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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

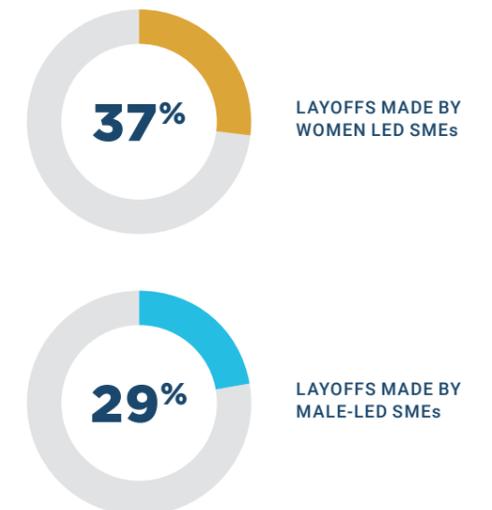
The pandemic-induced disruptions to production and global supply chains, which is estimated to cause world trade volumes to shrink by 32 percent in 2020 (WTO, 2020a), has severe impacts on LDCs' economies. These are magnified by several other indirect or induced impacts on trade, for example the appreciation 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

LAYOFFS BY SMALL & MEDIUM ENTERPRISES (SMEs) INCREASED



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

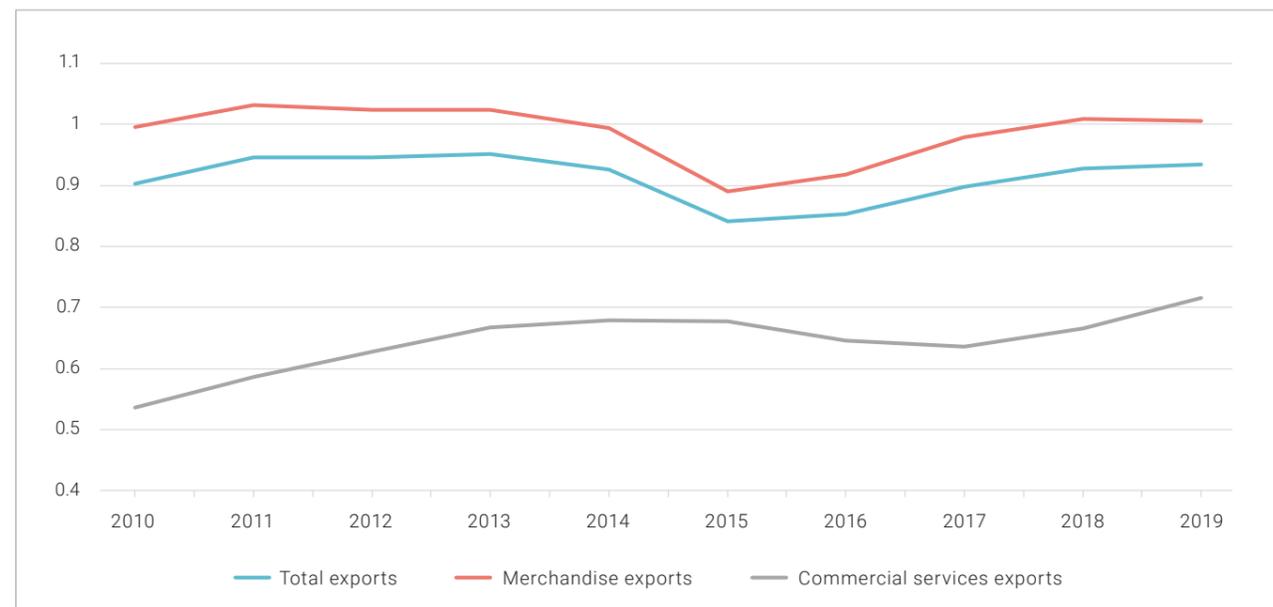
LDC total (goods and services) exports increased by 35 percent to reach US\$234 billion over the course of the past decade (2010-2019). This performance was mainly driven by LDCs' services exports, which more than doubled over this period, albeit from a low base (US\$ 20.9 billion). Merchandise exports 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

