

UNCTAD's Input to the Report of the Secretary-General on the Implementation of the Vienna Programme of Action for the Landlocked Developing Countries for the Decade 2014-2024

I. Introduction

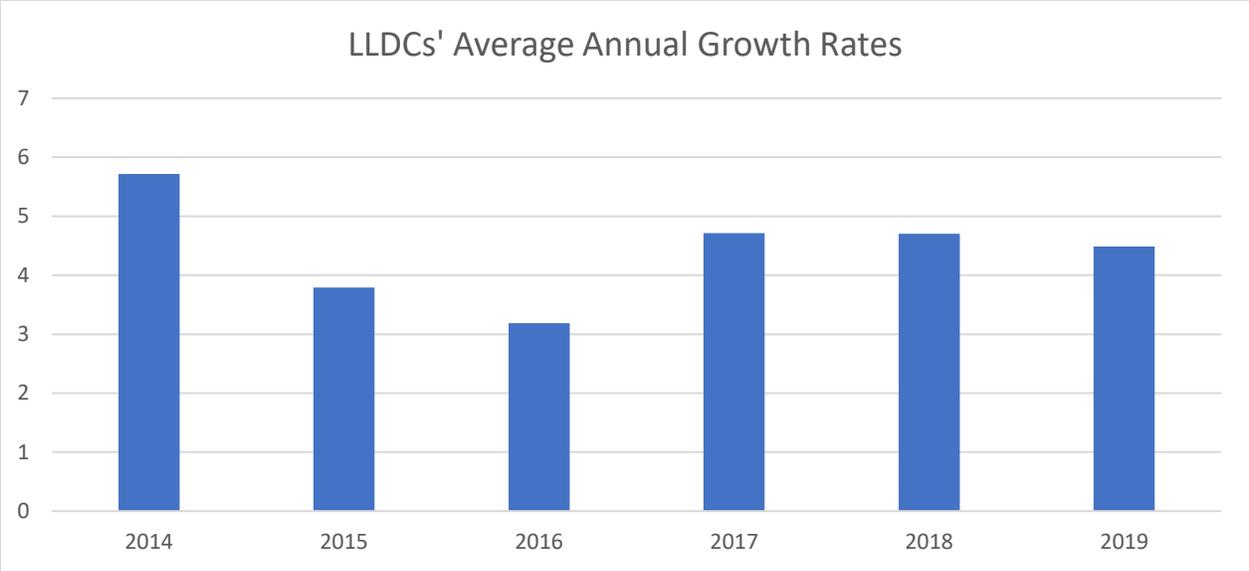
The present report serves as the UNCTAD input to the report of the Secretary-General on the implementation of the Vienna Programme of Action for Landlocked Developing Countries for the Decade 2014–2024 (VPoA) prepared pursuant to resolution 75/228 of the General Assembly. The UNCTAD input analyses the progress of the Landlocked Developing Countries towards the goals of the VPoA, and provides a summary of the activities of UNCTAD in support of its implementation. It covers the period from 1 January 2020 until 31 March 2021.

II. An overview of recent socio-economic developments in landlocked developing countries, including impact of Covid-19 pandemic and building back better.

The health and socio-economic impact of the global Covid-19 pandemic has had a severe adverse impact on the global economy, and on the development prospects of developing countries. The global death-toll from the pandemic alone exceeds 3 million persons, and it is possible that the number of casualties from indirect effects is far higher. The socio-economic fallout of the pandemic is likely to cause a significant increase in extreme poverty, malnourishment, and hunger across the globe, reversing years of development gains and undermining progress towards the SDGs. The landlocked developing countries (LLDCs) are among the most vulnerable countries to the impact of the pandemic, and their achievement of the goals of the VPoA is put in jeopardy.

Even before the onset of the global pandemic, the performance of LLDCs had lagged behind the goals and targets of the VPoA: In the first two years of the VPoA, the fall in global commodities prices translated into a fall of GDP-growth of the LLDCs from an average of 7% in the period from 2000 -2013 to 3.2% in 2016 (See Figure 1). While average growth later recovered to 4.7% in 2017 and 2018, it slowed again to 4.4% in 2019, always remaining far below the average prior to the adoption of the VPoA (2004 – 2014). In the area of trade, too, the performance of LLDCs remained behind the ambition of the VPoA to substantially increase the participation of LLDCs in global trade: Their share of global merchandise exports decreased by almost 30%, from 1.20% in 2014 to 0.87% in 2016. It has since recovered to 1% in 2019 but declined again to 0.96% in 2020. The share thus remained below its 2014 level, and far from the goal of doubling. Similarly, Foreign Direct Investment (FDI) flows to the LLDCs have fallen sharply, from US\$ 35.2 billion in 2011 to US\$ 22.4 billion in 2016. After a brief increase to US\$ 23.1 billion in 2017 they fell back to US\$ 22.6 billion in 2018, where they have remained in 2019. This means that LLDCs accounted for less than 1.5% of global FDI inflows between 2017 and 2019.

Figure 1:



Source: UNCTADStat

If LLDCs were falling behind the VPoA goals before 2020, the global pandemic has almost put their achievement out of reach. According to the latest estimates¹, global GDP is estimated to contract by 4.3% in 2020 – a steeper fall than experienced during the recession of 2009. National lockdowns, limits to social gatherings, and shop as well as border closures have severely impacted both global supply and demand. Unemployment in some sectors has grown significantly, while in others work has continued remotely. The strongest economic effect of the pandemic (in pure monetary terms) is felt in the developed countries, which are estimated to see a GDP contraction of 5.8%. In developing countries and LDCs, where the health impact of the pandemic appears to have been more muted so far, the contraction is estimated to be more limited, at 2.1% of GDP. Beyond the economic impact, the pandemic could have devastating impacts on healthcare delivery and health systems as well as education, derailing or wiping-out hard-won gains of the previous decades in the areas. The fear now is that the digital divide and the gap between the haves and the have nots may increase during and post-pandemic environment, leaving LLDCs behind in achieving SDGs.

Annual GDP growth in the LLDCs is estimated at -2.4% in 2020. However, the average for the group hides considerable disparities, depending on individual LLDCs specific economic structure. For example, countries heavily dependent on exports of oil and gas, or on tourism are likely to see sharp reductions in incomes due to the impact of falling prices and falling demand for tourism services. However, some fuel-exporting countries, such as Kazakhstan, were able to draw on their sovereign wealth funds to cushion the impact of falling prices on GDP. Among the Asian LLDCs, the fuel-importing countries of Central Asia are estimated to have been most severely affected, with Kyrgyzstan contracting by 7.5%, Armenia by 6.9% (compounded by the impact of armed conflict), the Republic of Moldova by 5.6% and Georgia by 5.2%. In contrast, among the African LLDCs, Zimbabwe, Botswana and South Sudan are estimated to see the largest contractions, at -9.8%, -8.5%, and -7.2%. In Latin America, Bolivia is likely to see its GDP fall by 8% due to collapsing copper prices, while Paraguay is likely to only see a contraction of 1.6%.

¹ World Economic Situation and Prospects 2021, UNDESA, New York

However, given their greater vulnerability to the crisis, the adverse socio-economic impact of the crisis is likely to affect developing countries the most. In developed countries, significant efforts have been made to mitigate the socio-economic effect of national lockdown measures. In addition to the regular operation of social and unemployment insurance, developed countries have implemented large fiscal support measures to support companies and consumers affected by the crisis. According to UNCTAD calculations, the median developed and transition economy has provided 4.5% of GDP in additional spending or foregone revenues to cushion the impact of the pandemic, as well as 5.6% of GDP in liquidity support. This translates to broadly 1'365 US\$ per person in spending, and 2'135 US\$ in liquidity support per person. In developing countries, lack of financial means and inadequate social support mechanisms have meant that the support was more limited or non-existent. The median developing country spent only 2.1% of GDP in additional spending (translating into US\$ 76 per person). In LDCs, the support was even more limited: While the median LDC provided 1.9% of GDP, the smaller size of the GDP meant that this translated to only US\$ 17.8 per person.

