



THE LEAST DEVELOPED COUNTRIES REPORT 2021



The least developed countries in the post-COVID world: Learning from 50 years of experience



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Main text

The term "dollars" (\$) refers to United States dollars unless otherwise specified.

The term "billion" signifies 1,000 million.

Annual rates of growth and changes refer to compound rates.

Exports are valued "free on board" and imports, on a "cost, insurance, freight" basis, unless otherwise specified.

Use of a dash (–) between dates representing years, e.g. 1981–1990, signifies the full period involved, including the initial and final years. A slash (/) between two years, e.g. 1991/92, signifies a fiscal or crop year.

Throughout the report, the term "least developed country" refers to a country included in the United Nations list of least developed countries.

The terms "country" and "economy", as appropriate, also refer to territories or areas.

Tables

Two dots (..) indicate that the data are not available or are not separately reported.

One dot (.) indicates that the data are not applicable.

A dash (-) indicates that the amount is nil or negligible.

Details and percentages do not necessarily add up to totals, because of rounding.

Figures

Some figures contain country names abbreviated using ISO (International Organization for Standardization) alpha-3 codes, which can be consulted at: https://www.iso.org/obp/ui/#search.

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Classifications

► LEAST DEVELOPED COUNTRIES

Unless otherwise specified, in this report, the least developed countries are classified according to a combination of geographical and structural criteria. The small island least developed countries that are geographically in Africa or Asia are thus grouped with Pacific islands to form the island least developed countries group, due to their structural similarities. Haiti and Madagascar, which are regarded as large island States, are grouped together with the African least developed countries.

The resulting groups are as follows:

African least developed countries and Haiti:

Angola, Benin, Burkina Faso, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Djibouti, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Rwanda, Senegal, Sierra Leone, Somalia, South Sudan, Sudan, Togo, Uganda, United Republic of Tanzania, Zambia.

Asian least developed countries:

Afghanistan, Bangladesh, Bhutan, Cambodia, Lao People's Democratic Republic, Myanmar, Nepal, Yemen.

Island least developed countries:

Comoros, Kiribati, Sao Tome and Principe, Solomon Islands, Timor-Leste, Tuvalu.

▶ OTHER GROUPS OF COUNTRIES AND TERRITORIES

Developed countries:

Andorra, Australia, Austria, Belgium, Bermuda, Bulgaria, Canada, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Greenland, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Lithuania, Luxembourg, Malta, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, San Marino, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland, United States of America, Holy See, Faroe Islands, Gibraltar, Saint Pierre and Miquelon.

Other developing countries:

All developing countries (according to UNCTAD) that are not least developed countries:

Algeria, American Samoa, Anguilla, Antigua and Barbuda, Argentina, Aruba, Bahamas, Bahrain, Barbados, Belize, Plurinational State of Bolivia, Bonaire, Sint Eustatius and Saba, Botswana, Bouvet Island, Brazil, British Indian Ocean Territory, British Virgin Islands, Brunei Darussalam, Cabo Verde, Cameroon, Cayman Islands, Chile, China, Hong Kong SAR, Macao SAR, Taiwan Province of China, Colombia, Congo, Cook Islands, Costa Rica, Côte d'Ivoire, Cuba, Curaçao, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Eswatini, Falkland Islands (Malvinas), Fiji, French Polynesia, French Southern Territories, Gabon, Ghana, Grenada, Guam, Guatemala, Guyana, Honduras, India, Indonesia, Islamic Republic of Iran, Iraq, Jamaica, Jordan, Kenya, Democratic People's Republic of Korea, Republic of Korea, Kuwait, Lebanon, Libya, Malaysia, Maldives, Marshall Islands, Mauritius, Mexico, Federated States of Micronesia, Mongolia, Montserrat, Morocco, Namibia, Nauru, Netherlands Antilles, New Caledonia, Nicaragua, Nigeria, Niue, Northern Mariana Islands, Oman, Pacific Islands, Trust Territory, Pakistan, Palau, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Pitcairn, Qatar, Saint Barthélemy, Saint Helena, Saint Kitts and Nevis, Saint Lucia, Saint Martin (French part), Saint Vincent and the Grenadines, Samoa, Saudi Arabia, Seychelles, Singapore, Sint Maarten (Dutch part), South Africa, South Georgia and South Sandwich Islands, Sri Lanka, State of Palestine, Suriname, Syrian Arab Republic, Thailand, Tokelau, Tonga, Trinidad and Tobago, Tunisia, Turkey, Turks and Caicos Islands, United Arab Emirates, United States Minor Outlying Islands, Uruguay, Bolivarian Republic of Venezuela, Viet Nam, Wallis and Futuna Islands, Western Sahara, Zimbabwe.

What are the least developed countries?

▶ 46 countries

As of 2021, forty-six countries are designated by the United Nations as least developed countries (LDCs). These are: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, the Central African Republic, Chad, the Comoros, the Democratic Republic of the Congo, Djibouti, Eritrea, Ethiopia, the Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, the Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nepal, the Niger, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, the Sudan, Timor-Leste, Togo, Tuvalu, Uganda, the United Republic of Tanzania, Yemen and Zambia.

► Every 3 years

The list of LDCs is reviewed every three years by the Committee for Development Policy (CDP), a group of independent experts that report to the Economic and Social Council (ECOSOC) of the United Nations. Following a triennial review of the list, the CDP may recommend, in its report to ECOSOC, countries for addition to the list or graduation from LDC status.

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.

To graduate from the LDC category, a country must meet the established graduation thresholds of at least two of the criteria for two consecutive triennial reviews. Countries that are highly vulnerable, or have very low human assets, are eligible for graduation only if they meet the other two criteria by a sufficiently high margin. As an exception, a country whose per capita income is sustainably above the "income-only" graduation threshold, set at twice the graduation threshold (\$2,444 at the 2021 triennial review), becomes eligible for graduation, even if it fails to meet the other two criteria

▶ LDC graduation

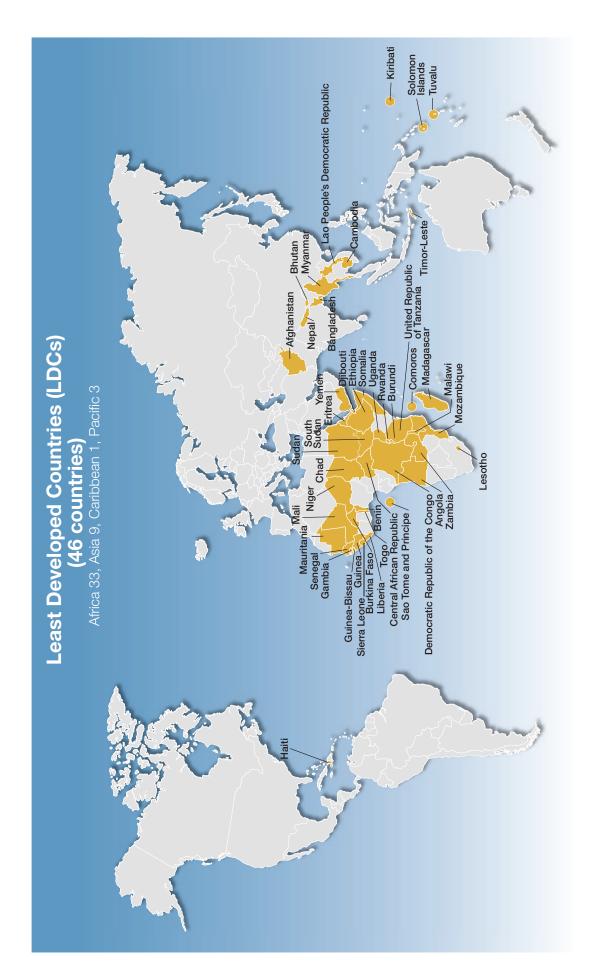
Five countries have graduated from least developed country status:

- Botswana in December 1994:
- Cabo Verde in December 2007;
- Maldives in January 2011;
- Samoa in January 2014;
- Equatorial Guinea in June 2017; and
- Vanuatu in December 2020.

The CDP has recommended graduation from the LDC category for several countries in the past. Among them, **Bhutan** is scheduled for graduation in 2023, while **Sao Tome and Principe** and **Solomon Islands** are slated for graduation in 2024. **Angola** was expected to graduate in 2021, but in the wake of a prolonged recession, and the COVID-19 outbreak, the General Assembly decided on 11 February 2021 to grant Angola an additional preparatory period of three years; hence the country is also scheduled for graduation from LDC status in 2024. **Kiribati** and **Tuvalu** were recommended for graduation in 2018 and 2012 respectively but ECOSOC deferred a decision on their graduation in 2018. In 2021 the CDP reiterated its recommendation of graduation but proposed a preparatory period of five years for these two countries. In resolution 2021/11, ECOSOC, recalling its decision to defer the consideration of the graduation of Kiribati and Tuvalu to no later than 2021, recognized the unprecedented socioeconomic impacts of the COVID-19 global pandemic, and decided to defer the consideration of their graduation until 2024.

The CDP's 2021 Triennial review considered for graduation from LDC status three countries (**Bangladesh**, **Lao People's Democratic Republic** and **Myanmar**), which met the graduation criteria for the second time; and **Nepal** and **Timor-Leste**, which had met the graduation criteria for the second time in 2018, but for which the CDP had deferred its decision. The Committee recommended for graduation from the LDC category Bangladesh, Lao People's Democratic Republic and Nepal. Because of the COVID-19 pandemic, the Committee recommended an extended preparatory period, as well as careful monitoring and analysis of the impacts of the pandemic, and specific transition support. The Committee decided to defer its decision on the cases of Myanmar and Timor-Leste to the CDP's 2024 Triennial review. ECOSOC resolution 2021/11, issued on 8 June 2021, endorsed the CDP's recommendation for all five countries. The General Assembly will consider the matter during its 76th session.

Lastly, in the CDP's 2021 review of the list of LDCs, the following countries were found to have met the graduation thresholds for the first time: **Cambodia**, **Comoros**, **Djibouti**, **Senegal** and **Zambia**. Djibouti met the "income-only" criterion; Comoros, Senegal and Zambia met the graduation thresholds for two of the three criteria, namely income and human assets; and Cambodia met all three graduation criteria (income, human assets, and economic and environmental vulnerability). These countries will be reviewed again in 2024 and, if they meet the criteria for a second time, could be recommended for graduation



Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Abbreviations and acronyms

AAAA	Addis Ababa Action Agenda	INDCs	intended nationally determined contributions
AfCFTA	African Continental free Trade Area	IPoA	Istanbul Programme of Action
AGR	average annual growth rate	ISI	import substitution industrialization
BPoA	Brussels Programme of Action	ISM	international support measure
CDP	Committee for Development Policy	LDC	least developed country
CSR	corporate social responsibility	LMIC	low- and middle-income country
ECI	economic complexity index	NDCs	nationally determined contributions
ECOWAS	Economic Community of West African States	ODA	overseas development assistance
240		ODCs	other developing countries
DAC	Development Assistance Committee	PCI	Productive Capacity Index
DFI	development finance institution	PoA	programme of action
DSSI	Debt Service Suspension Initiative	PPGR	pro-poor growth rate
FDI	foreign direct investment	PPoA	Paris Programme of Action
GDP	gross domestic product	PRSP	Poverty Reduction Strategy Paper
GNI	gross national income	RCEP	Regional Comprehensive Economic Partnership
GNP	gross national product	SAFTA	South Asian Free Trade Area
GSP	Generalized System of Preferences	TDB	Trade and Development Board
GVC	global value chain	TFP	total factor productivity
HAI	Human Assets Index	SAP	structural adjustment programme
HIPC	Heavily Indebted Poor Countries	SDG	Sustainable Development Goals
ICTs	information and communications technologies	SIDS	small island developing States
IFFs	illicit financial flows	SNPA	Substantial New Programme of Action
IMF	International Monetary Fund	STI	science, technology and innovation



Foreword

Since the establishment of the least developed countries (LDC) category 50 years ago, LDCs have unfortunately followed an erratic and often fragile development trajectory. These mixed results underscore the struggle of LDCs to make decisive progress on structural economic transformation and sustainable development – a struggle with complex origins now made worse by the COVID-19 crisis. The pandemic rolled back many years of the hard-won progress LDCs had made in improving their peoples' lives, and bridging their widening income gap with other developing countries and the rest of the world.

Studying the scale and growing multitude of challenges facing the LDCs, our report provides a coherent policy approach by identifying successful experiences that have contributed to the realization of past programmes of action for LDCs. Looking forward, our report proposes an overhaul of development policies and strategies, stressing the importance of prioritizing initiatives fostering inclusive growth and LDC's productive and state capacities.

After this pandemic, it is clear that no country or region can go at it alone. LDCs are no exception. Future efforts by these countries to weather and overcome the global challenges exposed by COVID-19 hinge on the quality, depth, and foresight of the response of the international community. Looking towards the Fifth United Nations Conference on the Least Developed Countries (LDC5, to be held in early 2022), this report hopes to play an important role in shaping global awareness of the need to develop and implement novel, better tailored and ambitious international support measures for LDCs. And in line with the theme of the Fifteenth United Nations Conference on Trade and Development (UNCTAD 15, to be held in October 2021), "From inequality and vulnerability to prosperity for all", this report strives to chart the direction for LDCs at the Conference and its resulting mandates.

The task ahead is great, and it is urgent. The pandemic has permanently changed the world, and so our policies, solutions and responses should be commensurate with the immense challenge still ahead of us. It will not be easy, but the alternative – the continuation of an erratic, fragile and, in a word, unsustainable development path – is increasingly intolerable to the 1.1 billion people around the world living in an LDC.

Rebeca Grynspan

Secretary-General of the United Nations Conference on Trade and Development





Overview

Setting the scene: 50 years of the LDC category

A landmark in LDC history

This year marks 50 years since the least developed countries (LDCs) category was established by a United Nations General Assembly resolution, following research, analysis and advocacy work by the United Nations Conference on Trade and Development (UNCTAD). This pivotal landmark comes as intergovernmental negotiations are taking shape for a new programme of action for the LDCs for the decade 2022–2031, and whose implementation period will broadly coincide with the final decade of the 2030 Agenda for Sustainable Development. These negotiations bring together LDCs and their development partners to devise innovative ways to tackle the major development challenges that bedevil LDC economies and societies. These include long-standing challenges, e.g. impediments to structural transformation and sustainable development, more recent ones (especially those created by the COVID-19 shock), as well as increasingly serious and risk-bearing future challenges, such as those deriving from climate change.

The outlook for LDCs is grim: mired in the health, economic and social crises brought about by the COVID-19 pandemic, in 2020 they recorded their worst growth performance in about three decades. More broadly, these crises have reversed the progress that had been painstakingly achieved on several dimensions of development, notably on the fronts of poverty, hunger, education and health. Reversing these gains will have lingering adverse consequences on the development of LDCs over the mid-term.

Although development progress has been made over the past 50 years, core challenges have persisted and become more complex and urgent. However, progress on some fronts has been disappointing, including with respect to: (i) the slow development of productive capacities and ensuing scant progress in growth-enhancing structural economic transformation; (ii) the persistence of several symptoms of underdevelopment, such as low levels of labour productivity, high poverty rates, low levels of human capital formation, and persistent under-performance in human well-being; (iii) a lingering vulnerability to external shocks and limited resilience due to restricted resources and policy space, and weak institutional development; (iv) a widening income and development gap between most LDCs and other developing countries (ODCs); and (v) the small number of countries to have graduated from the LDC category up to now – in the 26 years since 1994, only six countries have graduated out of a total of 53 countries to have ever formed part of the LDC category.

It is therefore important to identify successful experiences, and to investigate what policies have contributed to their achievement. It is also important to interrogate the development policies pursued by the LDCs to discover where they have been lacking. The objective is to glean lessons from past experience in order to formulate innovative proposals for the future.

The origin of the LDC category

For most LDCs, the 1950s and early 1960s marked the end of the colonial era. Left with economies that could barely generate enough tax revenue and domestic savings to finance development, these countries relied on external resources to fill their respective development financing gaps. It subsequently became abundantly clear then that international trade offered the potential to provide resources to finance development. However, LDCs lacked a dimension of domestic economic structure that could afford them a measure of flexibility and capacity to compete at the global level.

The international development strategy of that time promoted international trade and economic cooperation, with the goal of increasing the flow of external resources to developing countries to accelerate their development. Export-promotion strategies were, however, not successful in turning comparative advantages in commodities into competitive, large-scale industrial prospects. When the 1960s were designated as the first United Nations Development Decade, the goal was to garner international support for "measures to accelerate self-sustaining growth and social progress in all countries" in the hope of closing the per capita income gap between developed and developing countries. The first United Nations Conference on Trade and Development in 1964 (UNCTAD I) was also convened to address specific development challenges of developing countries, including trade.

The United Nations issued several landmark decisions on LDCs in the late 1960s and the early 1970s, mostly relating to their development challenges. The period 1971 to 1982 marked the end of the post-war economic

boom, and the onset of a period of global adjustments caused by major monetary and commodity market events. When the United Nations established the LDC category in 1971, the defining theme was "underdevelopment" which incorporated common elements such as vulnerability to external shocks and domestic factors, e.g. limited resource endowments, institutions and policies, which further undermined the potential of LDCs to confront their development challenges. Out of these intergovernmental processes and contestations, UNCTAD emerged as a 'flag-bearer' on behalf of LDCs on development issues through its convening role on trade and development.

Whereas the main concerns in the 1960s were the worsening terms of trade of developing country exports, a sharp fall in net capital flows from developed countries, rising indebtedness and the oil price crises of 1973 and 1979, triggered further socioeconomic challenges globally, including among developing countries. The effect of the oil crises (1973, 1979) on developing countries lingered and combined with macroeconomic imbalances gave rise to, among others, the debt crisis of the mid-1980s to the late 1990s. The 1980s are associated with international financial institutions (IFIs) progressively introducing a suite of structural policies aimed mainly at assisting LDCs to manage: (i) their external obligations through the stabilization of their macroeconomy; (ii) the liberalization of their economies; (iii) their abandonment of Keynesian fiscal policies for monetarism; (iv) the privatization of public enterprises; and (v) the re-orientation of their economies with market policies. Concerned with a further deterioration of economic and social conditions in LDCs, the United Nations convened the first United Nations Conference on the Least Developed Countries in 1981. Since then, four United Nations Conferences on the Least Developed Countries have been held, with the next one scheduled to be held in Doha, Qatar, in 2022.

The special role of trade

Trade has traditionally been a major focus of thinking and policymaking for LDCs, which has been based on the following rationales: (i) the balance-of-payments-constrained growth model, which places trade performance as a central structural impediment to growth and development; (ii) the link between commodity dependence and poverty/underdevelopment; (iii) trade is the field where the most effective international support measures (ISMs) to LDCs have been put into operation; (iv) in the context of globalization, the impacts of international trade on development outcomes have intensified. However, the share of LDCs in world trade has remained exceedingly modest over the years. Primary commodities dominate LDCs exports, while manufactured products dominate exports of both developed countries and other developing countries (ODCs), with commodities still featuring strongly in the exports of many of the latter countries.

From the early 1960s, merchandise exports became important for a few LDCs. Services have since also become important exports for LDCs, particularly in recent years, averaging about 20 per cent of total exports. Diversification of the main products exported by LDCs remains a challenge, with most countries still relying on one or a handful of products, mainly commodities (whether fuels, minerals or agricultural products). Existing structural weaknesses point to the need to develop the productive capacities of LDCs, including the interlinkages within and across sectors, as well as to address other supply-side constraints, such as the: (i) quality of labour (human capital); (ii) deficiencies in physical infrastructure; (iii) the level of technological capabilities; (iv) low levels of private investment; and (v) low growth. These constraints are at the heart of a long-term development problem and cannot be addressed with piecemeal interventions or sectoral approaches.

When the General Assembly endorsed the initial list of "least developed among developing countries" in 1971, 25 countries were identified in recognition of their structural challenges and vulnerabilities. The criteria for inclusion into and graduation from the LDC category have evolved since then, reflecting the increased availability of quality data to assess the progress made by LDCs. Over the years, the number and diversity of countries in the category increased, peaking at 52 in 1991. Six countries have graduated from the category and since January 2021, the remaining LDCs number 46. While economic and social development indicators have greatly improved, they remain largely unsatisfactory and countries continue to struggle with a set of challenges similar to those that led to the establishment of the category.

The present critical juncture

The COVID-19 crisis has dramatically highlighted the institutional, economic and social shortcomings of the development path followed by most LDCs. Although the COVID-19 pandemic has affected all countries, the

impact on LDCs has been particularly severe because of their reduced resilience and diminished capacity to react to the COVID-19 shock and its aftermath. Also, the pandemic emerged at a time when development progress was already slow and unsatisfactory. Their low resilience is reflected in the extremely low COVID vaccination rates that LDCs have achieved and, as of mid-2021, only 2 per cent of the population have been vaccinated, as compared to 41 per cent in developed countries.

Many LDCs risk being left behind as the economies of ODCs and developed countries recover from the COVID-19 pandemic; they may spend the coming years recovering from it and may eventually achieve little real progress on the Sustainable Development Goals during the 2020s. The present situation is therefore exceptional and requires decisive action by both the international community and LDCs themselves to counter the risks of hysteresis and a lost decade.

Achievements at 50: growth, transformation and sustainability?

Given the situation in which LDCs currently find themselves and the challenges they face in the coming decade, it is critical to reflect on what could be learnt from their past growth trajectory in order to provide key insights into how to best lay the foundations for an inclusive and sustainable recovery from the COVID-19 shock. The focus of the present analysis on economic growth is not meant to frame a discussion on LDC development as a purely growth-centric debate; rather, it is intended to recognize that a rebound of economic activity is critical at this stage, and that growth will likely continue to be a key driver in the sustainable development prospects of LDCs.

