Figure G.2).

Figure G.2: Average LDC debt (2011–2020)



Source: OHRLLS calculations based on World Bank WDI and IMF (2021).

<sup>59</sup> OHRLLS calculations based on IMF data from <https://www.imf.org/external/np/sec/memdir/members.aspx>



Between November 2018 and November 2019, the number of LDCs assessed as in debt distress by the World Bank and the IMF increased from 5 to 6, while an additional 12 countries were listed as having a high risk of debt distress. As of November 2020, 4 LDCs were classified as in debt distress (Mozambique, Sao Tome and Principe, Somalia, and Sudan) while the number of LDCs at high risk of debt distress increased to 16 and further increases are expected (IMF, 2020d and IMF and World Bank, 2020).<sup>60</sup>

The composition of the debt stock of LDCs has also changed significantly since 2011, with a higher share of private and non-traditional bilateral creditors (notably China). While official debt remains the most significant portion of the external debt of most LDCs, commercial credit doubled from 2010 through 2019, from 6 to 12 percent of public external debt, driven by international bond issuance, which in general have shorter maturities and higher interest rates than concessional financing. This exposes countries to exchange rate, interest rate and refinancing risks, and with borrowing costs expected to increase, this may pose challenges to creditor coordination in case of debt distress. Several countries with high levels of external debt had to reduce social spending (UN, 2020a; UN DESA, 2020b).

An increasing number of mainly African LDCs issued one or more sovereign bonds between 2011 and 2019. For example, Angola, Benin, Ethiopia, Mozambique, Rwanda, Senegal and Zambia issued Eurobonds, while public entities in Angola and Mozambique issued government-guaranteed loans. Lao People's Democratic Republic issued multiple bonds on the Thai market. Unlike other LDCs that issued international bonds through public offerings, the United Republic of Tanzania issued an instrument via private placement. Angola and Senegal each issued 30-year paper in 2018 and Benin was the only LDC issuing a Eurobond in 2019. Angola has the largest stock of Eurobonds among LDCs, while Ethiopia, Senegal and Zambia owe more than half of their debt service due in the second half of 2020 to commercial creditors (OHRLLS, 2017; Smith, 2019; IMF and World Bank, 2020).

These changes in the composition of debt also contributed to the increase in the debt-service burden (debt service relative to government revenue) of LDCs. Debt servicing costs for IDA-eligible countries, to which almost all LDCs belong, more than doubled between 2000 and 2019, increasing from 6 to 13 percent of government revenue, which is often more than spending on health (UN DESA, 2020b).

Since the COVID-19 pandemic started to spread, the international community has started to suspend debt payments from least developed countries that request forbearance.

The IMF offered debt service relief to 27 of the poorest countries, all but one (Tajikistan) being LDCs (Afghanistan, Benin, Burkina Faso, Central African Republic, Comoros, Democratic Republic of the Congo, Djibouti, Ethiopia, The Gambia, Guinea, Guinea-Bissau, Haiti, Liberia, Madagascar, Malawi, Mali, Mozambique, Nepal, Niger, Rwanda, São Tomé and Príncipe, Sierra Leone, Solomon Islands, the United Republic of Tanzania, Togo and Yemen). Through the Catastrophe Containment and Relief Trust (CCRT) the IMF provides grants to cover their IMF debt obligations, which amounts to about US\$500 million for the first year up to April 2021. The IMF is working to almost triple the CCRT to US\$1.4 billion to extend the duration of relief, contingent to commitment of additional resources (IMF 2020b).

In earlier cases, three Ebola-afflicted countries (Guinea, Liberia, and Sierra Leone) received assistance from The Catastrophe Containment and Relief Trust (CCRT) close to US\$100 million in February-March 2015. The previous Post-Catastrophe Debt Relief Trust was used to provide assistance to Haiti in July 2010 of about US\$270 million, eliminating Haiti's entire outstanding debt to the IMF.<sup>61</sup>

On April 15, the G20 announced the Debt Service Suspension Initiative (DSSI), which is an official bilateral sovereign debt payment suspension initially for 8 months if requested by IDA countries and LDCs that are current on their IMF and World Bank obligations. On 14 October 2020, Paris Club members and the G20 agreed to extend the DSSI by 6 months, and to examine by the time of the 2021 IMF/World Bank Group Spring Meetings if the economic and financial situation requires further extension by another 6 months (Paris Club, 2020).

The DSSI allows these countries to suspend principal or interest payments on their debts to G20 and Paris Club members from May 2020 through June 2021. Once the time has elapsed, the countries will have to pay the deferred principal and interest over the five years following a one-year grace period. This deferral is net present value neutral, and therefore, does not reduce the total payment debtors will make to participating creditors. Beneficiaries must use the freed resources for social, health or economic spending to mitigate the effects of the COVID-19 crisis and abstain from contracting new non-concessional debt during the suspension period (G20, 2020b and UN, 2020c).

As of mid-March 2021, 30 LDCs applied to benefit from DSSI and 24 of them have agreed on debt service suspension with Paris Club lenders (Angola, Burkina Faso, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Ethiopia, Guinea, Lesotho, Madagascar, Mali, Mauretania, Mozambique, Myanmar, Nepal, Niger, Sao Tome and Principe, Senegal, Sierra Leone, Togo, Uganda, United Republic of Tanzania, Yemen, Zambia).<sup>62</sup> Some of the LDCs, that have decided not to participate in the DSSI have very low debt service obligations that would be covered (see Table G.2). According to World Bank data, the initiative could provide around US\$5.5 billion (around half of the total) in immediate and critical liquidity relief by official bilateral creditors for eligible LDCs in 2020, with the largest amount (around one third of the total) going to Angola. The extension of the DSSI to mid-2021 will increase the amount of relief by another US\$4.6 billion. However, these amounts are still relatively small compared to the total amount of gross ODA received by LDCs, which was US\$56.6 billion in 2019. Eligible obligations account for around 40 percent of LDC's total debt service obligations and 0.6 percent of their GNI on average, indicating that the effect of DSSI will be limited although participating countries have undertaken substantive COVID-19 related spending (WB, 2020 and Paris Club, 2020).

China would bear a considerable share of the DSSI debt suspension as its loans to LDCs, which might however be underreported, increased fast over the past decade. The OECD estimates that at least 70 percent of debt service due to official bilateral creditors is outside of DAC members. Thus, full participation of Chinese creditors in the DSSI, is an important factor in terms of the amount of debt that will be relieved. China has taken steps in this direction by circulating the Paris Club Memorandum of Understanding (MoU) to relevant agencies and financial institutions (OECD, 2020g and IMF and World Bank, 2020).

However, delays in approving the necessary memorandums of understanding with Paris Club members have led some LDCs to continue paying debt service to avoid arrears, reducing the amount of actual debt service suspension during the time of the greatest liquidity constraints further (IMF, 2020e).

As the DSSI only postpones debt service payments it leaves the obligations constant. This will lead to even higher obligations in the future and could lead to higher debt stocks for some countries than they had in 2019. In addition, the limitation to official creditors offered the possibility that deferred

interest payments could be used to service debt to non-participating creditors, including some state-owned development institutions (G30, 2020).

There have been numerous calls for the private sector to contribute to debt relief efforts to avoid that the resources made available by the DSSI initiative go to other creditors instead of being used for the COVID-19 response. However, activities in this respect were subdued (UN, 2020c).

The Institute of International Finance (IIF), a consortium of private financial institutions, has developed a Terms of Reference (ToR) for voluntary private sector participation in the DSSI. These ToRs could be used as a starting point to advance individual conversations between sovereign borrowers and their private creditors, meaning that borrowers will need to negotiate directly with individual lenders, including on the interest rate that will be charged on deferred payments (IFF 2020). The G20 strongly encourages private creditors to participate on comparable terms when requested by eligible countries, which by March 2021 had not happened. It also encouraged multilateral development banks (MDBs) to go further on their collective efforts in supporting the DSSI, including through providing net-positive flows to DSSI-eligible countries during the suspension period, including the extension period (G20, 2020b).

Some countries have been reluctant to request forbearance, from both official and private creditors, fearing a downgrading by rating agencies.<sup>63</sup> In 2020 Angola, Ethiopia, Lao People's Democratic Republic, Mali, Rwanda, United Republic of Tanzania, Senegal and Zambia have been downgraded and several others had a negative change in sovereign rating outlook. The risk of downgrading due to the participation in the DSSI contradicts the intention of the initiative as it increases borrowing costs and limits fiscal space to provide sufficient fiscal stimulus (APRM, 2020 and G30, 2020).

COVID-19 has thus directly and indirectly further reduced LDCs access to capital markets. LDCs have not been able to issue sovereign bonds in 2020. Angola and Benin had scheduled to issue Eurobonds in the first half of 2020, which did not materialize due to the doubled yield costs following the COVID-19 induced rating downgrades (APRM, 2020).

Since the beginning of 2020, cost of non-concessional borrowing has also increased drastically, especially for commodity exporters. The worst affected country was Zambia, whose

<sup>60</sup> It has to be noted that some of the latest available DSA publications, on which the list is based, were completed before the onset of COVID-19.

<sup>61</sup> Factsheet – The Catastrophe Containment and Relief Trust (imf.org)

<sup>62</sup> Portugal, which is not member of the Paris Club, signed jointly with the Paris Club creditors the Memorandums of Understanding implementing the DSSI (Paris Club, 2020).

<sup>63</sup> Less than half of LDCs do have any sovereign credit rating, and existing ones are not frequently updated and are below investment grade, see: Credit Rating – Countries – List (tradingeconomics.com).

10-year Eurobond yields increased from an average of 19.6 percent to 38.7 percent depending on the tenor (APRM, 2020).

For Zambia, which has become the first LDC to default on its debt during the pandemic, DSSI relief in 2020 would only amount to US\$165 million, equivalent to 0.7 percent of GDP, of which US\$133 million is owed to China. However, obligations to non-official lenders are much higher with US\$527 million, while debt service to bondholders is estimated at US\$118.7 billion. Debt service obligations to multilaterals only play a relatively minor role with US\$76.2 million. In October the government of Zambia announced that it had reached an agreement with the China Development Bank to defer interest due on October 25th for six months, until April 2021, but this still only covers a small share of its total debt obligations and might not be sufficient to bring other creditors on board (World Bank 2020f and EIU, 2020).