The economic impact of the pandemic on LLDCs exceeds that seen in the 2008/9 financial crisis, which was largely concentrated in developed countries. The pandemic will therefore likely have a significant impact on human development indicators, including poverty and hunger. According to the latest estimates by the World Bank, the number of additional people in extreme poverty in 2020 will be between 119 and 124 million, with 60% of the increase in South Asia.² While there is no country-specific data on the poverty impact in LLDCs, it is likely that the impact will be severe. Furthermore, there is growing concern about the rise in food price indices and the likely impact on nutrition. While agricultural food supply remained relatively stable in 2020, there has been an increase in average food prices in early 2021, raising concerns about the potential impact on malnutrition.

III. Status of implementation of the priorities of the Vienna Programme of Action

a.) Transit Policy Issues

The health and safety measures taken to combat the coronavirus-pandemic in 2020 have had an adverse impact on transit transport for LLDCs. Slower customs clearance due to additional health measures, entry restrictions, and reduced availability of authorized border points have impeded the flow of cargo. According to a recent study by UNECLAC these obstacles had a greater impact on trade delays for many LLDCs during the pandemic than hindrances at seaports.³ As a result of these concerns, in June 2020, the Secretary-General of UNCTAD joined the heads of several UN agencies in calling on transit countries to refrain from imposing unjustified restrictions on transit transport during the pandemic.

² <https://blogs.worldbank.org/opendata/updated-estimates-impact-covid-19-global-poverty-looking-back-2020-and-outlook-2021>

³ Rivera, A.: "The impact of COVID-19 on transport and logistics connectivity in the landlocked countries of South America", UNECLAC, 2020, available on: https://repositorio.cepal.org/bitstream/handle/11362/46528/1/S2000768_en.pdf

However, several countries have continued their efforts to improve transit transport. For example, a regional transit solution that interconnects Customs IT clearance systems for exchange of transit data using one declaration was implemented in 2019 in three West-African corridors: Abidjan-Ouagadougou, Lomé-Ouagadougou and Cotonou-Niamey. The implementation of the solution resulted in a shorter transit processing time at the border (approx. 1 hour) for goods destined to Niger transiting through Benin or Togo.

b.) Infrastructure Development and Maintenance

The Coronavirus pandemic has put significant strain on the transport infrastructure and logistics networks. First, falling demand and health restrictions reduced freight volumes and caused significant delays. However, towards the second half of 2020, demand for consumer goods increased significantly, leading to an increase in global shipping, and driving shipping costs up. LLDCs, whose transport costs are generally higher than those of transit countries, stand to be further disadvantaged in an environment of high transport costs.

The pandemic further led a recognition of the important role of ICT infrastructure in helping to ensure that some economic activities can continue remotely. In this context, the digital divide in terms of ICT infrastructure and the availability and costs of access to the internet has gained new attention. LLDCs often face higher prices for access to the internet both in terms of broadband access as well as mobile access.

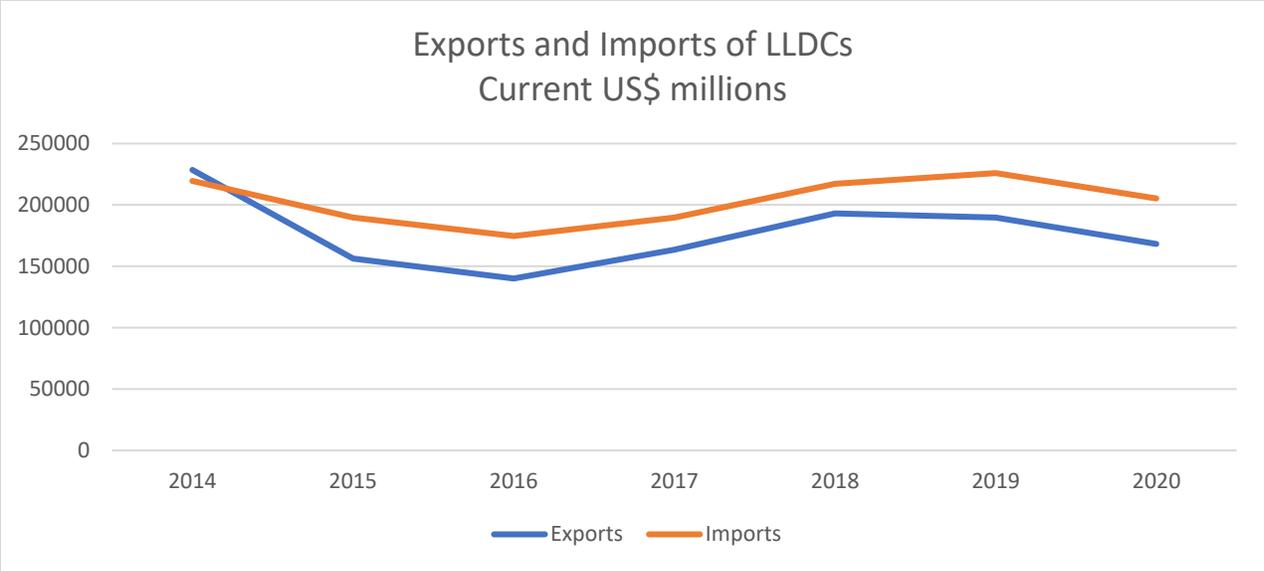
c.) International Trade and Trade Facilitation

According to the latest UNCTAD estimates, global trade is estimated to have contracted by 9% in 2020⁴, with global merchandise trade contracting by 6% and global services trade by 16.5%. The overall trade performance hides considerable variation by region, with sectors such as energy and transportation contracting by almost 30%, and East Asian economies seeing a much faster recovery than the rest of the developing world.

In the case of LLDCs, aggregate exports are estimated to have declined by 11.1 %, while imports have decreased by 9.3% (See Figure 2).

Figure 2:

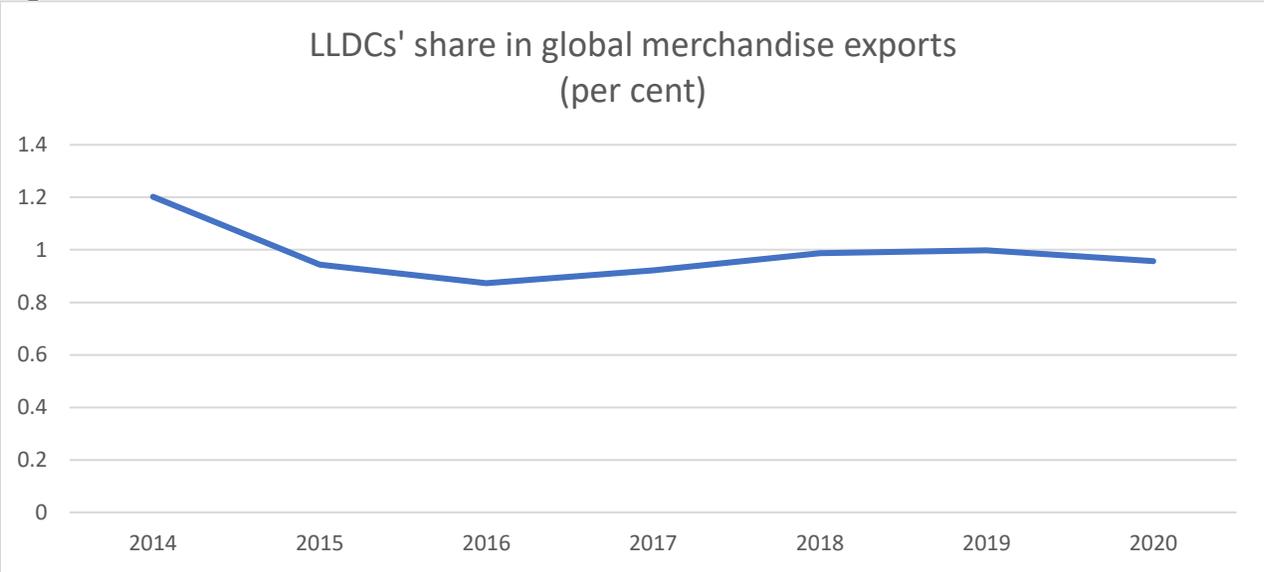
⁴ Global Trade Update, 15 February 2021, UNCTAD, Geneva, available on: https://unctad.org/system/files/official-document/ditcinf2021d1_en.pdf



Source: UNCTADStat

As a result, LLDCs’ share in global merchandise exports is estimated to have declined to 0.96% in 2020, down from 1 % in 2019 (see Figure 3).