From a long-term perspective, the growth performance of LDCs over the past 50 years is mixed at best, and has generally been sluggish and uneven. Real gross domestic product (GDP) for the LDC group has increased five-fold since the creation of the category, climbing from roughly \$200 billion in 1971 to \$1,118 billion in 2019 (all figures in constant 2015 prices). This is equivalent to an average growth rate of 3.7 per cent per year, only slightly higher than the corresponding world average of 3.1 per cent. Meanwhile, due to rapid demographic growth, real GDP per capita has expanded at a much slower pace (1.3 per cent per annum), rising from roughly \$600 to \$1,082 over the same period.

LDCs would have needed to achieve a stronger performance to turn back or halt their marginalization in the global economy. Prior to the COVID-19 shock, the LDC group accounted for about one per cent of world GDP, roughly the same share as in the early 1970s. Even more worrying, GDP per capita for the LDC group represented 15 per cent of the world average in 1971, but by 2019 – prior to the COVID-19 crisis – this had declined to less than 10 per cent. This overall trend reveals two distinct phases: in 1971–1995, LDCs experienced sluggish and erratic GDP growth, when not outright recessions. Conversely, from the mid-1990s LDCs experienced a marked and fairly generalized resumption in economic growth following strengthened macroeconomic fundamentals, and an improved international environment and less widespread conflicts. Considering period averages, the consequence was that the total GDP of LDCs rose somewhat from 0.8 per cent of the world average in 1971–1995 to 1.1 per cent in 1996–2019. However, strong demographic growth led to a relative decline of the per capita GDP of LDCs from 9.2 to 8.8 per cent, as compared to the world average.

Over the past 50 years, only a handful of today's LDCs (namely, Bangladesh, Bhutan, Cambodia, Lao People's Democratic Republic, Lesotho, Mali and Myanmar) have consistently outpaced the world average GDP per capita growth by more than one per cent. A dozen other LDCs have "muddled through", and broadly matched the world average GDP per capita growth rate; however, about half of today's 46 LDCs have actually fallen behind. As a result, despite some resumption in economic dynamism since the mid-1990s, meaningful convergence (understood as a consistent reduction of inequalities among countries) has been the exception rather than the rule for LDCs. On the contrary, a sizeable proportion of those countries were lagging behind prior to the COVID-19 shock, giving rise to widening global inequalities that are likely to translate into unequal opportunities.

What is more, as signs of a two-speed post-COVID recovery continue to materialize, global inequality is likely to worsen further. Early estimates for 2021 suggest that the global downturn may be less severe than previously anticipated. However, the staggered contamination waves and vaccine roll-out, coupled with wide asymmetries in the capacities of LDCs to respond to the crisis, as well as context-specific vulnerabilities and idiosyncratic factors, are likely to leave many LDCs marred in economic troubles over the medium term. Not only have many

of them sizeable debt vulnerabilities looming large on their fundamentals, but – more generally – four factors threaten to undermine potential output in the medium term, namely:

- (i) The postponement and cancellation of investment plans, which will inevitably dent medium-term growth potential;
- (ii) Widespread disruptions to schooling and learning, which may well take a toll on human capital accumulation and exacerbate existing disparities, including in terms of gender inequalities;
- (iii) The spread of bankruptcies, job destruction and related capability losses, which may leave long-term scars on an already precarious entrepreneurship landscape; and
- (iv) The ongoing reconfigurations of value chains, which may affect competitiveness in sectors of key importance for many LDCs, especially tourism and garments.

To properly contextualize the situation currently faced by LDCs in the present uncertain phase, it is instructive to consider the medium-term deviations of different countries from their long-term growth trends, as growth accelerations and growth collapses. In general, these medium-term deviations have been rather common for LDCs, ODCs and developed countries alike, with accelerations being significantly more frequent than collapses. LDCs, however, stand out for having experienced more frequent instances of growth collapses than other groups of countries: between 1971 and 2019, collapses represented 16 per cent of the total country-year observations in the case of LDCs, as compared with 10 per cent for ODCs, and as little as 2 per cent for developed countries. Moreover, compared to other country groups, LDCs tended on average to enjoy slower growth during accelerations and suffer slightly more severe decelerations. Although these LDC specificities are largely driven by their erratic growth record during the period between 1971 and 1994, they persisted even in the subsequent "high-growth" period. This points to the heightened exposure of LDCs to boom-and-bust cycles resulting from both endogenous and exogenous conditions, which adds further relevance to the call for stronger international cooperation to foster an inclusive sustainable and resilient recovery in the LDCs.

Recovery is crucial in the context of the ambitious vision set out in the 2030 Agenda for Sustainable Development. While economic growth continues to represent a key potential driver of sustainable development in LDCs, the pattern of this growth plays a fundamental role in shaping distinct socioeconomic and environmental outcomes. In this respect, UNCTAD has long argued that growth sustainability hinges on the development of productive capacities and is subject to: (i) structural dynamics affecting capital accumulation; (ii) intersectoral reallocation of production factors; (iii) the gradual acquisition of productive capabilities; and (iv) the densification of production linkages. The Least Developed Countries Report 2021: LDCs in the post-COVID world: learning from 50 years of experience confirms this diagnostic.

Evidence from a development accounting exercise undertaken for LDCs reveals that a median share of about 40 per cent of the growth in GDP per worker is due to capital deepening, with human capital accumulation accounting for another 10 per cent of the growth. The substantial nature of these figures does not capture the impact of natural capital and also that investment is heavily affected by institutional factors, with conflicts and political instability often leaving long-term adverse legacies. Moreover, the importance of capital accumulation in LDCs remains largely intact, even when considering recent technological waves and the ensuing scope for leapfrogging, as well as the emergence of servicification and digitalization which underscore immaterial elements of productive capacities. While these factors are set to play a growing role in the future, harnessing them requires much-needed skills, adequate infrastructural provision – with access to energy being a key driver of productive upgrading – but also of manufacturing capabilities and end-use capital, without which a meaningful engagement in advanced production technologies remains a chimera.

The pace and direction of structural change, i.e. the process of intersectoral reallocation of inputs and the corresponding changes in the composition of output, which typically accompany aggregate growth, has also proved to be a fundamental determinant of productivity dynamics. If structural change generally progressed at a sluggish pace over the past 50 years, some of the best performing LDCs experienced encouraging developments during the 1995–2018 period. Not only did labour productivity growth average 6 per cent per year, but labour reallocation from agriculture mainly to higher-productivity services (e.g. trade and business services) contributed to productivity dynamics. Manufacturing also played a conducive role in this process, but its contribution to job creation was somewhat more circumscribed and it has only played a role in selected LDCs.

Overall, two main conclusions can be drawn from this evidence to inform strategic efforts to "build forward to transform". Structural transformation and factor reallocation from low productivity to higher productivity

activities remain critical to total factor productivity (TFP) dynamics and hence to sustainable growth; this is even more pronounced in LDCs where sectoral productivity gaps are particularly wide and where a substantial pool of labour toils in semi-subsistence agriculture or is "underemployed". This implies that an emphasis on productive capacities acquisition, leading to the intertwined processes of capital accumulation, structural change and productive capabilities acquisition, is as critical as ever for sustainable development. In addition, the report shows that if some LDCs managed to kick-start a long-term process of structural transformation during the period of relatively rapid GDP growth, this transformation has, at best, been incipient. Notwithstanding the sharp recession triggered by the COVID-19 crisis, it is unclear whether these emerging cases of nascent industrialization will continue unabated, or if the downturn will thwart them. Moreover, structural transformation has remained relatively sluggish in about half of the LDCs, and countries have so far shown themselves unable to foster the emergence of a dense network of middle- and large-sized enterprises, connected through input-output linkages, both domestically and through their insertion in global and regional value chains.

This mixed picture is reflected in the inclusivity of growth, as well as on the progress towards environmental sustainability. With limited scope for redistributive policies, LDCs have to rely on growth and job creation as key drivers of poverty reduction. Hence, while acknowledging the importance of initial inequality (especially in terms of asset ownership) and other idiosyncratic factors, most of the countries having embarked on a process of structural transformation managed to achieve more inclusive growth patterns, with the poor also benefitting from economic dynamism. In the same vein, while rapid economic growth in the period between 1995 and 2018 generated greater total wealth, the heightened reliance on natural resources has often translated into unsustainable outcomes, except in cases where it was accompanied by productivity improvements, value addition, and more effective natural resource management.

Evaluating past and present strategies for furthering development

Many milestone events and processes have had profound impacts on the political economy of underdevelopment and on the policy options available to LDCs. Internationally negotiated development strategies crystallize contemporaneous economic thinking and the interpretation of the development challenges facing LDCs. Although it is intrinsically difficult to distinguish PoAs directly from their underlying processes and the environment in which they are being implemented, they do have an impact on national policies, domestic resource mobilization, and bilateral and multilateral partnerships for development.

The PoAs represent a long-standing international community tradition of setting goals to incentivize joint action on global development agenda. PoAs establish legitimacy and serve as a base for advocacy. However, they are not legally binding, neither do they embody an outright expectation of substituting national development policies, as they are the outcome of a multilateral approach to development involving negotiation and compromise. Rather, they generalize factors within LDCs, both in the articulation of structural impediments to development and in the emphasis of areas of international action.

The four PoAs to have been implemented since 1981 have all covered various dimensions of development and identified outcomes that addressed the social, economic and environmental impediments to development in LDCs, as well as the role of development planning. Progressively, they have explicitly pinpointed the approach(es) through which expected outcomes could be achieved. All the PoAs recognized structural transformation of LDC economies as the unique vehicle to achieve sustainable development. However, there have been notable differences in focus and level of detail accorded to the priority areas relevant to advancing the process of the structural transformation in LDCs, with productive capacities and diversification partially targeted in the various PoAs.

Successive shifts in emphasis across the PoAs have served to amplify certain dimensions of development over others, and have attempted to "fix" problems/issues that arose during the implementation of previous PoAs. This represents a progression in the complexity and the number of policy measures, including related trade-offs and sequencing challenges. All the PoAs are heavily dependent on the capacity and leadership role of LDC governments, and each stress the primary responsibility of LDCs for their own development. However, the capacity of LDC states has eroded during the implementation of the successive PoAs, as evidenced by the adverse effects of structural adjustment programmes, and recent changes to official development

assistance (ODA). Moreover, ODA commitments and measures have remained consistently unmet, hampering goals on aid effectiveness and the building of LDC state capacity to deliver on the PoAs and other development goals. Regrettably, none of the PoAs can be said to have fully achieved their objectives.

Forty years of international support measures in favour of LDCs

Apart from ODA and technical assistance, trade is the main area through which concrete LDC-specific ISMs have been pursued and operationalized, including outside of the PoAs. While the special needs of LDCs are widely recognized, major financial institutions, such as the World Bank and the International Monetary Fund (IMF), do not recognize or apply the LDC category in their operational work, although they are parties in the development cooperation partnership underpinning the PoAs. Relatively few small donor countries consistently reach the upper-level target of 0.20 per cent of gross national income (GNI) disbursed as ODA to LDCs, while bigger and richer donor countries are not meeting even the lowest target of 0.15 per cent of GNI. In addition, the political context for the PoAs is as important as the targets themselves because donors inevitably respond to development goals according to their specific geopolitical and economic interests, and are often not guided by multilateral goals.

The timebound definition of development brings ambiguity and elusiveness in the different agendas held by national governments, donors and the diverse and increasing number of actors in development cooperation; this is further complicated by power imbalances that tend to negate the rhetoric within LDCs on the ownership and leadership decisions on this issue. Since the Monterrey Consensus (2012), the meaning of development is heavily weighted towards poverty alleviation and development perspectives which emphasize individual well-being versus a holistic view of the national economy as a system that also addresses societal well-being. This has disproportionately oriented sectoral allocation towards social sectors and humanitarian activities, leaving economic infrastructure and productive sectors relatively underfunded. In addition to the fall in the degree of ODA concessionality, a major concern is that under the new DAC reporting rules ODA ceases to be a reliable gauge of additional sustainable development finance, and thus negates the United Nations' ODA targets, which were based on the 1969 DAC definition of ODA.

Trade preferences are an area where there is the greatest international momentum to provide special treatment for LDCs, both in the context of market access and in the implementation of the rules and disciplines of the World Trade Organization (WTO). Following the introduction of the Generalized System of Preferences (GSP) in 1971 under the aegis of UNCTAD, developing countries were granted trade preferences by most industrialized countries. The provision and utilization of trade preferences is a key goal of all the PoAs, and was further reaffirmed by Sustainable Development Goal 17. In addition, since the early 2000s more generous provisions exclusively for LDCs were introduced under the GSP. While some evaluations on the impact of trade preferences on LDCs suggest otherwise, evaluations by UNCTAD and others have generally found them to have generated limited results, especially in terms of fostering structural transformation.

National strategies for furthering development

Countries follow different development trajectories depending on initial conditions, national policy choices, and exogenous factors. At the centre of development planning processes are: (i) governance structures that determine national visions; (ii) platforms that determine strategies and policies; (iii) coalitions or a lack of cohesion with the population; and (iv) trade-offs and the unintended consequences of policies. Recent LDC national development plans covering various overlapping periods between 2014–2036 highlight the importance of LDCs having the capacity to finance their own development. Priorities vary but critically, economic development, transformation and diversification, are the common concerns.

The trends in and composition of government expenditures reflect the policy priorities decided by national governments. These policy priorities are important for understanding the dynamic impact of domestic resource mobilization on economic growth, capital stock, structural change, social development and poverty reduction. Total government spending in LDCs was limited to 20 per cent of GDP in 1990–2020, due to a constant presence of budgetary constraints. Expenditure was also boosted by a push to meet goals that were missed during the implementation of the Millennium Development Goals (2000–2015), during fiscal readjustments as the 2008/2009 global economic crisis receded, and a growth spurt as commodity markets recovered. Between 2011 and 2019,

government expenditure in LDCs was mainly geared towards sustaining economic growth and building resilience to exogenous shocks.

How the impact of government spending on productive sectors of the economy influences budgeting processes and periodic evaluations of the implementation of development plans remains unclear. The fundamental considerations for policymakers in developing countries are the trade-offs and complementarities and synergies across policy choices. For example, the development of the agriculture sector may have higher multiplier effects on poverty reduction in many LDCs. Similarly, targeted public spending on infrastructure and other public services could have significant effects on the efficiency and competitiveness of manufacturing and other industries. An empirical analysis of actual government spending data on key agricultural and industrial sectors show the different impacts of ODA and government expenditure on key sectors of the economy.

At the eve of the design of a new PoA for the decade 2022–2031, the search continues for practical and on sustainable paths to achieve development in the LDCs. Although some progress has been achieved by these countries since the inception of the decadal PoAs, transformational changes capable of redressing long-standing inequalities and marginalization have consistently fallen short of the anticipated development impact, as envisaged by the PoAs. The scorecard on the implementation of the four PoAs is thus heavily weighted towards an unfinished agenda, both in terms of the efforts undertaken by LDC governments to advance structural transformation, accumulate and deploy productive capacities, and with respect to the fulfilment of pledges by the international community on extending international support to LDCs. The data on ODA disbursements and its sectoral impact clearly demonstrate weaknesses. The latter should support the intricate link between the national development planning framework and the fiscal policy instrument (national budget). More importantly, it will not be possible to maximize the potential from LDC investments in productive sectors if government spending and ODA fail to achieve maximum complementary and synergic alignment.

Despite this dispiriting picture of the impact of international and domestic policies to boost LDC development, some successful cases indicate that the paths to development can be differentiated. As of the 1970s, Bangladesh accelerated its development as it undertook trade liberalization and started developing an export-oriented garment industry. It also invested in other economic sectors, such as the pharmaceutical industry, by creating a conducive national innovation system. However, the structure of Bangladesh's economy remains concentrated in a few sectors and products, which are likely to be adversely affected when it graduates from the LDC category, currently scheduled for 2026. Senegal, by contrast, has followed a different development strategy path, and has achieved a diversified economic structure between agriculture, industry and services. It also has a correspondingly more diversified export structure, which is less vulnerable to the consequences of graduation.

Investment needs for the least developed countries to achieve the Sustainable Development Goals in the post-pandemic decade

Accelerating the implementation of the 2030 Agenda for Sustainable Development is a priority for the LDCs. The COVID-19 pandemic has made the task even harder, as it has exposed some of these countries' long-standing vulnerabilities. Recovering from the prolonged and deep shock the world economy has experienced is an urgent priority. In the context of the LDCs, the imperative now is to recover from the pandemic, rebuild stronger, and concurrently accelerate the implementation of the Sustainable Development Goals. These Goals provide the framework based on which the financing needs to cover the required investment and spending can be estimated. The report provides a country-by-country costing of key structural Sustainable Development Goal targets which factor in the current context created by the COVID-19 pandemic.

The cost estimates outline different scenarios to achieve selected Sustainable Development Goal targets by 2030. The selected targets and the corresponding estimates are:

- 1. Investment requirements to achieve a 7 per cent annual GDP growth for the LDCs (Sustainable Development Goal 8.1);
- 2. Growth and investment requirements to eradicate extreme poverty (Sustainable Development Goal 1.1);
- 3. Growth and investment requirements to promote inclusive and sustainable industrialization a major form of structural transformation as reflected in the target of doubling the share of industry (manufacturing) in GDP in the LDCs (Sustainable Development Goal 9.2);

- 4. The spending requirement and financing gap of achieving universal health coverage (Sustainable Development Goal 3.8);
- 5. The spending requirement and financing gap of ensuring that all girls and boys complete free, equitable and quality primary and secondary education (Sustainable Development Goal 4.1);
- 6. The spending requirement and financing gap of implementing nationally appropriate social protection systems and measures for all (Sustainable Development Goal 1.3);
- 7. The spending requirement and financing gap of ensuring the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services (Sustainable Development Goal 15.1).

A building-block estimation strategy was adopted to avoid the risk of double-counting and other potential shortcomings. The initial building blocks use GDP and investment (gross fixed capital formation) as key variables – familiar indicators to policymakers and grounded in the economics literature. Countries should grow at a sustainable rate to achieve structural transformation and end poverty. To boost growth, it is necessary for countries to increase savings and investments from public and private, domestic, as well as international sources.

The annual GDP growth targets, especially the target of doubling the industry share of GDP by 2030, require massive investments. Massive spending requirements are also intrinsically linked to other Sustainable Development Goals, such as clean water and sanitation (Sustainable Development Goal 6), affordable and clean energy (Sustainable Development Goal 7), sustainable cities and communities (Sustainable Development Goal 11), and climate action (Sustainable Development Goal 13).

Results and implications of the estimated investment needs

The underlying assumption underpinning these estimates is that LDCs will prioritize structural transformation in the context of the Sustainable Development Goals. The scenario of doubling the share of manufacturing in GDP has been chosen because the Sustainable Development Goal target 9.2 of doubling industry's share of total GDP may not accurately reflect the actual form of structural transformation that is occurring in LDCs. Industry includes extractives sectors, such as oil and hard rock mining, which are sources of vulnerability, and typically their growth does not reflect structural transformation. The investment growth scenarios are an aggregate measure and include the necessary expenditures to achieve the selected targets. Hence, expenditure and allocative efficiency should represent a source of concern for policymakers.

Sustaining an annual GDP growth rate of 7 per cent, ending extreme poverty or doubling the share of manufacturing in GDP call for investment growth rates of 7, 9 and 20 per cent, respectively. All three scenarios show that the needed investment push is ambitious, given the historical level of investment in the LDCs.

Apart from investment-driven estimates calculated using elasticities from the scenarios above, the report also undertook a forecast of financing requirements to increase social spending since the majority of the social and environmental services mentioned in targets 1.3, 3.8, 4.1 and 15.1 of the Sustainable Development Goals are not classified as investments but rather as current spending. A three-step estimation method was adopted to establish initial estimates of the total cost to reach universal coverage by 2030 by multiplying the unit costs of providing these services. The second step subtracted the current expenditure from the total cost to obtain the financing gap. Third, the intervention's progress is linearly modelled for 2021–2030. The results show that additional financing is required in the order of: (i) 4.3 per cent of GDP to achieve universal social protection; (ii) 8.5 per cent of GDP for universal healthcare; (iii) 5.2 per cent of GDP for universal education; and (iv) 0.3 per cent of GDP for ensuring the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services. This translates into 18.3 per cent of GDP in additional spending, as compared with current spending levels in these areas, which presently amount to 13.1 per cent of GDP. In other words, LDCs would need to nearly treble spending on social services to 31.4 per cent of GDP, almost reaching the OECD average of 32.4 per cent in 2021.

The results for both elasticities driven investment gaps and the unit cost forecast of financing costs are averages. The investment elasticities calculated for manufacturing, economic growth and eradication of poverty picked out a few outliers, particularly for poverty-growth elasticities. The difficulty in implementing pro-poor growth policies historically explains some of the inverted positive poverty-growth elasticates for resource-rich countries, e.g. Angola, or countries with a high proportion of its population living in extreme poverty, e.g. Guinea-Bissau, Madagascar and Zambia.

The enormous investment and spending needs of the LDCs are clear from these figures. Between 2021 and 2030 LDCs require investments of: (i) \$462 billion annually to meet the growth target (Sustainable Development Goal 8.1); (ii) \$485 billion annually to eradicate extreme poverty (Sustainable Development Goal 1.1); and (iii) \$1,051 billion annually to double the manufacturing share of GDP (Sustainable Development Goal 9.2). This would translate into a GDP growth requirement of 9 per cent per annum to eradicate extreme poverty or, alternatively, a much higher 20 per cent annual growth rate to achieve structural transformation.