The G20 recognized that debt treatments beyond the DSSI may be required on a case-by-case basis, due to the large scale and expected long duration of the COVID-19 crisis, leading to a deteriorating outlook in many LDCs combined with significant debt vulnerabilities. Together with the Paris Club the G20 agreed in November 2020 on a "Common Framework for Debt Treatments beyond the DSSI" under which Chad, Ethiopia and Zambia have requested debt restructuring as of March 2021. However, this case by case approach is likely to involve lengthy debt restructuring processes, which in the past have taken 7 years on average (Bulow et al., 2020 and G20, 2020).

## G.5 CONCLUSIONS AND RECOMMENDATIONS

### FDI

The scale of decline in FDI, as well as the post-pandemic rebound in LDCs, will strongly depend on the strength of domestic and global recoveries and on commodity price trends. While facing and overcoming the additional difficulties posed by the COVID-19 crisis on LDCs, economic policies should be based on strengthening national development governance that incentivizes the allocation of domestic and foreign resources for industrial and technological upgrading while ensuring social and environmental protection. It should acknowledge possible impacts on global value chains from the COVID-19 crisis for the structural transformation of LDCs, for example by strengthening emphasis on regional approaches to overcome small domestic markets (UN DESA, 2020a).

At the same time more investment promotion strategies need to be adapted to new sustainable development opportunities during the recovery after COVID-19, including resetting

priorities and targeting investment and business activities supporting the SDGs as well as attracting impact investors facilitating green and digital investment (UN, 2020c). LDCs will need support to enhance their capacity in this respect. Developing the ICT and eCommerce sector may also simulate investment and provides a new source of economic growth for LDCs. In order to do so, IPAs might need to revisit their strategies to focus on these new sectors and build the capacity and specialized knowledge required to promote this new value proposition. Furthermore, a stronger focus on aftercare programs to develop more powerful ties to existing investors could be a successful strategy (EIF and WAIPA Webinar, 2020).

In order to significantly enhance FDI in LDCs also an investment promotion regime as stated in SDG 17.5 needs to be established. Such investment promotion should pay specific attention to SDG sectors with the biggest need. Investment guarantees and insurance schemes should incorporate sustainable development priorities and bilateral, regional and multilateral investment promotion partnerships should emphasize the development of investment ready financial products (UN 2020c). While the COVID-19 pandemic continues, large rescue packages and support programs have been announced by governments and international organizations to prevent the worst for the global economy. For investment policies, this means keeping companies liquid, incentivizing investment in COVID-19 related industries, providing businesses with administrative support in their operations, keeping supply chains alive, supporting local SMEs etc. The pandemic may reinforce protectionist measures by countries for foreign investment in industries considered as being of critical importance to host countries; but at the same time, the crisis may also result in more competition for attracting investment while economies aim to recover (UNCTAD 2020b). While FDI stocks are still concentrated in fossil fuels, an increasing share of FDI to the energy sector is going to renewable energies (OECD, 2020d), which could provide an opportunity for some LDCs.

At the multilateral level, different groups have issued declarations in support of international investment, the trade and investment ministers of G20 for example encouraged technical assistance and capacity building to LDCs (G20, 2020a). Generally, announcements have been made to mobilize the entire range of instruments (monetary and fiscal measures, and targeted action to workers, companies and industries) to minimize the economic and social damage from the crisis (UNCTAD, 2020a). In addition to national efforts, international and multilateral cooperation will be crucial, especially for the recovery of LDCs.

### Remittances

While the recovery of remittances to LDCs will to a large extent depend on the recovery in migrant destination countries, especially labor market dynamics, there are some measures that LDCs and development partners can take to improve the situation.

Origin countries need to find ways of supporting returning migrants in resettling, finding a job or opening a business (World Bank, 2020e). Host and origin countries should consider support measures for migrant workers to cope with the (post)-COVID-19 labor market, including re-skilling and reintegrating. It is also crucial to include migrants in vaccination programmes.

Governments in sending and receiving countries should incentivize the switch to and use of existing digital remittance products through targeted, time-bound offers, supported by full transparency in fees and foreign exchange margins for the customer. This also entails allowing remittance service providers to access domestic or regional payment systems and hubs to enable digital means of sending and receiving remittances. In addition, LDC governments can focus on financial inclusion and increasing (gender-sensitive) digital financial literacy and education (UN, 2020c).

Remittance service providers (banking and non-banking financial institutions) should be treated as essential services to reduce the burden of remittance fees on migrants and to have access to appropriate instruments to manage their credit and liquidity risks.

Efforts to reduce the cost of remittances need to be stepped up. These include addressing regulatory and infrastructure barriers and enhanced domestic retail payment systems. Waivers of taxes on remittances transactions should also be considered. Remittance service providers should develop COVID-19 business continuity plans while ensuring safety of staff and customers. Among the factors contributing to the high costs of transfers in some countries are the cost of compliance with anti-money laundering and countering the financing of terrorism regulations. Measures should be implemented that review and eliminate unnecessary stringencies in customer due diligence, contemplate simplified mechanisms for transactions, identification and verification, and account opening, while adhering to international laws and regulations and protecting customers against fraudulent activities and data breaches (RCTF, 2020a). Alternative forms of identification proof could replace less accessible documents with modalities that are easily accessible for migrant workers and rural remittance

receiving families, such as SIM card registration documents, voice recognition systems, etc. Digital identity proofing solutions to provide Know-Your-Customer information and confirmation should be developed (UN, 2020c).

Over the medium term, it is necessary to strengthen the regulatory capacity in LDCs for enforcing regulations of remittance services and support development of Digital ID solutions. Policy frameworks on payment systems should be reviewed to enable competition and innovation as well as easier entry of new business models. Fast-track license applications and defined and transparent approval processes should be developed (UN, 2020c). At the same time comprehensive integrated cross-border payment solutions for MSME trade flows, e-commerce and remittances should be developed.

Furthermore, the crisis has exposed data gaps that have prevented real-time monitoring of remittance flows and migrant movements. Respective entities in host and home countries should collaborate to gather data on the needs of remittance families and disseminate information that would enable them to make informed choices about the use of remittances and remittances-linked services. Standardized data reporting and consolidation approaches as well as digital based data collection tools should be considered. In addition, safety nets need to be extended to migrants, returnees and recipients of remittances.

The collection and dissemination of information on the cost of remittances and national data on the remittance market to improve resilience in times of crisis needs to be stepped up. In response to this, the World Bank through the Global Knowledge Program on Migration and Development (KNOMAD) is launching an International Working Group on Improving Data on Remittances. They will invite national statistical offices, central banks, etc. to recommend measures to improve data on remittances and international cooperation in the collection and usage of data on remittances (World Bank, 2020e).

To summarize, it will be key for those people and economies relying on remittances as a source of income that the continuous effect of the COVID-19 pandemic does not hinder the recovery of remittance flows any more than absolutely unavoidable. Therefore, remittance service providers should be recognized as essential services and policies and measures need to be implemented to further decrease the costs of sending and receiving remittances. While COVID-19 might push the transfer to digital and online remittance services, this urgently requires the infrastructure, eco-system and digital literacy to be in place in LDCs.



### Concessional Finance

While ODA is now needed more than ever by LDCs, which have the greatest needs and least access to other sources of finance, there is a risk that ODA might be reduced over the coming years and that LDCs are not spared from this decline. Several appeals by the UN and other international organizations were not fully funded more than a year after the start of the crisis. The international community needs to support a recovery that is inclusive, sustained and resilient in line with the 2030 Agenda. Now more than ever, political will and global solidarity are needed to help LDCs deal with the short- and longer-term consequences of the pandemic (OECD, 2020c).

The scale of the financial support needs to increase. Meeting the ODA commitments by DAC donors to provide 0.15-0.2 percent of their GNI to LDCs, including through their prioritization, would significantly increase the availability of finance, mainly on grant basis not leading to additional debt. DAC donors should not only reverse the decline in ODA to LDCs but strive to provide more than 0.20 percent of their gross national income or at least 50 percent of net ODA to the LDCs. This is crucial as LDCs not only face large financing gaps but also have less access to other sources of finance, with limited opportunities to increase domestic resource mobilization. In this context additional funding to multilateral development banks, including replenishment of their capital, would be crucial as their strong support to LDCs has been achieved by the front-loading of concessional finance. In addition, grant finance for LDCs especially for climate adaptation needs to increase to support resilience building. The COVID-19 pandemic also highlighted the need to incorporate risk analysis more consistently in development cooperation and for better coordination mechanisms during a global crisis. National development cooperation policies and related strengthened country capacities can enhance the mobilization and effective management of development cooperation, including through country results frameworks and information systems (UN, 2021).

ODA allocations based on vulnerability could also contribute towards building of resilience of LDCs. For example, the use of LDC criteria, including the EVI, for the allocation of financial and technical support, could not only reduce the volatility of ODA but also ensure that support for graduated LDCs continues, to address their vulnerabilities and strengthen their resilience, which is especially important for building back better after COVID-19. It is crucial that support to build resilience or mitigate the impact of external shocks should not come at the expense of development support oriented at addressing the root causes of vulnerability (UN-OHRLLS, 2018).

In addition to increasing the quantity of ODA, its quality also needs to be enhanced. This includes alignment with country priorities in line with the SDGs. Development finance providers should support LDCs in the development of a pipeline of sustainable projects, for example in the area of sustainable or climate-resilient infrastructure. Likewise, aid modalities need to be flexible and allow for local decisions with respect to spending priorities, for example through budget support (OECD, 2020d and Hurley et al. 2020).

The sectoral allocation of ODA also needs to be carefully reviewed to enable LDCs to achieve the SDGs. More ODA needs to be provided for the social sectors, including health, education, water and sanitation and social protection as well as nutrition. The COVID-19 pandemic has clearly highlighted the crucial role of these sectors in responding to emergencies and building resilience. As it is more difficult to attract private finance to these sectors and most LDCs face resource constraints that do not allow them to cover even half of the costs of required social sector interventions, this sector needs to be prioritized (see also section B.). At the same time LDCs need enhanced support to accelerate increasing domestic resources, which can only be achieved through inclusive growth, supported by assistance in domestic resource mobilization and fiscal management (Manuel et al., 2020). In this respect increasing support for productive capacity, including aid for trade and investment in human capital, is also crucial.