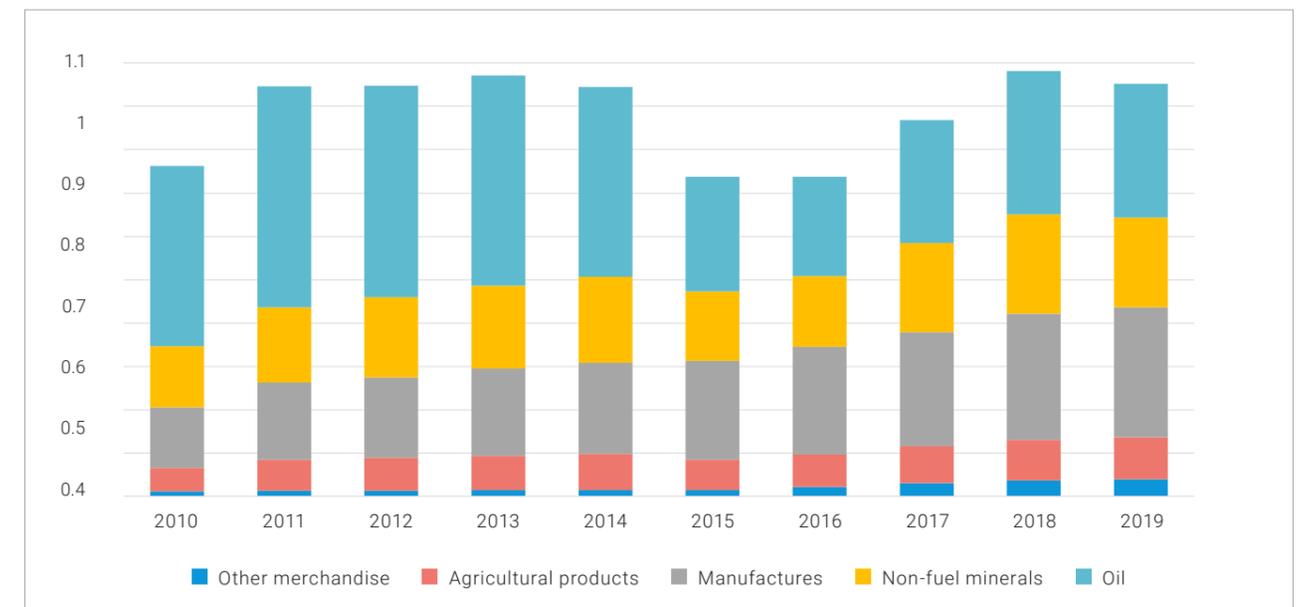
Much of the rise in value of LDC merchandise exports, especially over the recent period 2016-2018, can be attributed to hikes in the prices of primary goods, such as oil and minerals, reflecting high demand in developing countries, notably China. However, commodity prices generally fell in 2019, and 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).

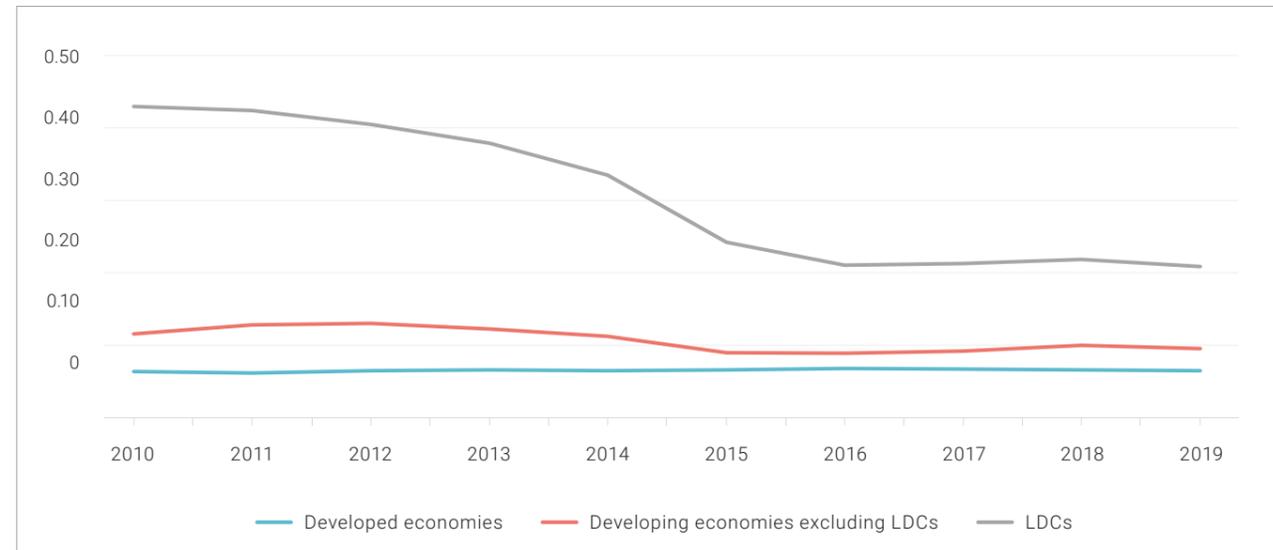
#### Concentration of Products and Partners

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.

