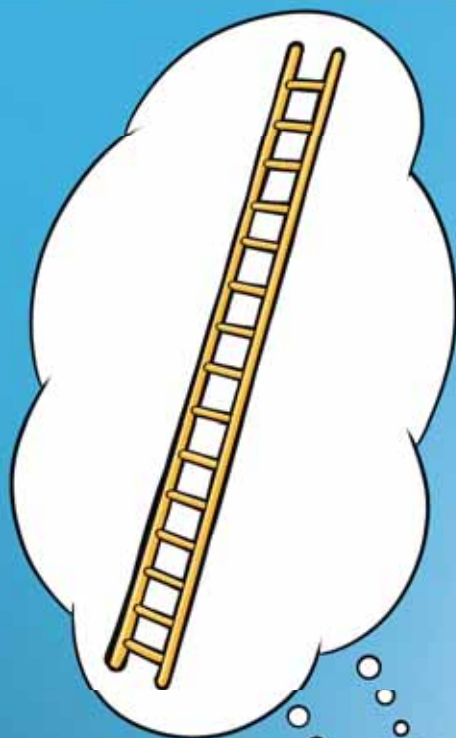


● TRADE ●

insight



Expanding Productive Capacities

Agenda for
Next Programme
of Action



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Reorient support measures for LDCs

AS the establishment of the least-developed countries (LDCs) category marked its 50th anniversary in 2021, it is evident that many of the structural challenges faced by the countries remain. LDCs now face fresh challenges brought on by COVID-induced new normal, uneven access to technology and geo-political entanglements on top of the existing economic and environmental vulnerabilities. The fact that 46 countries, home to more than a billion people, are still categorized as least developed despite five decades of targeted support raises questions about the effectiveness of the support measures. The existing modality of support measures—mostly in the form of market access for trade in goods and services—neither buttressed productive capacity nor delivered the much-needed transformation in these countries.

Further, the impacts of the COVID-19 pandemic and the uneven recovery have widened inequality within and among countries, exposing the inadequacy of LDCs to withstand such shocks. The slow-onset disasters caused by climate change have already started to deteriorate the lives and livelihoods of the most vulnerable. Skyrocketing commodity prices present a grim picture in terms of food and energy security, which will have domino effects. The upcoming Fifth United Nations Conference on the LDCs (LDC5) and the subsequent programme of action (PoA) that will be adopted for this decade need to be cognizant of the fact that the business-as-usual attitude in the provision of support measures will not be enough. The next PoA will have to devise support measures that will help achieve sustainable development goals and build the productive capacities of LDCs. Hence, reorienting support measures to make the graduation of LDCs more resilient and sustainable—socially, economically and environmentally—has to be the focus. The LDC5 will also test the commitment of the international community and developed countries toward the betterment of LDCs. Trade preference schemes have had limited effectiveness, with the majority of LDCs either dependent on the export of a limited number of commodities or lacking capacities to expand their export bases. Thus, more official development assistance to build their productive capacities is required from developed countries as well as developing countries in a position to do so.

This issue delves into the actions expected from the international community to enhance the productive capacities of LDCs. The two cover articles analyze the limited scope of existing international support measures rooted in the neo-liberal economic principles that dominated the economic public sphere five decades ago. They make the case for adjusting to the new realities by designing a new generation of support measures for a more inclusive and sustainable development of the LDCs. Another article lists concrete, actionable and time-bound steps necessary to support LDCs in enhancing their productive capacities. Other articles highlight the importance of addressing climate change and the need for climate financing for the longer-term sustainability of graduation from LDC status. This issue also includes articles that look into ways of leveraging the fourth industrial revolution for agriculture and making trade policies more gender-responsive.

We thank Dr. Puspa Sharma, former editor-in-chief of *Trade Insight*, for his contribution to the conceptualization of this issue. ■

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India opposes fisheries deal at WTO

INDIA opposed a move by developed countries at the World Trade Organization (WTO) to scrap subsidies for fishermen. The demand from India is to balance current and future fishing needs of developing countries as well as providing special and differential treatment (S&DT) keeping in mind their developmental needs.

During the ministerial meeting on fisheries negotiations at WTO, India's trade minister said "Limiting S&DT to poor and artisanal fishermen only is neither appropriate, nor affordable and not acceptable at all. S&DT has to be for a country as a whole."

Developed countries claim that subsidies for fishermen, which is estimated to be in tens of billions of dollars annually, have been creating distortions in the global fish market is a major factor contributing to overfishing and depletion of fishes. To protect subsidies for low-income, resource-poor fishermen for whom it is a matter of livelihood, India objected to the scrapping of fisheries subsidies.

India's trade minister said that India is committed to conclude the negotiations, so long as it provides for balancing current and future fishing needs, preserving space for equitable growth in fishing capacities in future, and effective S&DT without any imbalances. (<https://www.livemint.com/15.07.2021>) ■

India removes anti-dumping duty on import of Nepali yarn



pixabay

INDIA has scrapped anti-dumping duty on polyester yarn exported from Nepal.

Citing inbound shipments of the cheaper yarn from countries including Nepal, Indonesia, China and Vietnam, the Indian government since May 2020, had been imposing the trade restriction.

India, Turkey and Bangladesh have been the major markets for Nepali yarn, which is one of the main exportable goods of the landlocked country. Three years ago, Nepal faced

a similar hurdle from the Turkish government which suspended the generalized system of preferences on the import of the Nepali product, which later on was eliminated.

Likewise, Nepali yarn has also been facing non-tariff barriers from Bangladesh too. Time and again, Bangladesh has been creating difficulties to Nepali traders by not allowing transport of the goods through accessible entry points. (<https://myrepublica.nagariknetwork.com/29.08.2021>) ■

Pakistan, China vow to tap full potential of Gwadar Port

PAKISTAN and China have resolved to redouble efforts to tap the full potential of Gwadar port and free zone under the mega project of the China Pakistan Economic Corridor.

The resolve was expressed during the 6th session of Pakistan China Joint Working Group on Gwadar and Socio-Economic Development held through video conferencing.

The meeting reviewed the implementation status of the CPEC projects in Gwadar and deliberated upon the

future course of action with regard to the development of Gwadar city, port and the free zone.

They expressed satisfaction over the steady progress made on various projects in Gwadar.

Both sides agreed to ensure that the local population of Gwadar and surrounding areas fully benefit from these projects by utilizing the massive opportunities being created in various sectors. (<https://www.radio.gov.pk,31.12.2021>) ■

New private inland container depot approved at Chittagong port

BANGLADESH'S National Board of Revenue (NBR) approved a new private inland container depot (ICD) in a bid to enhance container-handling capacity in the Chattogram Port.

The ICD would be set up at an estimated cost of BDT3 billion. It is 41 km away from the zero point of the port. The proposed ICD will have capacity to handle at least 4,500 TEUs of containers. There will be sufficient and proper shades, yards and examination shades to handle and store import-export and empty containers separately.

The ICD will have auction yard, bank and infrastructure facilities as well as connectivity with Asy-

cuda World of customs. At the beginning, the ICD will be allowed to handle empty and export goods-loaded containers.

Currently, there are some 19 ICDs in the Chattogram Port, handling all export goods and 38 import goods. The new depot would help to enhance capacity of container handling in the port and ease congestion.

The Chittagong Port Authority, on several occasions, recommended the NBR to allow the ICDs to handle all types of goods in line with the international best practice. (<https://thefinancialexpress.com.bd/26.10.2021>) ■

Indian exporters boxed in by container crunch

INDIAN exporters across products are staring at a slump in exports due to a global shortage of containers, and a jump in freight rates, prompting many to seek government intervention.

A severe container shortage has been triggered by massive congestions at Chinese ports that are either closed or operating at much lower capacity due to COVID-19 restrictions. In addition, a huge demand for containers in the US and Europe has been pushing container rates, which shot up to record levels in the past 10-15 days.

Charges for carrying a container from or onwards to India at the moment are going at US\$7,000-10,000, up from US\$3,000-4,000 six to eight months in the past. Value varies depending on the distance covered.

Exporters fear that the double whammy of rising container rates and container scarcity will hamper the latest increase in the nation's merchandise exports that hit US\$35.42 billion in July.

Federation of Indian Exports Organisation (FIEO) and other industry bodies have flagged the issue with the Centre, seeking its intervention and support. Otherwise, India may lose out in the global trade ahead of the crucial holiday season orders in the West, they said.

With some large shipping lines hauling empty containers from India to the US and Europe, the apex exporters' body has also urged the government to come out with regulations to stop this. (<https://economictimes.indiatimes.com/30.08.2021>) ■

Bangladesh signs pact to make 5m Sinopharm vaccine doses



BANGLADESH'S pharmaceutical company Incepta has signed a deal with China's Sinopharm to bottle and package the inactivated COVID-19 vaccines in Incepta's factory in Bangladesh.

Bangladesh will be able to produce 5 million doses of Sinopharm's inactivated COVID-19 vaccines monthly, according to a memorandum of understanding signed virtually from Beijing and Dhaka.

Sinopharm has so far provided more than 13.5 million doses of COVID-19 vaccines to Bangladesh through the COVAX facility, charity and government assistance programs and commercial purchases. (<https://www.chinadaily.com.cn/17.08.2021>) ■

Nepal, India sign accord on Kathmandu-Raxaul railway

NEPAL signed a memorandum of understanding with India in New Delhi to prepare a detailed project report for a proposed US\$3.15 billion railway linking Kathmandu with the Indian border town of Raxaul in the south.

The broad-gauge line will give the Nepali capital a direct connection with the Indian railway network, enabling nonstop train travel to all Indian cities.

The Nepali Cabinet had given an in-principle approval to the Ministry of Physical Infrastructure and Transport to sign a memorandum of understanding with India to draft a plan.

The train link to Raxaul will be 136 km to 198 km long. According to the understanding, India will finish the detailed project report within 18 months of the commencement of the agreement; and Nepal will facilitate the process. The Indian government will bear the cost of preparing it.

According to the understanding, India will finish the detailed project report within 18 months of the commencement of the agreement; and



Nepal will facilitate the process. The Indian government will bear the cost of preparing it.

Konkan Railways Corporation has already prepared a pre-feasibility

study of the proposed broad-gauge railway project. Indian broad-gauge tracks have a width of 1,676 mm. (<https://kathmandu-post.com/08.10.2021>) ■

Taliban bans the use of foreign currency across Afghanistan

THE Taliban has announced a complete ban on the use of foreign currency in Afghanistan, a move certain to cause further disruption to an economy pushed to the brink of collapse by the abrupt withdrawal of international support in the wake of the group's takeover of the country.

The use of US dollars is widespread in Afghanistan's markets,

while border areas use the currency of neighbouring countries such as Pakistan for trade.

The Taliban's government is pressing for the release of billions of dollars of central bank reserves as the drought-stricken nation faces a cash crunch, mass starvation and a new migration crisis. Afghanistan's previous Western-backed government had parked billions of dollars in assets

overseas with the United States Federal Reserve and other central banks in Europe.

But after the Taliban took over the country in August, the US, as well as the World Bank and the International Monetary Fund (IMF), decided to block Afghanistan's access to more than US\$9.5 billion in assets and loans. (<https://www.aljazeera.com/02.11.2021>) ■

Sri Lanka shuts only oil refinery to manage forex crisis

SRI LANKA temporarily shut its only oil refinery as part of efforts to manage dwindling foreign exchange reserves, triggering long queues at petrol stations.

The 51-year old Sapugaskanda Oil Refinery, which has a capacity of 50,000 barrels per day, was closed on 15 November.

A Sri Lankan minister has said that fuel imports would resume once the government was able to raise sufficient dollars but did not give details of a timeline. Faced with rising inflation and dwindling reserves, Sri Lanka is also attempting to negotiate a US\$500 million credit line with India to buy fuel and boost reserves, which dropped to US\$2.27 billion at the end of Oc-

tober. During the first nine months of 2021, Sri Lanka spent US\$692 million on fuel imports, its highest import expenditure.

In August, President Gotabaya Rajapaksa declared a food emergency to contain soaring prices and tackle shortages of staples as the foreign exchange crisis deepened.

Consumers have been struggling with shortages of multiple essential items including cement, milk powder, rice and cooking gas.

A decision by the government to ban chemical fertilizer imports, combined with bad weather, also drove up vegetable and fruit prices, with food inflation hitting 12.8 percent in October. (<https://www.reuters.com/16.11.2021>) ■

G20 to reinforce rules on subsidies

TRADE and investment ministers in the Group of 20 (G20) major economies affirmed the need to reinforce international rules on industrial subsidies to ensure fair competition, according to a statement released on 13 October by ministers.

The statement to address government subsidies distorting the market, is apparently aimed at China, a G20 member that treats state-owned companies favourably with subsidies and other measures. "We will continue to work to ensure a level playing field to foster an enabling business environment and to support the integrity and sustainability of the rules-based multilateral trading system," it said.

Regarding the World Trade Organization (WTO), whose dispute-settlement system has been undermined, the ministers said the G20 economies remain committed to actively work with all WTO members to undertake necessary reforms in an inclusive and transparent manner.

The Geneva-based institution has been criticized for its inability to reach consensus among its over 160 members.

The ministers pledged their commitment at the upcoming WTO ministerial conference, starting from late November, to make reforms and revitalise the organisation. (<https://www.scmp.com/13.10.2021>) ■

India faces electricity crisis as coal supplies run critically low

INDIA is facing a looming power crisis, as stocks of coal in power plants have fallen to unprecedentedly low levels and states are warning of power blackouts.

States across India have issued panicked warnings that coal supplies to thermal power plants, which convert heat from coal to electricity, are running perilously low. Over the past two decades, domestic coal production in India has continued to rise exponentially, though there was a minor dip in production of less than 1 percent from 2019 to 2020 due to the pandemic.

Energy providers and India's state-owned coal producer, Coal India Limited, have instead been accused of failing to stockpile sufficient amounts to meet the predicted rise in demand.

Heavy monsoon rains in 2021 have also been blamed for affecting domestic coal mining due to flooding and impeding the dispatch of coal from the mines. While this is no different from every year, more coal is usually imported to bridge the gap in production. But due to a global energy crisis, which has seen international prices hit record highs, it has been more of a financial challenge to import more coal, leading to greater shortages than usual. (<https://www.theguardian.com/international12.10.2021>) ■

Bangladesh apparel products may not get GSP Plus

EXPERTS and exporters fear that if the proposed EU generalised scheme of preferences for 2024-34 is implemented, Bangladesh's readymade garment and textile products may not get duty-free benefits under the GSP Plus system in the European market.

They said that after graduating from the least developed country to a developing one, it would be difficult for Bangladesh to comply with some of the provisions of the proposed EU GSP scheme.

The European Commission on 22 September unveiled the new legislative proposal for the new EU GSP regulation for the period 2024–2034 that might be passed in the EU parliament in September-October in 2022. (<https://www.newagebd.net/21.11.2021>) ■

Nepali farmers likely to face fertilizer shortage

FARMERS are likely to face a shortage of chemical fertilizers as the importers became reluctant to purchase adequate quantities of the agricultural input citing soaring prices in the international market.

According to the Agriculture Inputs Company Limited (AICL), the contractor companies have been complaining of the price hike of fertilizers in the international market.

On an average, the price has increased by US\$300 per ton in the international market, said managing director of AICL. AICL had awarded the contract to the importers on the basis of the existing prices which were far cheaper than the present prices. But the contractors have been refusing to import fertilizers fearing a huge loss.

Over the past few months, the purchase price of chemical fertilizers has increased from US\$670 per ton to US\$948 per ton. Nepal needs 750,000 tons to 800,000 tons of chemical fertilizers during the plantation seasons.

According to the AICL, the government has allocated NPR15 billion to import fertilizers this year. However, the amount is sufficient to purchase only 200,000 tons.

Almost every year, the government expresses its commitment to implement some new policies, expressing its promptness to resolve the recurring problem of fertilizer shortage, when the plantation seasons approach. But farmers face the same problem when the plantation begins in their rice fields.

Last year, the government even announced to bring in fertilizers on a government-to-government agreement basis. It also imported 50,000 tons of fertilizers from Bangladesh. However, no further progress has been observed in this mechanism to supply the agriculture inputs in the domestic market. (<https://myrepublica.nagariknetwork.com/22.11.2021>) ■

Pakistan's exports to Afghanistan fall sharply since Taliban takeover

THE flow of Afghan transit trade and Pakistan's exports to Afghanistan saw a deeper drop since the Taliban took control of Kabul in August. The flow of cargo fell by 16 percent in August 2021 and a further decline of 73 percent in September from last year, which many experts attributed to the uncertainty in

the wake of the takeover of Afghanistan.