Blended finance can make an important contribution towards mobilizing resources for the medium-to-long term recovery in LDCs. Thus, blended finance investments need to increasingly focus on risk reduction, by investing in projects and sectors that increase resilience of economies and societies to future crises and contribute towards achieving the SDGs. Such preventative investments are likely to be less costly than responding to and rebuilding from future disasters and shocks. This includes making ODA loans more effective at mobilizing private capital as well as taking on more risk through focusing on more fragile contexts prevalent in many LDCs, using catalytic instruments and focusing on sectors severely hit by the crisis in such contexts (OECD and UNCDF, 2020).

These recommendations do not only apply to bilateral finance but also multilateral providers. The scale of multilateral finance needs to increase to ensure that crises of a new magnitude, including climate events, can be addressed. At the same time efficiency should be enhanced based on an assessment of the COVID-19 response (OECD, 2020e).

International financial institutions like multilateral development banks, other development finance institutions and development agencies, led by their shareholders, should revise their regulatory frameworks and business models and fully align their portfolios, credit enhancement and risk sharing facilities with the SDGs and the Paris Agreement, while ensuring public finance continues to be scaled up, for example through capital replenishments, and is used efficiently and effectively. This could include front-loading and leveraging of resources and repurposing of undisbursed funds (UN, 2020c and Kharas and Dooley, 2020).

In this context the allocation and use of SDRs in support of LDCs would also contribute to the COVID-19 response as they would provide additional liquidity at relatively low cost and their use can be tailored to the needs of individual countries. Thus, in addition to a new allocation of SDRs, more countries that have unused SDRs should make use of this option.

Another important source of external support for LDCs is through South-South cooperation, which is playing an increasingly important role for LDCs, but for which information is still patchy (see Box III.).

LDCs also need enhanced support in identifying their needs as well as potential sources for external support. Thus, the availability and quality of related data needs to be improved and information on all officially supported resources more widely shared. This could for example be done through identifying and gathering in one place access to respective funding mechanisms provided by various international organizations in response to the impacts of the COVID-19 pandemic (Djankov and Kiechel, 2020 and UN, 2020c).

### Debt

While the debt situation of LDCs keeps evolving, it is clear that more long-term solutions are needed. The more comprehensive steps are taken now to reduce the debt burden and risk of defaults of LDCs the less need will be for bigger measures in the future. The prevention of debt crises needs to include strengthened debt management and enhanced debt transparency by creditors and debtors that would contribute to the promotion of responsible borrowing and lending. (UN, 2020c and 2021).

The moratorium on debt servicing through the DSSI needs not only be extended for a longer time period than June 2021 but also needs to include all creditors, including private creditors as called for by the G20. Thus, all official bilateral creditors

need to implement the DSSI in a transparent manner, including national policy banks. G20 countries could also take steps to urge private sector creditors under their jurisdiction (IMF and World Bank, 2020).

In addition, international financial institutions should explore options to contribute to debt relief, including a standstill on an NPV-neutral basis, without significantly impacting their AAA credit ratings. In this context it is especially important to maintain net positive flows to LDCs with new finance made available significantly exceeding debt servicing (UN, 2020c).

Given the huge financing needs LDCs are facing due to the pandemic it is essential to avoid that new bilateral and multilateral finance is diverted for debt repayments to uncompromising creditors instead of supporting their people to deal with the effects of the crisis and build back better. This would include ensuring inter-creditor equity and fair burden sharing, especially between official and private creditors. Thus, private creditors need to be pushed to participate in debt workouts, including through legislation as was done in the case of HIPC. In addition, a fund to buy back outstanding stock of commercial creditors could also be developed (Bulow et al., 2020 and UN DESA, 2020b).

Given the worsening situation in many LDCs and the fact that the current increase in debt was beyond their control, debt relief will be needed to avoid widespread defaults and to facilitate investments in recovery and the SDGs. As the DSSI mainly bought some time it is essential to develop sustainable solutions to the debt challenges of LDCs—to ‘build back better’. This would include debt-stock reductions and swifter debt-restructuring. Official creditors could apply better terms to their current and future credits to LDCs, by extending grace periods, lengthening average maturities and lowering average interest costs. Countries which are highly indebted but do not have reached unsustainable debt burdens, debt swaps could be considered to be used for a COVID-19 stimulus package, which would make debt more sustainable in the future (UN DESA, 2020b).

For the most vulnerable countries debt cancellations should be provided, building on the experience of the CCRT, which could be expanded to additional countries and creditors. Under updated DAC rules bilateral debt cancellation would partially count as ODA (UN, 2021).

More transparency of the terms of the existing and new debt and debt-like commitments of governments, including detailed information on private sector exposure might facilitate





World Health Organization personnel at the field laboratory in Cox's Bazar, Bangladesh, where they are working to increase COVID-19 testing and treat severe cases of the disease. WHO is also enhancing the disease surveillance system, strengthening contact tracing, training health workers on infection prevention and control, and delivering essential health supplies.

Photo: WHO/Blink Media, Fabeha Monir

faster creditor-debtor negotiations. In addition, realistic forecasts of GDP growth would avoid the underestimation of financing needs and overestimating country's capacity for debt servicing (Bulow et al., 2020 and UN DESA, 2020b).

To enhance sustainability, debt relief should be integrated in a broader strategy that takes investment needs for long-term sustainable development into consideration. Thus, technical assistance and capacity building for LDCs should be provided to strengthen their debt management. Likewise, the debt sustainability frameworks for LDCs should systematically take into account their structural constraints and longer-term investment requirements for the implementation of the SDGs. (UN DESA 2020b and LDC Ministerial declaration).

The COVID-19 crisis highlights gaps in the current international sovereign debt restructuring architecture that should be addressed as soon as possible in order to reduce the likelihood of future crises. It would be especially important to systematically include a broad range of state contingent elements—for terms of trade shocks, disasters, or others—to help countries better manage future shocks, including unexpected ones such as the pandemic (UN DESA, 2020b; G30, 2020 and OHRLLS, 2017).

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Table G.1: Aid from DAC Countries to LDCs (net disbursements)

DAC Country	NET DISBURSEMENTS											
	2007-2008			2017			2018			2019		
	USD million	Percentage of donor's total	Percentage of donor's GNI	USD million	Percentage of donor's total	Percentage of donor's GNI	USD million	Percentage of donor's total	Percentage of donor's GNI	USD million	Percentage of donor's total	Percentage of donor's GNI
Australia	712	25	0.08	852	28	0.07	868	28	0.06	667	23	0.05
Austria	273	15	0.07	293	23	0.07	319	27	0.07	315	26	0.07
Belgium	864	40	0.18	649	30	0.13	744	32	0.14	725	33	0.14
Canada	1712	39	0.12	1486	35	0.09	1 645	35	0.10	1 490	33	0.09
Czech Republic	73	34	0.04	64	21	0.03	65	21	0.03	65	21	0.03
Denmark	1092	41	0.33	729	30	0.22	726	28	0.20	787	31	0.22
Finland	387	36	0.15	325	30	0.13	314	32	0.11	368	32	0.14
France	3058	29	0.11	2753	24	0.10	3 390	26	0.12	2 919	24	0.11
Germany	3388	26	0.10	4089	16	0.11	4 956	19	0.12	4 454	18	0.11
Greece	132	22	0.04	56	18	0.03	60	21	0.03	50	14	0.02
Hungary	43	41	0.03	29	19	0.02	68	24	0.05	65	21	0.04
Iceland	19	40	0.12	20	29	0.08	32	44	0.12	24	40	0.10
Ireland	643	51	0.29	359	43	0.14	386	41	0.13	373	38	0.12
Italy	1476	33	0.07	1161	20	0.06	1 318	26	0.06	1 146	27	0.06
Japan	2544	29	0.05	5001	44	0.10	5 370	53	0.10	5 328	45	0.10
Korea	224	30	0.02	780	35	0.05	969	40	0.06	966	38	0.06
Luxembourg	155	39	0.37	182	43	0.43	224	47	0.46	213	45	0.47
Netherlands	1928	29	0.24	1045	21	0.13	1 352	24	0.15	1 274	24	0.14
New Zealand	85	25	0.07	127	28	0.07	132	24	0.07	140	25	0.07
Norway	1411	36	0.33	1165	28	0.28	1 242	29	0.27	1 167	27	0.28
Poland	94	26	0.02	113	17	0.02	220	29	0.04	133	17	0.02
Portugal	219	40	0.10	123	32	0.06	129	33	0.06	125	33	0.05
Slovak Republic	38	48	0.05	22	19	0.02	25	18	0.02	21	18	0.02
Slovenia	7	11	0.01	12	16	0.03	13	16	0.02	13	14	0.02
Spain	1317	22	0.09	584	23	0.04	687	27	0.05	583	22	0.04
Sweden	1461	32	0.31	1708	31	0.31	1 916	32	0.34	1 766	34	0.32
Switzerland	495	27	0.11	922	29	0.14	951	31	0.13	930	30	0.13
United Kingdom	4174	39	0.15	6081	34	0.23	6407	33	0.23	5770	30	0.21
United States	7201	30	0.05	12091	35	0.06	11360	34	0.05	11425	35	0.05
DAC-EU countries	20716	31	0.12	20379	24	0.12	23318	26	0.13	21164	25	0.12
TOTAL DAC	35110	31	0.09	42823	29	0.09	45886	31	0.09	43300	30	0.09

Source: OECD (2021).

**Note:** Including imputed multilateral flows, i.e. making allowance for contributions through multilateral organisations, calculated using the geographical distribution of multilateral disbursements for the year of reference.