Figure 3:

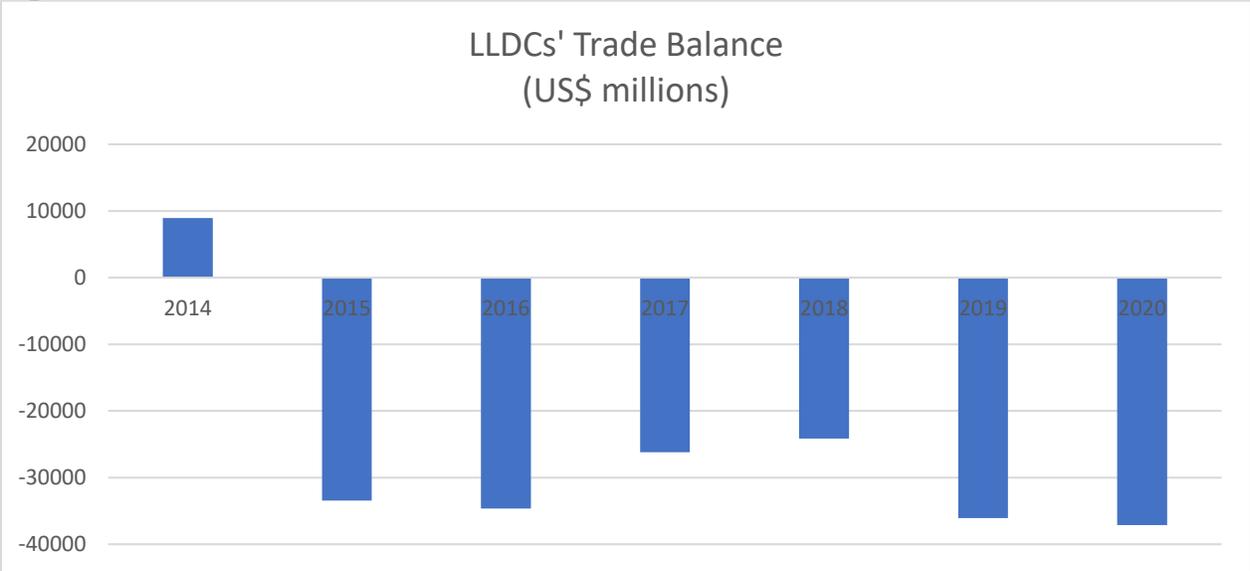


Source: UNCTADStat

The trade balance of LLDCs reached a low of -34 bn (20% of imports) in 2016, before recovering to -22.9 bn (10.7% of imports) in 2018. However, it again deteriorated to -36 bn in 2019 (16% of imports) and -37 bn in 2020 (18% of imports). While the effect of the pandemic on the trade balance appears less strong than feared, LLDCs have now been running trade deficits for 6 years in a row, creating concerns about the longer-term impact on debt (See Figure 4). Lagging exports over imports means that LLDCs are forced to finance their import requirements through ODA, FDI or loans, which may further exacerbate their external debt burden. Persistent trade deficits can

also have an impact on domestic employment, particularly, if imports are dominated by consumer items instead of capital goods.

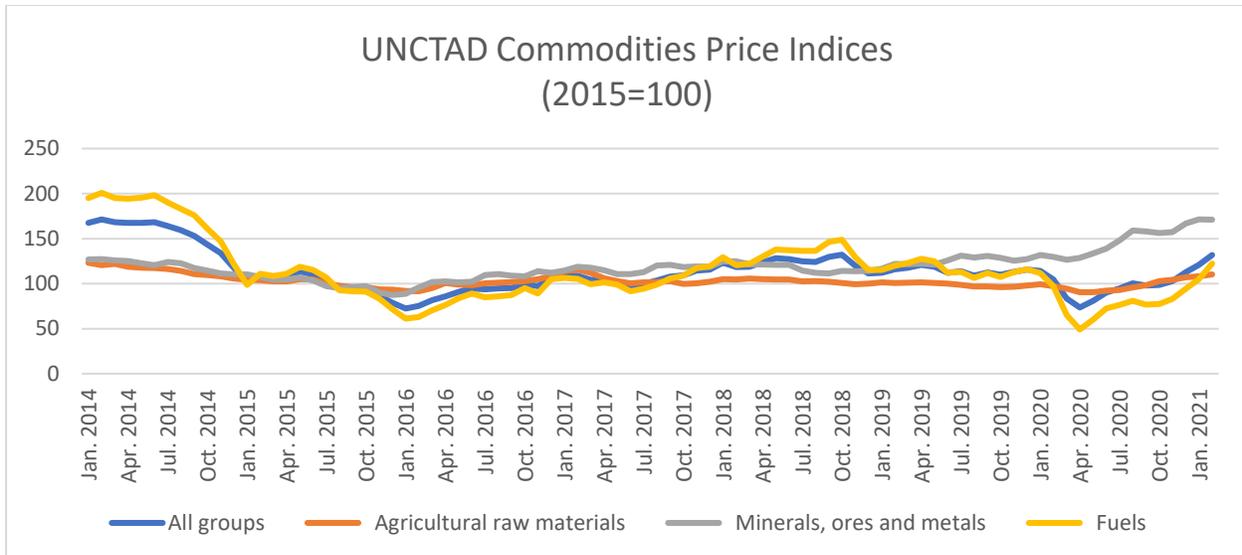
Figure 4:



Source: UNCTADStat

Given the fact that 26 of the world’s 32 LLDCs are commodity-dependent, their export performance is strongly influenced by commodity-prices. UNCTAD’s aggregate commodity-price index dropped by more than 34% between January and April 2020 but has since recovered and even increased (See Figure 5). The aggregate index hides variation across different commodities. Fuels have been most effected by the fall in prices, while other commodities have seen more moderate falls. In April 2020, crude oil spot-prices fell below zero for the first time in history due to storage problems. In contrast, minerals, ores and metals have seen an increase in price over the course of 2020.

Figure 5:



Source: UNCTADStat

The falls in commodities prices could have a significant impact on the trade balance of commodity-dependent economies, as imports tend to adjust to reduced exports only with a delay. However, in the case of a combined supply and demand shock, such as the pandemic, imports are likely to be affected as much as exports.

d.) Regional Integration and cooperation

In the reporting period, LLDCs continued to pursue regional integration and cooperation as a means of overcoming the challenges of being landlocked.

On 1 January 2021, trading under the African Continental Free Trade Area, which includes all 16 African LLDCs, formally began. 36 African countries have so far ratified the AfCFTA, including 13 LLDCs.

In addition, three LLDCs (Georgia, North Macedonia and the Republic of Moldova) have concluded bilateral agreements with the United Kingdom, in light of the United Kingdom's departure from the European Union.

e.) Structural economic transformation

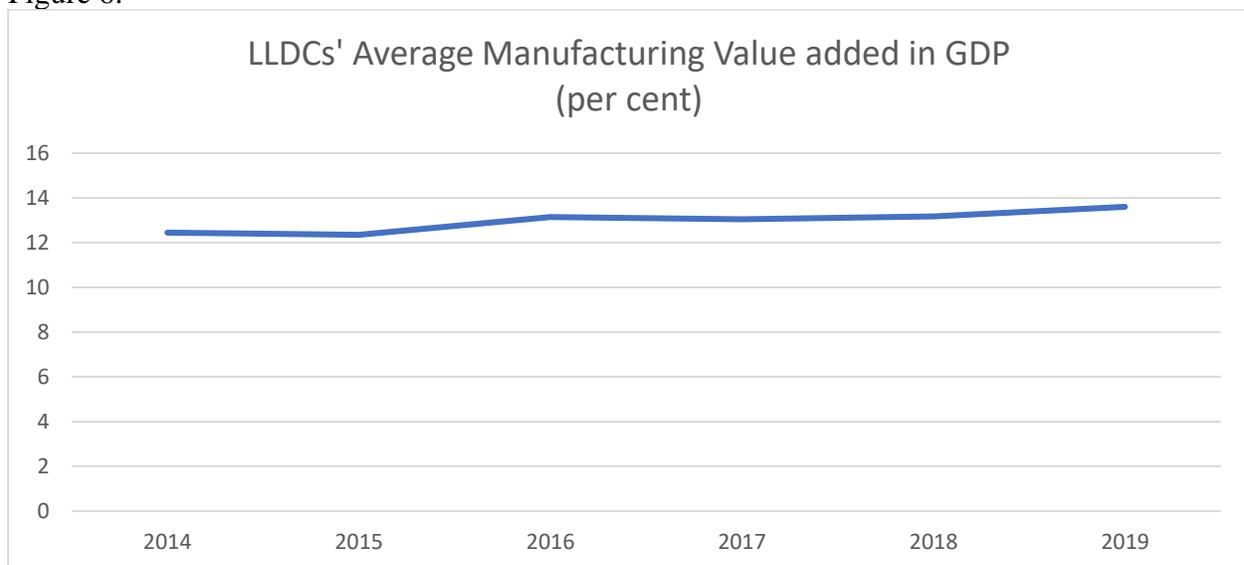
LLDCs continue to face challenges in achieving structural economic transformation of their economies. 26 out of the 32 LLDCs remain dependent on commodities for more than 60% of their export revenue.