For the three scenarios, investments for the period 2021–2030 amount to about 27 per cent of GDP: 73 per cent of this total is estimated to be private; 26 per cent public and 1 per cent from public-private partnerships (PPPs). Country-specific investment needs vary widely, with some countries having extremely high investment needs compared to others. For instance, Yemen (76 per cent) and Ethiopia (46 per cent) are two countries with extremely high investment needs to sustain economic growth, while Mali (17 per cent) and Eritrea (4 per cent) are on the lower extreme. These results not only depict the current status of investment, but also the critical initial conditions needed to propel investment-driven growth, including prior economic performance. Eritrea's low requirement, for example, reflects its absorption capacity from a historical perspective, rather than what it actually needs to reduce poverty.

LDCs will have to mobilize an additional 10.4 per cent of GDP to finance social and environmental services. The level of expenditure will have to increase by 12.3 per cent from the current 2.9 per cent of GDP to reach targets 1.3, 3.8, 4.1 and 15.1 of the Sustainable Development Goals. As of 2021, financing gaps will increase progressively from 6.3 to 11.3 per cent of GDP by 2030 in health; from 4.2 to 6.6 per cent of GDP by 2030 in education; from 2 to 8.5 per cent of GDP by 2030 in social protection; likewise, financing gaps will rise from 0.1 to 0.5 per cent of GDP by 2030 to ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services. These financing gaps are highly correlated with under-five mortality rates, secondary school enrolment, social protection coverage, implying that higher commitment to these sectors would have better outcomes. It is, however, essential to highlight that individual countries will follow their own path to achieve their goals, and that the aggregate matches the reality on the ground in many LDCs but not in others. Island LDCs, e.g. Kiribati and Tuvalu, as well as countries experiencing large-scale conflicts, e.g. Yemen, are outliers and have larger needs, particularly in respect of social protection and education.

LDCs require huge amounts of resources to recover from the recessions caused by the COVID-19 shock, but especially to set themselves on the path to achieving the Sustainable Development Goals. Expenditures will have to be raised by multiples of the current level of available resources and spending. For this to happen, LDCs will need to: (i) strengthen their fiscal capacities; (ii) increase domestic resource mobilization; and (iii) improve the effectiveness of public expenditures. It is also evident that tax revenue alone will not be sufficient to cover all incremental investments and expenditures. The total average expenditure would have to increase by 59 per cent of GDP to meet the investment scenarios of: (i) sustaining a growth rate of at least 7 per cent per annum; (ii) doubling manufacturing's share of GDP; (iii) eradicating poverty; and (iv) meeting social and environmental goals. Hence, the mobilization of additional finance will be essential for LDCs to achieve the Sustainable Development Goals by 2030. Taxes, contributions, charges, debt and bonds will remain important sources of additional funding. However, LDCs will have to continue relying on external financing, particularly ODA, to meet even the basic goals of sustainable development, including structural transformation. Hence, the international community has an essential role to play in finding a means to mobilize international financing for the sustainable development of LDCs which will not only meet their financing requirements, but which would also critically allow them to pursue the structural transformation of their economies.

From lessons learnt to future development trajectories

The current framework of domestic and international policies has not helped the majority of LDCs overcome the major development challenges they face. The persistent existence of the LDC grouping, the apparent divergence within the grouping – such that a majority of LDCs are heading into the 2020s significantly below full strength – is compounded by the ongoing fallout from the COVID-19 global crisis and attendant risks of hysteresis. There is a fresh sense of urgency with respect to the LDC underdevelopment problem, and an opportunity now exists for a renewed and heightened focus on how to engineer a lasting transformation of development realities in LDCs.

The global community's interest in LDC development and support for it

A renewed and strengthened partnership for development cannot be separated from the urgent need to reassert the importance of the development of LDCs and of international support for it, as global priorities. This is a prerequisite towards reinventing the notion of fair differentiation in the special treatment of LDCs within the group of developing countries. An authentic global partnership in support of LDCs goes well beyond the moral commitment to "leave no one behind". Ultimately, in an interdependent global economy, international support for structural transformation in LDCs is an investment in systemic resilience, as any developmental successes achieved by LDCs would reflect global systemic resilience.

Advancing the structural transformation of LDCs through the building of productive capacities remains the single most viable route to inclusive and sustainable development. While it can be expected that the next PoA will be geared towards the post-COVID recovery and other development agendas – including climate change – these should not overshadow the long-term development goals of LDCs, which not only pre-dated the pandemic, but have also become even more pressing since its outbreak. The implementation of short-term emergency measures should be undertaken with longer-term objectives in mind and form the impetus to achieve them.

The new programme of action: objectives

Structural transformation remains at the core of the quest by LDCs to achieve economic dynamism and resilience. The focus on building productive capacities and their corresponding capabilities is rooted in the need to steer a path to development that assures economic, social and environmental sustainability. It can best be pursued if corresponding policies are guided by the following principles:

- Build resilience to present and future shocks through the strengthening, upgrading, diversification and expansion of the domestic enterprise base in LDC economies.
- Achieve dynamic job-creating and inclusive growth underpinned by enhanced access to basic services, with the aim of addressing critical cross-cutting issues of poverty and equity in all its dimensions.
- Ensure appropriate orientation and coordination of domestic policies and international support measures directed at the economic, social and environmental dimensions.
- Operationalize internationally agreed principles of common but differentiated responsibility on climate change.

Green growth and the call to "build forward and transform". If green growth is to become a catalyst for economy-wide structural transformation and poverty alleviation, it should support a virtuous transition towards more and better jobs, as well as be geared towards domestic value addition, and a qualitatively superior process of integrating regional and GVCs. LDCs and their development partners should consider the positive benefits to be realized through shorter GVCs, a stronger expansion of green sectors in which LDCs have comparative advantages, leapfrogging, etc.; LDCs and development partners should also assess any risks of further marginalization brought about by "green" measures which may come to the detriment of LDCs.

The following principles should guide the implementation of actions on climate change and green growth:

- The common recognition that LDCs are among the most vulnerable countries to the most deleterious
 or serious consequences of climate change, but the least well positioned to mitigate any damage.
 Consequently, they need effective multilateral mechanisms to ensure their voice is considered and their
 participation is ensured in decision-making on climate change-related issues. The global pursuit of green
 growth strategies should consider the specificities and interests of LDCs.
- The "polluter pays" principle is pivotal to the success of international action on climate change and green
 growth and underpins a fair and just transition for all countries, as expressed in the principle of common
 but differentiated responsibilities. The low progress in structural transformation achieved by LDCs
 translates as very minor contributions to climate change, yet major spending requirements for adaptation
 as compared to their limited resources.
- The global pursuit of green growth requires disbursements of climate finance to match commitments, and achieving a greater balance between addressing adaptation and mitigation concerns in LDCs.
- To be realized, the pursuit of green growth is reliant on public regulation and public inducements (incentives), which are fundamentally elements of industrial policy.

National measures: new priority actions for consideration

The responsibility of countries themselves for their development is enshrined in numerous international policy documents. All successful development experiences have been characterized by the presence of a state whose capacities have co-evolved with those of the productive sphere. This lies at the core of the operationalization of a country's right to development. It also involves striking the right balance between short- and long-term transformational policy measures and managing trade-offs between the different dimensions of development and related strategies. It also recognizes that successfully leveraging development opportunities is at the core of maintaining consistent progress on several dimension of development, as well as for weathering periodic shocks. State capacity assumes paramount importance, especially in the context of the growing complexity of the current environment of economic relations and international diplomacy. There is an ever-growing number of actors (whose interests can often be widely dissimilar) within the new international development cooperation architecture.

Some specific priority areas to be considered to strengthen domestic state capacity and agency include broad areas, such as:

- National capacity to undertake synchronic policy trade-offs involving choices between policy resource allocations (such as budget resources/institutional capacities) between competing priorities, and diachronic trade-offs involving time-based arbitrages, requiring the sequencing of initiatives and the balancing of competing priorities.
- National capacity to mainstream industrial policy objectives, including the design and implementation of strategic FDI policy to facilitate the expansion of the local entrepreneurial base, and foster green growth across all sectors of the economy.
- Capacity on domestic resource mobilization, including tax policy design, enhanced efficiency of revenue collection, public financial management and financial planning, and strengthened capacity to combat illicit financial flows.
- Ramped up support to national development banks to boost the growth of the local entrepreneurial base and their productive capabilities.

Expanding the local enterprise base. The existence of a strong, diverse and appropriately balanced national entrepreneurial class constitutes a critical condition for sustainable development, including in the acquisition, accumulation and upgrading of productive capacities, as well as in the achievement of the critical goal of domestic resource mobilization. These are industrial policy objectives that have been insufficiently addressed by past PoAs for the LDCs.

Developing the entrepreneurial base of LDC economies implies addressing the systemic impediments that stand in the way of establishing and growing this base, e.g. access to finance and the low levels of human capital endowment in LDCs. Strengthening domestic entrepreneurship also calls for the strengthening of the national innovation system, which allows domestic companies to build technological capabilities and introduce products and processes that are innovative in the national context.

This raises a wealth of opportunities for more targeted cooperation between the national and international community on research, innovative design and implementation of a development policy on various dimensions of entrepreneurship, including on youth and micro, small and medium-sized enterprises (MSMEs) to simultaneously address inequalities and industrial policy objectives.

Strategic approach to human capital and labour policies. One critical cross-cutting issue to expand the enterprise base and accelerate inclusive development is for LDCs to make the best use of all their existing human resources. The transformative expansion of opportunities and raising the level and quality of the contributions of hitherto vulnerable and marginalized groups (e.g. women, youth and ethnic minorities) are critical factors for harnessing all available opportunities for growth and equity.

Human capital and labour policy underpin the expansion of the productive base and the creation of decent jobs in any economy. Structural transformation and sustainable development is the result of dynamic interaction between human capital, labour policies and productive capacities which permits a virtuous cycle of increases in productivity, specialization and continuous upgrading. Thus, LDCs cannot hope to operationalize their right to development and equity goals without adopting a more strategic view to investments in human capital.

Many LDC economies are potentially poised to reap the demographic dividend. However, reaping the rewards of this dividend is contingent on: (i) prior investments in the professional, intellectual and technological capabilities of their burgeoning young populations; (ii) investments aligned to an explicit lifelong learning framework that takes into account the interrelated nature of all education levels; and (iii) equipping labour market entrants with capabilities to meet current and future market requirements.

A new generation of international support measures

The development trajectories of LDCs and the options they have to pursue different development paths are strongly conditioned (but not pre-determined) by the international economic environment in which their economies are inserted, particularly in the light of the global production networks dictated by the process of globalization. In addition, the level of dependence that most LDCs have on international trade, international financing (including ODA, despite its declining trend) places ISMs at the heart of the rationale for the existence of the LDC category, and the logic of an international partnership to advance development in the LDCs.

A new generation of ISMs could consider alignment with the following principles:

- Coherence and synergy among ISMs in the fields of trade, finance, technology and capacity-building.
- Governance of ISMs by a specially designed overarching multilateral framework.
- Alignment with the overall objective of fostering the development of productive capacities to achieve structural transformation, as advocated in the report and by other LDC development stakeholders.
- ISMs in the area of financing for development and technology should: (i) seek to increase the flows of financial resources and technology; and (ii) widen the coverage and stabilising the availability of resources allocated to financing structural economic transformation in LDCs, including in the acquisition of technology and technological capabilities by their economic agents.
- Coherence with 21st century realities, including the lingering effects of the COVID-19 crisis, as well as
 the principle of common but differentiated responsibility on climate change crisis, and the accelerated
 digitalization of the world economy.

Trade. The possibility to expand special treatment in future agreements has been tabled at the WTO, but some developed countries are pushing for the review of the very notion of special and differential treatment (SDT). LDCs have an interest in preserving trade multilateralism, as this is one of the arenas in which the SDT formulated by the international community for LDCs has established unity on the recognition of the LDC category and the treatment of LDCs.

Possible goals and targets that could be considered for inclusion in the new PoA include:

- Adopting the various elements of the different proposals already tabled by the LDC Group at the WTO, including the commitments on joint action to safeguard SDT as a permanent feature of future WTO agreements.
- Actions that align the coverage and depth of tariff cuts, rules of origin and administrative procedures of duty-free and quota-free (DFQF) schemes with the productive and institutional capacities of LDCs. This would facilitate their full utilization by LDCs, and increase their ability to stimulate the growth of the local enterprise base and international investments.
- ISMs aimed at facilitating the leverage of (new) opportunities from regional and subregional integration, e.g. from the African Continental Free Trade Area (AfCFTA), South Asian Free Trade Area (SAFTA) and the Regional Comprehensive Economic Partnership (RCEP).

External financing for development. LDCs stand to lose the most from declining trust in multilateralism, especially in respect of external financing on which they are most dependent. Increased pressures on aid budgets in the aftermath of the COVID-19 crisis add yet more uncertainties relating to the future of external official flows. The aid spending target of 0.7 per cent of donors' GNI shrank amid the economic fallout of the COVID-19 pandemic. Yet scaling-up financing will be key in reducing the risk of LDCs slipping further behind.

Another thorny issue in the blended finance debate is to ensure that the domestic private sector and foreign investors are treated on an equal footing, including investors from the country whose ODA is utilized in the blending. Moreover, it remains critical to assess the specific financial risks and contingent liabilities that certain blended finance projects may generate, for instance in the case of de-risking instruments. It is thus important to

establish on a case-by-case basis whether blended forms of finance represent the most appropriate use of public development finance, considering the development rationale for the intervention, as well as related modalities, partnerships and broader relations with the domestic business ecosystem. LDCs need to be empowered to participate in the measurement of the effectiveness and alignment with LDC-determined national priorities, and on the impact of key new aid modalities and instruments, e.g. blended finance.

International support measures for LDCs need to include targeted debt relief to increase their policy space. Existing initiatives, such as the G20-led Debt Service Suspension Initiative (DSSI), do not adequately address the debt vulnerabilities of many LDCs. Public debt in the form of private sector loans and bonds has also introduced new vulnerabilities. The limited debt relief received from official sources risks being diverted into payments to private creditors in the absence of a mechanism to ensure equal treatment among creditors, thereby generating perverse incentives in the negotiations for debt rescheduling or write-offs. Development partners should give particular attention to innovative schemes of debt management.

LDCs need to align the design and implementation of country-owned financing frameworks, as envisaged by the Addis Ababa Action Agenda (AAAA) to the goal of structural transformation by further building its productive capacities. Country-owned financing frameworks help countries to: (i) manage a complex financial landscape; (ii) align financing with long-term priorities; (iii) increase the effectiveness of financing policies; and (iv) translate priorities into strategic action in line with their country capacities and priorities.

The international community has a unique opportunity to allocate Special Drawing Rights (SDRs) of the IMF to align the potential liquidity boost the capacity of LDCs to invest in productive capacities (rather than, for example, in debt repayment). However, the current allocation system benefits countries with large quotas. It is therefore crucial that LDCs are awarded a share of the new SDRs larger that their quotas currently in place, and that such re-allocation does not come as an alternative to already unsatisfactory levels of ODA disbursements.

In the field of finance, more concrete measures are needed to increase the total amount of climate finance available and achieve a greater balance between mitigation and adaptation. These measures would contribute to the acute adaptation needs and risks of LDCs, and would be in line with the principle of common but differentiated responsibilities.

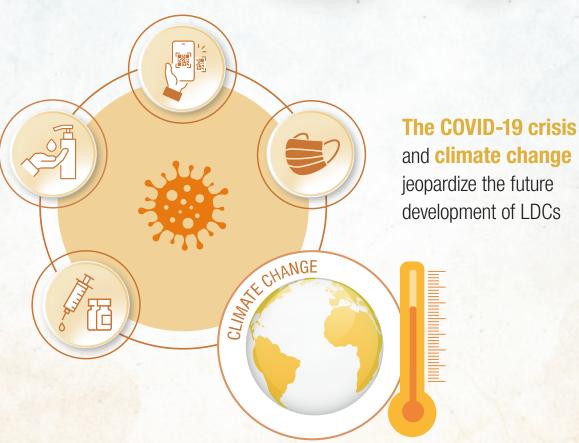
Technology transfer. LDCs need a renewed partnership for the development and strengthening of their technological capabilities. Such a strengthened international partnership for technology transfer to LDCs would play a vital and complementary role to fostering sustainable development in contributing to the upgrading and expansion of the productive capacities of LDCs. The introduction of innovative products or processes will require foreign technologies, this in turn can be met by matching local needs with the international supply of technological solutions. This is where the international side of the partnership can intervene. Donors can support technology transfer centres involved in activities as: (i) identifying search and connecting agents (which connects demand for and supply of technological knowledge); and (ii) public-sector seed capital and SME support financing. Some of these centres already exist and have successfully managed to overcome major obstacles to technology transfer. Developed countries can comply with their obligations under article 66.2 of TRIPS through the further expansion and strengthening of the funding and operations of these centres.

LDCs will need to build climate-resilient infrastructure to respond to climate change. This will demand technological capabilities that are different from those available at present, given the need for novel technical specifications and characteristics of roads, energy plants, bridges, ports, buildings, etc. that enable them to be climate-resilient. As LDCs argue forcefully for an increase in climate finance, it is important that they seize the opportunity of greening their economies to build their technological capabilities. Regardless of the source of finance for these new infrastructure projects, they associate domestic agents (companies and technical specialists, e.g. engineers, technicians, etc.) to build and operate these works. This will allow LDCs to strengthen their knowledge base and skills in future-oriented technologies (e.g. renewable energies, thermic isolation, and earthquake resistance, etc.).

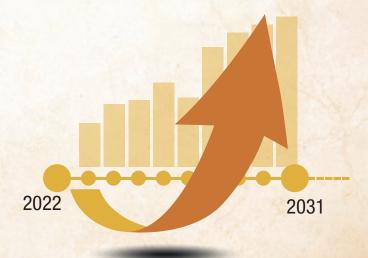


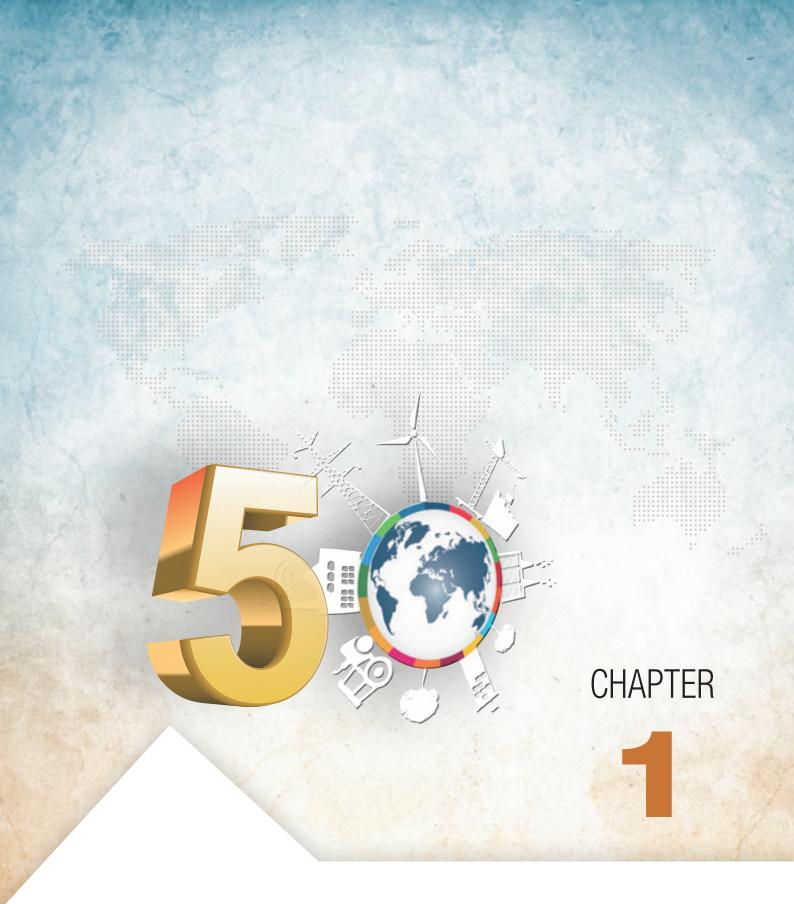
50 years after the establishment of the LDC category, most LDCs continue to face major challenges to their sustainable development





The programme of action for the LDCs for the new decade and the flanking policy initiatives should accelerate the development of LDCs





Setting the scene: 50 years of the LDC category

CHAPTER 1

Setting the scene: 50 years of the LDC category

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A. The landmark in LDC history

2021 is a landmark year in the history of the group of least developed countries (LDCs). The LDC category was established exactly 50 years ago, when the United Nations General Assembly endorsed the initial list of "least developed among developing countries" in 1971, following research, analysis and advocacy by UNCTAD.

In half a century of existence, the international community has a long and rich experience to evaluate the development outcomes achieved by these countries, and to identify the obstacles that have compromised their sustainable development. The review also serves to evaluate the effectiveness of the policies, programmes and measures implemented by the countries themselves and by the international community to overcome these obstacles. The present report aims to provide a contribution to this review and evaluation, in order to present an analytical basis for future policymaking.

The 50th anniversary of the establishment of the LDC group coincides with the year in which the international community is negotiating a new programme of action (PoA) for the LDCs for the decade 2022-2031. The PoA is designed to steer the development efforts of LDCs, during that period. The LDCs look forward to a new programme of action for the least developed countries that will bolster multilateralism and deal decisively with the core issues affecting them. In preparation for the new decade, LDC stakeholders are forging new partnerships, and discussing new instruments and measures to give concrete shape to these partnerships. The period of implementation of the new PoA will broadly coincide with the final decade of operationalization of the 2030 Agenda for Sustainable Development and the achievement of its Sustainable Development Goals.