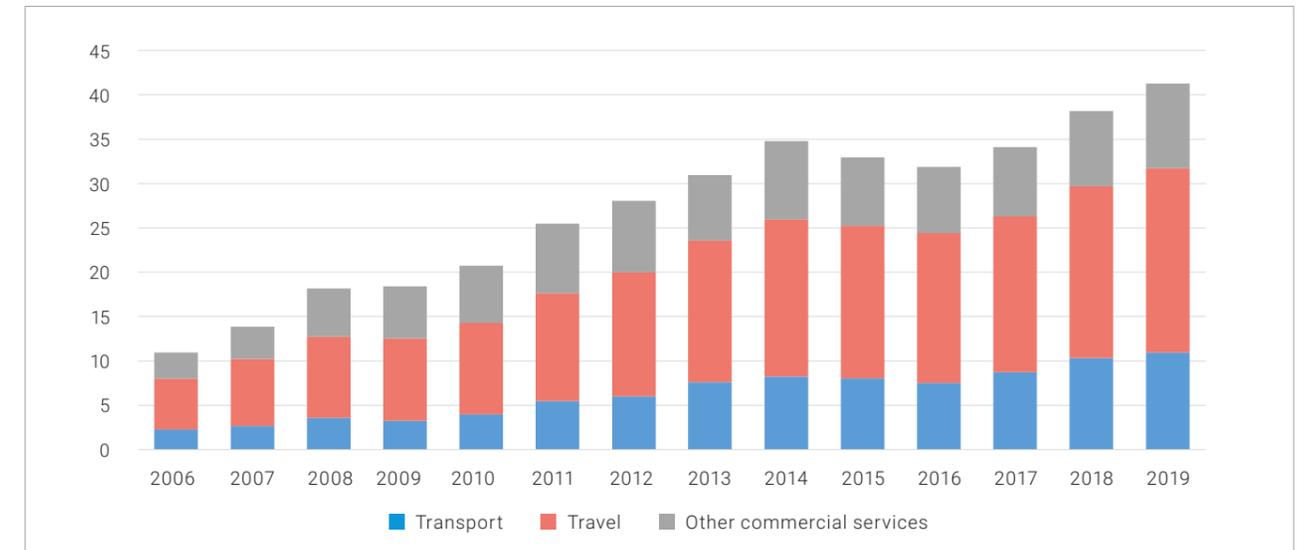
The merchandise export product concentration ratio leveled off at 0.21 percent in 2019—at half of its 2010 level (Figure D.3). However, the decline in the index was particularly steep until 2016 and has since then bottomed out.

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 (USD 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.

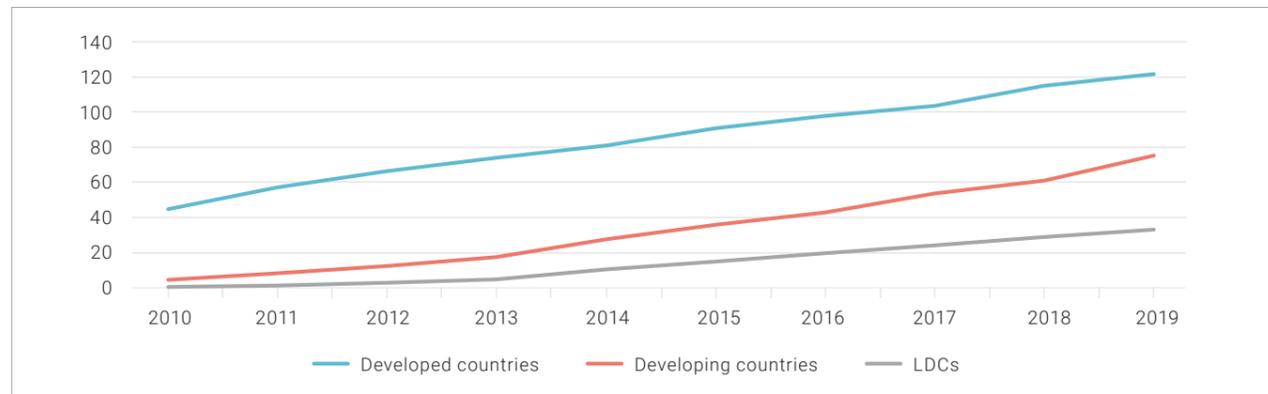
Infrastructure projects have been delayed by the pandemic, especially in resource constrained LDC economies, and private investors may be more reluctant to finance such projects as their risk appetite diminishes in times of uncertainty. Thus, public, and blended finance are needed to provide the infrastructure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