The average concentration index for merchandise exports for the group of LLDCs has remained broadly constant at 0.45, though the average hides considerable movement of the index within countries. Central African Republic, for example, saw its export concentration index decrease from 0.49 in 2014 to 0.27 in 2019. In contrast, Uganda's concentration index increased from 0.18

to 0.31 over the same period (For country-specific concentration indices, see the UNCTAD Merchandise Export Concentration Index at <https://unctadstat.unctad.org/EN/>).

There has been a mild improvement in the average share of manufacturing value added in the GDP of LLDCs, from 12.4% in 2014 to 13.6% in 2019 (see Figure 6).

Figure 6:



Source: UNCTADStat

f.) Means of implementation

The pandemic is adversely affecting LLDCs not only through its direct impact on the health of their citizens and the socio-economic impact of domestic lockdowns, but also indirectly through international transmission channels, such as reductions in trade and investment, and ODA and remittance flows. Furthermore, many LLDCs have seen sharp reversals of capital flows. Together, these can lead to debt-crises in some LLDCs, which could exacerbate their socio-economic situation even further.

In terms of FDI, UNCTAD estimates that global FDI inflows will contract by up to 40% in 2020, from their 2019 value of US\$ 1.54 trillion, bringing total annual FDI flows below US\$1 trillion for the first time since 2005.⁵ Most of this decline is due to a reduction in FDI flows in developed countries (75%), while FDI flows to developing countries only decreased by 16% on average in the first half of 2020. Flows were 28% lower in Africa, 25 in Latin America and the Caribbean, and only 12% in Asia. However, developing countries saw a relatively larger fall in greenfield projects (-49%) than developed countries (-17%), due to their greater reliance on extractive industries.

As a result, the 32 LLDCs are likely to struggle with the economic impact of the pandemic on FDI inflows. Their common disadvantage has become acute at a time when borders are closed for health reasons; these closures affect LLDC trade and investment links disproportionately, as they cannot turn to direct sea transport. Border closure measures also hinder regional integration efforts, which have been an important factor mitigating the disadvantage of being landlocked, and disrupt trade corridors, land transport and connectivity efforts. Also, in the future LLDCs may suffer major losses from the prolongation of the decline in both their GDPs and the GDPs of vital trading partners which will only add to the difficulty of attracting foreign investment. The severity of the potential decline in inward FDI is evidenced by the fall in the number of announced greenfield projects, one of the key indicators of investors' intentions.

Remittance flows in 2020 to low- and middle-income countries (LMICs) are projected to fall by 7.2 per cent to USD 508 billion, followed by a further decline of 7.5 per cent to USD 470 billion in 2021. According to the World Bank, these projected declines are among the sharpest in recent history.⁶ The decline in remittance flows is largely due to the economic contraction in the host economies of economic migrants, as well as their specific vulnerability as many of them are in precarious employment situations. For some LLDCs, such as South Sudan (34.1%), the Kyrgyz Republic (29.2%), and Tajikistan (28.2%) remittances account for around 30% of GDP, and this decline will have a significant impact. However, another study is predicting a faster rebound of remittance flows in 2021.⁷

In terms of ODA, which remains an important source of development finance for many LLDCs, LLDCs have seen a net increase in the amount received from US\$ 25 billion in 2014 to US\$ 31 billion in 2019 (in constant 2018 US\$) (See Figure 7). However, the onset of the global pandemic has created fears that the fiscal demands on donors would result in reduced ODA just when LLDCs need it the most. According to initial estimates for the first three quarters of 2020, there has indeed been a sharp reduction in ODA to LLDCs by bilateral donors (30%). However, this has largely been compensated by an increase in the level of commitments from IFIs of 102%.⁸ If these estimates are correct and all commitments translate into actual flows, LLDCs could see an increase in their overall ODA receipts in 2020, as well as a change in the composition of their donor-base.

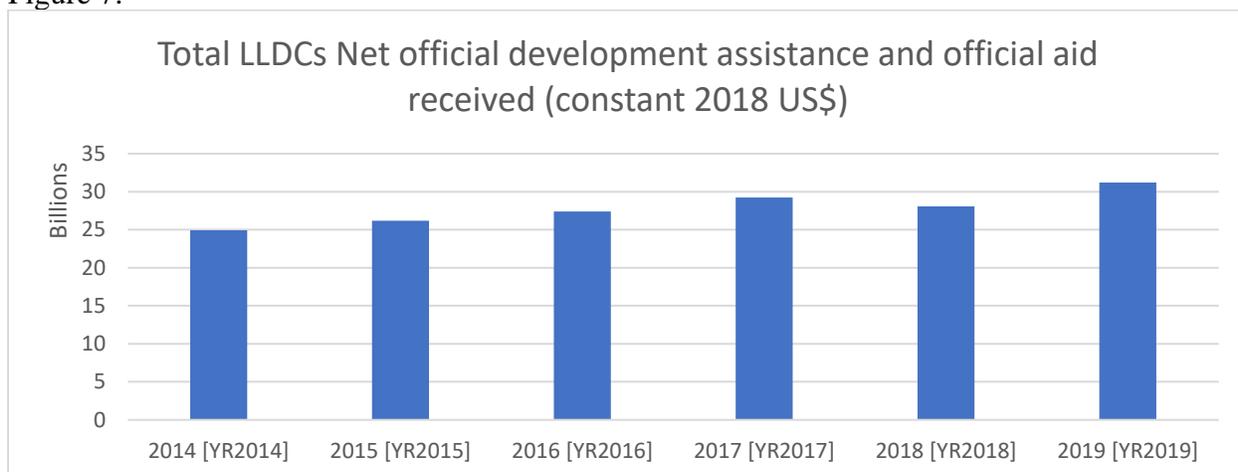
⁵ "Impact of the Covid-19 Pandemic on Trade and Development – Transitioning to a New Normal", UNCTAD, Geneva, 2020, available on: https://unctad.org/system/files/official-document/osg2020d1_en.pdf

⁶ <https://migrationdataportal.org/themes/remittances#key-trends>

⁷ <https://www.oxfordeconomics.com/recent-releases/The-remittance-effect-A-lifeline-for-developing-economies-through-the-pandemic-and-into-recovery>

⁸ <https://devinit.org/resources/aid-ldcs-lllcs-sids-covid-19/>

Figure 7:



Source: World Development Indicators

Many LLDCs have seen their debt levels rise in recent years, and the growing demands for fiscal expenditure to contain the pandemic combined with reduced revenues are creating risks of debt crises. In May 2020, the G20 and the World Bank as well as the IMF established the Debt Service Suspension Initiative, which allows 73 eligible countries to temporarily suspend the servicing of their official debt to bilateral creditors until 30 June 2021⁹. The list of eligible countries includes 22 LLDCs, 9 of which are at high risk of external debt distress, while another 7 are at moderate risk. 14 LLDCs have already taken advantage of the initiative.

IV. Follow-up and review

In the reporting period, UNCTAD continued to implement a series of activities to support the implementation of the priorities of the Vienna Programme of Action and the Roadmap for accelerated implementation.

a.) Fundamental Transit Policy Issues

UNCTAD has supported a large number of LLDCs and their partners transit developing countries during 2020 with implementation of trade facilitation and transit obligations, mainly in the framework of the WTO Trade Facilitation Agreement (TFA), but also in the context of regional and sub-regional trade agreements and Customs arrangements such as the AfCFTA, EAC, ECCAS, ECOWAS, SACU, and the GMS agreement.