Many experts believe that uncertainty in Afghanistan has led to a drop in commercial imports under transit trade since August. Transit cargo reaches Afghanistan via Torkham and Chaman border stations.

Contrary to the decline in exports, Pakistan's imports from Afghanistan

have seen a visible increase in the first two months of the current fiscal year. The import value from Afghanistan stood at US\$18.960 million in July-August 2021 against US\$9.514m over the same months in the previous year, showing an increase of over 99 percent. (<https://www.dawn.com/03.10.2021>) ■

Nepal's surplus energy is going to waste as there are no buyers yet

NEPAL until 2017 was power-starved, facing outages up to 18 hours a day. The country now has surplus energy, but it does not have a concrete plan to export power. As a result, between 200MW and 600MW of electricity is being wasted daily during different times.

An estimated 800MW of electricity, or even more, could be wasted during the Dashain festival beginning 12 October as all government offices, schools and factories close to celebrate the week-long festival.

The immediate export possibility is with India and the Nepal Electricity Authority had written to India's Ministry of Power for electricity export approval about a month and a half ago. There has been no response yet. (<https://kathmandupost.com/07.10.2021>) ■



COP26: What was agreed at the Glasgow climate conference?

A new global agreement - the Glasgow Climate Pact - was reached at the COP26 summit. It aims to reduce the worst impacts of climate change - but some leaders and campaigners say it does not go far enough.

It was agreed countries will meet next year to pledge further cuts to emissions of carbon dioxide (CO₂), a greenhouse gas which causes climate change. For the first time at a COP conference, there was an explicit plan to reduce use of coal, which is responsible for 40 percent of annual CO₂ emissions. The agreement pledged to significantly increase money to help poor countries cope with the effects of climate change and make the switch to clean energy. World leaders agreed to phase-out subsidies that lower the price of coal, oil, or natural gas. (<https://www.bbc.com/15.11.2021>) ■

India seeks to block most cryptocurrencies in new bill

INDIA is looking to bar most private cryptocurrencies when it introduces a new bill to regulate virtual currencies in the winter session of Parliament.

The government will allow only certain cryptocurrencies to promote the underlying technology and its uses, according to a legislative agenda for the winter session that is set to start.



Through the Cryptocurrency and Regulation of Official Digital Currency Bill, 2021, India is also looking to make a framework for the official digital currency that will be issued by the Reserve Bank of India.

The central bank has voiced 'serious concerns' about private cryptocurrencies and is set to launch its own digital currency by December. (<https://www.cnbc.com/world/24.11.2021>) ■

World of climate promises not yet delivered

STRONGER climate policy and higher ambition in the latest national pledges by the countries may not be enough to limit anthropogenic greenhouse gas (GHG) emissions by 2030, United Nations Environment Program (UNEP)'s Emissions Gap Report has warned.

The report shows that new or updated Nationally Determined Contributions (NDCs) and announced pledges for 2030 have only limited impact on global emissions and the emissions gap in 2030, reducing projected 2030 emissions by only 7.5 percent, compared with previous unconditional NDCs, whereas 30 percent is needed to limit warming to 2°C and 55 percent is needed for 1.5°C. If continued throughout this century, they would result in warming of 2.7°C. The achievement of the net-zero pledges that an increasing number of countries are committing to would improve the situation, limiting warming to about 2.2°C by the end of the century. However, the 2030 commitments do not yet set G20 members (accounting for close to 80 percent of GHG emissions) on a clear path towards net zero.

The COVID-19 pandemic led to an unprecedented 5.4 percent drop in global fossil carbon dioxide (CO₂) emissions in 2020, but the drop in total global GHG emissions is anticipated to be smaller than the drop in fossil CO₂ emissions. A strong rebound in emissions is expected in 2021. Preliminary estimates suggest fossil energy CO₂ emissions could grow by 4.8 percent in 2021 (excluding cement), and global emissions in 2021 are expected to be only slightly lower than the record

level of 2019. It is unlikely that the reductions in emissions in 2020 will be detectable in the atmospheric growth rate.

As at end September 2021, 120 countries (121 parties, including the European Union and its 27 member states) representing just over half of global GHG emissions, have communicated new or updated NDCs. Just under half (49 percent) of the new or updated NDCs submitted (from countries accounting for 32 percent of global emissions) result in lower 2030 emissions than the previous NDC. Around 18 percent of the NDCs (from countries

Countries are falling short of meeting their new or updated NDCs and announced pledges with current policies.

accounting for 13 percent of global emissions) will not reduce 2030 emissions relative to the previous NDC.

The report cautions that the aggregate impact of the new or updated NDCs formally submitted is limited: new or updated unconditional NDCs are estimated to lead to a total reduction in 2030 global GHG emissions of about 2.9 gigatons of CO₂ equivalent (GtCO₂e), compared with the previous NDCs. This estimate includes reductions of around 0.3 GtCO₂e resulting from other factors, including lower projections of international aviation and ship-

ping emissions, and adjustments of countries that are projected to overachieve their NDC targets. If the announced pledges of China, Japan and the Republic of Korea are also included, this aggregate reduction increases to just over 4 GtCO₂e. The impact of conditional targets is of similar magnitude.

The updated current policies scenario is estimated to reduce global GHG emissions in 2030 to about 55 GtCO₂e (range: 52–58 GtCO₂e) in 2030, which is 4 GtCO₂e lower than the median estimate of the 2020 Emissions Gap Report and 9 GtCO₂e lower than the 2010 policies scenario. Around half of the decrease between the 2020 and 2021 Reports reflects climate policy progress in the countries, while the other half is because of the general slowdown of economies due to the COVID-19 pandemic.

Collectively, countries are falling short of meeting their new or updated NDCs and announced pledges with current policies. Global warming at the end of the century is estimated at 2.7°C if all unconditional 2030 pledges are fully implemented and 2.6°C if all conditional pledges are also implemented. If the net-zero emissions pledges are additionally fully implemented, this estimate is lowered to around 2.2°C.

The report has pointed out that most countries have missed the opportunity to use COVID-19 fiscal rescue and recovery spending to stimulate the economy while fostering a low-carbon transformation. ■

This is excerpted from Emissions Gap Report 2021—The Heat Is On: A world of climate promises not yet delivered, published by UNEP.

Global trade and development: from recovery to resilience

THE global economy is expected to bounce back in 2021 thanks to the continuation of radical policy interventions begun in 2020 and a successful (if still incomplete) vaccine roll-out in advanced economies. South Asia is one of the most affected regions due to inadequate healthcare services and large scale informality.

The 2021 edition of Trade and Investment Report published by the United Nations Conference on Trade and Development (UNCTAD) has predicted that global growth will hit 5.3 percent, its fastest rate in nearly five decades. The recovery, however, is uneven across geographical, income and sectoral lines. Constraints on fiscal space, lack of monetary autonomy and access to vaccines are holding many developing economies back, widening the gulf with advanced economies and threatening to usher in another lost decade.

South Asia suffered a sharp contraction of 5.6 percent in 2020, with the region's economic activity brought to a halt due to widespread restrictions. Deficient public healthcare systems and high levels of informality magnified the impact of the pandemic in terms of both health and economic outcomes, which was reflected in a stark rise in poverty rates. UNCTAD expects the region to expand by 5.8 percent in 2021, with the more vigorous recovery signalled at the beginning of the year muted by a rapid surge in infections during the second quarter of 2021. Moreover, the limited progress made in terms of vaccine rollouts continues to leave the countries

of the region susceptible to future outbreaks. For 2022, UNCTAD expects the region's growth rate to moderate to 5.7 percent.

In 2022, UNCTAD expects global growth to slow to 3.6 percent, leaving world income still 3.7 percent below where its pre-pandemic trend would have put it; an expected cumulative income loss of about US\$13 trillion in 2020-22. Timid policy or, even worse, backsliding, could pull growth down further.

Across the world, but particularly in developing regions, the damage from the COVID-19 crisis has been greater than that from the

Deficient public healthcare systems and high levels of informality magnified the impact of the pandemic in South Asia.

global financial crisis, most notably in Africa and South Asia. The pre-COVID-19 income growth trend was itself unsatisfactory; average annual global growth in the decade after the global financial crisis was the slowest since 1945.

Globally, international trade in goods and services has recovered, after the overall flow dropped by 5.6 percent in 2020. The downturn proved less severe than had been anticipated, as month-on-month merchandise trade flows in the latter part of 2020 rebounded almost as strongly as they had fallen earlier. The report's modelling projections

point to real growth of global trade in goods and services of 9.5 percent in 2021. Still, the recovery has been extremely uneven, and scars will continue to weigh on the trade performance in the years ahead.

In 2021, the positive trajectory of commodity prices from the trough observed in the second quarter of 2020 has continued. The aggregate commodity index registered an increase of 25 percent from December 2020 to May 2021, mainly due to the price of fuels, which surged by 35 percent, while that of minerals, ores and metals registered an increase of 13 percent.

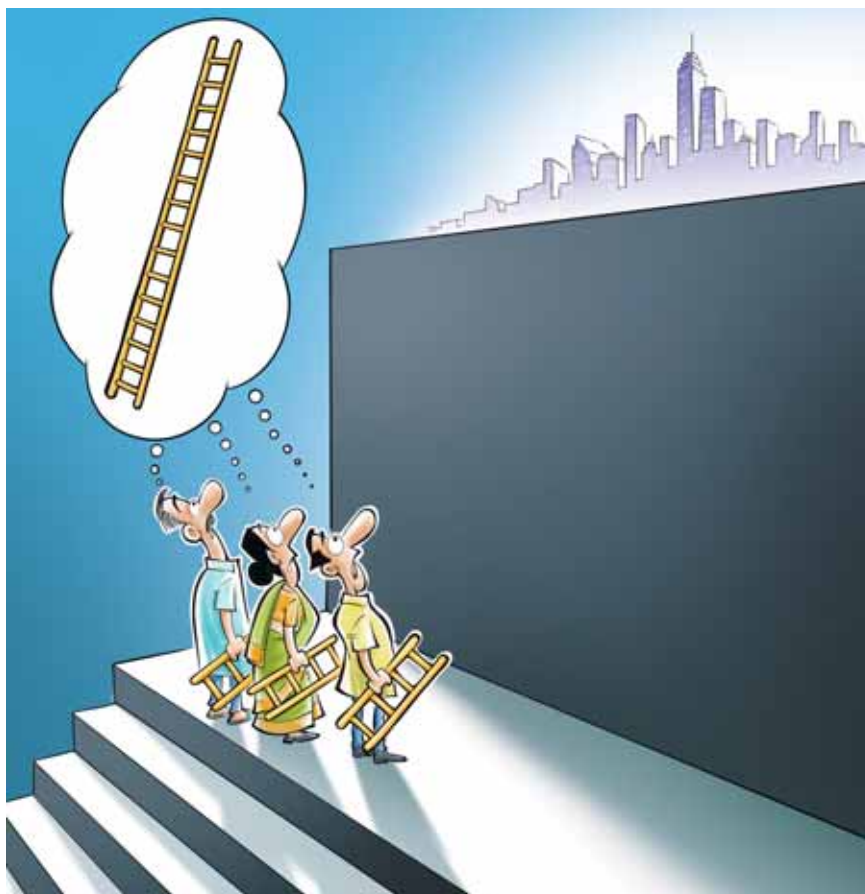
Eighteen months into the COVID-19 pandemic, the world is waking up to the indispensable role of international cooperation in achieving economic resilience, a principle endorsed at Bretton Woods when the multilateral system was founded. But the resolve to rebalance the global economy and reform the international economic architecture is still missing, the report points out. UNCTAD calls for concerted debt relief and in some cases outright cancellation in order to reduce the debt overhang in developing countries and avoid another lost decade for development. The report also stresses that renewed international support is needed for developing countries, many of which face a spiraling health crisis, even as they struggle with a growing burden of debt and face the prospects of a lost decade. ■

This is excerpted from Trade and Development Report 2021: from recovery to resilience: hanging together or swinging separately?, published by UNCTAD.

LDC category at 50: Adjusting to the new realities

The failure to place productive capacity-building at the centre of the next 'LDCs PoA' will be a missed opportunity.

Taffere Tesfachew



November 2021 marks the fiftieth anniversary of the establishment of the least developed country (LDC) category by the United Nations' General Assembly (UNGA). To properly understand the challenges facing LDCs and the new realities moving forward, it is critical to have a full grasp of the thinking and strategic imperatives that led to the establishment of the LDC category, how they influenced LDCs' development since then and their relevance in the present times.

The idea of creating a special category for low-income, structurally weak and 'least developed countries' originated in the first session of the United Nations Conference on Trade and Development (UNCTAD) held in Geneva, Switzerland, in 1964.¹ Special attention was paid to the newly independent and marginalized countries and the challenges they faced in the international economic system, which was highly competitive and unfair to economies with limited productive capacities. To create a more balanced playing field, it was proposed that the international community support the least developed of developing countries with targeted international support measures (ISM). Initially the proposal did not receive positive response, even from other developing countries. Four years later, at the second session of UNCTAD in New Delhi, India, the proposal to create a special group that required tailored and targeted support by the international community received more support.² It was based on this consensus that the UNGA established the LDC category in November 1971.

Subsequent to the UNGA's decision, an expert group consisting of academics and experts from international organizations was assembled to deliberate on what was then called the 'typology' of developing countries and to assess the 'general situation' of the countries that could be characterized as the least developed among developing countries.³ The work of the expert group was influenced by the dominant economic school of thought of the time—the neoliberal econom-

ic model—which emphasized the importance of markets and integration into the international trading system.⁴ The neoliberal school considered the limited development of their markets and their poor integration into the international system as the root cause of the development challenges facing the poor and structurally weak economies. Based on this premise, two important strategic directions were emphasized.

The first strategy was the need to create a level playing field in the international trading system through targeted support. This principle became the basis for the subsequent formulation of ISMs, including through special and differential treatment in the rules and regulations governing the multilateral trading system.

The second was the need to fast-track trade-related policy reforms among LDCs to accelerate their integration into the international trading system and enable them to take advantage of the market access opportunities offered through the ISMs. Greater integration into the international trading system was considered an important precondition for economic growth, which would lead to increased income through exports, in addition to attracting foreign direct investment (FDI) and learning from technology and knowledge transfer and diffusion. This also explains the focus of ISMs on preferential market access through duty-free and quota-free arrangements.

In short, this was the economic thinking that shaped the nature of the international support offered to LDCs and influenced the policy and strategic direction followed by them since the establishment of the category 50 years ago. Unfortunately, insufficient attention was given at that time to the fact that the international playing field does not remain static but can change over time as technologies evolve and the rules, standards, and the degree of sophistication of the international economic and trading systems advance. The increasing globalization of the world economy has shown that the international playing field is a moving target, and the challenge for structur-

ally weak and latecomer economies has been how to catch up with the rapidly changing global economic landscape. This partly explains the slow progress in the number of countries meeting the criteria for graduation from the LDC category. From the original 25 countries identified as LDCs in 1971 the number has increased steadily, reaching a peak of 51 countries in 2003. At the time of writing this paper, the number of LDCs has decreased to 46, still nearly double that of the original list.⁵ Also noteworthy is that LDCs now comprise approximately 14 percent of the world's population, although they account for less than 1.3 percent of global gross domestic product (GDP) and approximately 0.9 percent of global trade.

The decision to establish a special category for the economically vulnerable countries was commendable and necessary. Unfortunately, the premise for establishing the support measures was based on a hollow understanding of the complex process of economic development. They did not properly consider the dangers associated with increased integration of structurally weak economies into a rapidly evolving global economic system. The challenges currently facing most LDCs are as pervasive and constricting as they were when the LDC category was first established in 1971. The fact that only a small number of countries have graduated from the LDC category and some LDCs are now reluctant to graduate for fear of post-graduation uncertainties indicates that the formula for supporting LDCs introduced some 50 years ago was faulty and needs serious rethinking and adjustment. In this connection, the forthcoming United Nations LDC5 conference provides a timely opportunity to look back, draw lessons from recent experiences and align LDCs support needs with the rapidly evolving global realities. In the 20th century, we have seen countries move from low-income to middle- and high-income economies and catch-up with developed countries in less than 50 years. Sadly, however, since 1971, the number of LDCs has been increasing rather than decreasing, although

more countries are expected to graduate within the current decade.