This anniversary year of the creation of the LDCs, unfortunately, falls in the midst of a major global health crisis – the COVID-19 pandemic. – with has had huge economic and social ramifications for countries. In 2020 LDCs had their worst growth performance in almost three decades. More to the point, the crises arising from the COVID-19 shock has reversed painstakingly achieved progress on several dimensions of development, particularly with respect to previously achieved breakthroughs on poverty, hunger, education, and health (UNCTAD, 2020a). Backtracking on these dimensions will continue to have adverse consequences on the development of LDCs over the mid-term.

The confluence of the 50th anniversary, the preparation of the new PoA and the present crises challenges facing LDCs obliges development partners to devise innovative ways to tackle the major development

"The heaviest and most urgent task of economic development is, however in the least developed countries, those that lag far behind the [few] industrialized countries with regard both to technological levels and to standards of living" (Weintraub, 1948)

challenges that continue to afflict facing LDC economies and societies. These include: (i) the long-standing challenges of, among others, impediments to structural transformation and sustainable development; (ii) more recent ones, particularly setbacks deriving directly from the COVID-19 shock; and (iii) those which have been garnering in importance and level of risk, stoking up to future challenges, especially climate change.

The said confluence provides an opportunity – but also the necessity – for the international community to look back over the last half century, and reconsider the long development experience of the LDCs, and take stock and review the development prospects of LDCs. Progress has been made on many dimensions of sustainable development over the years, but core challenges persist and have become more complex and urgent. In a nutshell, the development performance of the LDCs has been disappointing, from different points of view, as continuously shown by *The Least Developed Countries Report* series.

It suffices to cursorily mention:

- (i) The slow development of productive capacities and – hence – the scant progress in growth-enhancing structural economic transformation;
- (ii) The persistence of several symptoms of underdevelopment, such as low levels of labour productivity, high poverty rates, low levels of human capital formation, persistent under-performance in human well-being, etc.;
- (iii) The lingering vulnerability to external shocks and limited resilience, due to restricted resources and policy space, as well as weak institutional development;
- (iv) The widening income and development gap between the LDCs and other developing countries (ODCs);
- (v) The low number of countries that have graduated from the LDC category to date: six (during the 26 years since 1994), out of a total of 53 countries that have ever belonged to the LDC category.

Familiar and new development challenges make it harder to close the development gap between LDCs and other country groups

While there have been positive experiences of some LDCs that have achieved decisive strides towards sustainable development – especially in the economic and social dimensions - the majority of LDCs have lagged behind. These issues are of concern to the international community. It is therefore important to understand the reasons behind the unsatisfactory progress achieved by some LDCs, and the role played by various partners and United Nations entities supporting LDCs. In reviewing past performance, it is possible to obtain a clearer picture of the successful policies that have led to this achievement. It is also important to interrogate the development policies pursued by LDCs to discover where they have been lacking. The objective of such an exercise is to glean lessons from past experience to formulate innovative proposals for the future. This is especially valuable in the present context of formulation of a new PoA, which should address the setback due to the COVID-19 pandemic, and have a longer forward-looking approach, by injecting radical shifts in their development trajectories in the coming decade.

In this context, the report aims to contribute to a better understanding of the performance of LDC development over the past 50 years, including both its challenges and positive outcomes; it also takes stock of the development trajectory of the LDCs since the establishment of the category 50 years ago, and analyses the international and domestic policy approaches taken to tackle the major development challenges faced by these countries.

Latter chapters of the report take a future-oriented approach, and estimate the financing required for LDCs to reach critical Sustainable Development Goals targets. It then sets the policy principles and measures that are most likely to lead the LDCs to reach those goals and to sustainable development, and which need to be taken into account in the formulation of the new plan of action and its implementation. The report thereby provides a contribution to major ongoing policy debates and decision-making.

The remainder to this introductory chapter analyses the context and the rationale that led to the establishment of the LDC category 50 years ago. It

places particular emphasis on the trade challenges faced by the LDCs. The discussion on trade is followed by a summary of the evolution of the LDC category over 50 years and highlights some critical elements of the present juncture, which provide the direction of the present report.

B. The origin of the LDC category

This section reviews the structural challenges which led to the establishment of the category. As the world economy expanded and transformed, LDCs have continued to struggle with familiar and new development challenges, making it harder to close the development gap between them and other country groups. The analysis will also show that the original thinking that led to the establishment of the LDC category still remains valid.

UNCTAD was founded on the need for collective international decisions on issues developing countries, and discontent with the pace of development among "the least developed of the developing countries". UNCTAD plays a critical role in shaping the international response to development challenges, both as a think tank and as an important stakeholder in the intergovernmental processes of the United Nations. The Trade and Development Board, a subsidiary body of UNCTAD, has frequently proposed policies on LDC-specific issues for the consideration of the General Assembly (Economic and Social Council and its subsidiary organs).

It is critical that the vast cache of research generated by UNCTAD on developing countries and LDCs in particular, receives the attention it deserves. Hence, a retrospective review should inform and spur the international community to replicate the urgency of the 1960s and 1970s, and decisively translate UNCTAD's research outputs into meaningful follow-up actions in favour of LDCs. The evidence in various issues of *The Least Developed Countries Report* points to a decline in ambition to decisively tackle the core issues facing LDCs, and an unbalanced focus in the sectoral aid allocation by development partners.

The subsequent section revisits the conceptualization of the development problems of developing countries beginning with the 1960s, and demonstrates how some of the problems have persisted throughout the 50 years of the existence of the LDC category. The focus is not only on the history of the category, but the context and international development strategies that shaped the category in the 1960s to the late 1990s. The crucial role of international trade is then discussed.

1. Revisiting the past – The development theory

a. 1950–1969: Independence and early development thinking

For most LDCs, the 1950s and early 1960s marked the end of the colonial era, and after the transfer of power, new elites began to take responsibility for the policies to oversee and manage their development. It quickly became apparent, however, that the transition was undermined by the fact that many of these newly independent countries inherited: (i) weak institutions; (ii) inadequate infrastructure, human, financial and physical resources; (iii) scarcely recognizable private sector; and (iv) structurally weak economies.

LDCs also faced a fiercely competitive external environment, and unfavourable terms of trade as commodity exports fared poorly and consistently, and exhibited low-income elasticity of demand, as compared to manufactures (UNCTAD, 2013; Parra-Lancourt, 2015). Left with economies that could barely generate sufficient tax revenue and domestic savings to finance development, LDCs relied on external resources to fill the development financing gap. It became abundantly clear during the 1950-1960s that international trade conducted on the basis of mutually beneficial and non-restrictive terms offered a potential to provide the resources to finance development. However, to take advantage of "free trade", some countries lacked the domestic economic structure to afford them the flexibility and capacity to compete at a global level. Failure to define these initial conditions could undermine the impact of the solutions which could be proposed to these countries as they are intricately linked to their future development paths (Mkandawire and Soludo, 2014).

The post-independence period presents two contrasting pictures: on the one hand, it witnessed an economic boom in industrialized countries driven in part by a shift in industrial production in advanced economies, technology-intensification, and diversification of material inputs; and, on the other hand, developing countries experienced a deceleration and slow growth in demand for their exports due to their low industrial capacities and unexploited domestic markets (Kavoussi, 1985).

The international development strategy of the time promoted international trade and economic cooperation, with the goal of increasing the flow of external resources to developing countries to accelerate their development (Larionova and Safonkina, 2018; United Nations, 1968). Although trade openness and diversification can be highly correlated

The scope for trade and industrial policies to influence economic development in LDCs remains largely unexploited

(Makhlouf et al., 2015), the economic diversification of countries was hampered by a lack of capacities to venture into new and unrelated sectors of production (Ali, 2017). Export-promotion strategies pursued by countries during the period were unable to transform their comparative advantages in commodities into competitive, large-scale industrial prospects.

Two main weaknesses of the development strategies of the post-independence era have spilled over in varying degrees to the present day. First, the scope for trade and industrial policies to influence economic development in developing countries remains largely unexploited. Properly defined and aligned, trade and industrial policies shape industrial performance in competitive market economies but have been ineffective in LDCs (UNCTAD, 2008). Second, export promotion cannot be selectively applied to economic sectors without regard for global value chains (GVCs); the latter have progressively delinked developing countries from the mainstream trade and investment channels in favour of a concentration of technology and market power of a few big players (Pietrobelli, 2008; Flentø and Ponte, 2017). It was therefore inevitable from this point in the 1960s that developing country exports predicated on comparative advantages in commodities would continue losing ground and face low returns, despite receiving preferential treatment from bilateral and multilateral arrangements during the GATT era (i.e. before 1995).

When the 1960s were designated the first United Nations Development Decade, the goal was to garner international support for "measures to accelerate self-sustaining growth and social progress in all countries" by narrowing the per capita income gap between developed and developing countries (United Nations, 1961). The declaration announcing the decade also focused on trade policies intended to facilitate trade, and enable developing countries to obtain remunerative prices for their exports. Mobilization of domestic and external resources was critical in tackling the economic challenges countries' faced, e.g. widespread poverty, hunger, disease, illiteracy, and underdeveloped infrastructure (Ajaegbo, 1986). The first United Nations Conference on Trade and Development in 1964 (UNCTAD I) was convened in

The United Nations established the LDC category in 1971, focusing on vulnerability to external shocks and domestic factors

Geneva to address specific development challenges of developing countries, including trade (United Nations, 1962a). Among the Conference's thematic agenda were measures to increase trade of developing countries in both primary and manufactured goods, and for the gradual removal of the tariff and non-tariff barriers (NTBs) affecting developing countries (United Nations, 1962b). 1 It was a direct response to the call in the General Assembly resolution designating the first United Nations Development Decade, on ECOSOC to examine principles of international economic cooperation aiming at an improvement of economic relations between countries.

The outcome of first session of UNCTAD - The Final Act, UNCTAD I (United Nations, 1964) - is a major milestone in the implementation of Chapter IX of the United Nations Charter - International Economic and Social Cooperation. The Final Act reflects the principles that guided United Nations member States in formulating international responses to developing country problems related to commodities, trade in manufactures and semi-manufactures, and financing for international trade. The subsequent adoption by the General Assembly of UNCTAD, as its institution, together with its permanent subsidiary body, the Trade and Development Board (TDB),2 was key in setting the pace on international principles governing international trade relations. The TDB continues to contribute to international policies to promote orderly trade, development and economic integration of developing countries into the world economy.

b. 1970-1995: Identity of the least developed countries

Several landmark decisions by the United Nations relating to LDCs were taken in the late 1960s and early 1970s; the bulk of whom focused on the major

The Conference was convened "to provide, by means of international co-operation, appropriate solutions to the problems of world trade in the interest of all peoples and particularly to the urgent trade and development problems of the developing countries." (United Nations, 1964).

development challenges of developing countries. The period 1971-1982 marked the end of the post-war economic boom, and the onset of a period of global adjustment caused by major monetary and commodity market events. First, the Bretton Woods system of fixed exchange rates collapsed in 1968-1973 as the United States abandoned the policy of dollar-gold convertibility in 1971. Second, with major currencies floating against each other, and inflation and unemployment rising in industrialized economies, price shocks struck in 1973 and 1979 (IMF, n/d). Third, as interest rates picked up in response to stagflation in the United States, developing countries, which at this point were resource-constrained, and already projected to have debt-service burdens larger than their capital inflows (Larionova and Safonkina, 2018; United Nations, 1972). When the United Nations established the LDC category in 1971, the defining theme was "underdevelopment", with common elements including vulnerability to external shocks and domestic factors, such as limited resource endowments, institutions and policies further undermining the potential of the countries to confront their development challenges.

In a speech at the first United Nations Conference on the Least Developed Countries (Paris, France, 1-14 September 1981), Mr. Edgard Pisani, a delegate to the Conference, described the situation of the LDCs as that of countries experiencing a "decline rather than a laboured progress" towards development (Pisani, 1981). Selwyn (1973) emphatically critiqued the LDC identification process, and offered four possible assumptions for the classification, including: (i) welfare (distributive); (ii) economic and structure; (iii) stage of development; and (iv) common problems. He further noted that the polarization of LDCs was occurring at both the regional and global level, and argued that special measures could have been extended to other countries facing similar challenges. However, as the geographical composition of the LDCs group has changed over the past 50 years, some of the development issues that have plagued LDCs, e.g. poverty, food insecurity and inequalities, have also shifted and are increasingly concentrated in LDCs, especially those in Africa.

Out of these intergovernmental processes and contestations, UNCTAD has emerged as a pre-eminent think tank on development issues affecting LDCs through its convening role on trade and development. It counts the Generalized System of Preferences, LDC-specific aid targets, technology transfer, commodity issues, investment and rule-based trade, as some of its achievements over

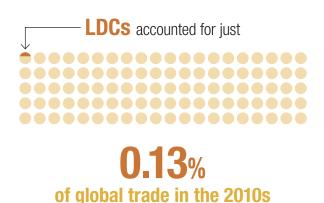
General Assembly Resolution 2085(XX) of 20 December 1965 unanimously agreed that the Trade and Development Board is the appropriate framework for an effective contribution to the solution of major problems affecting trade and development of developing countries (United Nations, 1965).

the years (Burney, 1979; UNCTAD, 2016). Whereas the main concerns in the 1960s were the worsening terms of trade of developing country exports and the sharp fall in the net flow of capital from developed countries, the oil price crisis of 1973 triggered further socioeconomic challenges globally, including among developing countries. The latter crisis was associated with rising foreign debt among developing countries, and continued to have adverse effects for many years. Combined with macroeconomic imbalances and, other factors, it eventually led to the debt crisis of the mid-1980s to the late 1990s. Some of these challenges were discussed during UNCTAD II (New Delhi, India, 31 January - 29 March 1968) which called for: (i) the untying of development finance; (ii) quantitative targets on grants (80 to 90 per cent of official aid); (iii) caps on interest rates on loans and flexible terms, including a minimum grace period of 8 years; and (iv) the adoption of "suitable measures for alleviating the debt servicing burden of developing countries by consolidation of their external debts into long-term obligations on low rates of interest" (United Nations, 1968).

In the 1980s international financial institutions (IFIs) began to progressively introduce structural policies to assist countries to manage their external obligations through: (i) the stabilization of their macroeconomy; (ii) liberalization of their economies, and abandonment of Keynesian fiscal policies for monetarism; and (iii) privatization of public enterprises and re-orienting the economies with market policies (United Nations, 2017). Concerned with a further deterioration of economic and social conditions in the LDCs, the United Nations convened the first United Nations Conference on the Least Developed Countries in Paris in 1981 to revitalize the development process of LDCs. Interestingly, the conference did not shy away from criticizing rigidities in national policies, and international measures focusing on transitory issues, including restoring economic and financial stability typical of the structural adjustment era, instead of promoting investment in key sectors (UNCTAD, 1992).

2. The crucial role of trade

The international exchange of goods and services plays a major role in determining economic growth. Trade has traditionally been a major focus of thinking and policymaking in the context of LDCs, which is motivated by a number of reasons, including: (i) the balance-of-payments-constrained growth model, which places trade performance as a central structural impediment to growth and development (UNCTAD, 2019a); (ii) the link between commodity

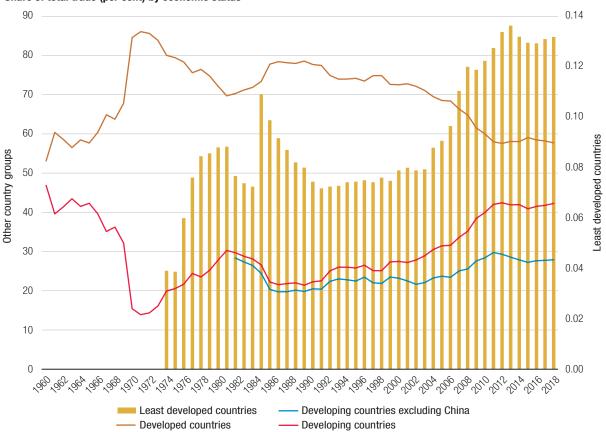


dependence, on one side, and poverty and underdevelopment, on the other; (iii) trade is the field where the most effective international support measures (ISMs) to LDCs have been put into operation (UNCTAD, 2016a); and (iv) in the context of globalization the impact of international trade on development outcomes has intensified.

A country's capacity to produce is intimately linked to tradeable sectors with productivity and competitiveness (Pilinkienė, 2016), but that capacity has also been shown to be hampered by many factors (Sarkar, 2007; Ali, 2017; UNCTAD, 2020a). One of the arguments for special measures in favour of LDCs is that trade is also determined by the level of economic development. The special measures introduced in favour of LDCs (resolution 24(II) of UNCTAD (United Nations, 1968) aimed to expand their trade opportunities, and provide them with a springboard for economic and social development. The same resolution also requested UNCTAD's Secretary General to propose a criteria to identify the "the least developed among developing countries". The evolution of the LDC category from inception to the present, and refinements to the monitoring and identification processes are discussed in section C.

The share of LDCs in world trade has remained insignificant over many years. ODCs, led by China, have clawed back a stake in world trade. The historical trend from the 1960s reveals that the share of developing countries in world trade declined sharply from 46.9 per cent in 1960 to 13.9 per cent in 1971. It is evident that without the phenomenal growth of China, the developing countries share of trade would never have recovered beyond the 30 per cent mark last reached in 1981 and in 2012 (Figure 1.1).

Figure 1.1
Share of total trade (per cent) by economic status



Source: UNCTAD calculations based on data from World Bank, World Development Indicators Database [accessed May 2021]. Note: Total trade is defined as the sum of exports and imports.

During 1960-1970, more than half of the world trade was between developed countries and rising, with the underlying dynamic led by a phenomenal growth in manufactures and the slow growth of

Manufactures accounted for

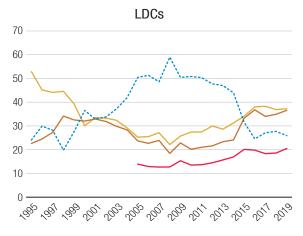
of merchandise exports of LDCs in the 2010s

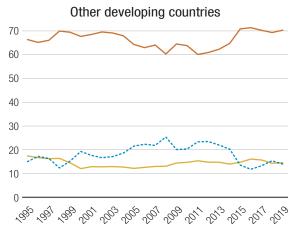
primary commodity exports. This trend reflected several factors in developing countries, including trade patterns – largely dominated by primary commodities – although the share of manufactures in exports had also increased. Primary commodities dominated LDC exports, although the relative importance of the commodity groups varied from year to year, and among countries depending on commodity market conditions, climatic conditions, as well as other factors.

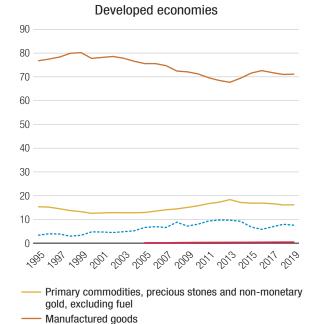
Manufactured products, by contrast, dominated the exports of both developed countries and ODCs, but commodities still featured strongly in many of the latter countries. An important trend for LDCs is the steady rise in their manufacturing exports from slightly over 20 per cent in 2011 to about 37 per cent of total exports in 2019 (Figure 1.2). The contrast in the share of labour and resource intensive manufactures' exports from LDCs, and high-skill and technology intensives from ODCs and developed countries mirrors the specialization in commodities, with the LDCs largely specialized in low technology and low skill processing of goods (Figure 1.3).

Figure 1.2

Share of major commodity groups in merchandise exports and share of services in total exports







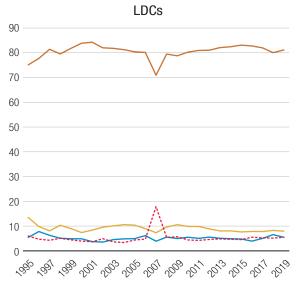
—— Share of services in total exports

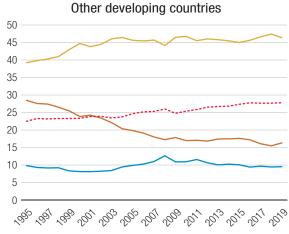
Source: UNCTAD secretariat calculations based on data from UNCTADStat [accessed May 2021].

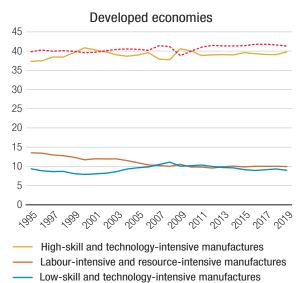
---- Fuels

Figure 1.3

Manufactured goods exports by intensity of skills and technology, by country development status, 1995–2019



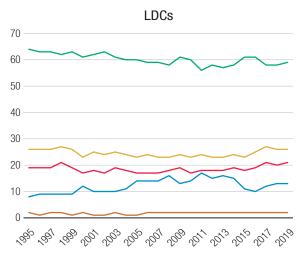


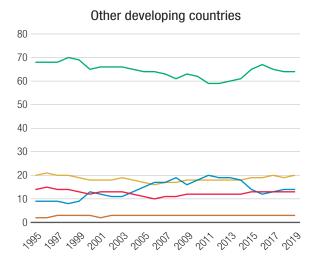


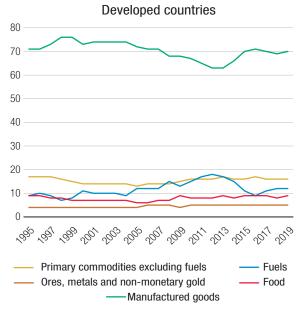
Source: UNCTAD secretariat calculations based on data from UNCTADStat [accessed May 2021].