Transit is one of the fundamental articles of the WTO TFA, addressing the issue in detail in Article 11, as well as in a number of other of the obligations of the agreement, such as in relation to Transparency, Fees and Charges, Formalities such as Pre-arrival processing, and Border Agency Cooperation. Article 11.16 and 17 contains recommendations regarding the coordination of transit within and between countries and the appointment of so-called Transit Coordinators. The issues

⁹ <https://www.worldbank.org/en/topic/debt/brief/covid-19-debt-service-suspension-initiative>

are not elaborated in detail in the said articles. UNCTAD has therefore developed a specific workshop on Transit Coordination that is particularly interesting for regional organizations and groupings of land-locked and transit countries with a view to developing their transit collaboration and also to clarify the role of national transit coordinators. During 2020, UNCTAD assisted the 14 LLDCs¹⁰ and 16 transit countries¹¹ with technical assistance and capacity building in the field of trade facilitation and transit.

b.) Infrastructure Development and Maintenance

While UNCTAD is not engaged in projects to build hard infrastructure, it has a number of programmes to support the soft infrastructure related to transport and ICTs, including streamlining procedures and improving policies and measures to optimize the development impact of infrastructure networks.

In the area of transport, UNCTAD has supported the operationalization of several transit corridors. In collaboration with the Islamic Development Bank, UNCTAD has been supporting the promotion and the commercialization of the Trans-Saharan Road Corridor (TSR) which comprises six countries, including 3 LLDCs (Algeria, Chad, Mali, Niger, Nigeria, and Tunisia). UNCTAD carried a substantive analytical assessment of the TSR corridor, highlighting its performances, challenges and obstacles undermining its operations, as well as potential solutions. More importantly, UNCTAD's technical assistance intervention considered ways in which the TSR road network could transform and evolve to become a successful regional economic corridor whose functions extend beyond ensuring transport and transit. In its study, UNCTAD has put forward recommendations with a view to establishing a suitable TSR corridor management mechanism as key instrument to promote and commercialize the TSR corridor.¹²

UNCTAD further continued its collaboration with the Northern corridor in East Africa aimed at advancing the sustainable freight transport agenda. Areas of focus included strategies to reduce GHG emissions as well as cross cutting issues such as finance and public-private partnerships (PPPs).

In the area of port infrastructure, UNCTAD's TrainForTrade Port Management Programme contributed to enhance human capacities for inclusive and sustainable trade and development, as demonstrated by the total of 880 trade practitioners (270 women) trained and certified for efficient port management from 2016 to 2020. The programme was implemented in the Plurinational State of Bolivia, a landlocked South American country, with one of the continent's lowest GDP per capita. In Bolivia, one of the main traditional export routes uses roads leading to the international Port of Arica in neighbouring Chile through the Andean Range climbing from 300 to over 5,000 meters above sea-level. This geographical limitation made Bolivian products uncompetitive in international markets. The TrainForTrade Port Management Programme has delivered two cycles

¹⁰ Bolivia, Botswana, Burundi, Central African Republic, Chad, Eswatini, Lesotho, Malawi, Mongolia, Paraguay, Rwanda, Uganda, Zambia, Zimbabwe.

¹¹ Angola, Belize, Cambodia, Congo, Democratic Republic of Congo, Ecuador, Equatorial Guinea, Honduras, Kenya, Liberia, Myanmar, Namibia, Nigeria, Somalia, Tanzania, Togo.

¹² For further information: <https://unctad.org/project/commercialization-trans-saharan-road-corridor-through-development-regional-corridor>

of the programme to local port managers of Puerto Jennefer, which is situated in the East of the country, on the banks of river Paraguay connecting to the Atlantic Ocean through Argentina, Brazil, Paraguay, and Uruguay. The programme contributed to increase port efficiency through capacity building on port system planning and organisation, port operations including commercial, administrative, legal, technical and human resources aspects, as well as planning for emerging challenges. By doing so, the TrainForTrade Programme contributed to the emergence of a new, competitive international trade route to connect the landlocked country to international markets and value chains. Consequently, Port Jennefer was awarded international classification, along with two other Bolivian river ports on the Paraguay-Paraná waterway that connects the landlocked State to the Atlantic Ocean. Moreover, the following benefits from using the port as opposed to more traditional routes were identified: (i) a reduction of around 18 to 20% of freight costs; (ii) about 30% reduction in cargo transportation time; (iii) quadruplication of the volume of cargo transported through Port Jennefer (from 250,000 to over 1,000,000 tons).

Overall, in the period from 2016 to 2020 the TrainForTrade Programme enhanced capacities of 564 trade practitioners (165 women) from 29 Landlocked Developing Countries (see Figure 8), covering three thematic areas: Port Management Programme with 88 participants (10 women), International Trade Statistics with 444 participants (147 women), and eCommerce with 32 participants (8 women).

Figure 8:



In the area of ICT infrastructure, UNCTAD, through its E-commerce and Digital Economy (ECDE) work programme, has been supporting developing countries, including LLDCs, to unlock the potential of e-commerce and digital development for the achievement of the Sustainable Development Goals.

The eTrade Readiness Assessments (also known as eT Readies) first launched in 2017 have been designed to assist developing countries evaluate their e-commerce ecosystem and provide key

policy recommendations to enhance their capacity to engage in and benefit from e-commerce. Out of the 25 Least Developed Countries (LDCs) that have been assessed in the past three years, 11 are LLDCs: Afghanistan, Bhutan, Burkina Faso, Lao PDR, Lesotho, Malawi, Mali, Nepal, Niger, Uganda and Zambia. Additional requests from LLDCs have been received from Burundi, Mongolia and Zimbabwe. UNCTAD has also provided support to Rwanda in 2020 for the development of a national e-commerce strategy.

All the assessments have been conducted in collaboration with *eTrade for all* partners, who have provided inputs to the analyses, and in some cases also technical support for the implementation of a number of eT Ready policy recommendations. Table 1 shows a non-exhaustive list of partners with whom UNCTAD has collaborated in the conduct of the eTrade Readiness Assessments:

Table 1: Partners involved in eTrade Readiness Assessments

eTrade for all Policy Areas	Partners
E-commerce strategy	EIF, ITC, ITU, UNCTAD, UPU, WBG
ICT infrastructure	EIF, ITC, ITU, UNESCAP, WBG
Payment solutions	ITC, UNCDF, UNCITRAL, UNESCAP, UPU, WBG
Legal frameworks	ITU, UNCITRAL, UNCTAD, WIPO, WBG
Trade logistics and facilitation	ITC, UNESCAP, UNCTAD, UNECE, UPU, WBG, WCO, WTO
Skills development	ILO, ITC, ITU, ISOC, UNESCO, UNICEF, UN Women, WBG, WTO
Financing SMEs	ITC, UNCDF, WBG

Following requests from beneficiary countries, UNCTAD has developed an Implementation Support Strategy to assess the progress made in the implementation of the recommendations contained in the assessments and to document good practices, policy impacts and lessons learned. The report *Fast-tracking implementation of eTrade Readiness Assessments* published in 2020 reviews the status of implementation and progress made by Afghanistan, Bhutan, Burkina Faso, Lao PDR, Lesotho, Nepal, Uganda and Zambia.

UNCTAD is working closely with their Governments to address the digital challenges they face as they cope with the socioeconomic impacts of the Covid-19 crisis. The study, *COVID-19 and e-commerce - Impact on businesses and policy responses*, launched in November 2020, draws on the results of a survey that investigates the impact of COVID-19 on e-commerce businesses and related policy responses in 23 countries, in Africa and Asia-Pacific, including 10 LLDCs (Bhutan, Burkina Faso, Lao PDR, Lesotho, Mali, Nepal, Niger, Rwanda, Uganda and Zambia). According to the analysis of policy response measures, Rwanda has emerged as one of the best performers, taking a wide range of measures, such as reduction of fees for e-payments transactions, establishment of an Economic Recovery Fund and launch of a grant competition for innovative solutions, called Corona Action Rwanda.

More broadly, science, technology and innovation (STI) play a central role in the achievement of sustainable development goals (SDGs) and its importance is recognized more than ever before in the global fight against COVID-19. UNCTAD has continued providing technical assistance and capacity-building to LLDCs through its long-standing STI Policy Review programme, which

improves the capacity of public and private stakeholders to assess their national STI capacities, with a view to identifying gaps and incoherencies in policies, and to identify priority actions.