Back to the future: building productive capacities

Next year, the global community will gather in Doha to evaluate the progress made in the implementation of the Istanbul programme of action (IPoA). The forthcoming conference will also reflect on the lessons learned and decide on the Programme of Action (PoA) for the decade 2022-2031. The timing makes it a make-or-break conference largely because of the multiple and complex challenges, including post-COVID recovery, facing the LDCs and the urgent need for bold and innovative support measures needed to 'build back better' and regain the growth momentum necessary to meet the sustainable development goals (SDGs) by 2030. The root cause of LDCs' economic vulnerability and structural impediments and their failure to catch-up with other developing countries is the limited development of their productive capacities. Failure to appreciate this reality, thus, failure to place productive capacity-building at the centre of the next LDCs PoA will be a missed opportunity and condemning LDCs to remain in the LDC-trap.

At present, the challenges facing LDCs are many and diverse. Some of them are unfulfilled goals left over from the IPoA, for example, the target of halving the number of LDCs meeting the criteria for graduation by 2020, which remains unmet. Other challenges are persistent and typical of resource-poor and underdeveloped economies, such as economic vulnerability, environmental resilience, structural weakness, job creation, resource constraints, among others. Ongoing commitments such as achieving the SDGs by 2030 and tackling climate change require more attention. Since 2020, LDCs are in added constraints to respond to the Covid-19 shock and taking measures to manage the post-Covid-19 recovery. All these issues are addressed in the outcome document for LDC5 which is currently

under consideration by member states before submission for final decision at the Doha LDC5 conference. How far the final outcome will propose concrete and long-lasting solutions to many of the persistent challenges facing the LDCs is yet to be seen. In this brief discussion, the main focus will be on productive capacity building as an overarching development objective and a solution to many of the binding constraints that are hindering LDCs growth and development.

Reinforcing productive capacities

Owing to the heterogeneity of their economies, not all challenges affect all LDCs equally. However, there is one factor common to practically all LDCs. That is, the limited development of their productive capacities. This point is vital and LDCs and their development partners must realize that there is a limit to LDCs' development, even after meeting the eligibility criteria for graduation, unless their economic progress is based on and driven by the expansion of domestic productive capacities.⁶ Productive capacities are the diverse competencies, resources, skills, infrastructure, technological capabilities, institutions, and systems that a country needs to produce and export increasingly more sophisticated goods and services efficiently and competitively.⁷ Even mitigating the impact of climate change and achieving all the social and economic targets of the SDGs are dependent on the development of productive capacities. In 2016, the committee for development policy (CDP) recommended that the LDCs adopt '*expanding productive capacity for sustainable development*' as a framework for organizing the PoA for LDCs for this decade.

Both LDCs and their development partners recognize the critical role of productive capacities for lifting LDCs out of poverty and the low-value and low-technology production trap. Indeed, during the Fourth UN conference on LDCs in Istanbul, Turkey, in 2011, productive capacities were identified as one of eight priority areas for the decade 2011-2020. Whether, as

recommended by the CDP, member states will go a step further and adopt productive capacities as a framework for organizing the next PoA for LDCs is not clear. Nevertheless, one hopes that the issue of productive capacities will feature prominently in the next PoA.

Adjusting to new realities

The COVID-19 shock has exposed the vulnerabilities of all countries, rich and poor; large and small; developed and developing. For LDCs, vulnerability to external shocks is not new. However, COVID-19 has further intensified their pre-existing economic and social vulnerabilities and exposed their limited capacity to effectively respond to external shocks. Unlike other countries, LDCs' vulnerability evolves from their underdeveloped production system, which makes it structural in nature and in-built into what distinguishes them as LDCs.

The root cause of LDCs' economic vulnerability is the limited development of their productive capacities.

Thus, moving forward, LDCs should aim to design a strategy that goes beyond getting back to pre-COVID-19 growth and development trajectory. They should aspire to build the resilience that will 'prepare them better' for the next pandemic or future global crisis. In this respect, the hard lessons learned in the immediate aftermath of the COVID-19 pandemic must not be forgotten. When the virus began to spread globally in early 2020, the precipitous increase in demand for medical supplies, especially personal protective equipment (PPEs), generated important lessons for countries with limited productive capacities such as LDCs. Lacking the productive capacities to produce these essential medical supplies of the required stand-

ard, most LDCs resorted to importing from countries that have the productive capacities to manufacture them.

Unfortunately, this posed two types of problems: the first was securing adequate foreign exchange, which is a perennial problem in LDCs. Second, soon after the outbreak of the pandemic, countries that could produce medical supplies began imposing export restrictions to stockpile for domestic needs. Thus, even if foreign exchange was available, importing the essential medical supplies became a challenge. This situation was a wake-up call for LDCs that lacked the productive capacities to produce the medical supplies required to fight the virus and control the spread of infections. Faced with this unenviable dilemma, many LDCs introduced measures to encourage local enterprises to repurpose and start manufacturing PPEs such as face masks, medical gowns, gloves, etc. Some LDCs, like Bangladesh, were able to repurpose and manufacture PPEs, suggesting that Bangladesh's export-led industrialization strategy has enabled the country to expand its productive capacities. Others, especially African LDCs, however, learned a bitter lesson that failing to build one's productive capacities can have severe consequences under unexpected external shock conditions. Out of 25 African countries, most of them LDCs, that initiated repurposing programmes aimed at increasing local production of essential medical supplies, only a few succeeded in producing PPEs that meet the required World Health Organization standards and qualities.⁸ This experience reinforces the recommendation by the CDP that the LDCs should adopt expanding productive capacities as a framework for organizing the next LDCs PoA for the decade 2022-2031.

Aligning next PoA with the Agenda 2030

When the LDCs and their development partners met in Istanbul for the fourth LDC conference in 2011, the main international challenge for LDCs at the time was to achieve the millennium development goals (MDGs) by

2015. The primary goal of the MDGs was to halve extreme poverty by 2015 and register progress in the social sector, particularly in education and health. Since then, the international community has raised the stakes by setting the 2030 Agenda for Sustainable Development (SDGs). In contrast to the MDGs, the SDGs are more ambitious and have raised the bar by insisting on the balanced treatment of the economic, social, and environmental dimensions of sustainable development, and incorporating the principle of leaving no one behind.

As LDCs prepare for the fifth LDC conference, two important points need special attention. The first is the alignment of the LDCs PoA for the decade 2022-2031 with the SDGs. For SDGs, this is the 'decade of action' and LDCs should ensure that their PoA for the decade reflects that reality. Second, LDCs must realize that achieving the diverse goals and targets specified in the SDGs will be practically impossible without developing productive capacities. Indeed, it was largely in recognition of the important interlinkages between developing productive capacities and achieving the SDGs that the international community incorporated Goals 8, 9, 10 and 17 as an integral part of the 2030 agenda. These goals form the basis for building transformative productive capacities.

Thus, by making the development of productive capacities a central feature of their PoA for 2022-2031, LDCs will establish a solid foundation for achieving the SDGs. As noted by the CDP, "Meeting many of the SDGs would require expanding productive capacity, upgrading technological capability, improving productivity, and creating more and better jobs. Thus, to achieve the SDGs in a balanced manner, countries will need to pursue a development strategy focused on the development of productive capacity".⁹

Productive jobs

Recent experiences have shown that while economic growth is a desirable policy objective and important for increasing income and generating wealth, not all types of growth create

decent and productive jobs in sufficient quantities to enable countries to eradicate poverty and achieve inclusive and sustainable development.

In fact, there is an obsession in many LDCs about achieving high-level growth, regardless of the source and impact of growth. Experiences show, however, the source of growth matters for sustainability and job creation. Growth alone, even at a higher rate, is insufficient if it does not protect environment, create decent and productive jobs, improve living standards, reduce poverty, and result in widely shared prosperity. Labour force in LDCs increases by 13.3 million workers per year, most of them young people migrating to cities in search of decent jobs.¹⁰ Only by expanding productive capacities and creating productive jobs will LDCs be able to tackle the potential adverse consequences of youth unemployment and maintain peace and stability.

In short, creating jobs and giving people the opportunity to earn an income while being employed productively is the most effective and dignified way of eliminating poverty, which is one of the seminal goals of the SDGs. However, LDCs must realize that to create decent and productive jobs, it is essential that they diversify into productive sectors, invest in human capital development, and promote technological learning and innovation. Achieving these objectives will require shifting the policy focus to the development of productive capacities. It will also mean, above all, adjusting the focus and policy priority in LDCs PoA towards the development of productive capacities. ■

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Productive capacities: Key to sustainable development

LDCs could benefit from a new generation of international support measures, enhanced targeted support, technical assistance, and policy guidance to shape their future development in a more inclusive and sustainable way.

Paul Akiwumi

Some of the traditional symptoms of underdevelopment present 50 years ago, when the United Nations set up the least developed countries (LDC) category, unfortunately, still linger, though with varying intensity. Low labour productivity and human capital formation, high poverty rates, and insufficient technology uptake continue to be significant challenges faced by many LDCs.

Five decades of support

Too few LDCs have advanced when it comes to achieving structural economic transformation and diversifying their economies and export structures. In fact, commodity dependence and export concentration, with a focus on only a few products remains a critical challenge for the vast majority of LDCs. United Nations Conference on Trade and Development (UNCTAD)'s *Least Developed Countries Report 2021* confirms that LDCs accounted for just 0.13 percent of global total trade in the 2010s and continue to play a marginal role in global value chains, while

accounting for 14 percent of the world population.¹

LDC growth is currently mis-oriented by a development model largely focused on exports and foreign demand, which overlooks the domestic and, importantly, the productive side of the local economy. In a similar vein, this lack of focus on the productive side of development has been a longstanding feature of the targeted support programmes that the international community agreed to implement in support of LDCs.

Hence, despite the 50-year pursuit of LDC-specific plans and goals, the LDCs continue to display an erratic growth trajectory. Looking ahead to the next programme of action (PoA) to be adopted during the upcoming Fifth United Nations Conference on the Least Developed Countries (LDC5)² a renewed focus and strategic shift are badly needed to help these countries finally unlock their development potential and boost the livelihoods of 1.06 billion people living there.³

Entering uncharted territory

Roughly two years into the COVID-19 pandemic, which may have cost the global economy approximately US\$10 trillion,⁴ the LDCs remain highly vulnerable to major external shocks. Recent UNCTAD analysis found that most LDCs will likely take several years to recover the level of GDP per capita they had in 2019. Compared to developed countries, which may experience a short V-shaped recovery, the median LDC would take roughly three years to climb back to pre-COVID-19 levels of output per capita.⁵ Even more worrying, a K-shaped recovery (which denotes uneven recovery pattern) may be starting to take place, with divergent outcomes in developed and developing countries.⁶ While the developed western nations have shown some progress in their recovery, on the back of stronger vaccine availability and vaccination rollouts, coupled with the easing of some movements on transit and travel, LDCs run the risk of a slow and protracted recovery. This stems from a weak healthcare system

and low levels of vaccine access and uptake, a slowdown and reorganization of supply chains and the ongoing travel and logistics challenges, among others.

Apart from the daunting economic and trade-related challenges facing the LDCs, the pandemic has also triggered a decline⁷ in the human development index (HDI) for the first time since the UNDP launched it in 1990.⁸ LDCs already faced lower levels of human development as captured by the HDI. Before the crisis in 2019, LDCs reached a score of just 0.538, compared to the average of 0.689 for developing countries as a whole, and 0.900 for the members of the Organisation for Economic Co-operation and Development (OECD). LDCs and developing countries also lag the world average of 0.737 as measured by the HDI. At this stage, the estimates for 2021 suggest that the global economy may partially recover the ground lost in 2020. Troublingly, however, unequal access to vaccines and widespread asymmetries in countries' capacities to respond to the downturn are already giving rise to a two-speed divergent recovery. The LDCs and other developing countries, including those in Africa, are bearing the brunt of this burden.⁹ Moreover, this will weigh down these countries' prospects for achieving the 2030 Agenda for Sustainable Development.

A new hope?

Mainstreaming productive capacities development is a necessary condition for boosting the capability of LDCs to respond to and recover from crises. The 46 LDCs need to build forward differently in order to productively and sustainably transform their economies. This must be achieved by charting a new development model as well as reducing commodity dependent export-led growth. The pandemic has laid bare the fact that the current development approach has not enabled countries to develop their own national productive capacities to be able to achieve structural transformation and economic diversification. Dependence on one or a few primary commodities

with limited transformation and value addition, moreover, locks LDCs and other developing countries into low tiers of global value chains and precludes their further insertion into the global market.

Productive capacities were first defined by UNCTAD in 2006 as the "productive resources, entrepreneurial capabilities and production linkages that together determine a country's ability to produce goods and services that will help it grow and develop".¹⁰ They are the motors of economic growth and the essential factors that must be present for a society to make goods, deliver services and compete effectively in global markets. They are essential for structural transformation, which is in turn crucial for sustainable development. It is only when countries create and fully use new and existing productive capacities, that they can achieve their development goals. Productive capacities development is also needed to reduce countries' dependence on the production and export of commodities and move them towards a new and more diversified growth model.

It follows that for LDCs to achieve long run and inclusive development,

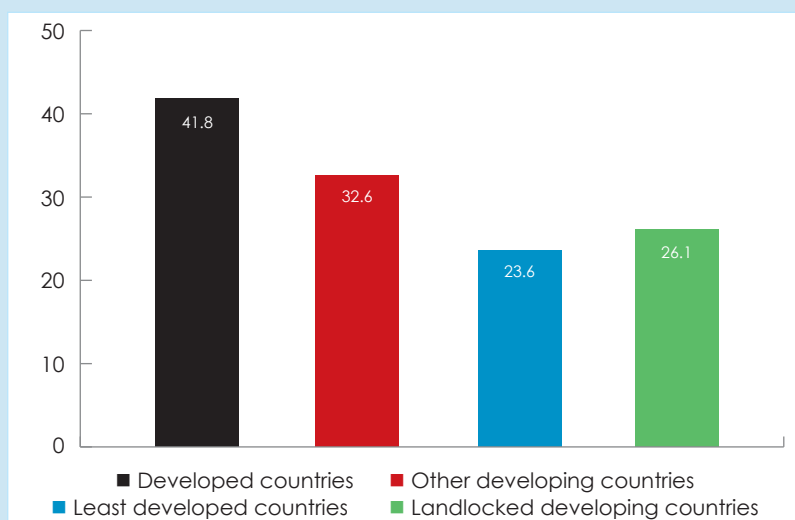
emphasis must be placed on building their domestic productive capacities. This can then contribute to national and international efforts to address poverty and inequality by enhancing the overall wellbeing of the country's population. New findings from the UNCTAD's LDC report show that LDC economies must grow by 9 percent per year to eradicate extreme poverty by 2030. Furthermore, they must grow by more than 20 percent to double the manufacturing share in GDP.¹¹

To help countries measure progress and track development of their productive capacities, the UNCTAD has responded to the request of the UN Economic and Social Council (ECOSOC) to develop a methodology to measure and benchmark productive capacities. Product of a multi-year, multi-stakeholder exercise, the resulting productive capacities index (PCI) is a multi-dimensional tool for analysis, as well as evidence-based policy making.

As Figure 1 confirms, those countries with lower levels of development are also those countries that score lower on the PCI, as captured by the overall index. Compared to the devel-

Figure 1

Performance on the productive capacities index 2018 (median value)



Source: Author's elaboration based on UNCTAD PCI12. See: <https://pci.unctad.org> for more information and to access the underlying dataset.

oped economies, whose median score on the PCI reached 41.8 (on a scale of 1-100), LDCs achieved only 23.6 as a median value.

The multidimensionality of the PCI and its eight related components help to understand some of the underlying causes, and consequences of the low overall comparative performance. The LDCs have performed comparatively better on natural capital, while factors critical to inclusive development and higher-technology uptake such as ICT, energy, transport, and structural change have remained comparatively weaker (see Figure 2). The PCI scores per category and for the overall index range from 0-100 (inclusive) and are helpful in comparing national performances across the pillars, to identify domestic gaps and limitations, together with policies and strategies required to address related challenges.

The PCI figures of the LDCs show that structural transformation is still needed for LDCs to achieve economic dynamism and resilience. The focus on building productive capacities and achieve their corresponding capabilities is rooted in the need to steer a path to development that assures economic, social, and environmental sustainability. Thus, mainstreaming productive capacities development in LDCs is a necessary condition for boosting their capacity to respond to and recover from crises, and to advance on the path towards sustainable and inclusive development.