---- Medium-skill and technology-intensive manufactures

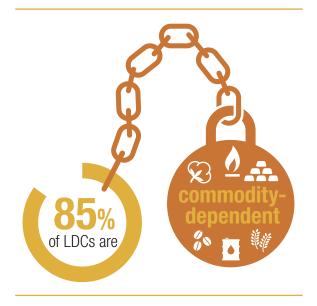
Figure 1.4
Import shares by major commodity groups and economic status







Source: UNCTAD secretariat calculations based on data from UNCTADStat [accessed May 2021].



Although the share of primary commodities in total world trade has continued to shrink, commodity dependence has persisted in developing countries, particularly among LDCs. In 2019, two-thirds of developing countries and 85 per cent of LDCs were classified as commodity-dependent (UNCTAD, 2019b).³ The low and unstable growth pattern among developing countries is largely a direct result of their commodity specialization which, in turn, conditioned their development path, and limited their scope for innovation and the emergence of productivity-led growth dynamics (UNCTAD, 2020a, 2016a, 2015).

For international trade to anchor economic diversification in these countries, further support is needed to: (i) develop human capital; (ii) push for strong intersectoral growth; (iii) ensure rising per capita incomes; and (iv) develop better policies and institutions (Osakwe et al., 2018). Developing countries - and especially LDCs - will remain marginalized if they fail to diversify their exports and increase their share of manufacturing in exports. Confirming the special role of industrialization in trade, world import trends show that manufactured goods dominate in all country groups, ranging from 59 per cent of all imports among LDCs to 70 per cent of imports of developed countries in 2019 (Figure 1.4). By contrast, primary commodity imports (excluding fuels) ranged from 16 per cent among developed

Only seven LDCs, namely Bangladesh, Bhutan, Cambodia, Haiti, Lesotho, Nepal and Tuvalu are classified as noncommodity dependent economies. A country is considered to be export-commodity-dependent when more than 60 per cent of its total merchandise exports consist of commodities. (UNCTAD, 2019b).

countries to 20 per cent among ODCs (26 per cent for LDCs) in 2019.

The supply-side constraints limiting the participation of LDCs in international trade have been analysed in successive *Least Developed Countries Reports*; the 1999 edition of the report analysed LDCs' trade marginalization, their productive capacities, as well as options to strengthen their competitiveness (UNCTAD, 1999).

From the early 1960s, merchandise exports were important for LDCs as they accounted for more than half of their exports. Services have also become important exports for LDCs, especially in recent years, averaging about 20 per cent of total exports (Figure 1.2). Diversification of the main exports remains challenging, as the export basket of many countries is made up of only one or a handful of products, e.g. agricultural, fuels or mineral products. These structural weaknesses point to the need to: (i) develop the productive capacities including the interlinkages within and across sectors; (ii) address the other supply-side constraints such as the quality of labour (human capital); (iii) deficiencies in physical infrastructure, the level of technological capabilities; (iv) low levels of private investment; and (v) low growth. These constraints are at the heart of a long-term development conundrum and cannot be addressed with piecemeal interventions or sectoral approaches. The literature is also clear on the role of innovation and technology, as together with accompanying policies to build the national innovation system, they could potentially pave the way to enhance productivity and growth. In addition, the sequencing and optimization of choice between physical capital accumulation and investment in human capital should not arise for developing countries as both are at low levels; it is expected that the returns to physical capital investment may initially decline rapidly, given the low levels of human development in the countries concerned (Nguyen, 2009). A comprehensive development agenda is, therefore, required to boost economic diversification, growth and global competitiveness.

C. Evolution of the LDC category

The context in which the first United Nations Development Decade was adopted may be 60 years ago, but some of the development challenges among LDCs have remained broadly similar over this time. If anything, these challenges had become more complex, costly and urgent, and persisted well into 1980s and 1990s. Over

Some of the development challenges among LDCs have remained broadly similar over the last 60 years

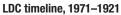
these decades, investment growth grew at a slow pace in LDCs, especially since the debt crises of that period. This coincided with various episodes of commodity boom and boost, which rendered the task of attracting foreign direct investment difficult.

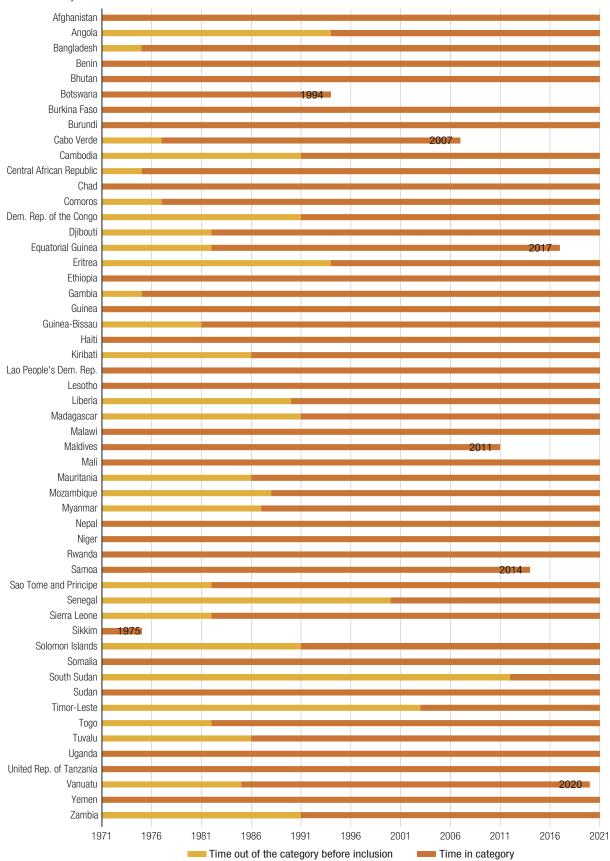
The criteria for inclusion into, and graduation from, the LDC category have evolved over time (Annex table 1), reflecting the increased availability of quality data to assess the progress made by the countries. The evolution of the criteria to define the LDCs has had an impact on the composition of the group over the last 50 years, which is reflected in Figure 1.5.

When the General Assembly endorsed the initial list of "least developed among developing countries" in 1971 (A/RES/2768(XXVI)), there were 25 countries4 identified in recognition of their structural challenges and vulnerabilities. In that year, the median per capita GDP among the countries was less than \$100 at nominal values, half of countries were predominantly agrarian economies, and only 7 per cent of their GDP was generated by manufacturing. Social development was basic, with very high under five- and maternal mortality rates, a life expectancy at birth of 40, and gross secondary enrolment of only 3 per cent. Over the years, the number and diversity of countries in the category increased, peaking at 52 in 1991. A few countries have graduated from the category and, as of January 2021, the remaining LDCs are at 46 (Figure 1.5). While economic and social development indicators have greatly improved, they remain largely unsatisfactory, and countries continue to struggle with a set of challenges similar to those that led to the establishment of the category.

Afghanistan, Dahomey (now Benin), Bhutan, Botswana, Upper Volta (now Burkina Faso), Burundi, Chad, Ethiopia, Guinea, Haiti, Lao People's Democratic Republic, Lesotho, Malawi, Maldives, Mali, Nepal, Niger, Rwanda, Western Samoa (now Samoa), Sikkim (now part of India), Somalia, Sudan, Uganda, United Republic of Tanzania and Yemen. Of all these countries, only two – Western Samoa and Sikkim – were not member States of the United Nations at the time of the establishment of the LDC category in 1971.

Figure 1.5





Source: UNCTAD Secretariat calculations based on data from Committee for Development Policy and Department of Economic and Social Affairs (2018).

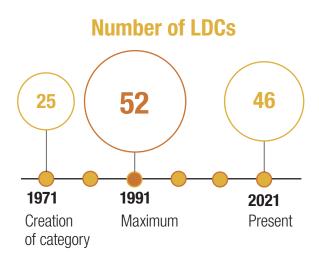
It is disappointing that only six of the 53 countries that have ever been recognized as LDCs have graduated in the 50 years since the least developed countries (LDCs) category was established. Of the initial 25 LDCs,⁵ only three countries – Botswana, Maldives and Samoa – have graduated from the category. The 25 countries that were later added have remained in the category. Four countries are scheduled to graduate in 2021–2024, including one of the initial 21 LDCs that remain in the category.

D. The present critical juncture

The major shortcomings of the development experience of the LDCs over the past 50 years have been laid bare by the outbreak of the COVID-19 crisis. The latter has once again dramatically highlighted the institutional, economic and social shortcomings of the development path followed by most LDCs. Notwithstanding the fact that LDCs are not alone in having been adversely impacted by the COVID-19 crisis, they stand out from other developed and developing countries because of their reduced resilience, and diminished capacity to react to major exogenous shocks.

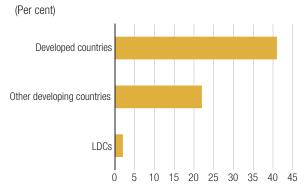
The COVID-19 pandemic emerged at a time when progress was already slow and unsatisfactory. The effect of a prolonged global recession could be disastrous for LDCs (UNCTAD, 2020a, 2020b). The pressure on government spending, public debt and balance of payments has increased, leaving them to face an uncertain external environment and weak domestic recoveries. It should also be emphasized that a heightened risk of a looming debt crisis among the LDCs existed prior to the COVID-19 shock (UNCTAD, 2019a, 2020a), but the COVID-19 shock has raised the possibility of this occurring.

Beyond the upending of the gains on several dimensions of sustainable development (economic, social...), the low resilience of LDCs is reflected in the very low COVID-19 vaccination rate reached by LDCs as of mid-2021. Then it was just 2 per cent, a rate corresponding to just one tenth of vaccination rates in ODCs. The latter, in turn, amounted to about half the level of vaccination of developed countries (Figure 1.6). This demonstrates once again the yawning gaps in the capacity of different country groups to respond to exogenous shocks, as well as the low financial and institutional capacity of LDCs to react to them.



These low vaccination rates indicate that the adverse effects of the pandemic on LDC economies and societies are likely to persist much longer than in other countries. As the economies of ODCs and developed countries recover from the pandemic shock, many LDCs risk being left behind. This would trigger a K-shaped or two-speed recovery, in which some countries recover strongly from the pandemic-induced recession, while others struggle to recover and are left behind. LDCs could suffer from hysteresis, and face a risk of a lost decade of development and of remaining on the margins of the global economy. They may spend the coming years just trying to recover from the COVID-19 shock and eventually achieve little real progress on the Sustainable Development Goals during the 2020s. The present circumstances are therefore exceptional and require decisive action by both the international

Figure 1.6
COVID-19 vaccination rates at mid-2021



Source: UNCTAD secretariat calculations, based on data from Out World in Data website [accessed June 2021].

From the initial group of 25 LDCs, Botswana, Maldives and Samoa are the only countries that have graduated. A fourth LDC, Sikkim was a protectorate in 1971 but became an Indian State in 1975.

community and LDCs themselves to counter the risks of a lost decade and hysteresis.

The current framework of domestic and international policies has not been sufficiently effective in meeting the major development challenges facing the majority of the members of the LDC group. Looking forward, the 2020s will be a crucial decade for the development of LDCs. On a global scale, the decade will be critical for international action on climate change (IPCC, 2021). This smouldering global threat' is rapidly becoming more serious and urgent. In the case of LDCs, it has some analogies with the COVID-19 shock: LDCs bear close to nil responsibility for this exogenous shock, and are unable to head off its worst or most acute consequences as they are the group of countries with the least capabilities (economic, technological, institutional) to tackle its consequences. In devising new forms of partnership with the LDCs, the international community will need to meaningfully incorporate the environmental dimension in the formulation of policies and programmes.

E. Structure of the report

Having set the scene of the main development challenges that led to the establishment of the LDC category 50 years ago and the objectives of the present report, the remaining chapters proceed as follows. Chapter 2 analyses the growth performance of LDCs over the past 50 years and examines, among others, episodes of growth acceleration and deceleration in LDCs, the convergence or divergence of these countries in relation to higher income country groups, progress made in structural economic

transformation, as well as broader LDC achievements in the social dimensions of sustainable development.

Chapter 3 focuses on the policies that have underpinned LDC performance over the past 50 years. It presents the successive multilateral initiatives undertaken by the international community to accelerate development in these countries, as well as the domestic policies LDCs are putting in place to further their sustainable development. The chapter concludes with an account of successful development experiences of two LDCs – Bangladesh and Senegal – and the contrasting routes and policies they to respond to similar problems of underdevelopment, and the clear strides they have made towards sustainable development.

Chapter 4 presents a costing of the investments and spending required for LDCs to reach the most critical SDG. By focusing on different targets, it provides a picture of the very substantial amounts of financial resources which will need to be mobilized to meet some critical targets of the 2030 Agenda for Sustainable Development.

Chapter 5 presents a broad vision of the next decade of development processes and development policies for LDCs. It highlights the main challenges that these countries will face and shows the interest of the international community in supporting the development of LDCs. It pinpoints what should be the main objectives of the new PoA for the LDCs, and presents the outlines of novel policies to address the myriad challenges facing LDCs. The chapter suggests priorities for domestic policies, calls for a new generation of ISMs in favour of LDCs, and discusses the principles guiding the formulation of these new ISMs.

ANNEX

Annex Table 1.1

The LDC definition and criteria over the years

Year	LDC definition	Criteria						
1971	Countries with very low levels of per capita gross domestic product facing the most severe obstacles to development	GDP per capita (\$100 to \$120)	• Adult literacy rate (<=20 per cent)	Share of manufacturing in GDP (<=10 per cent)				
1991	Low-income countries suffering from lon-term handicaps to growth, in particular, low levels of human resource development and/or severe structural weaknesses	Income: • GDP per capita	Augmented physical quality of life (APQL): • per capita calorie supply. • life expectancy at birth. • combined primary and secondary school enrolment ratio. • adult literacy rate.	Economic diversification index (EDI): Export concentration ratio. Share of manufacturing in GDP. Share of employment in industry. Per capita electricity consumption.				
1999	Low-income countries suffering from low level of human resources and a high degree of economic vulnerability	Income: • GDP per capita	Augmented physical quality of life (APQL): Average calorie intake per capita as a percentage of the requirement. Under-five mortality rate. Combined primary and secondary enrolment ratio. Adult literacy rate.	Economic vulnerability index (EVI): Population size. Export concentration. Share of manufacturing and modern services in GDP. Instability of agricultural production. Instability of export of goods and services.				
2002	Low income countries suffering from low levels of human resources and a high degree of economic vulnerability	Income: • GNI per capita	Human assets index (HAI): Average calorie intake per capita as a percentage of the requirement. Under-five mortality rate. Gross secondary school enrolment ratio. Adult literacy rate.	Economic vulnerability index (EVI): Population size. Export concentration. Share of manufacturing and modern services in GDP. Instability of agricultural production. Instability of export of goods and services.				
2005	Low-income countries suffering from low levels of human resources and a high degree of economic vulnerability	Income: • GNI per capita	Human assets index (HAI): Percentage of population undernourished. Under-five mortality rate. Gross secondary school enrolment ratio. Adult literacy rate.	Economic vulnerability index (EVI): Population size. Remoteness. Merchandise export concentration. Share of agriculture, forestry and fisheries in GDP. Homelessness due to natural disasters. Instability of agricultural production. Instability of exports of goods and services.				
2011	Low-income countries suffering from the most severe structural impediments to sustainable development	Income: • GNI per capita	Human assets index (HAI): Percentage of population undernourished. Under-five mortality rate. Gross secondary school enrolment ratio. Adult literacy rate.	Population size. Population size. Remoteness. Merchandise export concentration. Share of agriculture, forestry and fisheries in GDP. Share of population in low elevated coastal zones. Victims of natural disasters. Instability of agricultural production. Instability of exports of goods and services.				
2017	Low-income countries suffering from the most severe structural impediments to sustainable development	Income: • GNI per capita	Human assets index (HAI): Percentage of population undernourished. Under-five mortality rate. Maternal mortality rate. Gross secondary school enrolment ratio. Adult literacy rate.	Population size. Pemoteness. Merchandise export concentration. Share of agriculture, forestry and fisheries in GDP. Share of population in low elevated coastal zones. Victims of natural disasters. Instability of agricultural production. Instability of exports of goods and services.				
2021	Low-income countries suffering from the most severe structural impediments to sustainable development*	Income: • GNI per capita	 Prevalence of stunting. Under-five mortality rate. Maternal mortality rate. Gross secondary school enrolment ratio. Adult literacy rate. Gender parity index for gross secondary school enrolment. 	Remoteness and landlockedness. Merchandise export concentration. Share of agriculture, forestry and fisheries in GDP. Share of population in low elevated coastal zones. Share of population living in drylands. Victims of disasters. Instability of agricultural production. Instability of exports of goods and services.				

Source: United Nations, Economic and Social Council, Committee for Development Policy, United Nations, and Department of Economic and Social Affairs (2018).

Annex Table 1.2

LDC scores against the 2021 LDC criteria

Country	Income only graduation threshold: GNI per capita (\$2460=100)	Income graduation threshold: GNI per capita (\$1230=100)	Economic vulnerability index graduation threshold: 32 or below (32=100)	Human assets index graduation threshold: 66 or above (66=100)
Afghanistan	24	47	140	62
Angola**	142	284	142	78
Bangladesh*	67	133	85	114
Benin	34	68	103	74
Bhutan**(*)	120	239	81	115
Burkina Faso	29	57	152	87
Burundi	12	23	120	82
Cambodia *	51	102	95	102
Central African Republic	17	34	85	40
Chad	29	59	168	22
Comoros	53	107	124	96
Dem. Rep. of the Congo	20	40	74	71
Djibouti**	125	250	161	93
Eritrea	62	124	156	84
Ethiopia	31	62	109	83
Gambia	27	54	175	91
Guinea	33	66	84	57
Guinea-Bissau	28	56	126	58
Haiti	32	64	104	87
Kiribati**(*)	119	238	207	126
Lao People's Dem. Rep.*	92	184	83	109
Lesotho	54	108	138	95
Liberia	16	33	124	70
Madagascar	19	39	106	92
Malawi	14	28	150	89
Mali	33	66	153	68
Mauritania	65	130	141	82
Mozambique	20	39	128	80
Myanmar*	51	102	80	109
Nepal*	37	74	79	109
Niger	21	41	150	51
Rwanda	30	61	106	99
Sao Tome and Principe*	70	140	93	133
Senegal*	54	107	135	100
Sierra Leone	22	44	117	63
Solomon Islands*	70	140	143	109
Somalia	4	8	164	32
South Sudan	34	68	137	33
Sudan	72	144	128	91
Timor-Leste*	81	162	125	103
Togo	25	50	78	89
Tuvalu**(*)	263	527	178	132
Uganda	27	53	88	87
United Rep. of Tanzania	40	81	104	92
Yemen	33	66	104	79
Zambia*	56	111	128	80
DC averages	51	102	123	85

Source: UNCTAD secretariat calculations based on data from CDP for the 2021 Triennial Review.

Notes: * Country meets at least two graduating criteria; ** Country meets the income only graduation criterion threshold. The graduation rule requires that a country meeting two of the three criteria must do so in two consecutive triennial reviews.