**Table G.2:** Potential debt relief for LDCs from DSSI

COUNTRY	DSSI PARTICIPATION?	RISK OF EXTERNAL DEBT DISTRESS?	POTENTIAL DSSI SAVINGS MAY–DECEMBER 2020		POTENTIAL DSSI SAVINGS JANUARY–JUNE 2021	
			% OF GDP	USD MILLIONS	% OF GDP	USD MILLIONS
Afghanistan			0.2	39	0.2	37
Angola	Yes	–	1.9	1735	1.4	1293
Bangladesh	No	Low	0.1	332	0.1	291
Benin	No	Moderate	0.1	16	0.1	15
Bhutan	No	Moderate	5.8	145	9.9	248
Burkina Faso	Yes	Moderate	0.2	24	0.1	13
Burundi	Yes	High	0.1	5	0.1	3
Cambodia	No	Low	0.8	219	0.8	209
Central African Republic	Yes	High	0.3	7	0.4	9
Chad	Yes	High	0.6	65	0.4	44
Comoros	Yes	Moderate	0.2	2	0.2	2
Congo, Dem. Rep.	Yes	Moderate	0.3	156	0.2	106
Djibouti	Yes	High	1.7	57	2.0	67
Ethiopia	Yes	High	0.5	473	0.4	360
Gambia, The	Yes	High	0.6	10	0.4	6
Guinea	Yes	Moderate	0.5	71	0.2	29
Guinea-Bissau	Yes	Moderate	0.1	2	0.1	2
Haiti	No	High	0.9	76	0.7	60
Kiribati	No	High	–	..	..	..
Lao People's Dem. Rep.	No	High	1.7	315	1.5	278
Lesotho	Yes	Moderate	0.4	10	0.2	6
Liberia	No	Moderate	0.1	2	0.1	2
Madagascar	Yes	Moderate	0.3	36	0.1	9
Malawi	Yes	Moderate	0.2	17	0.2	17
Mali	Yes	Moderate	0.5	83	0.3	46
Mauritania	Yes	High	1.2	91	1.3	103
Mozambique	Yes	In distress	1.9	293	1.6	250
Myanmar	Yes	Low	0.6	380	0.5	359
Nepal	Yes	Low	0.1	25	0.1	21
Niger	Yes	Moderate	0.2	26	0.2	24
Rwanda	No	Moderate	0.1	13	0.1	12
São Tomé and Príncipe	Yes	In distress	0.4	2	0.7	3
Senegal	Yes	Moderate	0.6	139	0.4	98
Sierra Leone	Yes	High	0.2	8	0.2	7
Solomon Islands	No	Moderate	0.1	2	0.0	1
Somalia	No	In distress	0	2	0.0	1
Sudan	No	High	–	..	..	..
Tanzania, United Republic of	Yes	Low	0.2	139	0.2	110
Timor-Leste	No	Low	0	0	0.0	0
Togo	Yes	Moderate	0.5	27	0.4	24
Tuvalu	No	High	–	..	..	..
Uganda	Yes	Low	0.2	91	0.3	107
Yemen	Yes	–	0.9	212	0.6	138
Zambia	Yes	High	0.7	165	0.8	184
<b>Total LDCs</b>				<b>5511</b>		<b>4590</b>
<b>Total participating LDCs</b>				<b>2234</b>		<b>1895</b>

**Source:** Debt Service Suspension Initiative (worldbank.org)

#### Box IV: COVID-19 in cities in LDCs

More than half the world's population live in urban areas, often in densely-populated zones. In July 2020, the United Nations estimated that approximately 90 percent of all reported COVID-19 cases were in urban areas (UN, 2020), although in more recent months, several countries have seen significant spread in rural areas. In developed and developing countries alike, urban settings have posed serious challenges with regard to the transmission of COVID-19. Typically, in developing countries, the virus has first entered the country through international air travelers arriving in major cities and then transmitted on to secondary and third-tier cities (UN-HABITAT, 2020b).

The United Nations Socio-economic Framework for Immediate COVID-19 Response has classified the informally or self-employed in urban areas as one of the “at risk” population groups experiencing a high degree of socio-economic marginalization. Several groups stand out as particularly vulnerable in urban settings, in the COVID-19 context. These include: those living in informal settlements, the urban poor, homeless and people living in inadequate housing conditions, refugees and migrants, older persons, especially those at risk of isolation, persons with underlying medical conditions, women and girls, socially marginalized groups, and individuals at risk of interpersonal violence or self-inflicted harm (WHO, 2020a). The impacts of the COVID-19 pandemic can result in the widening of existing social and economic inequalities, while exacerbating vulnerability of these at-risk groups.

In LDCs, the conditions in slums and informal settlements carry especially high risks, due to overcrowding, limited access to water and sanitation, poor health care systems, and the lack of other basic services. Such overcrowding and the conditions that come with it are more likely to contribute to spread than density alone. Furthermore, a high percentage of slum dwellers work in the informal economy, which often have crowded workplace settings and no or limited social protection measures to fall back on. According to recent estimates, the COVID-19 pandemic could result in 120 million more people living in extreme poverty. The “new poor” are more likely to be urban dwellers and be better educated and less likely to work in agriculture than those living in extreme poverty before COVID-19 (World Bank, 2020a).

Among the LDCs, Bangladesh has the highest number of registered COVID-19 cases, with the capital Dhaka recording the bulk of the country's reported coronavirus cases (69 percent of cases were from Dhaka Division, as at 20 December 2020). In addition, the situation in the Cox's Bazaar District has been a source of particular concern for the government and UN and

aid agencies, who have maintained vigilance while aiming to increase support, for example by scaling up testing and health treatment for both Rohingya refugees and Bangladeshis (WHO, 2020b; WHO, 2020c).

While urban areas have seen the bulk of reported cases in LDCs, they are also important economic hubs. The contribution of cities to national GDP is 50 percent on average for Africa, and as high as 70 percent in some countries, for example Uganda. In 2020, the percentage of people living in urban areas in Africa was 43 percent, and 33 percent for low-income countries (UN-HABITAT, 2020b). On average, nearly a third of national GDP comes from the largest city in African countries (UN, 2020a). As a result of the pandemic, major job losses have occurred in cities, especially in informal and low paying jobs. Urban areas employ 38 percent of the global workforce and account for the majority of sectors classified as “high risk” by the ILO in the context of COVID-19 (ILO, 2020). The economic impacts of the pandemic in urban areas can be particularly severe - from job losses, lockdown and closures, and other forms of disruption. Some data have shown over 80 percent of slum residents have reported partial or complete loss of income. Many have left urban areas especially slum dwellers.

Transportation networks play a critical role in urban areas. They allow people to reach their place of work, connect rural and urban areas, link major economic hubs, and allow the efficient transit of people and goods to points of entry and exit (e.g. airports and seaports). At the same time, transportation can serve as major points of transmission, especially congested modes of transport. In order to combat the spread of the disease, a number of LDCs have had to resort to the suspension of public transport or a reduction in carrying capacity (UN-HABITAT, 2020a). Public transport systems have seen ridership and revenue plummet and have been forced to cut services. Furthermore, the urban poor, who generally cannot work remotely, also do not have the financial means for private transport, and thus the suspension of public transport has led to job losses and loss of livelihoods. Maintaining public transport remains vital, especially for the urban poor and vulnerable groups, including women and girls (UN, 2020).

COVID-19 shutdown measures in cities have had economic impacts well beyond their urban boundaries. Informal workers who have lost their jobs and are unable to afford high urban rents have been under pressure to relocate to rural areas. Urban de-densification itself as a result of COVID-19 can cause further economic slump. In addition, urban centres often play an important role in supply chains and transit of goods. Thus, shutdowns have also impacted on trade and food supply chains.



The response to COVID-19 in urban settings requires a coordinated and multi-sectoral approach, engaging national and local government authorities as well as other segments of society. Local authorities and communities are particularly important partners for governments and UN and aid agencies. Critical sectors include health, water and sanitation, social services, transport, housing and energy, education, security, and commerce and economy.

Coordination is a critical component, especially for large cities. Uganda’s capital Kampala has 40 percent of the total confirmed COVID-19 cases in the country. The Kampala Capital City Authority has set up a three-tiered coordination structure for its response, with a city task force led by the Director of Public Health & Environment, a Ministerial task force headed by the Minister for Kampala and Metropolitan Affairs, and Citywide and Division level task forces for Kampala City’s five Divisions (Cities for Global Health, 2020).

A critical part of the COVID-19 emergency response in LDC cities has revolved around the identification of hotspots and provision of water and health services, especially in slums and underserved urban areas. Other priority areas include community engagement, waste collection, and targeted social protection schemes, as well as the continued provision of essential services, including combatting crime and insecurity, especially violence against women and girls (World Bank, 2020b). To do this, local authorities must receive financial

means necessary, especially as they have suffered cuts from reduced central government transfers which are themselves facing severe fiscal crises.

In the medium-term, early recovery measures include business continuity, ensuring supply chains, re-starting transportation and other systems, providing safety nets for the urban poor as well as housing measures, micro-loans, rolling out employment programmes, and providing support for municipal finance. In the longer-term, local economic development strategies are critical for recovery, as are scaling up slum upgrading, strengthening emergency management, improving local governmental institutions, and investing in green recovery measures (World Bank, 2020c).

The COVID-19 pandemic has highlighted the inherent fault lines and weaknesses of unsustainable urbanization – and has further exacerbated them. The recovery, in the medium and long term, offers the possibility to address the root causes of unplanned, under-financed and uncoordinated urban growth in LDCs, while at the same time combatting climate change and building resilience. A consensus is emerging among experts that overcrowding, not density, is primarily responsible for rapid spread. Thus, maintaining acceptable levels of hygiene in houses, shops, places of employment and public transport are crucial. Health should become a new guiding principle in urban planning and governance (UN-HABITAT, 2020c).

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H. RESILIENCE PACKAGE FOR RECOVERY AND PREPAREDNESS FOR FUTURE SHOCKS

H.1 COVID 19—A SYSTEMIC RISK

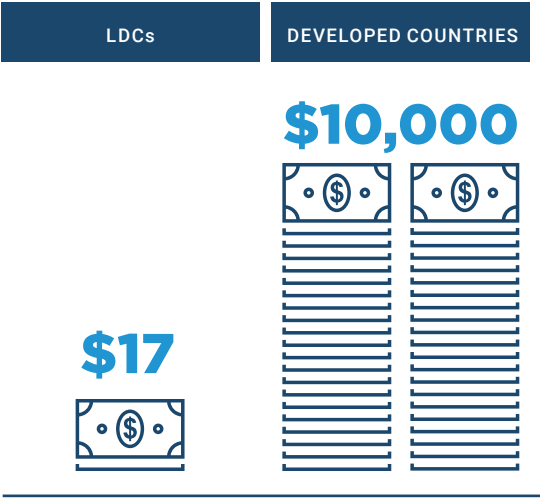
The impacts of COVID-19 have reached all countries. Trade and travel are two key vectors that have pushed the spread of the pandemic. Millions of people, including increasing numbers in LDCs, are already affected by the virus and hundreds of thousands have lost their lives. In addition to the dismal human toll, the poorest and most vulnerable countries may face long-lasting effects the pandemic leading to more poverty, inequality and deprivation, as illustrated throughout this report.