Such policies should rely, inter alia, on technological change and localization of economic processes as the key to foster productive capacities and structural economic transformation. A model that places productive capacity-building at its core is particularly needed now as LDCs face deteriorating

trade balance, worsening debt situation, declining ODA in relative terms, decreasing FDI and remittance flows, and falling financial revenues linked to the tertiary sector. Lack of domestic resources to finance development and mounting climate and environmental concerns are clear signs that the current development model has run its course and is no longer viable. Promoting technological learning, improving labour productivity, tackling environment-related challenges, reducing vulnerability to external shocks, and ultimately, kick-starting the process of structural transformation are all positive knock-on effects of productive capacity-building.

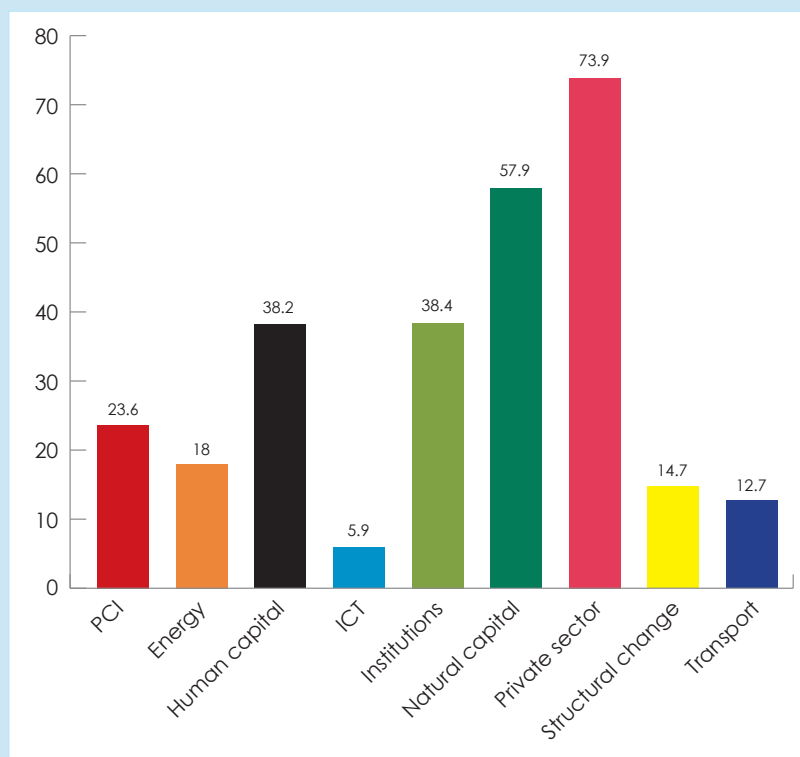
Virtuous cycle for technology uptake

As the impacts of COVID-19 have underscored the digital economy and the digitalization process it brings about are inseparable from the functioning of the economy. As digitalization becomes more relevant to all sectors of the economy, it is important and timely to look at its broader relationship with productive capacities and as part of a broader set of inclusive industrial policies. The core components of the digital economy require domestic productive capacities to already be in place and new ones to be built to support the development of the other components during the digitalization process.¹⁴

Digitalization, and the uptake and use of technology by both citizens and productive firms can support the development and strengthening of productive capacities at domestic level. As argued in a forthcoming piece by Akiwumi and Borgatti, the use of digital technologies, such as digital platforms and mobile applications and services, plays an important role in supporting value creation through the use of productive capacities at the domestic level.¹⁵ In a post COVID world, digital technologies are even more apparent in helping LDCs and indeed other developing countries to forge linkages and boost productive capacities through technology transfer and exchange of knowhow with other

Figure 2

PCI performance in the LDCs 2018 (median value)



Source: Author's elaboration based on UNCTAD PCI13. See: <https://pci.unctad.org> for more information and to access the underlying dataset.

countries. Enhanced participation in regional value chains and markets can also be facilitated through the uptake and use of digital capabilities and related productive capacities.

Multilateral landscape and the road ahead

Against this background, and the continuously shifting challenges facing the global community, the LDCs remain vulnerable and in need of tailored, and meaningful international support. Next year, the international community will adopt the Doha PoA at LDC5. The LDCs need to recover from the COVID-19 shock and its knock-on effects by building forward differently and transforming their economies, and by charting a development course for the present decade. The next generation of development policies cannot be underpinned by old development models.

Efforts should focus on ensuring sustainable and balanced growth. Particular attention should be paid to the balancing of growth and development across rural and urban areas, and in the inclusion of vulnerable population groups such as women, indigenous groups, and youth in the development efforts. While the current focus on higher growth is important, subsequent efforts should also focus on improving the quality of growth, its sectoral balance (including the development of new activities and intra-sectoral upgrading and improvements in existing sectors), as well as inclusivity and sustainability. As such, all LDCs could benefit from enhancing targeted support, technical assistance, and policy guidance to shape their future development in a more inclusive and sustainable way. This should take the form of a new generation of international support measures (ISMs) to support LDCs in areas of trade, finance, technology and human capital formation.

Aiming at supporting developing countries, and the most vulnerable of them, to build back differently, the recently concluded Fifteenth session of the United Nations Conference on Trade and Development (UNCTAD



15) provided a unique opportunity to seek tangible outcomes that would help the recovery process of developing and structurally weak and vulnerable economies such as LDCs, land-locked developing countries (LLDCs) and small island developing states (SIDS).¹⁶ Building on the outcomes of UNCTAD 15 sealed in the Bridgetown Covenant, the international community—developed and developing countries alike—should take note and ensure productive capacities feature prominently in the outcomes of upcoming landmark conferences like LDC5, accompanied by the financing needed to convert these goals into tangible development outcomes. ■

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Moving out of mainstream ISMs for LDCs

With the current level of international support, countries on the global periphery will always struggle to develop in a way that meets human and ecological needs unless active measures are taken to overcome these problems.

Daniel Gay

The next United Nations Programme of Action (PoA) for least developed countries (LDCs) will set the framework for the next 10 years of international support for the world's 46 officially poorest and structurally most disadvantaged countries that are homes to a billion people.

LDCs currently get three categories of assistance— trade, aid, and support for participating in the international system.¹ Support is largely based on the premise that LDCs are artificially or temporarily excluded from global commerce. Preferential market access, temporary development assistance and help with participating in multilateral processes are intended to tackle the disadvantages, in turn helping these countries 'catch up'.

The LDC category is the only category defined through objective criteria and recognized in the UN and multilateral legal texts. Although donors hardly meet aid pledges and



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support does not go far enough, binding targets are possible because the group is officially recognized in the UN system and has legal bearing.

The theory behind support for LDCs is implicitly based on the mainstream economics view which posits that LDCs lag behind because they are not exposed enough to correct market prices and conditions. The removal of so-called distortions like overseas tariff and non-tariff barriers, alongside providing these countries with temporary development assistance and help them to take part in the international system, is supposed to level the playing field for these economies in the international economy. Hence, supporting the LDCs in attaining economic growth is considered to eventually drive development and reduce poverty in these countries.

The evidence shows that for most LDCs this theory never worked. Until the COVID-19 pandemic the economies of some LDCs were performing well. Among the present LDCs, up to 12 could leave the category in coming years. A few, like Bangladesh, Cambodia and Myanmar, were able to take advantage of lower tariffs for their garment exports to raise economic growth and create millions of jobs for low-paid, unskilled workers. These three countries account for 87 percent of exports by LDCs to the European Union (EU) under the Everything but Arms (EBA) trade scheme.

But 12 LDC graduates is well short of the international target of halving the number of countries in the LDC group by 2020. The six that have left since the formation of the category in 1971 did not achieve the milestone because of better international market access or special support measures. Commodity exports, tourism or improved health and education were mostly responsible for their graduation.

The remaining LDCs are not catching up. The gap is widening and the pandemic devastated the group.² Gross domestic product (GDP) shrank 1.3 percent on average in 2020,

with the economies of 37 contracting during the year and number of people in extreme poverty in the group rising by a staggering 84 million. But even before COVID, average real GDP per capita for the group had long diverged from other developing countries and the rest of the world.

In over a third of LDCs real gross national income per capita has fallen since 2015, according to UN estimates.³ The vulnerability scores of 19 LDCs (over two-fifths of the total) deteriorated over the same period.

Trade performance has also missed targets, a telling failure given that most international support is for trade. For the majority of LDCs, better market access has not prompted integration. Not many countries fully use the trade preferences available to them. For example, African countries account for less than five percent of total Generalised System of Preference imports to the EU.⁴

At the same time, LDC imports have grown considerably faster compared to exports in the last decade. LDCs' collective share of global merchandise exports—a key international metric—is no higher than a decade earlier, at less than 1 percent. Trade per capita remains very low—at under a tenth of the world average. According to the UN conference on Trade and Development (UNCTAD), 85 percent of LDCs remain dependent on commodity exports.

No matter how well-designed trade preference schemes are, they will fail to address the fundamental economic problems facing most LDCs—particularly in Africa. These challenges include deindustrialization, stagnation and reverse transformation characterized by a premature shift of the labour force into services, often informal. For many of the region's LDCs, commodity dependence and a lack of value-addition mostly remain just as bad as they were decades ago.

Conventional structural transformation into higher value-adding activities, driven by a move from agriculture into manufacturing, mostly is not occurring. Productivity growth is weak. Unemployment and semi- or

informal employment remain extremely high and are even increasing. The creation of decent jobs for burgeoning young populations via revamped production is the pressing task facing the majority of LDCs that are being left behind.

Even under conditions of full inward and outward openness to international investment and trade—the conditions which the implicit theory underlying the current composition of international support considers optimal—sustainable economic development may not take place. With the level of current international support, countries on the global periphery will always struggle to develop in a way that meets human and ecological needs unless active measures are taken to overcome these problems.

These shortcomings raise questions about the existing approach to international support. Hence before Doha PoA, it is necessary to re-examine the underlying assumptions and theories behind existing support in order to propose a new framework.

Barking up the wrong tree

International trade preference schemes are important for some countries – and the idea is not to criticize market access. But as a broad solution to the deep-seated problems of the LDCs that are being left behind, they amount to barking up the wrong tree. Most LDCs just do not produce enough goods or services and are not 'flexible' enough to respond to what are imagined to be 'correct' international prices. Whatever we've been doing so far, it is not good enough.

This requires a long hard look at the existing theory. Given the shortcomings of this mainstream approach, it's time to revisit alternatives. The developmentalist and structuralist traditions aimed exactly at the challenges now faced by the marginalized LDCs.⁵ These perspectives need to be revived and revitalized to acknowledge ecological imperatives, and reflected in international support for LDCs.

Broadly, these schools of thought emphasize not market access but active global regulation of commodity

flows; government intervention to build productive capacity (for the domestic market as well as foreign); and the direct promotion of structural transformation using a range of support options tailored to individual country circumstance.

'Flexibility' is not necessarily either desirable or possible. If it means lower worker protections, weaker environmental standards or anti-union laws, it is by definition contrary to the goal of societal and ecological resilience. It also risks worsening already worrying trends in inequality. Flexibility can also damage economic growth by weakening aggregate demand as job insecurity, unemployment or semi-employment and downward wage pressures reduce consumer spending. Rather, we should be

aiming to build demand and increase resilience.

Crucially the rate of sustainable investment needs to be raised, via public revenues and investment in the capital stock. In LDCs the absolute and per capita rates of domestic savings and investment are consistently lower than other developing countries, a shortfall which acts as a particular drag on the development of productive capacities.

As Kaldor said: "It is shortage of resources, and not inadequate incentives, which limits the pace of economic development. Indeed the importance of public revenue from the point of view of accelerated economic development could hardly be exaggerated."⁸

There is a need for systemic improvement to the multilateral architecture relating to LDCs—driven by LDC

governments themselves and differentiated according to context. Acknowledging these ideas, in a recent paper I propose six areas of support, relating to the UN system—finance, trade, commodities, technology, and the environment and climate change (See Box).

Productive capacity should be the main overarching theme, with concrete, actionable and time-bound activities. A new sustainable productive capacity fund, for example, could act as the linchpin of the new architecture, that will finance sub-components of productive capacity including technology transfer, entrepreneurship, linkages development and human and physical capital accumulation. Space for industrial policy is essential—and in this regard trade and donor countries should allow policy space.

Box

Summary of proposals to support LDCs

International system

- (i) Encourage use of the LDC category
- (ii) Improve internal UN coordination on LDC matters
- (iii) Directly target the worst-off and most vulnerable LDCs
- (iv) Put in place a support programme for graduating LDCs

Finance and investment

- (i) Official DAC donors should fulfil commitments to provide 0.15 to 0.20 percent of GNI to LDCs
- (ii) Adopt a measured and strategic approach to new forms of finance
- (iii) Increase assistance for domestic financing and acknowledge this priority in technical cooperation
- (iv) Devote an increased share of aid to building productive capacity, including for infrastructure
- (v) Improve the international system of debt relief and encourage sustainable lending
- (vi) Directly address inequalities in LDCs

Trade

- (i) Strengthen special and differential (S&D) treatment for LDCs
- (ii) Improve preferential market access for goods
- (iii) Relax rules of origin for LDCs
- (iv) Accommodate the e-commerce requirements of LDCs in trade agreements

Commodities and resource extraction

- (i) A counter-cyclical financing facility to help LDCs deal with external shocks
- (ii) Innovative commodity price stabilization schemes
- (iii) A transaction tax for commodity derivatives markets
- (iv) A counter-cyclical loan facility indexed to debtors' ability to pay

Natural resources

- (i) Donors should finance geological information in LDCs
- (ii) Put in place a common format for selling the rights to extraction

- (iii) LDC governments should be assisted and encouraged to develop credible tax regimes
- (iv) Make companies liable for environmental damage incurred in resource extraction

Technology

- (i) Operationalize the proposed TRIPS vaccine waiver
- (ii) Increase support and help operationalize the Technology Bank for LDCs
- (iii) Improve knowledge and technology dissemination via the transfer of personnel

Climate breakdown and environment

- (i) Encourage south-south collaboration on climate issues
- (ii) Accommodate alternative economic paradigms
- (iii) Replenish the LDC Fund
- (iv) Make climate financing more accessible
- (v) Make disaster resilience mechanisms for LDCs more pre-emptive

Source: Gay (2021)⁷

In the paper⁸ each of six themes is accompanied by specific, practical proposals—30 in total—which might be considered in the next programme of action. For instance, the International Monetary Fund (IMF) and World Bank do not use the LDC category, which means that their lending and other interventions are not coordinated with those of the UN. Even bilateral mechanisms and parts of the UN system often only pay lip-service. They should be encouraged to recognize the category fully.

Given that capital accumulation is so central to productive capacity, a big push on financing is needed. Official donors need to fulfil their commitments to provide 0.15 percent to 0.20 percent of gross national income to LDCs, devoting more of it to transforming production. As highlighted by Kaldor, more emphasis needs to be placed on helping governments build domestic revenues. The Debt Service Suspension Initiative (DSSI) offered by the Group of 20 countries is a welcome move but should be made permanent and should consider write-offs and not only suspension of payments. It should also monitor international lending and warn of potential excesses, with a focus not only on recipients but on lenders.

Commodity dependence remains the bane of many African LDCs. Innovative proposals exist⁹ for price stabilization schemes, counter-cyclical financing and loan facilities, taxation on commodity derivatives markets, and making companies pay for the damage caused by resource extraction. The time has come to put these ideas into practice.

Technology and intellectual property are critical. World Trade Organisation (WTO) members should be held to account in their unfulfilled obligations to conduct technology transfer to LDCs. The US-backed TRIPS vaccine waiver needs to be operationalized as soon as possible so as to allow the several pharmaceutical manufacturers in LDCs (and other developing countries) to produce the COVID vaccine. The UN Technology Bank for LDCs founded

in Turkey in 2018 must be adequately funded.

Climate financing needs to increase and be made more accessible. Many capacity-constrained LDCs find jumping the administrative hurdles of the Green Climate Fund or the LDC Fund difficult. Donors also need to be held to account in their aid promises, particularly after the LDC Fund ran out. Climate funding should also be linked to trade and orientated towards sustainable infrastructure built to resist climate breakdown. LDCs didn't cause the climate catastrophe. They can ill-afford its consequences.

I cannot count the number of LDC government officials or ministers who've told me they spent years following international advice, only for it to fail. First, under the Washington Consensus and its variants they opened up domestic markets, privatized government companies and cut fiscal spending—often with disastrous results. Then they were told that their newly supple economies would spring into action as liberal international market access opened up new opportunities. This too, mostly fell short of objectives.

In order to avoid yet more disappointment—not to mention the unthinkable immiserization manifested in the grinding poverty of the global periphery—the fundamental underpinnings of international support must be rethought and updated. To dither while a billion people languish would be a travesty.