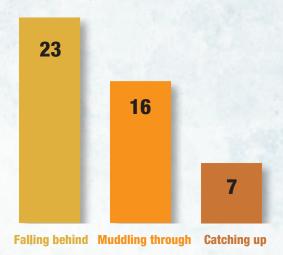
Annex Table 1.3 LDC selected indicators in 2000 and 2020

Country	GNI per	· capita		man assets index	Economic vulnerability index		Under-five mortality rate	Maternal mortality rate		Gross secondary school enrollment		Prevalence of stunting		Adult literacy rate		
	2000	2020	2000	2020	2000	2020	2000	2020	2000	2020	2000	2020	2000	2020	2000	2020
Afghanistan	139	580	5	41	45	45	138	62	1 486	638	17	54	54	38	26	43
Angola	539	3 496	26	52	40	45	215	77	779	241	11	51	55	38	68	66
Bangladesh	374	1 640	44	75	32	27	97	30	455	173	45	73	59	31	44	74
Benin	395	839	22	49	41	33	146	93	546	397	21	59	38	32	32	42
Bhutan	532	2 941	38	76	34	26	87	30	408	183	23	90	49	34	43	67
Burkina Faso	283	707	19	57	48	49	186	76	521	320	9	41	41	25	15	41
Burundi	149	285	18	54	34	38	167	58	1 011	548	9	48	63	54	55	68
Cambodia	294	1 254	30	68	44	31	118	28	490	160	18	45	54	32	67	81
Central African Republic	304	417	11	27	30	27	174	116	1 372	829	11	17	43	41	48	37
Chad	240	720	3	15	51	54	192	119	1 459	1 140	10	23	43	40	21	22
Comoros	932	1 310	45	64	39	40	103	67	473	273	32	56	43	31	66	59
Dem. Rep. of the Congo	191	490	27	47	31	24	168	88	762	473	30	46	48	43	70	77
Djibouti	763	3 074	40	61	47	51	105	59	507	248	14	51	30	33	52	50
Eritrea	355	1 528	28	56	57	50	95	42	1 186	480	28	47	46	53	49	77
Ethiopia	142	765	13	55	45	35	154	55	1 114	401	12	35	60	37	31	52
Gambia	1 129	662	30	60	54	56	124	58	909	597	28	50	30	19	33	51
Guinea	704	814	9	38	23	27	181	101	1 123	576	14	39	32	30	23	32
Guinea-Bissau	461	692	14	38	31	40	185	81	1 221	667	16	34	34	28	39	46
Haiti	394	786	48	58	28	33	111	65	448	480	18	18	32	22	53	62
Kiribati	967	2 926	66	83	52	66	76	53	137	92	47	87	27	15	64	80
Lao People's Dem. Rep.	370	2 265	37	72	37	27	115	47	561	185	29	67	49	33	66	85
Lesotho	855	1 328	48	62	45	44	112	81	687	544	28	62	48	35	85	77
Liberia	159	401	20	46	56	40	212	71	944	661	32	38	45	30	39	48
Madagascar	288	479	40	61	31	34	119	54	613	335	20	37	57	42	66	75
Malawi	259	343	27	59	45	48	190	50	780	349	33	40	62	39	64	62
Mali	329	810	13	45	52	49	199	98	806	562	13	41	41	27	19	35
Mauritania	888	1 600	29	54	48	45	114	76	854	766	16	37	44	23	47	54
Mozambique	219	485	16	53	42	41	191	73	790	289	6	35	49	42	40	61
Myanmar	180	1 257	55	72	32	26	94	46	340	250	32	64	51	29	89	76
Nepal	230	911	34	72	34	25	91	32	571	186	38	74	61	36	44	68
Niger	248	509	10	34	48	48	244	84	875	509	6	24	51	48	20	31
						34					11	41	47	38		73
Rwanda Sao Tome and Principe	254 687	747 1 717	28 62	65 88	42 51	30	226 94	35 31	1 071	130	35	89	35	17	63 81	93
Senegal		1 317	29	66	44	43	139	44	611	315	14	44	27	19	36	52
Sierra Leone	231	537	17	41	33	37	244	105	2 330	1 120	22	42	37	30	32	43
Solomon Islands Somalia	1 011		57	72	53	46	172	20	248	104	24	48	33 29	32	73	77
	161	104	11	21	52	52	172	122	1 216	829	8	6		25	5	5
South Sudan	595	831	8	22	28	44	201	99	1 726	1 150	7	11	35	31	19	35
Sudan Timer Leete	249	1 766	42	60	46	41	111	60	694	295	32	47	38	38	57	61
Timor-Leste		1 998	33	68	30	40	120	46	715	142	35	84	56	52	34	68
Togo	392	618	30	59	32	25	126	70	523	396	27	62	33	24	52	64
Tuvalu	2 593	6 478	80	87	52	57	44	24	175	104	55	67	10	10	95	95
Uganda	358	654	29	57	35	28	159	46	575	375	11	25	45	29	64	77
United Rep. of Tanzania	295	992	30	61	32	33	144	53	857	524	8	29	49	32	66	78
Yemen	446	809	30	52	43	33	103	55	301	164	44	52	56	46	44	54
Zambia	387	1 367	26	53	43	41	173	58	543	213	20	20	56	35	68	87
DCs	488	1 260	30	56	41	39	143	64	782	427	22	47	44	33	49	60

Source: UNCTAD secretariat calculations based on data from CDP for the 2021 Triennial Review.

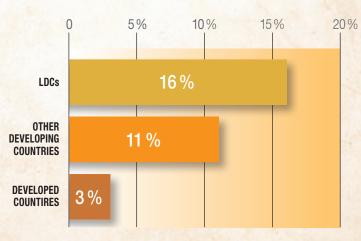
Long-term performance in income per capita for today's 46 LDC

Since 1971, 23 LDCs lagged behind relative to the world's average income per capita, 7 LDCs experienced catching up, and the rest muddled through

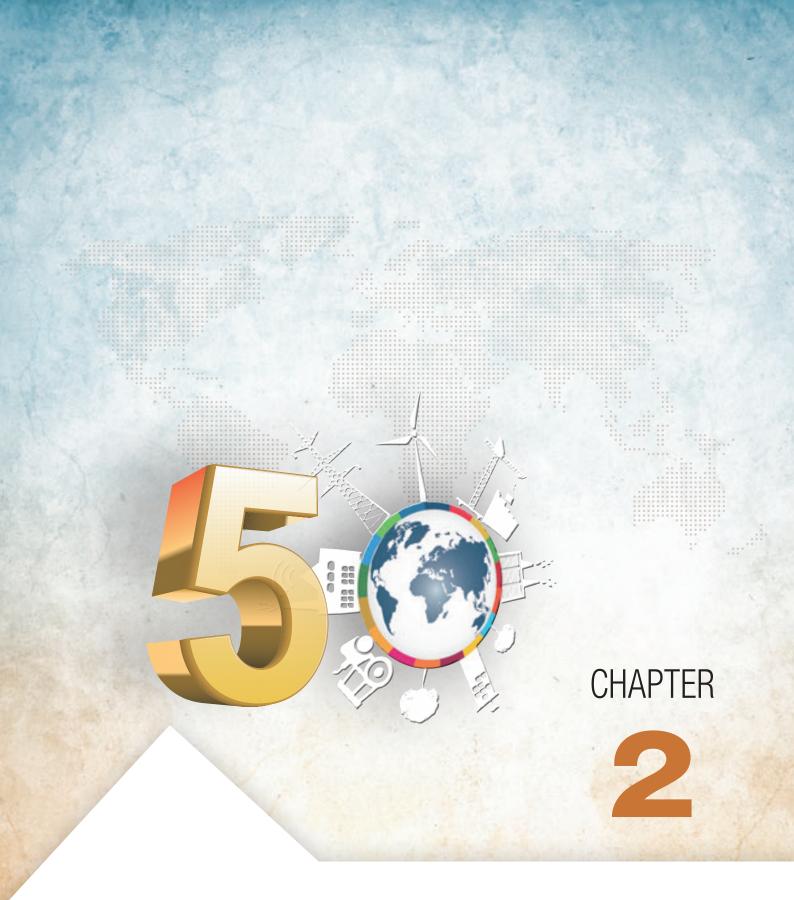




Though the risk has declined over the last 20 years, **LDCs** remain disproportionately vulnerable to boom-and-bust cycles



Incidence of growth collapses since the creation of LDC category



Achievements at 50: growth, transformation and sustainability?

CHAPTER 2

Achievements at 50: growth, transformation and sustainability?

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A. Introduction

The 50th anniversary of the establishment of the LDC category is occuring at a time when the international community is grappling with the dire consequences of the global recession triggered by COVID-19 outbreak. Productivity slowdown in developed countries, rising inequalities and environmental degradation, emerging international tensions and trade wars were already apparent, even before the onset of the deepest recession since World War II. At this juncture, however, the prospects of an uneven recovery and fears of another "lost decade" make it even more urgent to revitalize the multilateral system and bolster international cooperation. This is particularly critical for the LDCs, whose recovery and sustainable development prospects are largely contingent on maintaining long-term investment plans and access to consistent sources of sustainable development finance, so that they can benefit from a sustained global rebound in economic activity.

Against this background, this chapter addresses the following question: What can be learnt from the past growth experience of LDCs which could inform the deliberations on the next 10-year Programme of Action (PoA) for LDCs? To do so, it will reassess the growth trajectory of LDCs over the past five decades to provide key insights into how to best lay the foundations for an inclusive and sustainable recovery from the COVID-19 shock and "the great reset" it has called for. Although most of the discussion in the chapter is inevitably backward-looking, efforts are made to link the discussion to the COVID-19 shock and, data permitting, incorporate a preliminary analysis of the current juncture. The focus on economic growth is not intended to frame the discussion on the sustainable development of LDCs as a purely growth-centric debate. Rather, it is intended to affirm that a rebound of economic activity is critical at this stage, and that economic growth continues to be regarded as a key driver of the sustainable development prospects of LDCs, to the extent that explicit growth targets were enshrined in all the PoAs for LDCs, and more recently in Sustainable Development Goal 8.1.

The chapter is structured as follows. Section 2 outlines the key long-term LDC growth trends and elaborates on the implications of these trends with respect to the debate on global inequalities and income convergence. Section 3 investigates the medium-term deviation from long-term trends, highlighting the proneness of LDCs to experience boom-and-bust cycles. Section 4 examines the developments underpinning economic growth in LDCs, specifically analyzing the extent to which growth is accompanied by: (a) structural

The long-term growth performance of LDCs has been mixed at best, and characterized by an overall sluggish and uneven record

transformation; (b) inclusivity; and (c) environmental sustainability. Finally, Section 5 concludes and draws some final considerations to inform ongoing debates on the development of the next PoA for LDCs.

B. A bird's eye view on the long-term performance of LDCs

This section takes a historical perspective and outlines the long-term trends in LDC growth performance since the creation of the category in 1971. The analysis that follows sets the context for the rest of the chapter, and highlights key stylized facts on the growth record of LDCs. While the bulk of the discussion focuses on the period preceding the COVID-19 pandemic, a deliberate effort is made to examine emerging preliminary data on the impact of the pandemic, and to link this to the broader ongoing quest for a more inclusive and sustainable recovery.

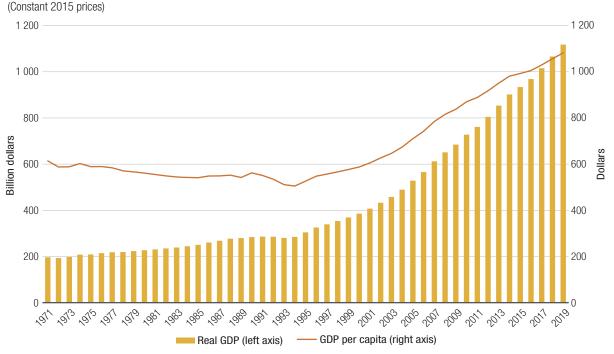
From a long-term perspective, the growth performance of LDCs over the past 50 years has, at best, been mixed, and characterized by an overall sluggish and uneven record. Real GDP for the LDC group increased five-fold since the category was created, climbing from roughly \$200 billion in 1971 to \$1,118 billion in 2019, at constant 2015 prices (Figure 2.1). This is equivalent to an average growth rate of 3.7 per cent per year, only slightly higher than the corresponding world average of 3.1 per cent. Meanwhile, real GDP per capita expanded at a much slower pace (1.3 per cent per annum) due to rapid demographic growth, rising from about \$600 to \$1,082 over the same period.

As repeatedly flagged in other issues of this report, the overall performance of LDCs has fallen short of what would have been necessary to redress their marginalization in the global economy (UNCTAD, 2010, 2016a, 2020a). Prior to the COVID-19 shock, the LDC

To preserve comparability over time, the term "LDC group" refers to the current set of 46 LDCs, irrespective of when they were officially recognized by the United Nations as members of the LDC category. The same convention applies to the LDC regional group. A more detailed discussion of when individual countries officially integrated the LDC category (or graduated from it) can be found in UNCTAD (2016a) and United Nations (2018).

Figure 2.1

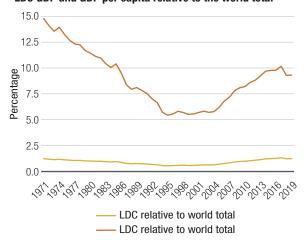
Real GDP and real GDP per capita in LDCs, since the creation of the category



Source: UNCTAD Secretariat calculation based on data from UNCTADstat database [accessed April 2021].

group accounted for about one per cent of the world GDP, roughly the same share as in the early 1970s (Figure 2.2). Even more worrying, GDP per capita for the LDC group represented 15 per cent of the world average in 1971, but by 2019 – the year before the onset of the COVID-19 crisis – this had declined to less than 10 per cent. It is too early at

Figure 2.2
LDC GDP and GDP per capita relative to the world total



Source: UNCTAD Secretariat calculation based on data from UNCTADstat database [accessed April 2021].

Note: Based on GDP and GDP per capita series in constant 2015 dollars.

this stage to account in a methodologically rigorous way for the impact of the COVID-19 crisis on this long-term picture. Nonetheless, existing forecasts and preliminary data suggest that the sharp downturn has affected LDCs and other developing countries (ODCs) disproportionately, and that the most vulnerable segments of the population have often borne the brunt of the crisis (UNCTAD, 2020a, 2020c, 2020d). LDCs are at the forefront of this global recession – one which is likely to cause lingering damage to their economies, and strain their already weak productive sectors.

Leaving aside the current conjuncture for the time being, and going back to longer-term considerations, it is interesting to note that both Figure 2.1 and Figure 2.2 reveal the existence of two distinct phases. Between 1971 and 1995, in the midst of a succession of oil shocks, debt crisis and structural adjustment programmes and relatively widespread conflicts, LDCs experienced sluggish and erratic GDP growth, when not outright recessions. This resulted in a gradual contraction of the average real GDP per capita of LDCs, both in absolute terms (Figure 2.1) and, more severely so, relative to the world average (Figure 2.2). Conversely, since the mid-1990s, LDCs witnessed a marked and generalized resumption in economic growth as macroeconomic fundamentals strengthened, the international environment improved and conflicts became less widespread.

LDCs as a group have displayed considerable heterogeneity, both in levels of income per capita and in their underlying dynamics. Throughout the period, Island LDCs have continued to record relatively higher levels of real GDP per capita than other LDC subgroups, even though they grew at a much slower pace (reaching \$1,475 per person in the 2017-2019 period, at constant 2015 prices). Conversely, in the early 1970s Asian LDCs started off at a comparatively low level of income per capita, but have more than tripled it in 50 years, climbing to \$1,274 in 2017-2019 (at constant 2015 prices). African LDCs and Haiti suffered an overall contraction in the first half of the period, and although the subsequent expansion outweighed the initial decline, they remain the subgroup of LDCs with the lowest average GDP per person (\$947).

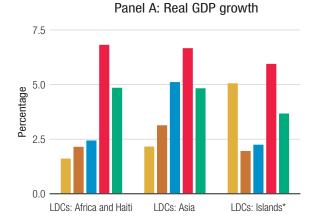
The comparison of GDP and GDP per capita growth by decade and geographical subgroups clarifies the underlying dynamics further (Figure 2.3). In the 1970s and 1980s, both African LDCs plus Haiti and Asian LDCs recorded rather sluggish expansion in real GDP; however, faster demographic growth in African LDCs plus Haiti largely explains the diverging trends in per capita income. Subsequently, in the 1990s, African LDCs and Haiti grew at roughly half the rate of their Asian counterparts, with a widening divergence in their GDP per capita. Since the new millennium, the pace of economic growth accelerated markedly in African LDCs and Haiti, with their GDP growth now matching the dynamics of Asian LDCs, but faster population growth in the former LDC subgroup still led to an about 1.3 percentage point slower expansion in per capita terms. As for Island LDCs, their growth performance has been somewhat volatile, especially when measured in per capita terms, thus reflecting a broad set of structural factors underpinning a heightened economic and environmental vulnerability.²

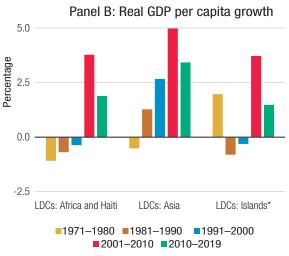
Figure 2.4 focuses closely at the individual country level, and provides a snapshot of the growth trajectory of LDCs since the creation of the category. To give an idea of how their performance compares with the rest of the world, LDCs have been grouped into the three following categories:

 LDCs that are "falling behind". These are countries whose long-term GDP per capita growth rate is lower by more than one percentage point than the world's weighted average;

Figure 2.3

Real GDP and real GDP per capita growth, by decade and LDC geographical sub-group





Source: UNCTAD Secretariat calculation based on data from UNCTADstat database [accessed April 2021].

Note: * GDP data for Timor-Leste is only available from 2003; to avoid the undue effect of its inclusion, its GDP is imputed through linear extrapolation until the beginning of the decade.

- LDCs that are "muddling through", i.e. countries whose GDP per capita growth rate has fallen within the band defined by the world's average ± 1 per cent; and
- LDCs that are "catching up", or whose long-term growth rate of per capita income has exceeded the world's weighted average by more than one percentage point.

Although arbitrary, this taxonomy provides a reasonable reflection of the trajectory of LDCs. It also underscores three important considerations. First, from a long-term perspective LDCs have made disappointing progress to improve per capita income levels, as reflected in the fact that as many as 23 LDCs are classified as "falling behind", and

UNCTAD has repeatedly pointed out that Small Island Developing States (SIDS) tend to be characterized by comparatively high income per capita by international standards, but also heightened economic and environmental vulnerability – a situation sometimes referred to as the "Island paradox" (UNCTAD, 2016a, 2020a; MacFeely et al., 2021).

8 6 -2 -4 Rep. of the Congo Comoros Central African Republic Sao Tome and Principe Solomon Islands Timor-Leste' Lao People's Dem. Rec Rep. of Dem. I **FALLING BEHIND** MUDDLING THROUGH CATCHING UP **▲** 1971–1994 **●** 1995–2019 • 1971-2019

Figure 2.4

Average annual percentage growth rate of real GDP per capita (1971–2019)

Source: UNCTAD Secretariat calculation based on data from UNCTADstat database [accessed April 2021].

Notes: Average annual percentage growth rates are obtained by fitting an exponential curve as such, the growth rate for the overall 1971–2019 period may differ even substantially from the averages of the two sub-periods, when the underlying series displays marked inflection points around the cutoff date of 1995. * real GDP per capita series for Ethiopia and Sudan are adjusted to also reflect Eritrea and South Sudan respectively, so as to ensure a consistent "aggregate" throughout the period; ** data for Timor-Leste is only available from 2003 onward; *** GDP per capita series for Yemen start in 1990.

another 14 are "muddling through".³ Moreover, as only a handful of LDCs have outperformed the world's average growth in per capita GDP, these results are broadly consistent with the findings of UNCTAD's Productive Capacity Index (PCI), which pointed to a shrinking of the high-performers' cluster (UNCTAD, 2020a). Put differently, despite some generalized improvements, particularly over the past two decades, from a long-term perspective only a small subset of LDCs have been able to sustain the type of long-term progress required to support a meaningful catching up.

Second, LDCs classified as "falling behind" include, as expected, mainly conflict-ridden countries

(e.g. Afghanistan, Somalia and Yemen), as well as heavily commodity-dependent countries (e.g. Angola, Democratic Republic of Congo and Zambia). Conversely, long-term growth in relatively more diversified economies, notably various Asian LDCs, consistently exceeded the world average, giving rise to an incipient catching up process, albeit from a very low base. Similarly, most countries recommended for LDC graduation by the 2021 Triennial Review belong to the top category (or the upper part of the intermediate category), Angola being the main exception.⁴

Third, the overwhelming majority of LDCs performed much better in the second half of the

To ensure a reasonable level of comparability over time, the series for Ethiopia and Sudan are adjusted to also include Eritrea and South Sudan, respectively.

The specific challenges of Angola, and more broadly of the income-only graduation cases are discussed in detail in UNCTAD (2016a).

period (1995-2019) than in the first half. Indeed, if one were to apply the above taxonomy only to the 1995-2019 period, as many as 18 countries would fall within the "catching up" category, and only 11 would be in the "falling behind" group. In addition to the seven countries designated in Figure 2.4 as "catching up", other top performers would include Afghanistan, Chad, Djibouti, Ethiopia, Liberia, Mozambique, Nepal, Rwanda, United Republic of Tanzania, Uganda and Zambia. Interestingly, the difference in per capita GDP growth between the two periods is particularly visible in the case of various African LDCs. These include not only fuels and mineral exporters, which arguably benefitted more from the "commodity super-cycle" of the mid-2000s (e.g. Angola, Chad, Democratic Republic of Congo, Liberia, Mozambique or Zambia), but also some agricultural exporters and relatively more diversified economies (e.g. Djibouti, Ethiopia, Rwanda, United Republic of Tanzania and Uganda).

1. LDC growth, global inequalities and income convergence

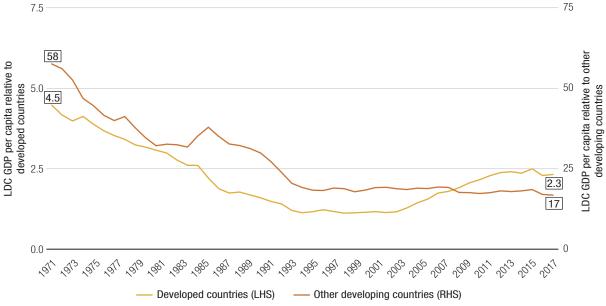
The appraisal of the growth record of LDCs needs to be contextualized in the broader debate on global inequalities and income convergence. From a

long-term perspective, few signs exist of meaningful convergence in LDCs. At the time the LDC group was established, its per capita GDP was 4.5 per cent that of developed nations; however, by 2019 this share had declined to 2.3 per cent (Figure 2.5). The relative deterioration is even starker in relation to ODCs where per capita GDP of LDCs fell from 58 to 17 per cent. Focusing only on the high growth subperiod of 1995–2019 does not radically improve the picture: in that 24-year window, the GDP per capita of LDCs rose from 1.1 per cent of that of developed nations to just 2.3 per cent, and remained virtually stagnant in relation to that of ODCs.

Looking at individual country experiences, the worldwide distributional dynamics of income per capita is provided in the two panels of Figure 6. The left-hand panel depicts the kernel density of the logarithm of real GDP per capita in constant purchasing power parity (PPP) 2017 dollars at three points in time 24 years apart, namely: (i) in 1971 (when the LDC category was established); (ii) 1995 (broadly identified as the turning point in the LDCs' growth trajectory); and (iii) 2019 (the latest available year). The right-hand panel illustrates the histogram of the same real GDP per capita series in 2019, and distinguishes countries by development status.