The basic framework that assesses any risk or threat is typically constructed around four factors: hazard, exposure, vulnerability, and resilience<sup>64</sup>, and it is the interaction of these four that leads to the economic consequences (Noy et al., 2020). In LDCs, people are highly exposed to the pandemic due to lack of adequate protective measures, extremely vulnerable due to weak fiscal and healthcare facilities and severely affected due to poor socio-economic resilience (see section A).

The pandemic affected the economies of all countries through demand and supply side shocks. Three such interrelated factors are: first, consumers and investors lose confidence in marketplaces affected by the pandemic or simply reduce their demand as a result of sudden loss of income, affecting the demand side of the market; second, absenteeism and reduction in the workforce negatively impacts the supply side; and lastly, public health safety measures aimed at reducing the spread of the virus severely affect economic activity through various mechanisms, such as a reduction, or halt of trade or travel (Nistha Shrestha, 2020). In a highly interconnected and complex global system, these factors have resulted in uncontrolled feedback loops and cascading effects leading to high uncertainties that are extremely difficult to manage.

<sup>64</sup>Hazard refers to the possible, future occurrence of natural or human-induced physical events that may have adverse effects on vulnerable and exposed elements (White, 1973; UNDR0, 1980; Cardona, 1990; UNDHA, 1992; Birkmann, 2006b). Although, at times, hazard has been ascribed the same meaning as risk, currently it is widely accepted that it is a component of risk and not risk itself. Exposure refers to the inventory of elements in an area in which hazard events may occur (Cardona, 1990; UNISDR, 2004, 2009b). Hence, if population and economic resources were not located in (exposed to) potentially dangerous settings, no problem of disaster risk would exist. Thus, exposure refers to people, property, systems, or other elements present in hazard zones that are thereby subject to potential losses. Vulnerability refers to the propensity of exposed elements such as human beings, their livelihoods, and assets to suffer adverse effects when impacted by hazard events (UNDR0, 1980). Vulnerability is related to predisposition, susceptibilities, fragilities, weaknesses, deficiencies, or lack of capacities that favor adverse effects on the exposed elements (Cardona et al., 2012). Resilience is the “capacity of social, economic, and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity, and structure, while also maintaining the capacity for adaptation, learning, and transformation (IPCCC).

Resilience package for recovery and preparedness for future shocks



COVID-19 related expenditures per capita in developed countries dwarfed those in LDCs in 2020

While it is neither possible nor desirable to significantly reduce this interconnectedness, resilience towards various new shocks such as COVID-19 requires designing systems that facilitate recovery and adaptation to the new circumstances (Hynes et al., n.d.). While all countries are affected, LDCs are overwhelmed in terms of secondary and tertiary shocks - many of them external, demonstrating their high vulnerability. While health impacts are still unfolding and accelerated in many LDCs towards the end of 2020 albeit with great variety across countries, all LDCs face severe socio-economic impacts from the global economic crisis, due to domestic and global demand shocks, significant drops in FDI and remittances, supply chain disruptions, temporary collapse in oil and commodity prices, tourism shocks, and others (OECD and UNCDF, 2020). These factors are going to further jeopardize the implementation of the 2030 Agenda, which was already off track in most of the LDCs even before the outbreak of the pandemic.

If the spread of the pandemic and its debilitating impacts are not properly managed, the pre-existing conditions for LDCs, namely high levels of extreme poverty, spiraling debt burdens, lack of fiscal space, weak production chain and high dependence on volatile commodity markets will further worsen, leading to even higher vulnerabilities. Similar to the global financial crisis, the impacts of COVID-19 are likely to last longer in LDCs, even after the pandemic will be contained.

This situation calls for building resilience in such a way that the systems are able to absorb threats and maintain their inherent structure and behavior and improve system function and capacity to counter disruptions (Nistha Shrestha, 2020) and help avert systemic collapse. Countries that have better policies and mechanisms in place could better handle the crises, but few LDCs have the capacity to do so. The Government of Rwanda has been dealing with the crisis quite efficiently compared to other countries in similar situations.

### Box H.1: Rwanda's resilience helps contain spread of COVID-19

Due to recent improvements in corporate governance, Rwanda has made some of the largest leaps in the 2019 FM Global Resilience Index<sup>65</sup> in recent years, jumping 35 spots to its current rank of 77th most resilient in the world and fourth highest in Africa (FM Global Resilience Index, 2020). Most importantly, it looks particularly well positioned to bounce back from this type of crisis as the country successfully contained Ebola from its borders after an outbreak in the neighbouring Democratic Republic of the Congo. With its mix of universal health care, medical supply-delivering drones and temperature checks at its borders, Rwanda is well-equipped to contain the spread of the virus, especially when compared to other countries in the region. Rwanda was the first country in sub-Saharan Africa to impose a total lockdown and is already distributing free food door-to-door to the country's most vulnerable. While tourism is expected to be hit hard, as Rwanda is a popular destination for many regional and international conferences and exhibitions, experts are hopeful that the country will have relatively few casualties to the virus, making it well-positioned to recover quickly.

**Source:** BBC (2020)

Furthermore, countries that could undertake rapid measures with appropriate national strategies and support could also manage the crises well. Singapore, one of the first countries affected by COVID-19, adopted a national strategy for the pandemic which emphasized preparedness through a whole-of-nation approach. With a rapid surge in case in April 2020, the health system resilience of Singapore faced a major test as how effectively it could respond to the crises by reorganizing systems to manage the new conditions while maintaining core functions (Nuzzo et al., 2019). With 58,929 positive cases, the country managed to contain the death level to 29 (WHO, 2021). Important measures that contributed towards mitigating the impacts of the pandemic include (i) clear leadership and governance which adopted flexible plans appropriate to the situation; (ii) timely, accurate and transparent communication from the government; (iii) public health measures to reduce imported cases, and detect as well as isolate cases early; (iv) maintenance of health service delivery; (v) access to crisis financing; and (vi) legal foundation to complement policy measures which provided legal basis to enforce social distancing measures, such as a limitation on mass gatherings, and hold individuals as well as business owners accountable for violation (Chua et al., n.d.).

Many LDCs are struggling to meet their ongoing development needs while maintaining their current account balance, which makes it difficult for them to adopt and implement counter-cyclical macroeconomic policies (UN-OHRLLS, 2018). There are many quick disbursing loan facilities and insurance programmes introduced by Governments and international organizations to address sudden needs for financial resources, which are difficult for LDCs to access, primarily due to their capacity constraints. While multilateral support to LDCs increased rapidly in the second quarter of 2020, there are also significant limitations as discussed in section G. Some of the programmes and tools, particularly tailored to LDCs, are alleged to have inadequate funds compared to growing needs of LDCs. Recent years have seen the emergence of innovative capital-market based risk financing mechanisms such as catastrophe bonds, contingent credit, and regional catastrophic insurance pools, but only a limited number of LDCs benefitted from them.

While the COVID-19 pandemic demands huge investments in public health services, social protection and post-crisis recovery, the associated global macroeconomic downturn is going to further debilitate the fiscal space of LDCs for years to come. COVID-19 also constrains LDCs' access to finance for recovery and the implementation of the SDGs because

of: (i) falling domestic public revenue; (ii) increasing debt burden and declining access to private external finance; and (iii) liquidity and solvency crises affecting private firms, notably small and medium enterprises (SMEs) (Bayat-Renoux et al., n.d.) (see also section E.)

The simultaneous decline in available financing from all sources and increase in spending needs amplifies the so-called 'scissor effect' of sustainable development finance identified by the OECD (OECD, 2019). The 'scissor effect' means that public debt in LDCs is likely to increase further, unless their access to finance is drastically improved. While the G20 has taken some limited measures of debt relief, factors like poor macroeconomic conditions and increased perceived country risk, are likely to lead to higher cost of public borrowing for LDCs (Bayat-Renoux et al., n.d.)

### H.2 BUILDING BACK BETTER AND ENHANCING RESILIENCE

There is no certainty or predictability about future shocks and hazards that may affect LDCs. As the COVID-19 pandemic eventually begins to recede, other shocks and crises will remain on the horizon, many of which will become increasingly severe under the influence of climate change and reinforce each other (Bowen et al., 2020).

The way human activities are affecting the natural system is causing serious damage to biodiversity and ecosystem services, which is likely to have severe impacts on economic and social systems. The radical uncertainty associated with complex systems makes it impossible to predict where the next crisis will come from (Hynes et al., n.d.). COVID-19 has highlighted how unprepared the world is to detect and respond to emerging infectious diseases and the need for aggressive and smart investments to simultaneously navigate COVID-19 and prepare for future pandemics and other shocks (McKinsey and Company, 2020).

Thus, it is vitally important to undertake measures at national, regional and global levels that facilitate fast recovery and build resilient economic and social systems to recover from the crises, shield against future hazards, while protecting the planet. A shift from the traditional ex-post approach towards a resilience-based ex-ante approach for the management of future potential systemic and covariate shocks is needed. This transformative approach will enable the system to serve multiple purposes including prediction, preparation, absorption, recovery and adaptation to a wide range of systemic threats. Thus, resilience must become a core element within system

<sup>65</sup> The FM Global Resilience Index measures the resilience of a country's business environment.

management and operation to ensure the ability to continue to function despite disruptions like COVID-19, and should be able not only to adapt and improve in its aftermath, but to seize upon new or revealed opportunities (Hynes & Linkov, n.d.). Countries need to design systems, including infrastructure, supply chains, economic, financial and public health systems, that are dynamic, smart and resilient. This can bring additional benefits on top of addressing the impacts of COVID-19 by making the national economic system stronger and resilient.

To address the effects of COVID-19, an integrated approach bolstering recovery of economic, public health, social welfare, and other affected systems will have the greatest return-on-investment. This will not only restore the baseline of growth and stability, but also lead to ‘bounce forward’ in a way that could leave national and international systems in a far better and sustainable state than before (Hynes & Linkov, n.d.). For example, incorporating climate resilience into COVID-19 stimulus packages can deliver strong economic returns, address underlying drivers of inequality and poverty, fight biodiversity loss and reduce the spread of infectious disease (Chan, 2020). It is important to invest in economic activities that will create jobs, protect communities and natural ecosystems, and promote sustainable development in a cost-effective manner in our ever-changing world (WRI, 2020).