This is not to say that some trade support has been a complete waste or to cast a slur on the good intentions of some international actors, it is to emphasize that much more needs to be done in order to avoid a decade of inaction. The best practical ideas often spring from quality theory. The mainstream failed. It is time to move forward. ■

Dr. Gay is a political economist and the former adviser on the least developed countries to the UN Committee for Development Policy. Parts of this article were written for the Developing Economics website and a working paper 'A critical reflection on international support for least developed countries' by the author.

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4IR and food security in South Asia: Role of India

A strong information technology base and a young population that is adept with 4IR technological developments could make South Asia a hub for innovation on 4IR technologies in the agriculture sector.

Arpita Mukherjee



Agriculture has been at the centre stage of South Asia's economic growth and social development as it contributes significantly towards providing employment, improving food security and reducing poverty. Approximately 60 percent of the population in this region is involved in agriculture. With a total population of about 1.89 billion (around one-fourth of the world's population) and over 40 percent living below the poverty line, South Asian countries like India are trying to meet the food demand of their growing population by improving agriculture productivity through implementation of fourth industrial revolution (4IR) technologies.¹

The use of 4IR technologies such as the artificial intelligence (AI), blockchain, and the internet of things (IoT) in agriculture globally, is leading to increased yields, lower costs and reduction in adverse environmental impact.² In South Asia, such technology is helping farmers receive information about weather and soil conditions, gain knowledge about standards and processes, and ensure traceability to the farms. Producers and supply chain agents can now monitor their entire supply chains and match the demand with supply efficiently.³ South Asia, with a strong information technology base in countries like India, and a young population that is well-adept with digital technology-related developments, has the potential to become a hub for innovation on 4IR technologies in the agriculture sector. Several studies highlight that 4IR technologies

help tackle some of the large-scale systemic challenges in South Asia.⁴

The recent COVID-19 pandemic in the region has fast-tracked the adoption of digital technology. Many countries, including India, went into full or partial lockdown leading to disruption in food supply chains. Consumers and producers quickly shifted to e-commerce for online purchases and sales. The government, too, across multiple agencies like food safety authority and animal and plant quarantines, shifted from physical processes and clearances to online clearances and have started promoting technologies like blockchain to ensure traceability to the farms.

As the largest country in South Asia, with population over 1.3 billion, India can adopt 4IR technology for improving agriculture productivity and ensuring food security. This can inspire the countries in South Asia to

cane, vegetables, and fruits. It is also one of the leading producers of fish and livestock products.⁷ India came up with National Food Security Act (also known as the 'Right to Food Act') in 2013 to provide subsidized food grains to the poor. India is a leading technology hub and according to the estimates provided by National Association of Software and Service Companies (NASSCOM), in the fiscal year (FY) 2020-21, the revenue generated from technology industry was US\$ 194 billion. India is the third largest start-up hub in the world, with around 12,500 technology start-ups in existence in 2019, and 1600 new start-ups being established in 2020 (this is the highest start-ups registration recorded in the past three years).⁸ The country has around 600-700 start-ups in agritech. According to the Ken Research report 2021, the Indian agritech market is expected to grow at a compound



integrate 4IR in agriculture. Over 46 percent of India's total workforce⁵ is engaged in agriculture which contributed around 17 percent to the gross domestic product (GDP) in 2020.⁶ India aspires to become a US\$5 trillion economy by 2024 and agriculture will be one of the key drivers. The country, with its diverse climate and ecology, is among the top global producers of several agri-food commodities. It is the world's largest producer of milk, pulses, and spices and ranks second in the production of rice, wheat, sugar-

average annual growth rate of 32 percent between FY 2020 and 2025. The Government of India is supporting the implementation of 'Agriculture 4.0' to address some of the core issues in agriculture, which include fragmented supply chains, presence of large number of intermediaries, wastage of crops to pest infestation, poor monitoring of soil quality, frequent droughts and floods, and a lack of consistency in quality across small and fragmented landholdings. Many of these issues are common across other South Asian

Table 1
Food security indicators in South Asia

Indicators	Afghanistan	Bangladesh	India	Nepal	Pakistan	Sri Lanka
Prevalence of undernourishment (percent) (3-year average; 2018-2020)	25.6	9.7	15.3	4.8	12.9	6.8
Prevalence of severe food insecurity in the total population (percent) (3-year average; 2018-2020)	19.8	10.5	NA	12	NA	NA
Prevalence of moderate or severe food insecurity in the total population (percent) (3-year average; 2018-2020)	63.1	31.9	NA	36.4	NA	NA

Note: Data for Maldives and Bhutan are not available.

Source: Food and Agriculture Organization of the United Nations (FAO). Available at <https://www.fao.org/faostat/en/#data/FS> (accessed 2 November 2021)

countries and India can play a pivotal role in supporting countries in the region in mitigating these challenges. However, while other regions such as the Association of Southeast Asian Nations (ASEAN) are discussing a consolidated strategy for 4IR (which will lay out the agenda and direction) and focusing on issues like AI for social good, collaboration among South Asian countries in 4IR technologies has been limited.

Given this background, the objective of this paper is to identify some of the challenges in food security and agriculture and discuss how India can work with other countries in the region to fast-track the implementation of 4IR technologies in agriculture and address issues such as food security.

Food security and agriculture challenges in South Asia

The food security indicators presented in Table 1 highlight the presence of high levels of undernourishment, poverty and food insecurity in South Asia, with Afghanistan being one of the worst affected. Since the data for many countries are missing, it is difficult to undertake a cross-country comparison. Despite India being a large producer of agricultural commodities, a large number of people are undernourished 208.6 million for 2018–2020 (three-year average) which is around 15.3 percent of the population.

Furthermore, India is ranked 71st out of 113 countries in the Global Food Security Index in the year 2021, based on four parameters—affordability,

availability, quality and safety. Other South Asian countries are also closely ranked (see Table 2), making the problem of food insecurity a common challenge for the South Asian countries.

According to the Global Hunger Index, India, Pakistan and Afghanistan have been ranked among the countries with 'serious' issue in 2021 (Table 3). At the same time, countries such as India suffer from huge food wastage owing to inefficient supply

Table 2
Global food security index 2021*

Country	Rankings
India	71
Pakistan	75
Sri Lanka	77
Nepal	79
Bangladesh	84

*Note: Afghanistan, Bhutan and Maldives are not included among 113 qualifying countries.

Source: Global Food Security Index. Available at <https://impact.economist.com/sustainability/project/food-security-index/Index>

chains. While estimates on food loss and wastages vary, FAO estimates that India wastes food worth INR 580 billion per year, which is around 7 percent of India's total food production.⁹ The Indian government estimates show that around 25–30 percent of fruits and vegetables are wasted due to inadequate logistical facilities, including lack of refrigerated storage, inappropriate packaging, supply chain delays at interstate borders, poor transport and underdeveloped

marketing channels. The FAO puts this figure at around 40 percent.¹⁰ Thus, it is urgent for India to resolve the issue of lower agriculture productivity, food wastage and food insecurity, including through the use of 4IR technologies.

4IR for South Asian agriculture

At a country level, India and many South Asian countries have taken initiatives such as the Digital India programme of the Indian government or the e-agriculture Strategy of FAO in Sri Lanka and Bhutan to promote the use of 4IR technologies in agriculture. Some of the best practices can be replicated in other countries in the region. For example, in April 2016, India launched the eNAM (National Agriculture Market), an online platform for farmers that integrates agricultural markets across India and allows farmers and traders to view the best prices across the markets. This can be replicated in other South Asian countries through inter-government collaboration and partnership across multiple stakeholders.

One of the core issues in South Asia is access to quality data for analysis and policy making. Through its unique identification (Aadhar) and direct benefit programmes, India is among the top data-generating countries in the world. These data can be analyzed using data science tools for developing crop insurance related policies, financial access for farmers and direct subsidies under food security in the region.

Table 3

Global Hunger Index rankings - 2021*

Country	Level of Hunger (Serious/Moderate)	Rankings
India	Serious	101
Pakistan	Serious	92
Afghanistan	Serious	103
Sri Lanka	Moderate	65
Nepal	Moderate	76
Bangladesh	Moderate	76

*Note: Bhutan and Maldives are not included among 116 qualifying countries.

Source: Global Hunger Index. Available at <https://www.globalhungerindex.org/ranking.html> (accessed 2 November 2021)

At the regional level, there is hardly any discussion among the South Asian Association for Regional Cooperation (SAARC) nations with respect to technology and innovation and AI for social benefits, unlike the initiatives taken by regions such as ASEAN. India can take a leadership role in driving the agenda of 'AI for social sector' in the SAARC. Along with the evolution of technology, India can also lead the discussion on issues of cybersecurity and data protection. Specifically, there is the need of a framework for 'data sharing with trust' for cross-border collaborations and partnerships.

One of the ways that could happen is by increasing business-to-business collaboration and cross-border investments within the region. Successful Indian agritech start-ups may be encouraged to invest in other countries in the region. Cross-border collaborations among the start-ups in this region and joint research and innovations initiative will be mutually beneficial. India can lead the initiative to create a joint fund for innovation and agritech start-ups.

Further, India can assume leadership in digital literacy programmes in the South Asia region. For example, India can take the leading role to teach farmers how to select and use apps and also assist in developing apps, products and software in local languages for the ease of use. Digital technology could also be used to connect farmers through cross-border e-platforms where farmers in

the region can connect to the buyers directly. The success of such initiative would also depend on the removal of barriers to cross-border financial transaction and addressing logistics and trade facilitation issues.

Conclusion

While 4IR technologies can be used to improve agriculture productivity and to ensure food security in South Asia and South Asian countries are fast adopting such technologies, there are gaps such as unequal access to quality infrastructure and regulations. At the same time, collaboration and partnership among countries are limited. India with its strength in the information technology sector, can guide other countries in the region to embrace the 4IR to improve agriculture productivity, reduce wastage in the supply chain and enhance food security. It can also lead initiatives to develop strategies and action plans among neighbouring and similar countries and lead initiatives in cross-border collaboration and partnership to implement such technologies. ■

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Address climate emergency

for sustainable graduation

To make graduation sustainable, strategies must be reassessed in view of both the physical and the regulatory effects of climate change.

Jodie Keane

Even though the least developed country (LDC) category has been used by the international community for 50 years to leverage specific support measures, we still do not have the answer if such categorization helped these countries. This is partly because the ability to undertake an empirical analysis is limited, given the few graduates since 1971, but also because the indicators that define LDCs have changed over time.

The indicators that define LDCs may change in the future. This is partly because we don't know what development challenges we may face. What is becoming more certain however, is that whilst there are several factors that might determine the sus-

tainability and irreversibility of LDC graduation, climate change will be one of the major determinants. Sadly, this has not received the attention it deserves in the debate on LDC graduation, and hence the article focuses on this particular aspect. Despite the best efforts of many negotiators at COP26, environmental and climatic factors will play an increasing role in driving external shocks. LDCs are particularly vulnerable to such shocks given their economic specialization and other geographic and institutional factors.

Given these trends, this article argues that to future-proof LDCs graduation trajectories much greater consideration is required by the international community of how to address

climate change concerns in an integral way. It first begins with an overview of the indicators used to identify LDCs and how these have changed over time. This is followed by a review of how the COVID-19 pandemic has led to more cautious approaches towards LDC graduation. It then discusses how a similar degree of caution should be exercised in view of the climate emergency and what specific actions the international community could take to ensure graduation is sustainable and more likely to be irreversible.

Indicators to identify LDCs

Some important recent development in terms of the indicators used to define LDCs occurred relatively recently

when the Committee for Development Policy (CDP), based on recommendations from experts, combined economic and environmental vulnerability indicators into a single index; this index in turn was updated to include more specific variables related to climate change.¹ Hence, whilst the achievement of certain indicators in the past may have enabled graduation, now different parameters are used to assess the countries' ability to graduate. These periodic updates are required because of changes in the global economic and socioeconomic context. In considering the question "what makes graduation sustainable and irreversible" it is imperative to recognize factors that are within the government's control and those that are not. Those that are not under the government's control fall within the realm of external shocks, which the LDC indicators aim to capture through the inclusion of certain shock variables. Some examples include the instability of agricultural production (from the environmental vulnerability index) and the instability of exports of goods and services (economic vulnerability index). Of course, how the effect of some types of external shocks may influence whether or not a graduation threshold is reached depends on the overall construction of the index and its weighting method (which now applies equal weights). Box 1 (see page 32) explains the indicators that are used to identify LDCs and the process.

For some time, there has been an active debate for greater consideration of how different types of shocks influence LDCs vulnerabilities.² Given the nature and type of different external shocks, policy lessons are learned ex-post. An example of such a shock is COVID-19, which has had a major influence on how the graduation process is considered by the CDP.

External shocks: COVID-19

External shocks, like that of the COVID-19 pandemic, which has yet to be abated, have prompted a more cautious approach towards recommending graduation as well as ensuring adequate time to prepare. This is re-

flected in the horizontal recommendation in the 2021 CDP triennial review of granting the graduating countries five years of preparation instead of three years, which was subsequently approved by UN Economic and Social Council (ECOSOC).

These recent developments clearly signal the concern that graduation within a period where trade and growth have declined to levels outstripping any other crisis is very risky. Whereas pre-COVID-19 graduation trajectories were being rightly celebrated, the current graduation recommendations are intermingled with fears regarding the sustainability of the graduation process. The pandemic has reversed the development gains in many LDCs. The socio-economic effects of COVID-19 have been devastating and the full cost for LDCs remains unknown as many countries struggle to control and manage the pandemic and required health-care responses. Ensuring longer time periods to prepare before graduation within the current context is therefore accepted as necessary to avoid any swift reversals of the status. It reflects current knowledge regarding the pandemic and its economic effects.

However, where far less consideration has been given till date is in relation to climate change. Whilst some new indicators have been included within the LDC criterion to reflect climate change considerations over time, it is the changed physical and regulatory landscape that graduates may face which is a concern, given both the sudden as well as gradual climate change effects.

Climate emergency

The question of what makes graduation sustainable assumes a particular importance in view of environmental objectives as well as consideration of climate change. Models of economic growth are being fundamentally challenged given the weak consideration of environmental and climate effects. Trade strategies must be reassessed in view of both the physical and the regulatory effects of climate change.

To give some examples, many LDCs rely heavily on the services sector, particularly tourism. This sector may be affected as consumers are under pressure to reduce their carbon footprint and travel becomes costlier, to account for emissions. This reduced demand will affect the trade and



Box 1

Defining the least developed countries

BETWEEN 2017 and 2020 the CDP undertook a comprehensive review of the LDC criteria. The resulting revised criteria were first applied at the triennial review which took place in February 2021. The criteria and the thresholds for inclusion into the LDC category and for graduation from the category applied at the 2021 triennial review were as follows:

(a) An income criterion, based on a three-year average estimate of the gross national income (GNI) per capita in United States dollars, using conversion factors based on the World Bank Atlas methodology. The threshold for inclusion and graduation is based on the thresholds of the World Bank's low-income category. At the 2021 triennial review, the threshold for inclusion was \$1,018 or below; the threshold for graduation was \$1,222 or above.

(b) A human assets index (HAI), consisting of two sub-indices: a health sub-index and an education sub-index. The health sub-index has

three indicators: (i) the under-five mortality rate; (ii) the maternal mortality ratio; and (iii) the prevalence of stunting. The education sub-index has three indicators: (i) the gross secondary school enrolment ratio; (ii) the adult literacy rate; and (iii) the gender parity index for gross secondary school enrolment. All six indicators are converted into indices using established methodologies with an equal weight. The 2021 triennial review set the thresholds for inclusion and graduation at 60 or below and 66 or above, respectively.

(c) An economic and environmental vulnerability index, consisting of two sub-indices: an economic vulnerability sub-index and an environmental vulnerability sub-index. The economic vulnerability sub-index has four indicators: (i) share of agriculture, hunting, forestry and fishing in GDP; (ii) remoteness and landlockedness; (iii) merchandise export concentration; and (iv) instability of exports of goods and services. The environmental vulnerability sub-index has four

indicators: (i) share of population in low elevated coastal zones; (ii) share of the population living in drylands; (iii) instability of agricultural production; and (iv) victims of disasters. All eight indicators are converted into indices using established methodologies with an equal weight.

The 2021 triennial review set the thresholds for inclusion and graduation at 36 or above and 32 or below, respectively. At each triennial review, all countries in developing regions are reviewed against the criteria. If a non-LDC meets the established inclusion thresholds for all three criteria in a single review, it can become eligible for inclusion. Inclusion requires the consent of the country concerned and becomes effective immediately after the General Assembly takes note of the Committee's recommendation. No recommendations were made for inclusion at the CDP's 2021 triennial review.