Figure 2.5

LDC real GDP per capita as share of that of other country groups⁵
(Percentage)

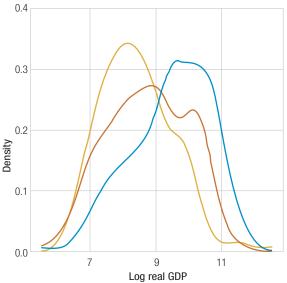


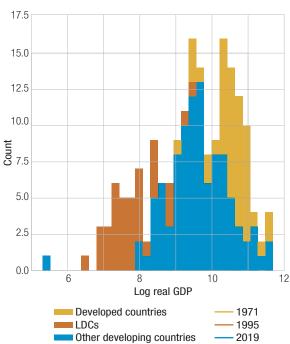
Source: UNCTAD Secretariat calculation based on data from UNCTADstat database [accessed April 2021]. Notes: Based on GDP and GDP per capita series in constant 2015 dollars.

⁵ Economies formerly classified as "transition economies" have been excluded from the computation throughout the period to avoid spurious effects due to their crisis in the wake of the collapse of the former Soviet Union.

Figure 2.6

Real GDP per capita across countries – Kernel density estimation for 1971, 1995, and 2019, and histogram by development status in 2019⁶





Source: UNCTAD Secretariat calculation based on data from Penn World Table 10.0 database.

Note: For the sake of simplicity the M49 classification is adopted in the above graphs, unlike in the rest of the report.

The right-ward shift of the density over time (especially between 1995 and 2019) in the left-hand panel is clear evidence of a generalized improvement in per capita GDP levels. Equally interesting, however, is to further explore the evolving shapes of the densities: over time, the 1971 unimodal right-skewed density (red line) turned into a more symmetric one with hints of bimodality (green line corresponding to 1995), and then morphs into a left-skewed density with a visible bulge at lower levels of income (blue line corresponding to 2019). Considering the persistence of per capita GDP ranking over time,7 the dynamics depicted in the graph imply that a sizeable group of countries at the bottom of the income per capita ladder have tended to fall behind the rest, despite clear indications of progress in terms of rising per capita GDP. As shown in the second panel, these countries are almost invariably LDCs, with only a few countries reaching intermediate income levels in 2019.

Considering that Figure 2.6 accounts for PPP adjustments, the above distributional dynamics may be consistent with the presence of a poverty as posited by classical development trap, economists (Rosenstein-Rodan, Nurkse, 1966; UNCTAD, 2002, 2016a). It remains an open empirical question whether this reflects "conditional convergence", whereby economies with equal structural characteristics (saving propensity, institutional quality, openness and the like) converge to the same steady state, or so-called "club convergence", in which cross-country differences in per capita income are permanent, and (at least partially) determined by initial conditions.8 Regardless of the answer, this evidence points to a key facet of rising global inequalities across countries, along with the alleged notion of a middle-income trap; it also highlights the challenges faced by developing countries in pursuing a meaningful process of convergence (UNCTAD, 2016a, 2016b).

The mechanisms that have been posited to rationalize these dynamics are unclear, but the main point here

Kernel density functions provide a non-parametric way to estimate the probability density function of a given variable, in this case real GDP per capita for all world's countries for which data is available. The graph is obtained using Gaussian kernels, scaled such that the bandwidth used is equivalent to the standard deviation of the smoothing kernel. The densities are obtained from the series of real GDP per capita on the expenditure side; utilizing the real GDP per capita on the output side would give qualitatively similar results.

Kernel densities say little about where individual countries (or groups thereof) move over time; however, the persistence of GDP per capita ranking over time is underscored by the fact that the Spearman rank correlation between 1971 and 2019 is as high as 0.81. In light of this, it is clear that the overwhelming majority of countries at the bottom of the GDP per capita in 2019 were also there at the beginning of the period considered.

The mainstream and club convergence views can be epitomized respectively by the work of Barro and Sala I Martin (2004) and Mankiw and co-authors (Mankiw et al., 1992), on the one hand, and Quah (1996, 1997) on the other.

is that the widening of between-countries inequalities has wide-ranging policy implications. Recent studies have shown that the country of residence, and in particular its average per capita GDP and level of inequality, is a key determinant of individual income, giving rise to "location premiums and penalties" (Milanovic, 2015, 2019; UNCTAD, 2017a). Hence, unless all LDCs can embark on a path of meaningful convergence, worsening levels of between-countries inequality will likely translate into inequality of opportunity.

It is also worth noting that due to lags in the production of reliable national accounting data, the preceding discussion is entirely based on series that do not cover the year 2020; hence, they cannot capture any of the effects of the sharp global recession caused by the COVID-19 pandemic. Nonetheless, a shock of similar proportions is set to significantly affect the growth performance of LDCs, as well as the outlook for global inequalities. In this context, UNCTAD has warned not only against the risks of dramatic socioeconomic impacts in the developed world, but also against the threat of "another lost decade" for many developing countries and LDCs alike (UNCTAD, 2020c, 2020d, 2020a). Early estimates for 2021 suggest that the global downturn may be less severe than previously anticipated, with global output rebounding by 4.7 per cent in 2021 following a fall of -3.9 per cent in 2020. This is explained by an early rebound in the East Asia and the Pacific region, as well as by the expansionary effects of the unprecedented stimulus packages adopted by developed countries, principally by the United States (UNCTAD, 2021a). It is also likely that the different time profiles of contamination waves and vaccine roll-outs, coupled with wide asymmetries in the capacity of countries to respond to the global recession, will trigger a k-shaped or two-speed recovery (UNCTAD, 2021a; IMF, 2021; World Bank, 2021b). For example, UNCTAD estimates that Africa's rebound in 2021 (+ 3.1 per cent) will

be insufficient to fully outweigh the -3.8 per cent fall in 2020 (UNCTAD, 2021a).

In the medium term, the prospects for a majority of LDCs remain gloomy and risk factors are all on the downside (Box 2.1). Not only are the sizeable debt vulnerabilities of weighing heavily on LDCs' fundamentals, but – more generally – four factors threaten to undermine potential output on the medium term:

- The postponement and cancellation of investment plans due to heightened uncertainty and declining demand (both of which dampen "animal spirits"), or to governments redirecting funds to urgent social expenditures, will inevitably dent medium-term growth potential (UNCTAD, 2020a, 2021a; IMF, 2020; World Bank, 2021b);
- II. The widespread disruptions to schooling and learning, coupled with additional pressure on education budgets and with the likelihood that that many school drop-outs will not return to education even once the crisis has passed, might well take a toll on human capital accumulation and exacerbate existing disparities, including with respect to gender inequalities (UNESCO and World Bank, 2021);
- III. Firms' bankruptcies, job destruction and related capability losses risk leaving long-term scars on an already precarious entrepreneurship landscape. Moreover, SMEs are having more difficulty gaining access to credit, and are thus being disproportionately affected by the downturn (UNCTAD, 2018a, 2020a; Djankov and Panizza, 2020); and
- IV. It remains unclear whether ongoing reconfigurations of value chains and international competitiveness are a temporary phenomenon or if these changes, along with different consumers' habits, may adversely affect sectors of key importance for many LDCs –tourism and garment being a case in point (UNCTAD, 2020e; McKinsey & Company and BOF, 2021).

Box 2.1 LDCs and the divergent recovery

In 2020, the global recession triggered by the COVID-19 pandemic led to LDCs registering their worst socioeconomic performance since the early 1980s (UNCTAD, 2020a). Caught by a multi-layered shock to both aggregate demand and supply, and forced to impose social distancing measures in urban centres with its attendant dampening effect on activity levels, LDCs were faced by lower public revenues and a greater need for higher levels of public expenditure and social programmes. Moreover, the structural current account imbalances of LDCs were exacerbated by: (i) a decline in exports, resulting from reduced global demand and disruptions along key value chains and transport corridors; (ii) a virtual paralysis in tourism flows (which play a vital role for SIDS); and (iii) the drying up of foreign direct investment (FDI) and remittance flows (UNCTAD, 2020a, 2020f; Djankov and Panizza, 2020). Against this background, the relative resilience of ODA, which increased by 1.8 per cent compared to 2019 (OECD, 2021), has done little to address a shortage of foreign exchange among LDCs, worsened by heightened debt vulnerabilities and, in some cases, by devaluation pressures.

Box 2.1 (continued)

International cooperation initiatives, e.g. from the Debt Service Suspension Initiative (DSSI) to the G20 Common Framework for Debt Treatments beyond the DSSI, or even the resilience of ODA, are positive developments, but they fall short of what would be needed to ensure an inclusive broad-based recovery (UNCTAD, 2020a, 2020c, 2021a).* Meanwhile, the health situation in much of the developing world remains severe, with lingering risks of subsequent waves of COVID-19 infection, and delayed roll-outs of vaccination campaigns similar to those that have taken place in developed nations. This, in turn, weighs down on the prospects for an economic recovery.

While the most recent estimates suggest that the outlook for 2021 is better than previously forecasted, the recovery is likely to be uneven and reach developed (and some developing) countries much earlier than most LDCs. This reflects first and foremost: (i) the enormous asymmetries in the resources available to respond to the economic downturn; (ii) the technologies available to cope with social distancing and global value chain (GVC) disruptions; and (iii) broader socioeconomic resilience. As shown by Box Figure 2.1, even if IMF forecasts are taken at face value, most LDCs are likely to take several years to recover the (meagre) level of per capita GDP they recorded before the COVID-19 outbreak. The median recovery across LDCs is expected to take about three years. Equally worrying, relatively poorer countries (i.e. those with lower GDP per capita at 2017 PPP, hence closer to the bottom of the quadrant) are expected to take longer to recover their pre-crisis level, with a dozen LDCs expected to take five or more years to recover.

Box Figure 2.1 Number of years to recover the pre-crisis (2019) level of GDP per capita



Years to recover the level of GDP per capita in 2019

Source: UNCTAD Secretariat calculation based on data from World Economic Outlook [accessed April 2021]. Notes: For the sake of readability countries are identified using standard ISO 3166-1 alpha-3 codes.

The heightened uncertainty surrounding how the world economy will evolve means that these projections need to be treated with caution, but they speak volumes to the risks of widening global inequalities in the wake of the COVID-19 pandemic. These projections also serve as a warning about the dangers of another lost decade for LDCs – one which could potentially derail the achievements of the 2030 Agenda for Sustainable Development.

* For a limited period and upon request from the beneficiary country, official bilateral creditors have granted, through the DSSI, the suspension of debt service payments to 73 eligible low- and lower middle-income countries. The G20 initiative took effect in May 2020 and has been extended through to December 2021. The Common Framework for Debt Treatments beyond the DSSI is an agreement between G20 and Paris Club countries to coordinate and cooperate on debt treatments for the countries eligible for the DSSI.

At this stage, the prospects of a two-speed recovery should be a serious source of concern with respect to global inequalities. Such a scenario could lead to LDCs suffering years of setbacks; it could also exacerbate both between-countries inequality and inequality within LDCs as a number of vulnerable categories (youth, women, informal and low-skilled workers, etc.) are being disproportionately affected by the downturn. This would jeopardize the achievement of the Sustainable Development Goals, and – more fundamentally – would likely result in heightened social and political instability, which could ultimately weaken global systemic resilience.

C. Medium-term considerations and boom-and-bust cycles

Beyond these long-term growth trends, it is instructive to assess any medium-term deviations from trends, i.e. growth accelerations and decelerations. The frequent occurrence of growth accelerations and collapses has already been documented in the literature (Hausmann et al., 2005; Arbache and Page, 2007, 2008). Several studies have associated volatile macroeconomic performance and boom-and-bust cycles to structural features common to many LDCs, e.g. a heightened dependence on primary commodity, weak institutions, and fragmented societies (Easterly and Levine, 1997; Rodrik, 1999; UNCTAD, 2010, 2013, 2016a). This line of reasoning assumes renewed relevance against the backdrop of the COVID-19 shock and the subsequent "great reset".

The present section empirically investigates the occurrence of growth acceleration and deceleration (or collapses) since 1971, extending the previous analysis in two directions: (i) it utilizes a different dataset (Penn World Table 10.0) that more appropriately accounts for changes in PPP across countries and over time (Feenstra et al., 2015); and (ii) it expands the period of analysis by a decade, thus covering also the aftermath of the global financial and economic crisis in 2008/9. In terms of methodology, growth in real per capita GDP is first computed from the expenditure-side real GDP at chained PPPs series (in 2017 dollars). The section follows the definition of growth accelerations (and decelerations) proposed by Arbache and Page (2007, 2008) and outlined in Box 2.2.

Table 2.1 reports the incidence and average growth rate recorded in each type of event by country group for the whole 1971–2019 period, and for the two subperiods identified earlier in the report. To

Compared to other country groups, LDCs stand out for having experienced deeper and more frequent growth collapses

complement the statistics, the total number of growth accelerations/decelerations identified in each year is depicted in Figure 2.7, again distinguishing across country groups. Three main considerations can be drawn from this evidence.

First, worldwide growth accelerations have been three times as frequent as decelerations in the 1971–2019 period. After some fluctuations in the 1970s and 1980s, the number of accelerations increased from the mid-1990s until the eruption of the global financial and economic crisis in 2008/9 but has remained below average since then. ¹⁰ The number of growth decelerations, conversely, was relatively high during the two earlier decades; it declined thereafter in the mid-1990s (notwithstanding a spike coinciding with the East Asian crisis of 1997), but picked up again in the wake of the global financial crisis of 2008/9 to decline once more in 2015–2016.

Second, LDCs stand out for having experienced growth collapses far more frequently than other countries: collapses represent 16 per cent of the total country-year observations in the case of LDCs, compared to 10 per cent for ODCs, and as little as 2 per cent for developed countries. Moreover, although this finding was largely driven by the erratic growth record of the 1971–1994 period, even in the subsequent period growth collapses remained more prevalent in LDCs than in other country groups, particularly developed nations.

Third, compared to other country groups, on average, LDCs have tended to enjoy slower growth accelerations and suffer slightly more severe decelerations. Average growth during accelerations barely reached 4 per cent per year in the case of LDCs, compared to 6 per cent for ODCs, and 5 per cent for developed nations. Although these discrepancies tended to narrow in the 1995–2019 subperiod, they nonetheless remained significant. With respect to decelerations, the striking asymmetry appears to be between developed and developing countries (whether or not LDCs), with the former suffering less frequent and less severe growth collapses.

The main results discussed here are robust with respect to the use of output-side real per capita GDP series.

Note that due to the use of 4-year moving averages in the criteria for identification of growth accelerations/decelerations, the first effects of the global financial and economic crisis appear as early as 2006.

Box 2.2 How are growth accelerations and decelerations defined?

While several approaches have been proposed in the literature to identify growth accelerations and decelerations, this section relies on the methodology proposed by Arbache and Page (2007, 2008). Accordingly, four conditions define an acceleration:

- 1. The forward four-year moving average growth minus the backward four-year moving average growth is greater than 0 for a given year;
- 2. The forward four-year moving average growth exceeds the country's average growth in the long term;
- 3. The forward four-year moving average GDP per capita exceeds the backward four-year moving average (ensuring that a recovery from a temporary shock is not considered an acceleration); and
- 4. A growth acceleration episode requires at least three years in a row satisfying conditions 1-to-3.

Symmetrically, for a deceleration to be identified, the following four conditions need to be met:

- 1. The forward four-year moving average growth minus the backward four-year moving average growth is lower than 0 for a given year;
- 2. The forward four-year moving average growth is below the country's average long-term growth;
- 3. The forward four-year moving average GDP per capita is below the backward four-year moving average; and
- 4. A growth deceleration episode requires at least three years in a row satisfying conditions 1–3.

The occurrence of growth acceleration/collapse in individual LDCs in the 1971–2019 period is reported in Figure 2.8. If all individual LDCs for which data is available had at least one instance of growth acceleration (which by construction lasted at least three years), the most successful LDCs spent a considerable number of years in this condition (the maximum being 19 years in the case of Cambodia). As expected, many of these LDCs are those found to be "catching up" in Figure 2.4, namely Bhutan, Cambodia, Lesotho and Mali. It is worth noting, however, that the occurrence of accelerations explains only one facet of the catching up process: other LDCs that were deemed to be "catching up", e.g. Bangladesh or Myanmar, did not benefit from

long spells of accelerated growth, but recorded an overall higher long-term growth trend.

Growth decelerations are also widespread across LDCs, with only three Asian countries (Bhutan, Lao People's Democratic Republic and Nepal) not posting any collapse in growth. At the other end of the spectrum, several LDCs among those shown in Figure 2.4 to be "falling behind" stand out for the disproportionate frequency of growth collapses, as in the case of the Central African Republic, Chad or Haiti. More generally, many (mainly commodity-dependent) LDCs have displayed both frequent accelerations and collapses, consistent with the view that their dependence on primary products has made them prone to boom-and-

Table 2.1 Incidence and speed of growth accelerations/decelerations by country groups

	1971–2019		1971	-1994	1995–2019					
	Acceleration	Deceleration	Acceleration	Deceleration	Acceleration	Deceleration				
	Incidence	of events (number of	years in acceleration,	deceleration divided/	by total number of ob	servations)				
World total	27%	9%	23%	13%	30%	6%				
LDCs	25%	16%	15%	23%	34%	9%				
Other developing countries	27%	11%	24%	13%	29%	7%				
Developed countries	29%	3%	28%	3%	29%	2%				
		Ave	erage growth during (each event (percentag	ges)					
World total	5,42	-4,11	4,01	-4,28	5,66	-3,95				
LDCs	4,22	-4,60	1,52	-4,22	4,84	-3,79				
Other developing countries	6,05	-4,19	4,90	-4,59	6,06	-4,28				
Developed countries	5,10	-2,49	4,08	-2,39	5,56	-2,58				

Source: UNCTAD Secretariat calculation based on data from Penn World Table 10.0 database.

Note: Since GDP series for as many as 43 countries start in 1970 (so that growth accelerations/decelerations are only identifiable after 1973), this cutoff year is applied across all countries for the sake of consistency; among LDCs, data for Yemen begin in 1989. For the sake of simplicity the M49 country classification is adopted above unlike in the rest of the report. To preserve comparability over time, the classification of country groups reflects the current composition (for instance, today's 46 LDCs) throughout the period.

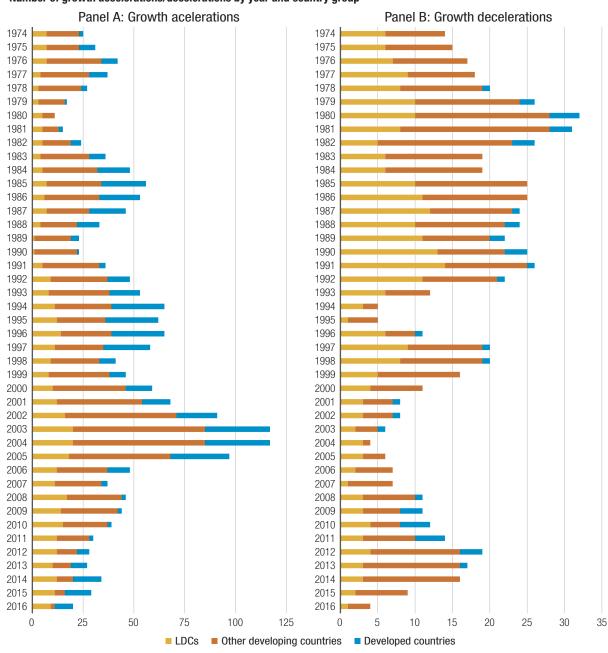


Figure 2.7

Number of growth accelerations/decelerations by year and country group

Source: UNCTAD Secretariat calculation based on data from Penn World Table 10.0 database.

Note: See Table 2.1.

bust cycles. This erratic growth record characterizes LDCs, such as Angola, Democratic Republic of Congo, Liberia, Malawi and Zambia.

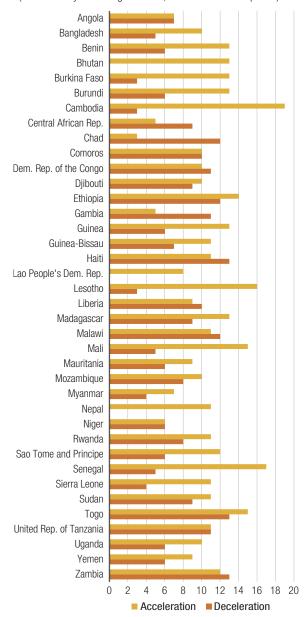
Overall, the above analysis points to specific traits of LDC vulnerabilities, and particularly to their heightened exposure to boom-and-bust cycles due to endogenous and exogenous conditions. If laying the foundations for sustainable growth and having the capacity to leverage growth accelerations is a pathway to catching up – equally important is

the capacity to avoid costly growth collapses. This reading of the evidence appears to be reinforced by the experience of four LDC graduates for which data are available (Botswana, Cabo Verde, Equatorial Guinea and Maldives). Of the four, only two suffered growth decelerations over the past 50 years: Equatorial Guinea (twice, in periods 1977–1979 and 1990–1992) and Cabo Verde (in 1973–1975, at a time when the country was on the verge of gaining its independence from Portugal).

Figure 2.8

Occurrences of growth accelerations/decelerations by LDC

(Numbers of years in a given state, in the 1971–2019 period)



Source: UNCTAD Secretariat calculation based on data from Penn World Table 10.0 database.

Note: Penn World Table 10.0 data for the United Republic of Tanzania only cover its mainland.

The importance of resilience and of laying the foundations for sustainable growth is particularly apt in the current juncture as the international community scrambles to minimize the long-lasting impacts of the COVID-19 shock. If anything can be learnt from the experience of the past 50 years, it is that stronger international cooperation is needed to prevent a global recession from derailing the medium-term growth trajectory of LDCs, while renewing resilience-building efforts.