The STI Policy Review report for Uganda was published in October 2020 and UNCTAD agreed with the Government of Uganda to implement follow-up activities. Based on the assessment provided in the STIP Review, UNCTAD is supporting the development of a national policy framework for STI. A draft is scheduled for delivery early in the second quarter of 2021. Trainings will be delivered to all levels of governments using the STI review report. The government expects that dissemination of knowledge on STI will be conducive to the country's efforts in using STI to achieve economic growth, social development, and environment protection as well as gender equality and empowerment.¹³

The STI policy review for Ethiopia was published in March 2020, and examined the use of STI in the textiles and apparels industry, which is Ethiopia's main foreign exchange earner, as well as the pharmaceutical industry. Both industries are identified as high priorities of the national development plan.¹⁴ Ethiopia, with advisory support from UNCTAD, has begun to formulate the country's new STI Policy, based on the findings and recommendations of the STIP Review.

A STI Policy Review for Zambia was launched in late 2019, and work continued in 2020 and it is expected to be completed by May 2021.

The STI policy review for Botswana commenced in mid-2020 and is under way. It is planned to be finalized in 2021. This is the first STI policy review in Africa that is fully funded by the beneficiary country. The review is expected to help the country reap the potential of STI in moving the country from a natural resource-based economy to a knowledge-based economy.

c.) International Trade and Trade Facilitation

Despite the lack of movement among members of the WTO, largely due to rising trade tensions since 2018 and the outbreak of COVID-19 pandemic, UNCTAD continued to provide technical support to LLDCs in their engagement in multilateral and regional trade negotiations and the implementation of the resulting trade agreements. Support was provided to the ACP countries Ambassadors' and technical experts' retreat in preparation for MC12 (January 2020) in assessing stakes and issues on agricultural negotiations. Technical support was provided to the five ESA countries (Comoros, Madagascar, Mauritius, Seychelles, and Zimbabwe) in their preparation for

¹³ For more info on the STI policy review report: <https://unctad.org/webflyer/science-technology-and-innovation-policy-review-uganda>

¹⁴ For more information on the STI policy review report: <https://unctad.org/webflyer/science-technology-and-innovation-policy-review-ethiopia>

ESA5-EU EPA deepening negotiations in the areas of trade and sustainable development and rules of origin.

The WTO accession process represents a daunting challenge for acceding countries as it involves significant trade policy reforms and institution building. This is particularly the case for acceding LLDCs which are often suffering from lack or weak institutional and administrative settings to coordinate the WTO accession preparatory work and to deliver on the substantive technical requisites. In this context, UNCTAD provided technical assistance and capacity building support to South Sudan's WTO accession negotiations through recently launched UNCTAD/UNDP/EIF Project in support of South Sudan's WTO accession.

UNCTAD further continues to support LLDCs at country level to elaborate, formulate and implement trade in services policies. UNCTAD concluded its first regional Services Policy Review (SPR) in 2020, which was on the ECOWAS region, including the covered the LLDCs of Burkina Faso, Mali and Niger. The Review spanned 13 services sectors such as Financial services (banking and insurance), Telecommunications services, Transport (Road and Air), Tourism services, Energy services, Professional services (accounting, legal and architectural), Cultural services, Education services and Engineering services. The two-volume report made various overarching recommendations as well as 79 sector-specific recommendations.

UNCTAD undertook technical assistance to Paraguay in services development in 2014 and again in 2019/2020. This assistance included providing options to strengthen architecture, education, finance, telecommunications and transport services, sectors critical to addressing several of the SDGs and some particularly pertinent development challenges for LLDCs. In terms of transportation, the importance of multimodal transport in providing transport services to goods so that they may reach international markets at a cost competitive price was stressed.

In 2020 UNCTAD further received a formal request from Malawi and Uzbekistan to review their services sectors and policies.

In addition, UNCTAD conducted and published country case-studies for Zambia on the use of the WTO LDC waiver to promote their services exports through preferential treatment¹⁵.

UNCTAD together with the International Association of Freight Forwarders Association (FIATA) has provided technical assistance and capacity building events to Uganda and Zimbabwe. Freight forwarders are at the grassroots in helping countries find international markets for their surplus products and therefore a vital component to stimulate trade. The capacity building events appraise the national Freight Forwarding Association of the latest developments in trade and transport and

¹⁵ Effective Market Access for Least Developed Countries' services exports: Case Study on Utilizing the World Trade Organization Services Waiver in Zambia, UNCTAD/DITC/TNCD/MISC/2020/8

help them deliver a sustainable training package to new industry entrants through a Training-the-Trainer approach.

Additionally, on the capacity building side, UNCTAD implemented a joint UNCTAD–UNECA Development Account Project on Services Trade in Africa and provided virtual technical assistance to the government of Ethiopia on trade policy, including transport services development.

UNCTAD published the second UNCTAD Creative Economy Outlook and Country Profile report, which contains country profiles of five LLDCs, Afghanistan, Burkina Faso, Burundi, Malawi and Niger, and highlights the potential of harnessing the Creative Economy for development.

In the area of trade facilitation, UNCTAD supports the automation of customs clearance processes through its ASYCUDA programme. As of the end of 2020, the ASYCUDA system is implemented in 21 out of 32 LLDCs (66%), including Afghanistan, Bolivia, Burkina Faso, Burundi, Central African Republic, Chad, Eswatini, Kazakhstan, Lao People’s Democratic Republic, Lesotho, Macedonia, Malawi, Mali, Moldova, Nepal, Niger, Rwanda, Turkmenistan, Uganda, Zambia and Zimbabwe. Burundi, Kazakhstan, Rwanda and Uganda are currently implementing an ASYCUDA-based Customs-centric Single Window for trade. Most ASYCUDA projects in LLDCs are funded by their Governments, the African Development Bank, COMESA, ECOWAS, the European Union, TradeMark East Africa and the World Bank. Annex I provides a list of the countries using different ASYCUDA installations.

In addition, ASYCUDA and ECOWAS member States, with the support of WCO and donors like the World Bank, developed a regional transit solution that interconnects Customs IT clearance systems of member States for exchange of transit data using one declaration. The solution was implemented in 2019 in 3 main corridors: Abidjan-Ouagadougou, Lomé-Ouagadougou and Cotonou-Niamey. As of the fourth quarter of 2020, the solution was tested in Mali and Senegal for the Bamako-Dakar corridor.

In Afghanistan, 37 ASYCUDA trainings sessions were delivered by ASYCUDA experts and national team to 491 Customs officers. In Burundi, The Revenue Authority with the assistance of ASYCUDA developed a module for the management of petroleum products and tailored the e-payment and statistics requests functionalities to their national requirements. In Niger, an average of 215 transit transactions with Benin are submitted daily on ASYCUDA regional transit solution. In Lesotho, revenue increased by 2.6% during the first quarter of 2020 compared to the same period in 2019 despite the current sanitary crisis. In Rwanda, new Partner Governmental Agencies like the Rwanda Agriculture and Livestock Inspection and Certification Services and the National Agricultural Export Development Board benefit now from automated applications in the Single Window system. The ASYCUDA-based Uganda Single Window system now includes modules automating procedures and controls for the Uganda Communication Commission, the Cotton Development Organization and the Atomic Energy Council. The system recorded 717’663 declarations paid in the system for the period June 2019-June 2020 compared to 707’445 paid declarations for the period June 2018-June 2019.

In response to the challenges facing customs administrators in the context of the Covid-19 pandemic, ASYCUDA issued guidelines for Customs Administrations to adapt their use of

ASYCUDAWorld to the COVID-19 situation, cope with its related measures at the workplace and reduce direct interaction. The recommendations dealt with implementing and promoting further paperless processing, tailoring the ASYCUDAWorld risk management module, reviewing organizational arrangements, implementing tax policy changes, adjusting the ICT infrastructure and performing trade data analysis to monitor the impact of the pandemic.¹⁶

In order to better tailor its general assistance to user-countries, the Programme designed and shared a survey with its user-countries. The ASYCUDA COVID-19 Customs Administration Survey was launched by UNCTAD to rapidly gather data in assessing the current conditions in the Customs Administration, to facilitate the implementation of UNCTAD guidelines for coping with COVID-19 measures. 10 LLDCs participated in the survey, namely Afghanistan, Lao People's Democratic Republic, Lesotho, Nepal, Niger, Rwanda, Turkmenistan, Uganda, Zambia, and Zimbabwe.