However, climate change mitigation and adaptation need to go beyond recovery from COVID-19, aiming at limiting global temperature rise to 1.5°C, which will facilitate not only building back better but also sustainable. To achieve this goal, the IPCC Special Report urges to accelerate the transition across four systems: energy, land and ecosystems, urban and infrastructure, and industry (Bayat-Renoux et al., n.d.). These transitions also require access to a wide range of finance options, technologies and technical know-how to operate in various economic systems.

For all countries, the green recovery approach offers an opportunity to restructure critical sectors of the economy with a view to transitioning to climate resilient, carbon neutral and resource efficient economies in an inclusive and socially responsible way. Not only would this be in line with national and international commitments made under the Paris Agreement, Sustainable Development Goals and other international environmental agreements, such as the Aichi Biodiversity Targets, but they would also support improving the well-being of communities and societies over the near and medium to longer term (OECD, 2020). For example, better air quality, improved water quality, effective waste management, and enhanced

biodiversity protection will not only reduce the vulnerability of communities to pandemics but will also improve overall societal well-being and resilience (OECD, 2020). Similarly, an investment in energy efficient buildings can rapidly generate large employment opportunities, reduce energy poverty and increase resilience to extreme weather events. Likewise, investments in climate-resilient agriculture and water management will preserve livelihoods and foster ecosystem restoration while investment in low emission, resilient infrastructure will protect people, jobs and assets. Overall, the green recovery approach offers a new growth paradigm that is not only friendly to the environment, but also contributes to employment and poverty alleviation.

Although green recovery sounds highly promising, it also entails risks, challenges and costs for LDCs. There should not be a one size fits all approach in transitioning to green development and the principle of common but differentiated responsibility should apply to LDCs. Developed countries need to enable and support LDCs’ sustainable development through finance, technology transfer and appropriate reforms to the global economic and financial architecture (UNEP, 2017). LDCs should also enjoy the full flexibility offered under the TRIPS agreement and the UNFCCC and can be exempted from the environmental standards and protectionist measures in their trading system.

The central pillar of the green development strategy is getting access to modern technologies and technical know-how. The international community should take a strong technology policy dedicated to LDCs with a focus on adaptation and dissemination of green technologies and the treatment of green economic activities as “infant industries” that require appropriate support, including subsidies, preferably time-bound, access to credit and perhaps some level of protection (UNEP, 2017). Industrial countries should facilitate the flow of such technologies directly, or through the private sector and public institutes that receive public R&D funding to be more active in transferring technologies to LDCs. The Technology Bank for LDCs needs to be strengthened to enable it to play an authoritative and meaningful role in support of the access to and transfer of technologies to LDCs.

The transition to a greener economy requires new skills, both for newly emerging jobs and for existing jobs that are evolving as highlighted in section B. The availability of workers and enterprises with the right skills for green jobs plays not only a critical role in initiating the transition to a green economy, but also in enabling a just transition that ensures social inclusion

and decent work. Comprehensive measures for vocational training and reskilling can improve transferability across firms and sectors, thus enhancing ability to successfully relocate as needed (OECD, 2020). Developed and developing countries can play a key role in providing education and training to the youth population of LDCs to be able to benefit from the modern digital economy and technologies.

Developed countries can take a lead in transitioning to the green development strategies in their recovery measures. There is a significant opportunity for countries to integrate low-carbon development in their COVID-19 rescue and recovery measures, and to incorporate these into new or updated NDCs and long-term mitigation strategies that are scheduled to be available in time for the reconvened twenty-sixth session of the Conference of the Parties (COP 26) in 2021 (UNEP, 2020). A green recovery could reduce expected emissions by up to 25 percent and increase the chances of keeping the world below a 2-degree Celsius scenario by up to 66 percent (UNEP, 2020).

Despite huge potentials, the stimulus packages launched by developed countries have paid limited attention to green recovery measures. As of the beginning of December 2020, the total G20 stimulus funding is estimated at US\$12.7 trillion, roughly divided between budgetary measures and liquidity support, which will boost their economies and accelerate development (Vivid Economics, 2020). Despite huge potentials and urgent needs, in the stimulus packages announced to date, nature and biodiversity have been particularly neglected. It is estimated that the announced stimulus to date will have a net negative environmental impact in 16 of the G20 countries and economies (Vivid Economics, 2020).

Developing countries, especially LDCs, on the other hand—already the most vulnerable to the impacts of COVID-19 and climate change—do not have the monetary and fiscal space to roll out ambitious recovery packages (Bayat-Renoux et al., n.d) (see also section E.). The group of 46 least developed countries collectively managed to put in place direct and indirect fiscal support by only 2.6 percent of their GDP, while the size of the stimulus for the developed countries averaged 15.8 percent of their GDP. In dollar terms, stimulus spending per capita averaged nearly \$10,000 in the developed countries, while it amounted to less than \$20 per capita in the least developed countries (UN DESA, 2021).

LDCs need immediate assistance from the international community to undertake recovery measures and build back better. Supporting LDCs is indeed the collective self-interest

of all as the world is now highly interconnected and globalized, in which an outbreak anywhere is an outbreak everywhere. In a world where an ecosystem in a Chinese province can trigger a global economic crisis, it is important to abandon traditional, linear, compartmentalized ways of designing and applying policy, and cooperate pragmatically from local to international levels (Hynes et al., n.d).

It is therefore critical to undertake a comprehensive global approach to support the LDCs to enable them to redress the outbreak of COVID-19 and its devastating consequences and to reinforce their resilience systems to fight future crises. Recovery measures of the developed countries need to consider positive spill overs for developing and least developed countries.

### H.3 MULTI-HAZARD EARLY WARNING SYSTEM (MHEWS)

LDCs are frequently affected by multiple crises at the same time with cumulative effects. The nature and origin of the threats may be different, but there are a lot of commonalities in their ultimate impacts as they generally put people at risk to encounter large and long-lasting losses to their livelihoods with the poor and marginalized segments of the society, including women and girls, being most severely affected. One of the lessons from both the COVID-19 pandemic and extreme weather events is the need to understand the vulnerability of individuals, communities, and societies so as to provide reliable, targeted guidance and warnings and ensure the willingness and capacity to prepare for a reasonable worst-case scenario as a basis for informed long-term planning (Rogers et al., n.d.).

It is therefore vitally important to understand the cascading effects of various hazards, where a specific incidence may have series of effects resulting in primary, secondary and tertiary hazards. For example, a meteorological event, such as a tropical cyclone, produces heavy rainfall, which in turn causes flooding that disrupts transportation networks, energy supplies, and other critical infrastructure, that causes loss of life or physical harm, social isolation, interruption to employment, education and livelihood activities, and psychological distress (Rogers et al., n.d.). Health shocks like COVID-19 also follow the same pattern in terms of primary, secondary and tertiary hazards related to it (see table H.1).

A Multi-hazard early warning system (MHEWS) is an important tool to mitigate the impacts of various hazards. The key objective of such a system is to disseminate clearly understood warning to people with the aim of protecting them from the direct and cascading impacts of the hazards on



Table H.1. Example of events with primary, secondary, and tertiary hazards and associated impacts

EVENT	PRIMARY HAZARDS	SECONDARY HAZARDS	TERTIARY HAZARDS
Virus	Infectious disease	<ul style="list-style-type: none"><li>• Disease spread by human behavior</li><li>• Economic disruption</li></ul>	<p>Overwhelming of health services</p> <ul style="list-style-type: none"><li>• Loss of productivity</li></ul> <p>Public finances overwhelmed</p> <ul style="list-style-type: none"><li>• Loss of education opportunities</li><li>• Unemployment</li><li>• Civil disobedience</li></ul> <p>Psychological problems</p>

Source: Learning from Multi-Hazard Early Warning Systems to Respond to Pandemics, Rogers et al., n.d.

their lives and livelihoods. This can provide a clearly defined and well-understood framework for early action to cope with complex disasters, which can make it easier for authorities and other stakeholders, including populations at risk, to understand the full spectrum of a disaster’s secondary and tertiary effects and thus can focus on preparedness efforts, and how best to provide more targeted warnings and response services (Rogers et al., n.d.).

The MHEWS is intended to convey risk levels in an easy-to-understand format, ensure credibility and accountability, and help create transparency between different stakeholders (Garcia & Fearnley, 2012). Well-known examples are the Pacific Tsunami Early Warning Centre and the Asteroid Terrestrial-impact Last Alert System (ATLAS). During the past decade, the international community focused attention to the development and application of early warning systems primarily in the area of meteorological disasters including volcanic, earthquake, tsunami and flood hazards.

The rapid spread of the COVID-19 pandemic has demonstrated that local, national, and international warning systems for pandemics are seriously underdeveloped. Five years ago, the UN Member States extended the definition of risk to include biological hazards, adopting the Sendai Framework for Disaster Risk Reduction, driven by countries that had experienced epidemics from strains of Ebola, MERS, and SARS. One of the framework’s seven global targets is to substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments by 2030. Despite the Sendai Framework, only 81 countries have a national strategy for disaster risk reduction, and only a few of these reference pandemic threats (Fearnley & Dixon, 2020). The COVID-19 pandemic reveals in hindsight that the costs

of mitigation were very small compared with the losses and therefore more should have and could have been done to mitigate the risk through an early warning system (Harford, 2020).<sup>66</sup>

Drawing lessons from COVID-19, the MHEWS, with its four diverse key elements: risk knowledge, monitoring and warning service, dissemination and communication, and response capability (UNISDR-PPEW, 2006), needs to include pandemics and other shocks alongside natural disasters. Several countries were successful by rapidly putting in place standardized early warning system for COVID-19. New Zealand has developed a set of protocols that underpins its COVID-19 alert system. This comprises four colour-coded alert levels—prepare, reduce, restrict, and lockdown—providing clear guidance on the risk assessment, and the range of measures in place. Each alert level has specific outcomes, summaries, and measures for public health, personal movement, travel and transport, gatherings, public venues, health and disability care services, workplace, and education so that there is clarity in what can and cannot be conducted at each alert level (Fearnley & Dixon, 2020).