### Information and Communications Technology

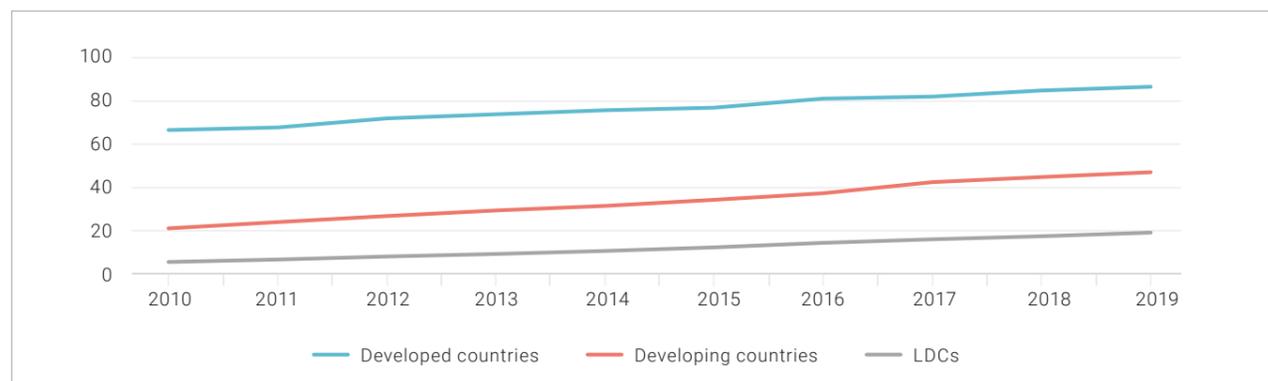
In the area of ICT, the IPoA goal is for LDCs to develop a modern and inclusive ICT infrastructure, including affordable mobile broadband and internet connectivity, and to promote the digitalization of services. While mobile subscriptions have increased 127 percent over the past decade to reach 75 per 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 (Boulle 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 World 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
<b>Bangladesh</b>	<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>
<b>Comoros</b>	<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>
<b>Ethiopia</b>	<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>
<b>Haiti</b>	<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 pandemic</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).

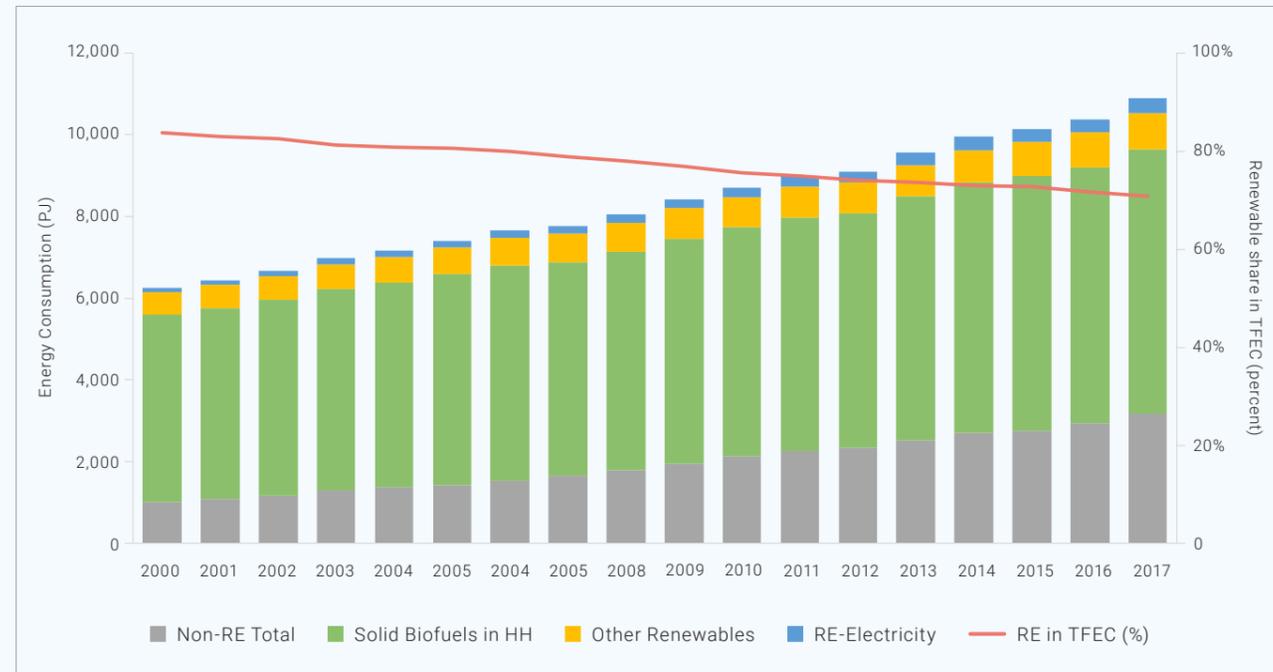
Furthermore, 10 LDCs featured among the 20 countries as having the largest energy access deficits in 2018 (IEA et al., 2020). For the same period, expansion of electricity kept up with population growth in only five out of the 10 LDCs (Bangladesh, Myanmar, Sudan, United Republic of Tanzania, and Uganda).

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.