Adapted from UNCTAD's Least Developed Countries Report 2021³

growth prospects of tourism dependent LDCs. This will affect income and human assets indicators.

Some LDCs will be affected by measures introduced elsewhere, for example in the case of Mozambique—which heavily depends on the EU market for aluminium a sector included within the EU's border carbon adjustment measure proposal (which provides for no exemptions for LDCs). The effect of increased costs could influence demand in this market and therefore export-related indicators. In the case of Bangladesh, one of the most climate vulnerable economies in the world, climatic shocks are displacing people and affecting agricultural production,

affecting human assets and environmental vulnerability indicators. Box 2 summarizes vulnerability pathways arising from climate change as well as the direct and indirect effects which must be considered.

How can the international community support?

Extended transition period of five years provided by the CDP to support adequate preparation for the LDC graduation process against the effects of COVID-19 is a welcome development. It arguably sets a precedent for greater consideration of climate change effects in the future. The perennial issue that the CDP faces, however, is that the recom-

mendations it makes are not always recognized and reflected in policy of other development-oriented institutions, partners and actors.

Collectively, the LDC Group is still seeking WTO members' recognition of the need for a secured transitional period. The current proposal requests a period of 12 years from the exit of the LDC category before special and differential treatment under WTO provisions is removed, along with preferences. However, it remains to be seen whether WTO members will agree to this at the forthcoming 12th WTO Ministerial Conference.

The Enhanced Integrated Framework (EIF), the disburser of aid for

Box 2

Vulnerability pathways and the direct and indirect effects of climate change

THE biophysical pathway encompasses trans-boundary ecosystems such as international river basins, oceans and the atmosphere. Adverse climate impacts on one part of a trans-boundary ecosystem can create impacts for all the countries that share the ecosystem's services (e.g. droughts in the upper basin reduce water availability in delta cities). Indicators include transboundary water dependency ratio.

The trade pathway transmits climate risks within regional and global markets and across international supply chains. For example, where severe drought destroys harvests in producer countries, import-dependent countries thousands of miles away feel the effects on commodity prices acutely (e.g. extreme weather events disrupting production at manufacturing sites, causing ripple effects across just-in-time delivery systems).

Indicators include trade openness, cereal import dependency ratio, and embedded water risk.

The finance pathway represents the effect of climate impacts on the flow of capital, including the exposure of both publicly and privately held assets overseas that suffer lower yields or devaluation as a result of major disasters, or over time as climate change erodes the profitability and returns from various enterprises (e.g. lower yields or devaluation as a result of major disasters). Indicators include bilateral climate-weighted foreign direct investment and remittance flows.

The people pathway refers to the effect of climate change on the movement of people between countries, or via the economic impacts of new tourism patterns or climate-sensitive human health risks that result from the movement of people across borders (e.g. adverse weather events being a driver of new migration patterns). Indicators include openness to asylum and migration from

climate vulnerable countries.

Failing to account for the indirect effects of climate change and climate policy is risky. Different types of trans-boundary climate risks can be identified, which includes:

- Type of event: shock, slow onset, adaptation action.
- Where the event spreads and scale: regional, systemic.
- How risk is transmitted: direct, cascade, contagion.
- How it can be managed: at source, along the pathway, at the point of impact.

Countries' exposure – as opposed to vulnerability – includes, but is not limited to:

- International trade: supply disruptions, product losses, export bans, new trade routes, higher prices;
- Finance and business: reduced capital flows and profit margins, increased insurance premiums, asset losses, increased indebtedness and/or reduced credit ratings.

Source: *Adaptation Without Borders* (2019)⁴; see also Keane et al., (2021)⁵.

trade, is one of the only international support mechanisms to provide for a guaranteed transitional period of support (currently five years). However, there is a need to consider how this mechanism can work more effectively with climate finance and therefore there may be a need for consideration of a longer trajectory. These aspects should be considered as part of the global review of aid for trade, next year.

Overall, the closer monitoring over the coming years ahead and continued cautious approach adopted by the UN CDP is the right one, not only in view of the socio-economic ramifications of COVID-19 but also in view of the climate

emergency. It should be reflected by the actions, particularly as development partners begin the next Programme of Action for LDCs (LDC5) from 2022. As this article has sought to emphasize, there are several factors that will determine the sustainability and irreversibility of LDC graduation, but the climate emergency will be the most defining of our time. ■

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Notes

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COP21

refocuses on climate finance

Pledges made in the COP26 have further underlined the role of climate finance to help developing countries meet their specific climate goals.

Swastik Aryal

The 26th United Nations Climate Change Conference of the Parties (COP26) saw the countries updating their climate pledges but richer countries failed to keep up the promise of raising US\$100 billion in climate funding to vulnerable countries.

COP26, which was hosted in Glasgow, Scotland from 31 October to 13 November 2021, brought together leaders from all around the world to discuss and accelerate the Paris Agreement and the UN Framework Convention on Climate Change (UNFCCC). Adaptation, mitigation and finance were heavily discussed and emphasized during the conference. The event saw countries pledging to work towards ways to limit the increase of global average temperatures to well below 2°C above pre-industrial levels and pursue efforts to limit it to 1.5°C.¹ One-hundred thirty countries have pledged to halt and reverse deforestation and land degradation by 2030. Likewise, more than one

hundred countries signed the US- and European Union-led Global Methane Pledge and agreed to collectively slash methane emissions by 30 percent by 2030.² The countries also agreed on what is being called the Glasgow Climate Pact, which called for renewed efforts to raise ambition on cutting emissions, climate finance, adaptation and the loss and damage already being caused by warming.³ Twenty-three countries went further than the Glasgow Climate Pact, making new commitments to phase out coal.⁴

The four key achievements at COP26 as outlined by the UN Climate Change Executive Secretary are; acknowledgement of the importance of adaptation to the impacts of climate change; agreement on the need for increased financial support to developing countries; agreement to explore ways of increasing actions to close the current emissions gap; and finalization of guideline for the full implementation of the Paris Agreement.⁵ Along

with agreements and supports, all countries had their commitments and targets to support the climate change targets. Twenty-five countries and five financial institutions committed to stop public financing for most fossil fuel projects by the end of 2022.⁶ As many as 151 countries have made new submission or updated their nationally determined contributions (NDCs). Many countries have committed to reducing emissions in their NDCs.

All South Asian countries except for Afghanistan participated at COP26. They presented their updated pledges and made some noteworthy commitments at the COP26. Bangladesh committed to end deforestation and set 2030 as their net zero target date.⁷ Although Bangladesh did not commit to quit coal, Bangladesh has decided to cancel all coal plants not currently under construction. Bhutan, while having already achieved their net zero emission target pledged to end deforestation but did not pledge

to quit coal or cut methane emissions.⁸ India pledged to cut emissions to net-zero by 2070⁹, but did not pledge to end deforestation. Similarly, the Maldives pledged to quit coal and cut emissions to net zero by 2030.¹⁰ Nepal's commitment was to remain cumulatively net zero from 2022–2045 and carbon-negative thereafter, halt deforestation and increase forest cover to 45 percent by 2030¹¹, cut methane emissions and quit coal.¹² Pakistan also committed to end deforestation, cut methane emissions and set 2050 as their net-zero emission target date.¹³ Pakistan also did not pledge to quit coal, but similar to Bangladesh, decided to cancel all coal plants not currently under construction. Sri Lanka made commitments to end deforestation and quit coal along with becoming net-zero by 2060.¹⁴ Many other actions against climate change have been reflected in each country's NDC.

These pledges made in the COP26 have further underlined the role of climate finance to help these countries meet their specific climate goals. It was in the COP15 held in 2009 when parties committed to mobilizing US\$100 billion a year by 2020 to address the needs of developing countries and their actions against climate change. However, this goal was extended to committing US\$100 billion a year by 2025 in COP21 in Paris. According to the Organization for Economic Co-operation and Development (OECD) estimates climate finance provided and mobilized by developed countries increased from US\$58.5 billion in 2016 to US\$79.6 billion in 2019.¹⁵ UNFCCC's Climate Finance Delivery Plan indicated that developed countries are on track to meet the US\$100 billion climate finance goal by 2020. However, that was not met. According to the UNFCCC, public finance would have to reach US\$67 billion and private finance would have to reach US\$33 billion.¹⁶ As this target was not met in 2020, COP26 emphasized the need for climate financing from both public and private sources to tackle the climate change issue. Developing and least

developed countries need ample support from developed countries to meet the COP26 goals and commitments. Countries such as Nepal have made ambitious commitments, which can be difficult to meet if ample finance is not available. These countries face the brunt of climate change-induced disasters and have limited resources to mitigate and adapt to the changes brought about in their lives and livelihoods. Even transitioning from dirty coal power to cleaner energy resources will require large investments, which may not be affordable for the majority of developing and least developed countries.

While COP26 had three broad themes—adaptation, mitigation and climate finance—without the financial support from developed countries and multilateral development partners, achieving the COP26 goals can be difficult. The issue of encouraging private sectors to provide finance for climate change can also be challenging. Even if individual countries and multilateral development partners increase their climate finance funds for developing and least developed countries, the private sector might be reluctant to do so in the absence of clear incentives. The Glasgow Climate Pact has resulted in governments agreeing to set up a mechanism to help countries already suffering loss and damage due to climate change which could provide some financial support to the disaster-prone countries on the mitigation front. However, the countries need to flesh out details on how to do so. The UNFCCC's Climate Finance Delivery Plan provides a 'looking ahead' chapter which provides some guiding principles on how to deliver the US\$100 billion goals by 2025. The principles provide some collective action strategies such as addressing barriers in accessing climate finance and increasing the scale of climate finance and improving the mobilization of both private and public funds. But getting countries, private sectors and multilateral development partners to either pledge climate finance or fulfil their already made pledges can be challenging. ■

Notes

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Trade facilitation through a gender lens

A South Asian perspective

Strengthening the value chains of female-dominated sectors with potential for intra-regional trade would boost the participation of women in cross-border trade.

Veena Vidyadharan

Furthering the objectives of the Joint Declaration on Trade and Women's Economic Empowerment at Buenos Aires in 2017, the upcoming Twelfth Ministerial Conference (MC12) of the World Trade Organization (WTO) is expected to commit its members to mainstream a gender equality perspective in Aid for Trade programmes. It is also expected to mandate increased gender-disaggregated data collection and assign the WTO Secretariat a role in coordinating trade and gender research, including on the impact of the COVID-19 pandemic on women.¹

Trade liberalization policies have boosted the export sector of developing economies, thereby creating jobs, providing better wages, increasing access to education and technology, and providing other benefits for men and women. The classic case is of Bangladesh, as it witnessed a significant increase in female employment in its labour-intensive export-oriented garment industries that extensively

contributed to the country's economic growth. The World Bank report reveals that women constitute 33.2 percent of the workforce of firms that trade internationally, compared with just 24.3 percent of non-exporting firms and 28.1 percent for non-importing firms.²

South Asian context

The Female Labour Participation Rate (FLPR) in South Asia is 22.4 percent³ (see Table 1), though the region is one of the fastest-growing economies of the world. Limited presence of women in the labour market than men creates the economic participation and opportunity gap⁴ at country level as shown in Table 1. The FLPR for India is the lowest among South Asian countries, closely followed by Afghanistan and Pakistan.

South Asia is the second-lowest performer on the Global Gender Gap Index⁵ following the Middle East and North Africa. The wide disparity in

the region's performance is evident from the ranking of Bangladesh (65) and that of Afghanistan (156), the latter being the least scorer of the 156 countries covered by the index. South Asia's poor performance in the gender indices is primarily due to the low indices for economic participation and opportunities and political empowerment.

Women's restricted participation in economic activities in South Asia is attributed to the various legal, regulatory and societal barriers they face. Limited access to finance, productive resources and institutions, mobility constraints, unpaid care work, and limited partaking in the decision making are prominent causes that stifle women's economic participations. As an endeavour to address these barriers worldwide, former US President Donald Trump launched the Women's Global Development and Prosperity (W-GDP) Initiative in 2019.



The W-GDP initiative focuses on five foundational areas of legal reforms to provide women with equal opportunities to access institutions, access credit, own and manage property, travel freely, and work in occupations and jobs of their choosing. These foundational areas encompass five

sub-indices viz., travel index, employment index, institutions index, credit index, and property index that make up W-GDP index.

A higher score for the travel index denotes that there are no legal constraints on the mobility of women, including restrictions on obtaining

passports based on sex. Similarly, the property index indicates restrictions on women possessing and managing property, including limitations on inheritance and the ability to transfer purchase, or lease property. The data in the Table 2 reveals that except Bhutan, India and Sri Lanka, all other countries in the region have a low score of 40, indicating the gender dimensions of property inheritance and ownership.

While the employment index indicates gender-based barriers that limit working hours, occupations, or tasks based on sex, the credit index indicates accessibility to credit and capital to start and grow their businesses. No restrictions exist in South Asia on the institutions index which is about women's authority to sign legal documents, and unequal access to courts and administrative bodies, whether officially or through a lack of proper enforcement.

Table 1
Female workforce in South Asia

Country	FLPR (2019)	Global gender gap index rank (2021)	Global gender gap index rank on economic participation and opportunity (2021)
Afghanistan	22	156	156
Bangladesh	36	65	147
Bhutan	59	130	130
India	21	140	151
Maldives	42	128	138
Nepal	26.3*	106	107
Pakistan	22	153	152
Sri Lanka	34	116	132

Source: Global Gender Gap Report 2021. World Economic Forum. *Nepal's female labour force participation rate is obtained from Nepal Labour Force Survey 2017/18, Central Bureau of Statistics, Government of Nepal.

Even when women are engaged in economic activities, they tend to be involved in the lowest levels at low-skilled jobs or home-based enterprises in the informal sector. Ownership of businesses in the formal sector is disproportionately in the hands of men. Even when women own businesses they are mostly cottage and small enterprises. Most of the products coming from the cottage and small enterprises are targeted towards the local domestic market. A recent study conducted by CUTS International⁶ and its partners in Bangladesh, Bhutan, India and Nepal (BBIN) also corroborated that women's involvement in cross border trade are mostly in the informal sector due to the low volume of production and constraints they face in meeting cumbersome trade procedures. While handloom, handicrafts, and food-processing are the areas dominated by women in the manufacturing sector, tourism and hospitality are the major services wherein women are engaged.

Impact of COVID-19

The outbreak of COVID 19 and the subsequent lockdown has disrupted the existing supply and value chains, domestic production networks, services and trade. On the supply side, this has led to a decline in production, while on the demand side, a plunge in earnings, employment loss and disposable income and savings have shrunk the overall demand for goods. The sealing of international borders has adversely affected the cross border

trade and border markets in the BBIN sub-region. Women in international border areas used to depend on these border markets and border *haats* for trade-related activities.

A study done by CUTS International also highlighted that the increased care work at home and the impending financial crisis have created lots of stress for women while handling the dual roles.⁷ The female labour participation rate in urban India dropped to 15.5 percent (April–June, 2020), marginally increased to 16.1 percent (July–September) and then to 20.8 percent during October–December 2020 quarter.⁸ Apprehension about travelling to work and thereby exposing the families to the risk of infection is an important factor behind women dropping out of jobs during the peak of the pandemic.⁹ Families, relatives and friends proved to be the immediate source of financial help for women.

The impact of the pandemic in consumer-facing sectors like tourism, hospitality, retail, education and child care services was hard-hitting and disproportionately affected women, due to their predominance in these sectors. Even the economic stimulus packages announced by the national governments were not accessible to many women as the banks were reluctant to give loans. It is important to mention that many women switched to digital platforms to reach out to their customers. But South Asia has the highest digital gender divide than any other

region, where women are 38 percent less likely to own a mobile phone; the issues of digital infrastructure and accessibility also follow in.¹⁰

Plausible measures

Given the diversity and complexities of the challenges faced by women entrepreneurs before and amidst COVID-19, a multipronged approach is advisable for their speedy recovery from the shock of the pandemic, as well as to increase their participation in trade. As the international borders are opening up and travel restrictions are being lifted, those sectors which are directly impacted, such as consumer-facing services sectors, are slowly getting back on feet. However, the businesses/enterprises that had to remain closed during the pandemic would still need economic packages for revival.