The disaster management laws of some countries cover epidemics or pandemics as disasters. Samoa integrated epidemics and pandemics in its early warning system for the measles outbreak that affected the country in December 2019, which in turn enabled them to take early action as COVID-19 started spreading into the Pacific (Rogers et al., n.d.)

It is important for LDCs to put in place MHEWS, which will lead to understanding of the magnitude of the risks, identify the exposure and vulnerability of people, estimate potential threats and consequences, provide specific warnings and guidance, and suggest specific ex-ante mitigation and ex-post adapta-

tion actions aiming at minimizing the physical, societal and economic damage to individuals, families and countries as a whole. Appropriate national strategies and strong international cooperation are essential to ensure that necessary tools are available and responses appropriate (Kluge 2020, H.H.P. 2020).

Many LDCs cannot afford to develop modern multi-hazard early warning systems at the national and regional levels. National strategies are often fragmented and unable to respond to unpredictable shocks and crises to a larger magnitude. The national policies and strategies are also under-funded owing to their weak financial and technical capacities. Some countries have enacted comprehensive risk reduction strategies, but fail to undertake corresponding regulatory reforms, institutions and human capacity building and mobilize necessary financial resources, technology and technical know-how.

H.4 MULTI-HAZARD CRISES MITIGATION AND RESILIENCE BUILDING MECHANISM FOR LDCs

Over the years, the international community has adopted a more coordinated approach in the global policy dialogue on various economic, social and environmental issues. While the three important global agreements (i) the Sendai Framework for Disaster Risk Reduction (ii) the 2030 Agenda for Sustainable Development and (iii) the Paris Agreement on Climate Change are unique in their respective focus and priorities, a common thread is the recognition of the need for an integrated approach to manage the risks of extreme events and climate across different economic sectors, levels of government and society. Such an approach would include pre-disaster investments in (i) risk analysis to understand the risks, (ii) early warning, preparedness, and preventive measures to reduce the risks; and (iii) innovative risk financing and risk transfer measures to distribute the residual risks (Golnaraghi, et al., 2017).

Given the depth, breadth and complexity of challenges that the least developed countries have been facing in the context of various hazards and shocks, there is no silver bullet that can address all of them. Therefore, a comprehensive Multi-hazard crises mitigation and resilience building mechanism for LDCs could be designed, leveraging existing measures and initiatives. The mechanism, which would entail a number of measures to be established or revitalized at the national, regional and global levels, would cover the response to various types of disasters and shocks, including pandemics. This will enable those countries to save lives and money, speed up response times and bring more predictability and rigor to the

global response to shocks and crises (UN, 2017). A number of measures, including financial, regulatory and institutional, need to be put in place to establish and operationalize this mechanism for LDCs.

Catalyzing a more effective disaster response and resilience building requires integrated financing systems, that is, harmonized trigger systems where funds are released and anticipatory action implemented in a coordinated way according to aligned plans (Montier et al., 2019, Harries and Jaime, 2019). Bayat-Renoux et al. suggest the following initiatives to deepen and scale up funding in the era of COVID-19, namely:

1. Leveraging ongoing NDC enhancements efforts to foster policy integration between climate action, economic recovery and the SDGs.
2. Creating dedicated green and climate-resilient financial products in developing countries to access institutional finance.
3. Making blended finance work for nascent markets and technologies through better design and bold new mechanisms.
4. Deepening domestic financial sectors and financial institutions.
5. Exploring innovative financing instruments to increase developing countries’ access to climate finance.

Enhancing resilience must start at the local level. A more resilient household is typically more prepared as a result of having access to a range of counter-cyclical social protection systems and insurance instruments to draw upon when savings are depleted and/or a shock is especially severe. The capacity to react to shocks or adaptation is dependent on various forms of capital including human (health and education), natural, financial, physical and social and all these assets play a role in risk-smoothing, adaptive capacity and recovering from shocks (UN-OHRLLS, 2018). Strong social protection systems for the poorest and marginalized groups of people, that are capable of reaching affected households with immediate assistance, are vitally important to ensure their resilience against any type of shock and hazard. As an immediate response, direct cash transfers, food for work and education programmes and other forms of social protection can provide some relief from the immediate shocks (OECD, 2020). Furthermore, it is important to build a larger and more diversified asset base, including productive, financial, and human capital-related assets and to leverage such assets to relocate away from an area of spatially concentrated risk (Bowen et al., 2020).

<sup>66</sup> In 2015, Bill Gates gave a TED talk called “The next outbreak? We’re not ready”; which has been watched by 2.5 million people by the end of 2019, but no major action was taken.

LDCs need to strive for universal health coverage for the resilience of health systems. Planning for a “reserve army” of health workers with flexible mandates at national, sub-regional and regional levels, which was introduced in several countries after previous epidemics, can be very useful to provide additional support to the regular healthcare workforce and allows for a more flexible management of human resources across regions. Bill Gates in 2015 suggested creating an army of specialists from many disciplines to meet whatever crisis or epidemic might arise (Hynes et al., n.d.).

It is also important to put in place well-designed market-based risk transfer tools which can make an important contribution to more reliable and timely post-disaster relief and response, early recovery and ultimately the reconstruction phase. However, there is still a huge gap in availability of insurance protection. In LDCs and other low-income countries typically more than 95 percent of all losses related to all natural hazards remain uninsured (Golnaraghi, et al., 2017).

For an effective application of risk transfer, the public sector needs to provide enabling legal and regulatory environments, including clearly defined property rights, land zoning, freedom from corruption and regulatory certainty. For innovative products, such as parametric insurance, which can be designed for households, farms and other firms, or at the level of local and regional administrative units (Golnaraghi, et al., 2017). Weak capital markets, poor credit ratings and sometimes lack of adequate regulatory regimes impede LDCs to introduce weather-related derivatives and insurances at low-cost premiums.

It is also crucial for LDCs to secure fast-tracked and easy access to various risk mitigation and resilience-building funds at the regional and global levels, including funding for adaptation to climate change; and getting access to adequate bilateral financial and technical support for ex-ante and ex-post measures in the LDCs. Vulnerable countries like LDCs, to successfully recover and advance, will need urgent access to financial support and future debt relief from governments, multilateral development banks, and donors, including as committed under the UNFCCC (GCA, 2020).

With development finance accounting for a prominent share of the financing for sustainable development mix in LDCs, ODA continues to be a critically important source of finance for these countries but its quantity and quality needs to be improved (see section G.).

The Green Climate Fund (GCF), which is the largest dedicated climate fund has so far provided US\$2.1 billion for the LDCs,

or 37 percent of its global portfolio. At the end of 2020, 32 LDCs had submitted proposals to the Green Climate Fund (GCF) Readiness and Preparatory Support Programme, of which 22 had received approval. However, the climate financing received by the least developed countries falls far short of the estimated requirements and needs to focus more on mitigation (UN, 2021).<sup>67</sup>

As it is unlikely that domestic and foreign public funds will be sufficient to cover the growing needs of LDCs to reach the SDGs, they also need to seize on the potentials offered by innovative finance as well as new financial products, such as green bonds. However, in developing countries, notably LDCs, the market for green bonds remains in its infancy due to shallow capital markets; the high cost of issuance due to LDCs’ lower credit rating; the issue of minimum size; and the lack of appropriate institutional arrangements for green bond Management (Bayat-Renoux et al., n.d.). Efforts are ongoing to address these challenges. International financial institutions are assisting some developing countries and LDCs to issue green local currency bonds. For example, GCF is supporting Jamaica to set up the Caribbean’s first regional green bond exchange through its Readiness and Preparatory Support Programme (Bayat-Renoux et al., n.d.). Such support needs to be extended to all LDCs to attract required level of capital.

Catastrophe Bonds (Catbonds) constitute the most common form of insurance-based lending instruments. Catastrophe bonds are reinsurance contracts that allow the issuer to access higher levels of capital in the event of a triggering event through a special purpose vehicle set up solely to issue the bond. Investors take the risk of an event occurring in exchange for an attractive yield and access to assets uncorrelated to traditional asset classes. Catbonds do not necessarily involve traditional debt issuance, with covers typically provided for natural catastrophe exposures and typically no restriction on the use of the proceeds of the catastrophe bond (The Geneva Association, 2017).

To reduce vulnerability from external debt, LDCs can also consider implementing countercyclical loan loss provisioning, which makes higher provisions during good times to build buffers that can be drawn down during tough times. This is often called the “safety-and-soundness” principle. The countercyclical provisions (CCPs) are loan arrangements and debt securities that feature an ex-ante covenant, in which countries’ debt service obligations are temporarily permitted to fall in response to an external shock, as measured in a predetermined way. For instance, parametric meteorological data can

be used to assess the severity and expected costs of a storm or hazards, or through the use of economic data to determine the impact of commodity price volatility on a country’s terms of trade (Hydrant, 2016).

While in the immediate and short-term response to the COVID-19 crisis, grant support is and remains critical, blended finance can play a key role to support LDCs in mobilizing resources for the medium-to-long term recovery. LDCs continue to receive the lowest share of only 6 percent of private finance mobilized by official development finance interventions, although the volume has been increasing (OECD and UNCDF, 2020). This can catalyze private finance by using scarce public resources to de-risk low emission, climate-resilient investment opportunities and address certain country risks (Bayat-Renoux et al., n.d.).

As further elaborated in section G., mobilizing blended finance will require immediate action to start building a pipeline of bankable projects aligned with LDCs’ national development strategies and their emerging Integrated National Financing Frameworks, that can attract investors’ appetite. For blended finance to be effective for the COVID-19 recovery, the wide range of actors involved—donors, DFIs, MDBs, impact and commercial investors, local financial institutions, etc.—should coordinate on how to address underserved actors and sectors, e.g. target MSMEs, provide decent and sustainable jobs, invest in sustainable infrastructure, promote gender equality and support health systems as well as the transition towards digital economies (OECD and UNCDF, 2020).

Well-designed parametric insurance can improve the efficiency of the resources that are available because of their very nature of early recognition of the severity of disasters. The CCRIF SPC (formerly the Caribbean Catastrophe Risk Insurance Facility) is the world’s first multi-country risk pool that is based on parametric insurance. It has been providing parametric catastrophe insurance covering weather events and earthquakes for Caribbean Governments since 2007, and excess rainfall since 2013 (UN, 2017). In 2016 pay-outs of US\$23.4 million to Haiti were made under the country’s tropical cyclone and excess rainfall policies, as a result of Hurricane Matthew (CCRIF, 2020).