LLDCs also benefitted from ad-hoc ASYCUDA assistance to cope with the economic crisis subsequent to the COVID-19 pandemic. In Afghanistan, further to the Government's decision to cancel the customs duty for five hygienic commodities, the ASYCUDA national experts configured the new taxation rules in the system accordingly. Furthermore, the cabinet of Afghanistan amended the transport law in March 2020. All transport fees, usually collected by the Ministry of Transportation, must be collected by Customs through the ASYCUDA system. This new functionality went live on 23 April 2020, making the Ministry of Transportation an additional ASYCUDAWorld user-agency in Afghanistan¹⁷. In Kazakhstan, The ASYCUDA-based ASTANA-1 system enabled brokers and Customs officials to comply with COVID-19 conditions and continue their direct duties working from home. The system allows the processing of Customs transactions and payments without physical interventions and ensures the prompt automatic application at the national level of all Governmental emergency measures.

d.) Regional Integration and cooperation

UNCTAD provided substantive support to African countries in the negotiation and implementation of the African Continental Free Trade Area (hereinafter referred to as "AfCFTA"). A total of 16 LLDCs (Botswana, Burkina Faso, Burundi, Central African Republic, Chad, Ethiopia, Lesotho, Malawi, Mali, Niger, Rwanda, South Sudan, Swaziland, Uganda, Zambia, and Zimbabwe) participate in AfCFTA negotiations aimed at liberalizing trade to form one continental free market. UNCTAD support to reaching consensus among African countries played an important role in the finalization of AfCFTA Negotiating Modalities for trade in goods and services, as well the text of the Agreement. In cooperation with the African Union Commission, UNCTAD supported African countries in finalizing market access offers and implementing tariff reduction commitments in a manner supportive of their development needs. In 2020, UNCTAD further produced a publication entitled "Designing Trade Liberalization in Africa: Modalities for tariff negotiations towards an African Continental Free Trade Area.

¹⁶ For more information, see: https://unctad.org/system/files/official-document/dtlasycudainf2020d1_en.pdf

¹⁷ For more information, see: <https://www.carecprogram.org/uploads/CCC-03-Afghanistan.pdf>

e.) Structural economic transformation

With 26 out of the world's 32 LLDCs dependent on commodities for more than 60% of their export revenue, UNCTAD continues to support LLDCs in working towards structural economic transformation and export diversification. One of the key prerequisites for the achievement of economic diversification and structural transformation is the building of productive capacities.

On 8 February 2021, the Secretary-General formally launched the Productive Capacities Index, as a new composite index that aims to capture the concept of productive capacities and allow policymakers in developing countries to benchmark their performance on building productive capacities. The PCI uses data from 193 countries, collected between 2000 and 2018, and 46 indicators, to measure performance across eight components of productive capacities – natural capital, human capital, energy, institutions, structural change, information and communications technologies (ICT), transport and the private sector. The index scores a country's performance on productive capacities on a scale of 1 to 100, assessing the effectiveness of policies and strategies as well as existing gaps and limitations. It can help governments formulate and implement their policies better and benchmark their achievements. The PCI data has been made publicly available through UNCTAD's statistics portal, UNCTADStat, as well as on a dedicated website.¹⁸

In addition, UNCTAD finalized and released two publications on the PCI, one outlining the finalized methodology, and one specifically analyzing the performance of LLDCs in building productive capacities, in comparison to other country groups. The study finds that LLDCs underperform other developing countries in all categories of the PCI except for natural capital.¹⁹

Furthermore, UNCTAD implemented concrete projects to foster export diversification and structural transformation in LLDCs by identifying sectors with export potential and outlining the policies and measures needed to harness this potential. One project aims to build the capacities of selected landlocked developing countries to harness the export potential of health food commodities and nutraceuticals, as well as of bioprospecting. The project draws on global and national studies of the potential of selected LLDCs in developing the health food or nutraceutical sector, as well as bioprospecting, and potential export markets. In addition, the project aims to identify the principal obstacles to the development and expansion of exports in these sectors and propose policies and measures to address them.

In 2020, UNCTAD worked to complement a first global study on “Potential and Constraints for Developing Countries’ Exports of Health Foods and Nutraceuticals: Azerbaijan, Bhutan, the Plurinational State of Bolivia, Burkina Faso, Ethiopia, and Nepal” by commissioning additional studies in the field of nutraceuticals and bioprospecting. UNCTAD launched five new studies to explore the potential of nutraceuticals, bioprospecting, and the Blue Economy to support export diversification and inclusive development in vulnerable economies. A first study will assess potential export markets, market access and market entry conditions or requirements for nutraceuticals and biogenetic products from countries including Bhutan, Ethiopia, and Nepal as

¹⁸ www.pci.unctad.org

¹⁹ The study is available on: <https://unctad.org/webflyer/unctad-productive-capacities-index-focus-landlocked-developing-countries>

suppliers of health-enhancing foods or individual ingredients. A second study will assess the experience of several developing countries in sustainably harnessing their biodiversity resources for socioeconomic development, including “benefit sharing” with communities, owners, and holders of the resources, and examine the policy and institutional frameworks that have assisted the successful countries in the preservation and sustainable use of biodiversity and biogenetic materials, as well as how binding constraints are unlocked and what incentives have been provided by the governments of in support of the development of biogenetic and biodiversity products. UNCTAD furthermore launched a study specifically examining the challenges and opportunities for bioprospecting in the Republic of Paraguay and the Plurinational State of Bolivia.

To further support developing countries in their efforts to diversify their economies, attract higher levels of FDI and promote sustainable development, UNCTAD conducts diagnostic studies of the legal, regulatory, institutional, and operational environment for investment, called Investment Policy Reviews (IPRs). IPRs encourage official development assistance and investment in countries where needs are greatest.

In 2020, UNCTAD began preparing for a regional IPR of the Eurasian Economic Union, whose membership includes a number of LLDCs. Over the reporting period UNCTAD also conducted several IPR follow-up activities to the benefit of LLDCs, including providing strategic advice to Armenia on adapting their IPR’s recommendations to the COVID-19 pandemic.

Responding to a recommendation formulated by a previous independent evaluation, UNCTAD also developed an online platform that enable beneficiary countries to report when an IPR recommendation has been implemented and how it has been done, thereby enabling the provision of timely and relevant policy advice and support to countries while travel restrictions and social distancing. So far, Burkina Faso and Uzbekistan have taken steps to use the tool.

UNCTAD continued its support on the reform of the international investment regime through research and policy analysis, consensus building, and technical assistance activities. Over the reporting period, UNCTAD provided a range of these services to several LLDCs. In February 2020, UNCTAD conducted an IIA review for the Kyrgyz Republic.

In June 2020, UNCTAD delivered a webinar for AU member states, including 16 LLDCs, to provide expert consultations on the African Investment Protocol of the African Continental Free Trade Area (AfCFTA). Pursuant to this, UNCTAD contributed to an Expert Meeting organized by the AU on the African Investment Protocol on ‘COVID-19: potential risks and possible solutions’ where discussions were centred on COVID-19 and its relation to the risk of a potential rise in ISDS cases in Africa. This, along with a series of discussions, led to the adoption of a ‘Declaration on the Risk of Investor-State Dispute Settlement’ with respect to COVID-19 related measures, which will help to ensure that African governments have the policy space they need to respond to the pandemic without the risk of costly legal challenges from foreign investors.

UNCTAD supports investment promotion and facilitation activities in many LLDCs which pursue the VPoA’s objective of sustainable and inclusive growth. In 2020, the programme continued its capacity-building activities for investment promotion officials and policy makers and its advisory services to investment promotion agencies (IPAs). A regional webinar “Towards Post-COVID-19:

IPAs Adapting to the New Normal” was organized in collaboration with the EAC and the SADC, which brought together over 90 participants from 18 African countries, 5 of which were LLDCs, and allowed for the exchange of IPA experiences in response to the pandemic and the sharing of best practices in order to improve future IPA operations and strategies in the region. UNCTAD also delivered a presentation to the RIAFPI (Réseau des agences francophones de promotion des investissements) on recent investment trends and strategies for FDI attraction.