The recovery packages need to be designed keeping in mind the W-GDP sub-indices discussed earlier, particularly the property index, employment index, institution index and credit index. Moratorium on loan repayments, interest-free loans, capital subsidies, subsidies on raw material, concession in electricity and water tariffs and other fixed costs, and tax benefits can help women meet their immediate financial needs. Providing unconditional cash transfers and facilitating microfinance can assist women traders in the informal sector. Flexible working hours and ensuring supporting services for child care would enable women to carry their dual responsibilities of looking after their homes and earning a living.

As countries are increasingly participating in trade agreements to facilitate international trade, the gendered impact of such treaties should not be ignored. Ex-ante impact assessments of trade agreements on expanding and shrinking sectors need to be undertaken to analyze the possible impact of trade agreements on male/female labour participation. Necessary reforms are to be adopted if those agreements are to have a gender impact.

It is important to capitalize on the emerging opportunities in trade

Table 2

W-GDP indices of South Asian countries

Countries	W-GDP index	Travel index	Property index	Employment index	Institutions index	Credit index
Afghanistan	54.7	50.0	40.0	16.7	100.0	66.7
Bangladesh	68.0	100.0	40.0	33.3	100.0	66.7
Bhutan	82.7	100.0	80.0	100.0	100.0	33.3
India	82.7	100.0	80.0	66.7	100.0	66.7
Maldives	88.0	100.0	40.0	100.0	100.0	100.0
Nepal	78.0	100.0	40.0	83.3	100.0	66.7
Pakistan	56.3	75.0	40.0	33.3	100.0	33.3
Sri Lanka	79.3	100.0	80.0	50.0	100.0	66.7

Source: *The W-GDP Index: Empowering Women's Economic Activity through Addressing Legal Barriers. 2020. The Council of Economic Advisers, Executive Office of the President of United States.*

and services to embed parity into the future by balancing efforts between the demand side of growing jobs and the supply side of future-ready skills. Skill development/enhancement programmes need to be conducted for up-skilling the female workforce to cater to the needs of technological intervention.

Education is the way forward; digital technology has to be included in educational institutions for girls to improve their skills in Science, Technology, Engineering and Math (STEM), which are traditionally dominated by male students, to enhance employability across industries in India and around the world.

Government and civil society organizations can organize customized training programmes on digital technology for aspiring women entrepreneurs. Apps and digital tools that focus on women are to be designed for greater acceptance. Other than access and affordability, online safety has to be assured to prevent online harassment and scams.

CUTS study has revealed that most of the women aren't aware of the procedures involved in international trade. Focused awareness generation workshops for women in specific sectors regarding business registration and trade procedures would enable them to take part in formal trade. Improved knowledge of certification of products/standards and packaging requirements is also relevant particularly for women involved in food processing.

Strengthening the value chains of female-dominated sectors with potential for intra-regional trade would boost the participation of women in cross-border trade in South Asia. Access to productive resources, cross-border markets, transportation infrastructure, elimination of non-tariff barriers and creating trade networks would provide an enabling environment for intra-regional value chains.

Engaging with customs and border agencies to promote gender-friendly cross-border trade practices would ensure a conducive environment for



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women who are engaged in cross border trade.

Bridging the gender divide in South Asia in terms of knowledge, technology and opportunities is crucial to ensure better participation of women in trade and other economic activities. Efforts and resources are to be channelised towards this end for sustainable and inclusive development and post-pandemic recovery in South Asia. ■

Dr. Vidyadharan is Fellow at CUTS International. Views expressed here are personal.

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Science, technology and innovation LDC issues

When connectivity infrastructure, an enabling policy environment and private sector engagement work in tandem in the LDCs, science, technology and innovation have the potential to respond to systemic issues.

Moshe Kao, Federica Irene Falomi, Jaye Sergeant and Chen-Wen Cheng

Science, technology and innovation (STI) have been the main drivers of socioeconomic development, economic growth and industrialization throughout history. No country has

successfully moved up the development ladder and achieved structural transformation without industrialization; but neither has any country achieved successful development

without technological learning and upgrading and the development of innovative capabilities. Science, technology and innovation are indispensable ingredients in the development

process and essential for catching up with more developed economies. However, for latecomers to economic development and industrialization such as the least developed countries (LDCs), achieving a level of sustainable prosperity and the elimination of poverty remains a major challenge. When connectivity infrastructure, the enabling policy environment and private sector engagement work in tandem in the LDCs, science, technology and innovation have the potential to respond to systemic issues and support in the attainment of the Sustainable Development Goals (SDGs).

Across the 46 LDCs, there is significant variability in the extent to which STI is prioritized and directly applied to alleviate or mitigate the key socioeconomic challenges. In some LDCs, the scientific ecosystem is disjointed, and consequently it tends to be very strong in a particular field, and almost non-existent in others. While in some LDCs, where there is a stronger policy and institutional framework, more coordination can be seen. That said, investing in STI remains an uphill struggle in LDCs. In 2015, gross domestic expenditure on research and development (R&D) by LDCs, as percentage of GDP, was 0.25 percent while high-income countries spent approximately 615 times more.¹

The United Nations Technology Bank for Least Developed Countries (UN Technology Bank) is dedicated to enhancing the contribution of STI to sustainable development in the LDCs. To support the LDCs, a key tool in UN Technology Bank's work is its Technology Needs Assessments (TNAs) which identify the sector specific technological gaps and priority needs of each LDC. Better understanding of the technological gaps and needs of LDCs are essential requirements for improving national and regional policies, technological coordination, and mobilizing support to enhance innovation capacities. The outcome of these assessments is used as the basis for ongoing monitoring of the progress

of STI development in LDCs and any follow-up support required. To-date five TNAs (Bhutan, Guinea, The Gambia, Timor Leste, Uganda) have been completed, 17 TNAs are at different stages of implementation, with the aim of finalizing by 2023.²

The findings of TNAs completed so far indicate that many LDCs are moving towards digitalization, particularly in terms of e-governance and e-commerce. For example, Rwanda is emphasizing e-governance in areas such as health, while Bhutan is working to strengthen e-commerce capacities in order to expand linkages with the regional and international markets for goods such as organic produce. Other countries, such as Uganda, are taking a more industry specific approach, by focusing on capacity building in the agricultural sector. This includes improving water security, mechaniza-

In some LDCs the policy environment is open to innovation as they try to recognize and harness the latecomer advantage.

tion and post-harvest management. This demand-driven approach can also be seen in LDCs facing life-altering environmental pressures, such as climate change and increasing frequency and severity of natural disasters. Pacific LDCs, such as Kiribati, the Solomon Islands and Tuvalu, are experiencing rising sea levels and coral bleaching, which is leading them to focus STI development on disaster warning management and food security, as well as green and low-carbon growth.

Innovation is another area where LDCs have adopted differing approaches and value. In some LDCs the policy environment is open and encouraging to innovation. There are efforts to recognize and

harness the latecomer advantage and also types of innovation such as grassroots and frugal innovation. This focus can take the form of tax incentives, direct backing, venture capital and investment, or academic support. Legal and regulatory limitations such as a lack of intellectual property (IP) protection and difficulties in doing business, continue to be substantial blockages, regardless of the amount of goodwill from key stakeholders in the LDCs.

Inclusive science

To understand the health of a scientific ecosystem within a country, there are many commonly agreed indicators which help to understand research capacity. Factors such as the number of researchers and PhD students per million citizens and number of citations reflect the capacity and activeness of a country's scientific environment. In terms of input indicators, the science systems in LDCs are characterized by relatively low aggregate government spending on R&D. Over the past twenty years, the spending on R&D in the least developed countries has remained significantly lower than the 1 percent of GDP level recommended by United Nations Educational, Scientific and Cultural Organization (UNESCO). For example, in 2018 least developed countries spent an average of 0.20 percent of their GDP on R&D, even below the 2015 level.³ While there has been considerable growth in scientific output of LDCs from 2000 to 2020, the growth rate observed in Organisation for Economic Co-operation and Development (OECD) countries is by far greater, widening the gap between LDCs and developed economies.⁴ This is an important measure that demonstrates the key role academic institutions and personnel can play in strengthening the scientific policy capacity of a country.

Applying the gender lens, women are still substantially underrepresented in science in the LDCs, a reality that is similar across

developed and developing countries. For example, despite the job market having an increasing demand of the engineering skills globally, including in many LDCs, less than 2 percent of girls choose professions in the engineering field. Despite a shortage of skills in technologies that are driving the 4IR, women account for 28 percent of engineering graduates and 40 percent of graduates in computer science and informatics.⁵

Dedicated and coordinated actions on these two fronts can help set LDCs on a positive cycle of high growth, sustained social progress and beneficial integration into the world digital economy. To help address this challenge, the UN Technology Bank partnered with the International Centre for Genetic Engineering and Biotechnology (ICGEB) and The World Academy of Sciences (TWAS) to set up a Programme of Collaborations with LDCs (PACTs)⁶ aimed at strengthening biotech research capacity in the LDCs. The biotechnology programme awards fellowships to early-career scientists, particularly women from the LDCs.

From a policy formulation perspective, academies of science, or similar institutions, have long played a role in developed countries providing a platform for science and a discussion and debate on research. Acknowledging their importance, the UN Technology Bank has supported the establishment of such institutions in Angola, Democratic Republic of Congo, Lesotho and Malawi.⁷

Notably, the large diaspora from LDCs can play a positive role in providing impartial advice to their countries. Primarily viewed in economic terms, particularly remittance flows, the diaspora network can also become an advantage which can help a country to develop its knowledge-based economy. If LDCs can create STI ecosystems that are flexible and provide stability and opportunity, they can turn brain drain into brain circulation. This can see the repatriation and reinvestment of skills and knowledge back into the country from expatriates.

Technology and innovation

An element of technology that is gaining speed in many LDCs, particularly in Rwanda and Bangladesh, is digitalization. Countries such as Bhutan see it as key to expanding their economies through e-commerce. A recent study by the UN Technology Bank, undertaken in Bangladesh, Cambodia, Ethiopia and Senegal on the role of entrepreneurship development, found that ideas such as innovative financial models and strengthening internationalization of SMEs through novel models, such as soft-landing programs could be effective pathways towards more integrated and effective use of digitalization.⁸



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Bangladesh is an example of such efforts as it has been growing substantially over the past 12 years with high levels of digital penetration. From the policy perspective, there is a focus on e-governance, and human resource development and infrastructure in information and communication technology. Technology has created significant job opportunities and five years ago the public sector established a startup ecosystem policy and academy. Bangladesh is now witnessing the emergence of about 200 new startups every year and significant academic and venture capital support, channeled through the Bangladeshi government.⁸ The country has seen

US\$350 million investment globally over the past few years and in the last 7 years startups have created 1.5 million jobs. In comparison, the garment industry has created 4.5 million jobs.¹⁰ This shift also aids the diversification of exports, and capacity building and decentralization is key to the objective of becoming an upper middle-income country by 2031.

Intellectual property protection plays a critical role in moulding and shaping digitization in LDCs. This requires a country to also engage with privacy and data protection. Through its capacity-building project in digital entrepreneurship and business development, the UN Technology Bank is supporting the LDCs in leveraging such capacities.

Technology transfer

The UN Technology Bank's TNAs show that technology transfer is a major source of technological learning and upgrading in LDCs. Technology transfer is a key aspect of the UN Technology Bank mandate. It is the process of conveying results stemming from scientific and technological research to the marketplace and to wider society, along with associated skills and procedures. It is at the heart of the process of translating technological innovation into economic growth. Without it, LDCs can become locked into a cycle of dependency. However, for the technology transfer to become effective, local absorptive capacity is important. This is why technologies that are successfully transferred but that are not met with sufficient practical infrastructure and logistics, legal and regulatory support and knowledge capacity fail to bring meaningful technological change in the local economy.

In response to COVID-19, the UN Technology Bank undertook a pilot of rapid technology transfer. In partnership with United Nations Development Program (UNDP), United Nations Conference on Trade and Development (UNCTAD) and World Health Organization (WHO), Tech-

nology Access Partnership (TAP) was established to support developing countries and LDCs to access, as well as utilize and circulate appropriate technologies to manufacture COVID-19 medical equipment and personal protective equipment (PPE). The initiative provided a proof of concept of technology transfer, where a technology holder provided a technology seeker with technology to produce N95 masks for the local and regional market.¹¹

When deployed thoughtfully and contextually, such efforts can be a powerful antidote to the cycle of technological dependency that can trap LDCs. One way technology can enhance trade in LDCs is through developed and developing countries providing incentives to enterprises and institutions in their territories which promote and encourage technology transfer to LDCs. This is called on by Article 66.2 of the TRIPS Agreement—to create sound and viable technological bases across the LDCs. With this said, successful transfer of technology in this regard has rarely yet yielded positive large-scale outcomes. In this context of TAP, the technology holder not only provided the technology but complemented it with supporting the technology seeker with know-how and adapting the technology to meet the local needs and standards.

STI policy framework

While there is a lack of supporting and enforced legal systems, almost all the LDCs have a national legal framework for STI. For some countries, including Bangladesh, Benin, Burkina Faso, Democratic Republic of the Congo and Senegal, national laws are used to provide a framework for research and higher education. In the other cases, national decrees have been enacted for the creation of specific STI authorities or national research centres (e.g. Benin, Burundi, Senegal) to approve or adopt national policies, to finance or regulate IT equipment (e.g. Comoros), cyber security (e.g. Madagascar), to organize the re-

search in different application areas (e.g. Senegal and Togo) or to ensure diploma recognition (e.g. Senegal). In a number of LDCs, STI-related national law(s) have been adopted. Malawi and Zambia have dedicated legal acts for their national science and technology framework. Bangladesh and Comoros have legal acts for their ICT/digital communication framework. Tanzania, Togo, Rwanda, Niger, Malawi and DRC suffer from a minimal interaction between academia and the industry, in part due to the absence of a legal framework to support the linkages between academia and industry.¹² Such weak linkages between aca-

LDC markets, which in turn has a complex relationship with innovation performance. On the one hand, it brings challenges regarding financial markets and regulating uncertainty and could make innovating processes and systems harder. On the other hand, actors in the informal economy demonstrate high levels of resilience and adaptability, particularly in the face of technological and economic shocks. This increases their agility and ability to innovate. Frugal innovation, or ‘doing more with less’ can be defined as a type of innovation which generates considerably more business and social value while significantly



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democratic institutions that undertake R&D and generate technology and innovation, and the government and industry is also a challenge in the LDCs.

Innovation gaining ground

Innovation and innovation systems in least developed countries are very different from that of developed countries. For instance, systems are more fragmented and often strongly dependent on the external support. Innovation in these contexts is frequently characterized as ‘frugal’ and ‘grassroots’. This is in part due to the high level of informality in

reducing the consumption of scarce resources. A recent study estimated that around 10 percent of innovations in developing and emerging countries can be classified as frugal innovation.¹³

To support innovation, the UN Technology Bank together with UNDP and private sector partners initiated the SDG Impact Accelerator (SDGiA) program funded by the Turkish Ministry of Foreign Affairs. SDGiA partners decided to focus on empowering impact entrepreneurs who can provide innovative solutions to address the challenges faced by low-income groups, mainly



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those who are displaced and the disadvantaged host communities in the LDCs. In 2021, the program focused on digital agriculture and financial inclusion in Uganda and Bangladesh respectively.

Where next for LDCs in STI

Although the situation in each LDC is unique and it is important not to generalize, there are still examples worth paying attention to where STI is acting as the key enabler in LDC development. The absence of STI prioritization can hinder development. Access to science, emphasis on building research capacity and international collaboration are value-adding, particularly in sectors such as digital, agriculture and manufacturing. Equally, the involvement of women in science and providing opportunities for them to advance is crucial. In relation to technology, we are seeing countries use the digitalization of e-governance and e-commerce to address and mitigate systemic issues in areas such as agriculture, manufacturing and health. In regards to innovation, it is valuable to highlight and

encourage specific types of innovation such as frugal and grassroots innovation while also ensuring they are IP protected. The once in a decade conference for the LDCs presents an opportunity for the LDCs to define their transformative vision leveraging the power of STI to achieve SDGs and enable LDCs to graduate with momentum. After all, the idea of establishing a Technology Bank for LDCs was borne out of the Fourth UN Conference on LDCs, which took place in Istanbul, Turkey over a decade ago. ■

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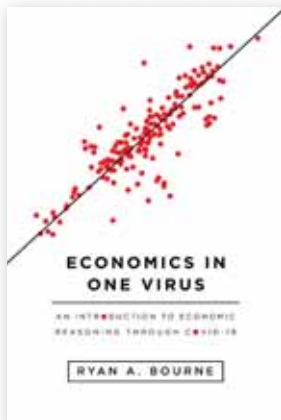
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Pandemic as economics lesson

Title: Economics in One Virus: An Introduction to Economic Reasoning Through COVID-19

Author: Ryan A. Bourne

Publisher: Cato Institute

ISBN: 978192223068

Swastik Aryal

The economic impact of COVID-19 has been a highly discussed topic since the pandemic began. Many writings on the topic delve into how a sector or an economy have been affected by the pandemic and provide possible policy recommendations that might spur economic activity. Ryan Bourne on the other hand has taken a different approach to COVID-19 and economics in his book titled *Economics in One Virus*. Both the title and format of the book have been inspired by Hazlitt's *Economics in One Lesson*. The author emphasizes that this is not a book about the coronavirus but rather a book about economics and economic theory using COVID-19 as a case study.