Similar insurance schemes have been developed in other regions. The Pacific Catastrophe Risk Insurance Company (PCRIC) was established in June 2016. It secured increased reinsurance coverage of \$45 million for the 2017-2018 cyclone season, providing five participating Pacific Island Countries with parametric insurance protection for climate and seismic

risks. So far it only covers two graduated countries, Samoa and Vanuatu. Capital was provided through a Multi-Donor Trust Fund (Artemis.bm, 2020).

In May 2014, the African Risk Capacity Insurance Company Limited launched a catastrophe insurance pool for its African members to improve responses to climate-related food security emergencies, which has made rapid payouts to several African LDCs affected by droughts. It is estimated that the cost of ARC is outweighed more than 4 times by the benefits compared to traditional emergency appeals (UN-OHRLS, 2018). Currently 9 African LDCs have joined the risk pool and have approved Contingency Plans that stipulate how payouts would be utilized. ARC has also expanded its product range by launching a tropical cyclone insurance in 2020.<sup>68</sup>

Parametric catastrophe insurance requires extensive environmental data as well as sophisticated modelling technology. Most LDCs do not have access to this information, nor the technical capacity to design parametric insurance programs, thus technical assistance needs to be provided to LDCs to overcome these deficiencies. There is also a strong case for donor subsidies of premiums for such insurance if the country undertakes effective disaster risk management, to allow more LDCs to participate, which would further diversify risk and enhance efficiency (UN-OHRLS, 2018).

While parametric insurance enables rapid payouts, the amounts disbursed in general do not cover the costs for rebuilding which can be, in some cases, more than 100 percent of GDP, especially in small countries. Thus, there is the need for complementary mechanisms to cover the cost of disasters and recovery. However, in 2020, many humanitarian and other appeals remained grossly underfunded (see also section G.).

It is also noteworthy that relying on insurance alone will not be enough as it merely allows for the ex-post transfer of climate risk, which does not necessarily involve the proactive reduction of climate risks upfront (The Geneva Association (2017). As the risks are higher in LDCs, the cost of insurance will also be higher. Thus, it is important to reduce and address the vulnerability of LDCs to lower the premiums. LDCs also need support by development partners, including IFIs, in accessing parametric insurance schemes, for example through support for an LDC entering an insurance scheme for the first time and subsidized premiums (UN-OHRLS, 2018). Concessional insurance can help countries secure premium financing for a number of years while they progressively include premiums into their budgets (World Bank, 2017).

<sup>67</sup> The LDC 2050 Vision Report has estimated the costs of implementing adaptation priorities in LDCs’ Nationally Determined Contributions at \$40 billion annually between 2020 and 2030.

<sup>68</sup> Updates—African Risk Capacity



## H.5 CONCLUSION AND RECOMMENDATIONS

If the spread of the pandemic and its debilitating impacts are not properly managed and contained, the pre-existing conditions of LDCs, namely high levels of extreme poverty, unsustainable debt burdens, lack of fiscal space, fragile production chains and dependence on volatile commodity markets will further worsen. Like the global financial crisis, the impact of COVID-19 will further exacerbate poverty, increase vulnerability and lead to greater instability in the LDCs. The effects of COVID-19 will last longer in LDCs than in the rest of the world. It is possible to envision a scenario where the pandemic has been largely contained in developed and in many developing countries while still remaining unrestrained in the LDCs. This will further widen the gap between LDCs and other countries and increase dramatically the divide among the LDCs and the rest of the world.

One of the lessons from both the COVID-19 pandemic and extreme weather events is the need to understand the vulnerability of individuals, communities, and societies so as to provide reliable, targeted guidance and warnings and ensure the willingness and capacity to prepare for a reasonable worst-case scenario as a basis for informed long-term planning.

This situation calls for building resilience in such a way that the economic systems are able to absorb threats and improve system function and capacity to counter disruptions to avoid the extensive loss of lives and livelihoods. Countries that have better policies and mechanisms in place could better handle the crises. Furthermore, countries that could undertake rapid measures with appropriate national strategies and support could also manage the crisis well. LDCs need to make a shift from the traditional ex-post approach towards a resilience-based ex-ante approach for the management of the COVID-19 pandemic as well as future potential systemic and covariate shocks.

Countries need to design systems, including infrastructure, supply chains, economic, financial and public health systems, that are dynamic, smart and resilient. This can bring additional benefits on top of addressing the impacts of COVID-19 by making the national economic system stronger and resilient.

Important measures that could mitigate the impacts of the pandemic include (i) clear leadership and governance which adopted flexible plans appropriate to the situation; (i) timely, accurate and transparent communication from the government; (iii) public health measures to reduce imported cases and detect as well as isolate cases early; (iv) maintenance

of health service delivery; (v) access to crisis financing; and (vi) legal foundation to complement policy measures.

To address the effects of COVID-19, an integrated approach bolstering recovery of economic, public health, social welfare, and other affected systems will have the greatest return-on-investment. This will not only restore the baseline of growth and stability, but also lead to ‘bounce forward’ in a way that leaves national and international systems in a far better and sustainable state than before.

The green recovery approach offers a new growth paradigm that is not only friendly to the environment, but also contributes to employment and poverty alleviation. Developed countries need to enable and support LDCs’ sustainable development through finance, technology transfer and appropriate reforms to the global economic and financial structures. LDCs should also enjoy the full flexibility offered under the TRIPS agreement and the UNFCCC and should not be subject to environmental standards and protectionist measures in their trading system. Supporting LDCs is indeed the collective self-interest of all as we live in a highly interconnected and globalized world.

The international community should take a strong technology policy dedicated to LDCs with a focus on adaptation and dissemination of green technologies and the treatment of green economic activities as “infant industries” that require appropriate support including subsidies, preferably time-bound, access to credit and in some cases some level of protection.

A focus on gender equality can contribute greatly to building back better through the enhanced contribution of women and girls to long term sustainable development. Meeting women’s need would bring substantial benefits to the family and society and thereby contribute to reduce the vulnerability of women and girls against various hazards and shocks.

A MHEWS is an important tool to mitigate the impacts of various hazards to a greater extent. This can provide a clearly defined and well-understood framework for early action to cope with complex disasters, which can make it easier for authorities and other stakeholders, including populations at risk, to understand the full spectrum of a disaster’s secondary and tertiary effects and thus where to focus preparedness efforts, and how best to provide more targeted warnings and response services.

Drawing lessons from the COVID-19, the MHEWS, with its four diverse key elements - risk knowledge, monitoring and warning service, dissemination and communication, and response

capability—will support LDCs to better position themselves against shocks and crises. LDCs need support to develop and implement modern multi-hazard early warning systems at the national and regional levels.

Building resilience against various potential covariate shocks and crises is the first line of defense to protect lives and livelihoods of the people. It is important to build the capacity of the household to prepare for, cope with, and adapt to shocks in a manner that protects their well-being: ensuring that they do not fall into poverty or become trapped in poverty as a result of the impacts.

Given the depth, breadth and complexity of challenges that the least developed countries have been facing in the context of various hazards and shocks, there is no silver bullet that can address all of them. Therefore, the international community may consider establishing a comprehensive multi-hazard crises mitigation and resilience building mechanism for LDCs by leveraging existing measures and initiatives. A number of measures, including financial, regulatory and institutional, need to put in place to establish and operationalize this mechanism for LDCs. The LDC5 Conference offers an opportunity to agree on a multi-hazard early warning system and a comprehensive multi-hazard crises mitigation and resilience building mechanism for LDCs including its terms of reference, institutional mechanism and funding modalities.

Allocation of ODA taking into account the LDC criteria and especially the economics and environmental vulnerability index would increase finance available for resilience building, especially for the most vulnerable LDCs. In addition, many LDCs that are in or at high risk of debt distress need long-term solutions to their debt problems in order to be able to finance the building back better agenda.

It is also crucial for LDCs to secure fast-tracked and easy access to various risk mitigation and resilience-building funds at the regional and global levels, including funding for adaptation to climate change; and getting access to adequate bilateral financial and technical support for ex-ante and ex-post measures in the LDCs. LDCs also need to seize on the potentials offered by the innovative finance as well as new financial products, such as blended finance and green bonds. Catbonds constitute the most common form of insurance-based lending instruments.

LDCs can also consider implementing the countercyclical loan loss provisioning, which makes higher provisions during good times to build buffers that can be drawn down during tough times. This is often called the “safety-and-soundness” principle. Blended finance can play a key role to support LDCs in mobilizing resources for the medium-to-long term recovery.

For the large financing needs of resilient infrastructure and sustainable energy it is necessary to combine financing from different sources in a way that uses the most concessional resources where they provide the highest social and environmental returns. Capacity building in the design and implementation of infrastructure projects as well as support for the preparation of bankable projects is urgently needed.

Such investments will not only create employment but also enhance the competitiveness of LDCs, enable regional integration and diversification of their economies to make them more resilient to commodity price shocks. Likewise, creating an enabling environment for MSMEs, including in agriculture and providing targeted support is crucial to ensure that environmental sustainability is aligned with poverty eradication and the reduction of inequalities.

Digital technologies have proven to be effective against the various disruptions caused by COVID-19, if affordable access is in place (Mezzour et al., 2020). Countries that are advanced in digital access including mobile and internet connectivity could quickly resort to alternative arrangements for education, commerce and businesses as well as office works (see also section F.). The use of AI based simulations in health-care can contribute to improving pandemic management by establishing a large-scale smart decision-making system (Mezzour et al., 2020). Access to modern technologies is essential for LDCs to cope with abrupt unseen shocks and hazards.

In order to achieve the goal of building back better in LDCs, reverse the set-backs due to the COVID-19 crisis and enhance their resilience to future shocks, the alignment of both domestic and external finance with the SDGs is crucial.



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## UN-OHRLLS

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**Front cover:** Fatou Sadio Mangara, second year pediatric student and intern at the neonatal unit at the Gabriel Touré Hospital in Bamako, Mali. Mali has been ranked as one of the countries in the world least prepared to respond and cope with the impacts of the COVID-19 crisis.

*Photo: UNICEF*