At the Investment Promotion Agency Awards 2020, the Rwanda Development Board won the award for the effective use of its advanced online business promotion and registration services during the pandemic and for setting up partnerships to facilitate and prepare the country’s economy for recovery.

Upon request from the East African Community (EAC) Secretariat, UNCTAD attended a meeting on the EAC Pharmaceuticals Bill where it shared its expertise on intellectual property, investment, and pharmaceutical production with the East African Legislative Assembly. The EAC is largely comprised of LLDCs, with 4 of 6 member states holding LLDC status.

In 2020, UNCTAD continued its deployment of business facilitation tools through its programme of web-based e-government systems – eRegulation, eRegistration and Trade Portals – in several LLDCs thereby helping to improve their business climate. In the more recent pandemic context, e-government platforms enabled countries, including Mali, Lesotho, Rwanda, and Uganda to continue providing essential services and new fiscal rescue measures to businesses through online single windows while physical offices were closed. UNCTAD provided its expertise by organising and participating in high-level workshops for Zimbabwe, which focused on entrepreneurship development policies to help promote entrepreneurial endeavours in the country.

During the reporting period, UNCTAD continued to provide support to Empretec centres, including to Empretec Zimbabwe. A webinar to discuss opportunities and constraints to sustainable entrepreneurship was organized in cooperation with the Ministry of Women Affairs, Community, Small & Medium Enterprises Development. The virtual gathering, which took place in June, sought to have different members of the entrepreneurship ecosystem in the Zimbabwe come together to deliberate on the key environmental issues affecting them. Participants discussed Zimbabwe’s Transitional Stabilisation Programme (TSP) which aims to facilitate access to appropriate and affordable workspaces, promote horizontal and vertical linkages amongst SMEs, and between SMEs and large corporations, and improve access to finance through various institutions operating in the country.

Furthermore, to support policy-making capacities in developing countries, in 2020 and early 2021, UNCTAD conducted five short courses on the international economic Agenda (P166-courses) for Geneva-based delegates, towards enhancing knowledge on development and economic matters, taking into consideration the ramifications generated by the global pandemic. The capacity building programme focused mainly on enhancing the knowledge of Geneva-based delegates.

In this regard, 26 Geneva-based delegates from LLDCs (Afghanistan, Armenia, Burkina Faso, Ethiopia, Lesotho, Malawi, Mongolia, Nepal and Turkmenistan) attended five short courses.

Enjoying regular attendance of LLDC representatives, the five courses provided the latest insights on UNCTAD research on all cross-divisional trade and development issues, in addition to the ramifications generated by the COVID-19 pandemic. The following topics were addressed:

- Investing in the Sustainable Development Goals: the Role of Diplomats (September 2020)
- New Instruments, Approaches and Frameworks in Trade Policy Towards Gender Equality and Women’s Economic Empowerment (October 2020)
- Competition and consumer protection policies for inclusive and sustainable development (November 2020)
- The UNCTAD Review of Maritime Transport 2020: Global trends and lessons learned from the pandemic (February 2021)
- Harnessing blockchain for sustainable development: prospects and challenges

Representatives of LLDCs who attended the short courses expressed their satisfaction with the curricula and noted that the editions enhanced their knowledge on the specific topics addressed by UNCTAD. All evaluation responders noted that the UNCTAD short courses have contributed to their work, by raising their awareness on the specific topics. They also noted that the choice of topics UNCTAD selects are relevant and useful. Additionally, the level of presentation is useful for the targeted audience. When the respondents were asked about the most beneficial aspects in the courses, some noted the nexus between trade and gender, readiness for digital economy, and building back better, among others.

Additionally, an LLDC was selected to host the upcoming UNCTAD regional courses for Eastern Europe and economies of transition. In the next 5 years, UNCTAD will be working closely with North Macedonia’s Ss. Cyril and Methodius University of Skopje. This partnership will include developing expertise and enhancing human capital in the realms of trade and development.

Ethiopia has been identified as a pilot country in the UNCTAD’s project on “South-South Integration and the SDGs: Enhancing Structural Transformation in Key Partner Countries of the Belt and Road Initiative”. To assist Ethiopia’s structural transformation UNCTAD is sharing successful policy experiences of other developing countries, including China, Indonesia and Sri Lanka in the areas of trade, industrialisation, digital economy, macro & finance and debt sustainability.

UNCTAD’s Debt Management and Financial Analysis (DMFAS) Programme continued to support 18 LLDCs²⁰ that use the DMFAS software. It adapted its support to meet countries’ challenges related to the COVID-19 crisis, including COVID-related debt reorganization initiatives such as the Debt Service Suspension Initiative. Key results included 88% of supported LLDCs having comprehensive central government external debt records and 80% having complete domestic debt records in DMFAS. In relation to debt data transparency, 10 countries published

²⁰ List of [Landlocked Developing Countries](#) which are active DMFAS users: Armenia; Azerbaijan; Bolivia; Burkina Faso; Burundi; Central African Republic; Chad; Ethiopia; Lao PDR; Mongolia; Paraguay; Republic of Moldova; Rwanda; Tajikistan; Uganda ; Uzbekistan; Zambia; Zimbabwe.

statistical bulletins and most reported punctually to international databases managed by the World Bank.

Conclusions and Recommendations

The Covid-19 pandemic that spread across the globe in 2020 has so far cost more than 3 million lives and caused severe economic hardship across the globe. The socio-economic effects are particularly severe in vulnerable economies like the LLDCs, many of whom lack the means to strengthen the health-response and mitigate the effects of the crisis. Furthermore, the long-term effects on development prospects are likely to be significant. If LLDCs were lagging behind the goals of the VPoA before the crisis, the pandemic has effectively put them out of reach.

For many LLDCs, the immediate priority must be to fight the ongoing pandemic, and to mitigate the socio-economic impact of health-measures such as national lockdowns and travel restrictions. Against this background, there is an urgent need to ensure the adequate availability of vaccines in developing economies, including LLDCs.

In several LLDCs, the need for increased social expenditures at a time of reduced fiscal revenues and foreign exchange inflows is creating growing risks of balance of payments problems and mounting debts. Zambia's default last year was one example of the difficulties faced. Against this background, UNCTAD continues to argue for significantly increased international support measures for these countries, including debt-service moratoria. The current debt-service moratorium should be extended for a second year, and be broadened to include private sector debt. Furthermore, countries should not be discouraged from making use of the debt-service moratorium by fears of future downgrades in creditworthiness. Furthermore, LLDCs should be provided with greater ODA to support their efforts to deal with the pandemic.

In the longer term, the international community must turn its attention to building back better. In the case of the LLDCs this means fully addressing the kind of vulnerabilities that have undermined the development progress of LLDCs and exposed them to the impact of the pandemic, by building resilience. LLDCs should continue to shift their development strategies from one of commodity-based growth towards diversification and building productive capacities. Only broad-based and inclusive growth will allow the LLDCs to make significant progress towards the Sustainable Development Goals. LLDCs also need to put in place coherent trade, industrial and other sectoral policies by shifting away from the current pattern of fragmented and project-based interventions towards holistic and programme-based interventions.

Additional efforts will also be required to address the high trade costs faced by LLDCs, which hinder their effective participating in world trade and integration into global value chains. Reducing trade costs for landlocked countries requires new investments in domestic and regional transport infrastructure, as well as improvements to trade logistics in both landlocked and transit countries. Greater sub-regional, regional and multilateral cooperation on trade facilitation can also make a contribution in this regard.

As can be observed from the report above, LLDCs have benefited from an extensive number of activities undertaken by UNCTAD. However, more resources both from regular and extra-budgetary sources are needed to respond to all the request from LLDCs and sustain interventions in support of these countries.

Annex I

List of Land Locked Developing countries with ASYCUDA Projects

LLDC	System Version*
Afghanistan	AW
Bolivia (Plurinational State of)	A++
Burkina Faso	AW
Burundi	AW-SW
Central African Republic	A++
Chad	A++
Eswatini	AW
Kazakhstan	AW – SW
Lao People’s Democratic Republic	AW

Lesotho	AW
Macedonia	A++
Malawi	AW
Mali	AW
Nepal	AW
Niger	AW
Republic of Moldova	AW
Rwanda	AW – SW
Turkmenistan	AW
Uganda	AW – SW
Zambia	AW
Zimbabwe	AW

* A++= ASYCUDA++; AW = ASYCUDAWorld; SW= Single Window