Referring to the situations caused by COVID-19, the author explains many key economic concepts. Readers without an economics background can benefit greatly from this book. Concepts such as externalities, shocks, incentives and recession are some of the many economic terms and concepts both introduced and explained. For example, citing hand sanitizer shortage, the author explains the relationship between prices and supply and demand. The author argues that the shortage was prolonged due to government intervention in the form of price controls. Had the government not decided to introduce a price ceiling, companies would find innovative ways to cater for the needs of the consumers. Thus, the author blames policymakers for introducing anti-price-gouging laws

for the prolonged shortage of hand sanitizers during the pandemic.

The last chapter in the book before the concluding chapter, titled *Can we really just turn an economy off and back on again?*, provides interesting insights into how an economy works through a case study of the English Premier League to explain the difficulties in switching an economy off and on again. Since the pandemic has brought many changes in how things are done, the switching on process will be fraught with obstacles. In the case of the Premier League, resuming football matches will incur significant changes and costs increases that were not there earlier. For example, stadiums will have to be operated below capacity and if one player is tested positive for COVID-19, the whole team might be unable to participate for certain weeks. The author links this to the economy by drawing parallels with workers' productivity and changes in business operations. While many policymakers were aiming for a V-shaped recovery by introducing lockdowns, Bourne argues that simply picking up where you left off before the pandemic neither works in the soccer industry nor in the economy.

While the author has introduced and explained many economic concepts and theories with the use of many notable examples and case studies, the focus of the book is the US economy, which can be irrelevant to readers that do not understand the working of the US economy. Simi-

larly, the examples provided may not be applicable for other countries outside the US. Being a libertarian himself, the author highly values free markets and less government intervention. The author explains that anti-price-gouging policies prolonged the shortage of hand sanitizers, thus the government should not intervene in the market. However, the reason behind anti-price-gouging policies and price caps are to ensure that all consumers can afford necessary goods. The author himself has provided examples that prices of hand sanitizers and masks had skyrocketed due to limited regulation in the initial phases of the pandemic. While government intervention in all markets is not necessary, some form of government intervention might be necessary in some sectors, especially during disasters, to ensure all consumers can afford the basic necessities.

Economics in One Virus is an interesting read, especially for readers who would want to understand economics and seek the answers to why certain events unfolded during the pandemic. The author has truly taken a different approach to explain economics and the book will mostly grasp the attention of many readers because of the original examples provided. But as the book's main focus is the US economy, readers outside of the US might find some examples not entirely applicable to the actions and events that unfolded in their locality or country. ■

Programmes of Action for LDCs

Programmes of Action are largely focused on the structural transformation of LDCs by increasing the productive capacity and towards tackling new developmental challenges.

Ranjan Sapkota

United Nations (UN), in 1981, during the first UN conference on LDCs started an initiation — the Programme of Action (PoA) — with an objective of helping the Least Developed Countries (LDC) to achieve sustained growth and development.¹ The marginalization of the LDCs from the global economy provided an impetus for the establishment of a decade long PoA. The first UN conference on LDCs was held in Paris in 1981 which gave rise to the ‘Sustainable New Programme of Actions for LDCs’. The overarching idea of the Programme of Action was to help transform the LDC economies, improve the standard of living in the LDCs and to create job opportunities. Ever since the first PoA, four other PoAs have been initiated, with the second held again in Paris, third in Brussels, fourth in Istanbul and the fifth in Doha.

The Paris Declaration and the Programme of Action for the LDCs was the second PoA which guided LDC programmes for the period

1990–2000. The program acknowledged the socio-economic progress made during the decade of ‘Sustainable New Programme of Action’ along with formulating plans and priorities for the upcoming decade. The priority areas for the second PoA was enhancing macroeconomic policy, human resources development, reversing the environmental degradation trends, rural development, food production and the development of diversified productive sector. The third PoA — the ‘Brussels Programme of Action’ for the decade 2001-2010 — prioritized helping LDCs achieve sustainable development and eradicating poverty, inequality, and deprivation. Likewise, the fourth PoA was the Istanbul Programme of Action (IPoA). IPoA came into effect during the Fourth UN Conference on LDC held in Istanbul, Turkey in 2011. The IPoA for the decade of 2011-2020, largely focused on the structural transformation of LDCs through increasing the produc-

tive capacity to tackle new developmental challenges, including climate change, productive employment, eradicating poverty and overcoming economic crises, among others. The overarching idea was to decrease the number of LDCs by half by 2020 and achieve the annual economic growth of at least 7 percent.²

As the IPoA ended in 2020, it was evident that there has been a notable progress on several key facets of developmental planning. But it is also prominent that the LDCs have failed to meet the initial targets of the IPoA. Only three countries have graduated since 2011 and four more are expected to graduate by the end of 2024. The target of reducing the LDC by half has been hardly met as only 15 LDCs have been successful in meeting the graduation thresholds.³ The total number of LDCs was 49 when the IPoA started in 2011.

Between 2011-2019, the average growth rate of LDCs was 4.4 percent which is much lower than

the earlier decade of 2001-2010 when the average growth was 6.6 percent. Moreover, the target of 7 percent average annual growth was not achieved even for a single year of the decade. In fact, the growth rate was significantly weak with the lowest rate during the decade at 3.8 percent and highest being 5.7 percent.⁴ While these numbers speak volumes about weak growth, it is also pertinent to realize that the low growth rates were largely because of exogenous shocks and extreme vulnerability of LDCs to natural calamities. Incidents such as Ebola virus crises in many LDCs like Guinea and Sierra Leone hampered the economic growth in the affected region. Likewise, the 2015 Earthquake in Nepal and the extreme vulnerability of Himalayan region to the erratic and irregular climatic condition largely propelled by global warming and climate change are the examples.

The progress in terms of poverty eradication has also been minimal. In the first half of the IPoA program, from 2011 to 2015, it was noted that extreme poverty had declined by four percentage points from 39.2 percent to 35.6 percent. Even so, during the same period, the poverty gap saw a slow decline from 14.8 percent to 13.1 percent. Report of the Secretary-General, UN, highlights that by 2030, with this rate, more than 30 percent of the population is likely to be in extreme poverty. Moreover, the Sustainable Development Goals targets eradicating poverty by 2030. The achievement of this target highly depends on how the LDCs perform and progress in eradicating poverty as the LDCs constitute around 13 percent of the world population.

With regards to the target of initiating a structural transformation, the progress has also been modest. Sector-wise contributions to GDP were found to be almost constant between 2011 and 2017.⁵ One of the most important and much needed progress seen amongst LDCs has been in the Information and Communication Technology (ICT) sector.

The use of mobile phones and internet access has seen a remarkable increase during the IPoA implementation period. The ratio of mobile cellular subscription increased from 4.7 per 10 people in 2011 to 7 per 10 people in 2017. It was also noted that the internet access in LDCs had seen a rise of about 13.5 percentage points from 4.8 percent to 18.3 percent.⁶ This increase in the period was largely propelled by the COVID-19 pandemic as a large number of work, education and other services adopted remote working and learning. Likewise, access to electricity amongst LDCs also increased significantly from 34 percent in 2011 to 51 percent in 2017. Electricity consumption is believed to be extensively high

The LDC5 will discuss the progress and problems of the LDCs over the decade and initiate the PoA for the next decade.

in the urban parts of LDCs compared to rural parts. Hence, more is needed to be done to increase the electricity access in the rural areas.

As for exports, LDCs' goods and services export transactions saw an increase from US\$216 billion in 2011 to US\$241 billion in 2018. Although product concentration index value of LDCs have improved in the decade, merchandise exports of LDCs still remain heavily concentrated in a few products.⁷ The IPoA target, however, was to double the share of global exports by 2020. On contrary, LDCs' exports have been falling.

Likewise, the Fifth United Nations Conference of the Least Developed Countries (LDC5) was scheduled to take place in January 2021 in Doha but was postponed due to surge of COVID-19. The LDC5 will discuss the progress and problems of the LDCs and

will initiate the Doha Programme of Action (DPoA) for the next decade. The DPoA's priority is to eradicate poverty, fostering science, technology and innovation, and address climate change and recover from COVID-19.

Moreover, in the past two years the LDCs have been hit hard by the COVID-19 pandemic and hence, foremost priority should be towards helping the LDCs bounce back from the health and economic crisis propelled by the pandemic. The measures should primarily focus towards enhancing health facilities and building a resilient strategy to prevent similar exogenous shocks in the future. Simultaneously, efforts to increase LDCs' participation in global trade should be prioritized. Export diversification and boosting productive capacity by enhancing the disrupted supply chain (during the pandemic) can be a great strategy. Besides, technological development has been the face of many developed and emerging nations across the world. Amongst LDCs too, in the near future, it would be a prodigious strategy to push for more and more technological enhancement.

The LDC5 and DPoA is expected to address these new realities while moving ahead with the unfinished agenda of the IPoA. ■

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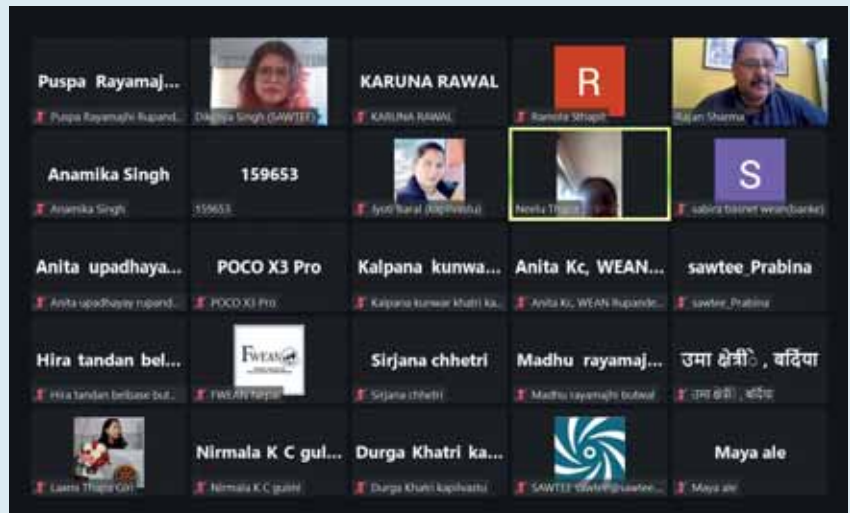
International Support Measures for the graduating LDCs: Perspectives from South Asia

SAWTEE in collaboration with Citizen's Platform for SDGs of Centre for Policy Dialogue (CPD), Bangladesh, and Centre for Research on Bhutanese Society, Bhutan organized a session "International Support Measures for the Graduating LDCs: Perspectives from South Asia" at International Institute for Sustainable Development (IISD)'s inaugural Trade and Sustainability Hub on 2 December.

Highlighting intersection of the two overarching issues of inclusion and impact of COVID-19, the session discussed transitional journey of countries graduating from the LDC category. The session also discussed support measures in the areas of trade and finance in view of the LDC graduation in the backdrop of the ongoing COVID-19 pandemic.

Dr. Debapriya Bhattacharya, Convenor, Citizen's Platform for SDGs, Bangladesh and Member, UN CPD moderated the session. Professor Mustafizur Rahman, Distinguished Fellow, Centre for Policy Dialogue (CPD), Bangladesh, Mr. Rabi Shanker Sainju, Executive Member, SAWTEE, Nepal and His Excellency Ambassador Mr. Sonam Tobdem Rabgye, Centre for Research on Bhutanese Society, Bhutan provided their insights into how the most vulnerable countries like Bangladesh, Bhutan and Nepal carry on their transition journey in the face of shocks like pandemic. ■

Awareness workshop on gender dimensions of entrepreneurship



SAWTEE, in partnership with the Federation of Women Entrepreneurs Association of Nepal (FWEAN), organized an awareness generation workshop for the women entrepreneurs in Gandaki and Lumbini Provinces on 23 September.

The objective of the virtual workshop was to familiarize micro women entrepreneurs with issues related to tax liabilities, bookkeeping, becoming export-ready and looking for new markets, among others. FCA

Arun Raut, General Secretary, Association of Chartered Accountants of Nepal and Mr. Rajan Sharma, former President, Nepal Freight Forwarders Association, provided insights into managing accounts, calculating taxes and becoming credit-worthy and improving product quality and becoming export-ready.

The event saw participation of about 100 women entrepreneurs from the two provinces. ■

Sustainable Development Conference

THE Sustainable Development Policy Institute organized its 24th sustainable development conference (SDC) from 6-9 December in Islamabad, Pakistan. The overarching theme of the conference was Beyond the Pandemic: Leaving No One Behind. The confer-

ence reflected on the lessons learnt during the two years of the COVID-19 pandemic, what can be done to catch up with the missed targets and how can they be compensated for the time loss, and how well are we planning for future disasters. ■

Virtual roundtable discussion A road to Glasgow

THE Sustainable Development Policy Institute on 4 October organized a virtual roundtable with distinguished diplomats on COP26. SDPI had posed three questions to the ambassadors for the discussion: what is your government committing for net zero emissions; how does your government plan to achieve these targets; and being a developed country, do you have any plans to share how your govern-

ment is planning to be in partnership with the government of Pakistan to make businesses inclusive and greener? The roundtable panelist included the German ambassador to Pakistan; Head Cooperation at High Commission of Canada to Pakistan; Minister Counselor Management Affairs, Embassy of USA; Deputy Head of EU Delegation in Pakistan; and Executive Director at SDPI, among others. ■

Cross-border tourism in India and Bangladesh

CUTS International in collaboration with Oxfam and the Federation of Indian Chambers of Commerce and Industry (FICCI) on 29 October organized a public-private dialogue in Guwahati, India with an aim of emphasizing the importance of cross-border tourism, and cruise operations and adopting more inclusive approach through trans-boundary waterways.

Transboundary-rivers based trade, tourism and cruise operations between

India and Bangladesh have an immense scope of economic, social and cultural prospects for the region. Such cross-border trade and tourism activities offer immense social, cultural, and economic benefits to local communities mainly women. The dialogue was attended by more than 30 dignitaries and stakeholders from Bangladesh, Bhutan and India. ■

BBIN sub-region needs a cooperative approach for multi-modal connectivity

CUTS International on 1 September, 2021 organized a webinar to discuss the intermodal transport connectivity lessons from Central, South and Southeast Asia for the Bangladesh-Bhutan-India-Nepal sub-region. Executive director of CUTS international, Bipul Chatterjee said "the BBIN sub-region should develop a cooperative approach for multi-modal connectivity, learning from successful sub-regional connectivity models of the world." Dongxiang Li, lead regional cooperation specialist, South Asia department, ADB and Gopal Krishna, former shipping secretary of India were some of the participants at the webinar among others. Mr. Li said that increasing transport connectivity is key for regional integration and boosting of intra-regional trade, while Mr. Krishna emphasized the potential of inland waterways to develop seamless connectivity in the BBIN sub-region. ■

Policy dialogue on regional cooperation for sustainable development in South Asia

THE Institute of Policy Studies of Sri Lanka, together with United Nations Economic and Social Commission for Asia and the Pacific hosted a policy dialogue on 'regional cooperation for sustainable development in South Asia' in Colombo

on 17 November. The objective of the dialogue was to deepen the engagement among various stakeholders, focusing on potential areas for further strengthening sub-regional linkages, and how such linkages can be channeled into inclusive growth and sustain-

able development outcomes. Dr. Dushni Weerakoon, executive director at IPS stated at the event that many countries in the region have limited national resources and capacities, and therefore sharing country-level experiences is important. ■



South Asia Watch on Trade, Economics and Environment (SAWTEE) is a regional network that operates through its secretariat in Kathmandu and member institutions from five South Asian countries, namely Bangladesh, India, Nepal, Pakistan and Sri Lanka. The overall objective of SAWTEE is to build the capacity of concerned stakeholders in South Asia in the context of liberalization and globalization.

www.sawtee.org