D. Patterns of growth: structural dynamics, inclusivity and sustainability

The past five decades have seen an intense debate on the role of economic growth in the development process and how it shapes related distributional, social and environmental outcomes. If achieving economic growth has always been among the top priorities for LDCs, until the late 1970s there was a broad recognition that this would hinge on addressing the structural nature of their development challenges, and the uneven terms of their integration in the global economy, as reflected in the First and Second UN Development Decades (1960-1970 and 1971-1980, respectively) and in the Substantial New Programme of Action (SNPA) for the LDCs (1981).11 With the subsequent emergence of the Washington Consensus, the policy focus shifted towards "getting prices right" as it was assumed that growth and trickle-down would do the rest. The adoption of the Paris Programme of Action (PPoA) for the LDCs in 1990, and more explicitly the adoption of the Millennium Development Goals in 2000, gradually brought renewed attention to social aspects of development, and the gradual re-emergence of a more nuanced view that acknowledges the complex interrelations between the economic, social and environmental sphere. While this became more explicit with the adoption of the Sustainable Development Goals in 2015, the COVID-19 pandemic has added more impetus to this rethinking. The cascading of a global health emergency onto the economic, environmental and social spheres has laid bare some systemic risks and deep-seated patterns of interdependence that can no longer be overlooked. It has also put a spotlight on the fact that resilience is intimately related to the structural features of an economy, including the terms of its integration in the global economy, as well as its complex interrelationships with broader social and ecological systems. The crisis has therefore prompted a growing recognition that economic growth is not just an end in itself, but rather a means to improve well-being, lessen inequalities, build endogenous resilience, and contribute to a sustainable stewardship of the environment.

From the perspective of an LDC, growing attention needs to be paid to the importance of distinct patterns of growth in driving different socioeconomic outcomes, particularly if economic growth continues

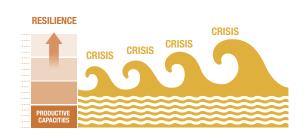
Note that the SNPA already contained quantitative growth targets for LDCs, as discussed in chapter 3.

to be regarded as key to sustainable development (Nissanke and Thorbecke, 2007; Fosu, 2009). In this context, UNCTAD has underscored how, in the long-term, growth follows from the process of the development of productive capacities, and is hence inevitably shaped by structural dynamics affecting not only capital accumulation, but also the intersectoral reallocation of production factors, and the gradual acquisition of productive capabilities and production linkages (UNCTAD, 2006, 2010, 2016b, 2020c, 2020g). UNCTAD has also highlighted how inclusivity and poverty reduction can only be achieved sustainably as part of a long-term process of structural transformation; this would entail a diversification of the economy away from primary commodity production towards one in which more productive employment is generated, domestic resource mobilization is strengthened, and where the economy improves its energy- and resource-intensity (UNCTAD, 2010, 2012a, 2016b, 2017b, 2018a). Moreover, this process typically goes hand in hand with the diversification of export markets; as such, it may be possible to establish a mutually supportive relationship between achieving LDC economic diversification and better harnessing South-South trade and regional integration.

With this premise in mind, the rest of this section analyses: (i) the different patterns of growth across LDCs; (ii) outlines the key underpinnings of the progress achieved by individual countries; and (iii) identifies commonalities that could inform on-going deliberations.

1. Productive capacity development and structural transformation

An abundant body of literature describes the sluggish development of the productive capacities of LDCs, and the limited extent to which their economic growth has been accompanied by structural transformation (UNCTAD, 2006, 2014a, 2020a). Analysis of UNCTAD's Productive Capacities Index (PCI), among others, has documented the wide gap that continue to separate LDCs from both developed countries and ODCs (UNCTAD, 2020a, 2020h). Although most LDCs recorded some progress over the past decade, only a small number of them have been able to significantly close such gaps. In addition, even amongst the best performing LDCs, many of which have been slated for graduation from the LDC category at the recent 2021 Triennial Review by the Committee for Development Policy (CDP), the process of sophistication of the economy is barely incipient, with the bulk of production and exports accounted



The resilience of LDCs ultimately stems from the development of their productive capacities, which shape their integration in the global economy, and within social and ecological systems

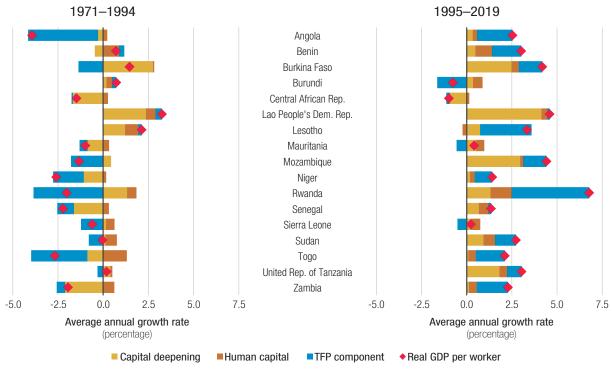
for by relatively low-productivity activities and/or low-complexity product (UNCTAD, Forthcoming).

Moreover, if recent technological innovations can offer some scope for leapfrogging and productivity gains, e.g. decentralized electricity generation, this will still require massive investments in end-use capital, machinery and complementary skills. Similarly, the emergence of megatrends, such as servicification, digitalization and broader technological waves, may well put a premium on some immaterial elements of productive capacities; however, in the context of an LDC it remains hard to conceive how it could dispense with the need to acquire much-needed tangible capital investments. This is notably the case with respect to infrastructural provision – with access to energy being a key driver of productive upgrading (UNCTAD, 2017b) - but also of basic manufacturing capabilities, without which a meaningful engagement in advanced production technologies remains a chimera (UNCTAD, 2018b, 2020a; UNIDO, 2019).

Without repeating the analysis carried out in recent issues of this report, this section offers three complementary insights, and looks at; (i) development accounting; (ii) structural change; and (iii) the performance of LDCs in terms of the Economic Complexity Index (ECI). Development accounting essentially represents a methodology, stemming from the neoclassical growth theory, which traces changes in GDP per capita to their proximate determinants, namely the accumulation of production factors and total factor productivity (TFP) (Caselli, 2005; Feenstra et al., 2015). Although not free from criticism, development accounting can be a useful tool to shed more light on the role of capital deepening and human capital accumulation in the

Figure 2.9

Development accounting decomposition of growth in real GDP per worker for selected LDCs



Source: UNCTAD Secretariat calculation based on data from Penn World Tables 10.0 database.

Note: Penn World Table 10.0 data for the United Republic of Tanzania only cover its mainland.

context of an LDC.¹² The result of this exercise, for the 17 LDCs for which the required data are available, is presented in Figure 2.9.¹³

In relation to the first subperiod, the analysis shows that capital deepening played a critical role for the LDCs with rising real GDP per worker, and was in fact the main driver of growth in the case of the fastest economies, namely: Burkina Faso, Lao

In a nutshell, the derivation of development accounting decomposition in Figure 2.9 is obtained from an aggregate constant return to scale production function

$$Y=A_t (L_t H_t)^{\alpha} K_t^{1-\alpha}$$

in which Y_t , L_t , H_t and K_t represent respectively income, labour human and physical capital at time t, whereas A_t is the TFP. Through total differentiation one obtains

$$\dot{y} = \dot{A} + \alpha \dot{H} + (1-\alpha) \dot{k}$$

whereby the dot indicates the growth rate of the corresponding variable, and letters y and k indicate respectively income and capital in per-worker terms.

People's Democratic Republic and Lesotho. Human capital accumulation also played a positive – albeit circumscribed – role in the overwhelming majority of LDCs; while TFP residuals mirror the main episodes of contraction in GDP per worker, arguably also accounting for intra-cyclical factors. In the 1995–2019 subperiod, capital deepening remained important in fast-growing countries, such as Burkina Faso, Lao People's Democratic Republic, Mozambique and United Republic of Tanzania. This time the TFP residual also appears to have played an important role, notably in other fast-developing countries, e.g. Lesotho or Rwanda and/or natural-resource-rich one, e.g. Angola or Zambia.

Overall, capital deepening accounted for a median share of close to 40 per cent of the growth in GDP per worker, with human capital accumulation accounting for another 10 per cent. This evidence is broadly in line with the literature, and underscores the importance of capital accumulation, especially if we consider that:

 Physical capital only covers produced capital, hence the impact of natural resources and subsoil assets is inevitably captured by the TFP component (Feenstra et al., 2015); and

The three main lines of criticism on the development accounting framework focus on: (i) its saving-driven nature, whereby no role is foreseen for aggregate demand in determining investment decisions; (ii) the fact that it wipes out possible interactions between distinct sources of growth (say capital deepening and TFP); and (iii) the adequacy of the notion of aggregate production function to contexts where productivity levels differ across sectors (Taylor, 2004; Abramovitz, 1989; Banerjee and Duflo, 2005).

 Capital accumulation is heavily affected by institutional factors, conflicts and political instability – a critical issue for a number of LDCs – often leaving long-term adverse legacies (Nkurunziza, 2019).¹⁴

A key determinant of productivity dynamics is the pace and direction of structural change, i.e. the process of intersectoral reallocation of inputs and the corresponding changes in the composition of output, which typically accompany economic growth. Generally speaking, structural change has progressed at a sluggish pace in LDCs, mainly through the contraction of agricultural share of value added (from about 35 per cent in 1971 to 21 per cent in 2019), and a corresponding expansion of the weight of services (from 43 to 49 per cent) and industry (from 23 to 30 per cent). The increase in the weight of industry was, however, mainly accounted for by mining and constructions, while the manufacturing share grew from only 11.6 to 13.6 per cent. Simultaneously, while agriculture still employs the majority of the labour force (55 per cent in 2019), it nonetheless experienced a steady decline; the employment share of services' rose from 21 to 32 per cent in 1995-2019, and industry's share of employment rose from only from 8 to 12 per cent over the same period.

In relation to average labour productivity across the whole economy, its evolution is determined by the interplay between a within-sector component – stemming from capital deepening, technological change, or reduction of misallocation across plants – and a structural change component resulting from labour reallocation across sectors (McMillan and Rodrik, 2011; McMillan et al., 2014, 2017; UNCTAD, 2020g). Typically, when labour flows to relatively higher productivity activities, such as manufacturing and advanced services, this reallocation gives rise to a so-called "growth enhancing structural"

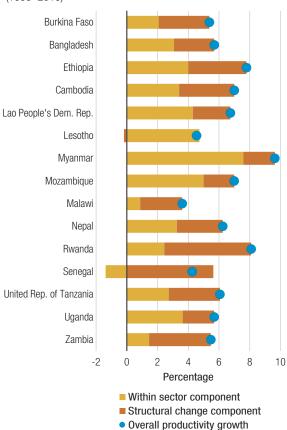
$$\Delta Y_t = \sum_{i=0}^{\infty} \theta_{i,t-k} \, \Delta y_{i,t} + \sum_{i=0}^{\infty} y_{i,t} \, \Delta \theta_{i,t}$$

where Y_t and $y_{i,t}$ refer to economy-wide and sectoral labour productivity levels, respectively, and $\theta_{i,t}$ is the share of employment in sector i. The Δ operator denotes the change in productivity or employment shares between t-k and t. The first term in the expression corresponds to the within sector component, while the second one to the structural change component.

Figure 2.10

Decomposition of annual labor productivity growth in selected LDCs

(1995-2018)



Source: UNCTAD Secretariat calculation based on data from Vries et al. (2021).

change" (McMillan and Rodrik, 2011). This additional boost fails to materialize if labour leaves agriculture but is instead forced to resort to underemployment, or low-productivity small businesses (UNCTAD, 2018a).

The decomposition of labour productivity growth in selected LDCs for which data are available is presented in Figure 2.10; this applies the methodology developed by McMillan and Rodrik (2011), as well as recently released data from the Economic Transformation Database (de Vries et al., 2021). If In the period considered (1995–2018), which overlaps with the high growth subperiod identified earlier, labour productivity growth averaged 6 per cent per year across LDCs, with the structural change component accounting for more than half of this increase. This

Later analysis on structural change suggests that the TFP dynamism for Angola, Mozambique, and to some extent Zambia, is arguably linked to the boom in extractive industries (natural resources and subsoil assets being excluded from the computation of physical capital); in the case of Rwanda rapid TFP growth was largely due to sectoral labour reallocation.

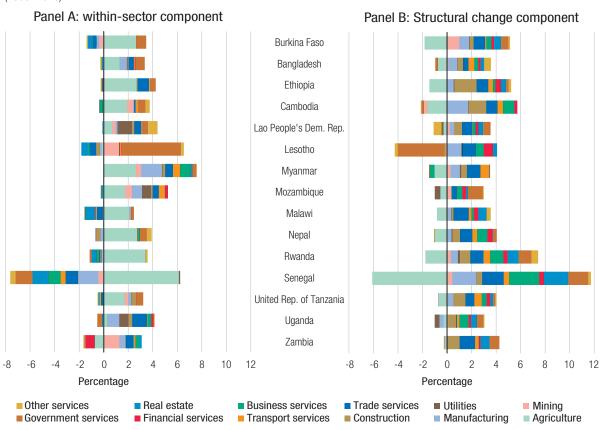
Analytically, the decomposition carried out can be expressed as:

The estimates use the most granular sectoral breakdown available for the following 12 sectors, namely: agriculture; mining; manufacturing; utilities; construction; trade services; transport services; business services; financial services; real estate; government services; and other services.

confirms the encouraging findings of related literature that document, since the 2000s, the emergence of a more growth-enhancing pattern of structural change, especially in the African region (McMillan et al., 2014; de Vries et al., 2021).

The within-sector and structural change components are further decomposed across sectors in Figure 2.11 (in Panels A and B, respectively) to give a more precise idea of the underlying pattern of structural change. Despite cross-country heterogeneity, some commonalities are visible. First, agriculture was the main driver of within-sector productivity growth in the large majority of LDCs (Panel A), reflecting its large employment share, but also that agricultural value-added expanded in the context of declining agricultural employment (which explains the negative contribution of the sector in Panel B). The rise in agricultural productivity is of fundamental importance in supporting structural change, not only because of poverty and food insecurity concerns, but also because the availability of "wage goods" reverberates on the viability of other industries (essentially through wage inflation), as well as on the balance of payment equilibrium (in the case of countries being dependent on food imports). Conversely, the contribution of the manufacturing sector to within-sector productivity growth was visible only in some LDCs (Bangladesh, Myanmar, Mozambique, Uganda and Zambia), even though the manufacturing employment share increased in all LDCs, with the exception of Uganda. Second, because of productivity differentials across sectors, labour reallocation from agriculture to other sectors is the critical driver of the structural change component (Panel B). In this respect, if manufacturing plays a positive and visible role in nearly all LDCs, the contribution of the services sectors (especially trade and business services) is larger because of their greater scope to generate employment. Third, the capital-intensive nature of the mining sector, with its circumscribed pool of highly productive workers, emerges quite starkly from the two panels, especially if considering that the period under analysis saw a rapid scale up of mining production and related exports of primary commodities. Although mining contributed visibly to within-sector productivity growth in most natural-resource rich countries, its

Figure 2.11
Sectoral decomposition of the within-sector and structural change components in selected LDCs (1995–2018)



Source: UNCTAD Secretariat calculation based on data from Vries et al. (2021).

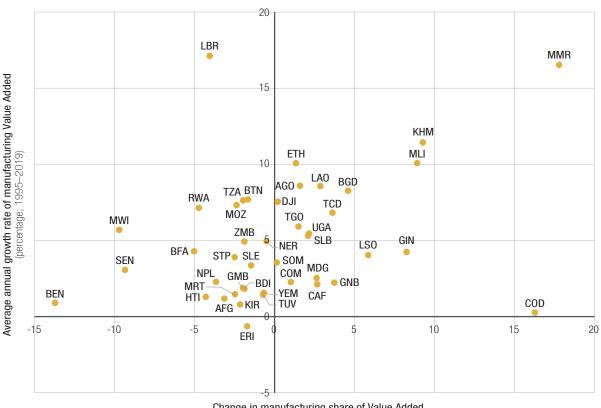
contribution through structural change was much smaller, as mining employment shares did not vary substantially over time.

Traditionally, the special focus on manufacturing in this context is due to its scope for job creation and, above all, for productivity spillovers to the rest of the economy - spillovers which could give rise to increasing returns to scale (UNCTAD, 2016b). More recently, some doubts have arisen on the extent to which industrialization can still be a driving force behind sectoral labour reallocation in today's world; moreover, with the advent of digitalization and servicification some features traditionally ascribed to manufacturing, e.g. spillovers, scale economies and innovation, are increasingly shared by some services' segments (Rodrik, 2016; Hallward-Driemeier and Nayyar, 2017; Nayyar et al., 2018; UNCTAD, 2020a). While acknowledging these important nuances, which are in line with the analysis just presented, here it is worth focus closely on the industrialization ambitions of LDCs, particularly those explicitly enshrined in the IPoA and the 2030 Agenda for Sustainable Development, which both include related goals.

The focus on manufacturing, moreover, appears consistent with a recent study highlighting how the conditional convergence hypothesis fails to hold in the post-1989 globalization period, and contending that the most effective way to generate faster growth in per capita income is by raising the employment share of manufacturing relative to agriculture and services (Nell, 2020).

In the long-term, the industrialization performance of LDCs has been lukewarm, with a few exceptions, mainly but not exclusively in the Asian region. Between 1971 and 1995, the share of the manufacturing sector in total value added declined in 21 of the 40 LDCs for whom data are available. This might be expected given the performance of these economies over this period; however, more interesting still is to look at the evolution of the manufacturing sector during the high-growth period between 1995 and 2019. Figure 2.12 provides a snapshot of this evolution, looking on the horizontal axis at the change in manufacturing share of value added, and on the vertical axis at the average annual growth rate in real manufacturing value added. The data reveal that nearly

Figure 2.12
Evolution of the manufacturing sector in the LDCs



Change in manufacturing share of Value Added (percentage; 1995–2019)

Source: UNCTAD Secretariat calculation based on data from UNCTADstat database [accessed April 2021]. Notes: For the sake of readability countries are identified by standard ISO 3166-1 alpha-3 codes.

LDC progress towards sustainable industrialization has been lukewarm, and the COVID-19 shock threatens to thwart even the few cases of incipient structural transformation

all LDCs recorded an expansion in manufacturing value added, but in the majority of cases (23 out of 43), this was outpaced by growth in other sectors, resulting in a decline in the overall weight of manufacturing in total value added. Among the countries that avoided such a "relative de-industrialization" are mainly rapidly growing LDCs, such as Bangladesh, Cambodia, Lao People's Democratic Republic and Myanmar, but also some African LDCs, e.g. Ethiopia, Guinea and Mali.

Recent studies have also highlighted how the trend towards premature de-industrialization began to reverse in the early 2000s, including in various African countries (McMillan et al., 2014; Kruse et al., 2021). These encouraging signs are surely important and may be overlooked from a long-term perspective. In the light of the sharp recession triggered by the COVID-19 shock, it remains to be seen if the incipient process of industrialization will continue unabated, or if the shock will thwart these efforts.

A related element of analysis corroborating the view that economic growth in LDCs in the 1995–2019 period was only weakly associated with structural transformation and economic sophistication stems from the literature on economic complexity (Hidalgo et al., 2009; Hausmann and Hidalgo, 2011). This approach uses the following four structural features to characterize the network linking countries to their exported products:

- The negative relationship between the diversification of a country, and the average ubiquity of its exports (i.e. the number of other countries able to produce them);
- 2. The non-normal distributions of product ubiquity;
- 3. Country diversification; and
- 4. Product co-export (Hidalgo et al., 2009; Hausmann and Hidalgo, 2011).

The structural characteristics of the network allow inferring each country's economic complexity, based on the diversity and sophistication of the productive capabilities embedded in its exports. Countries able to sustain a diverse range of productive know-how, with sophisticated specific capabilities can produce a wide array of goods, including complex products few other

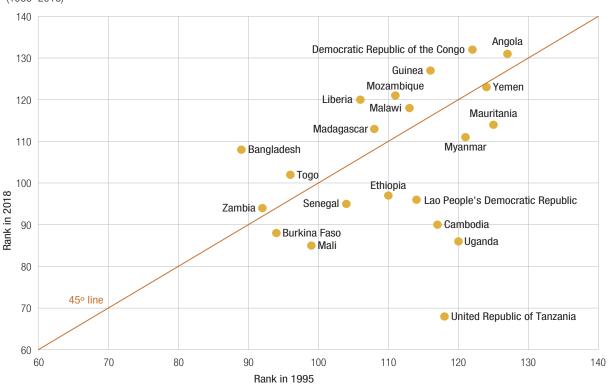
countries can make. Accordingly, the complexity of an economy represents a metric of the sophistication of its capabilities, based on the diversity and complexity of its export basket (i.e. how many other countries can produce the same products, and what their respective economic complexity is). This information is summarized in the Economic Complexity Index (ECI), which in strict mathematical terms is defined through an eigenvector of the matrix connecting countries to the products they export. In turn, the ECI represents a good predictor of future growth, suggesting that it does indeed capture structural features of the underlying patterns of capabilities acquisition, despite stemming only from international trade relations. An intrinsic limitation of the ECI, however, is that it does not capture services exports, and hence overlooks an increasingly prominent part of the economy.

Looking at the ranking in terms of ECI provides a useful metric to assess how each country's capabilities compares with those of its competitors. Figure 2.13 visualizes how this ranking evolved and compares 1995 (the first available data) and 2018 (the latest). The limited degree of sophistication of LDC economy stands out clearly. In 2018, eight of the bottom-ranked 20 countries were LDCs, and the highest ranking LDCs (the United Republic of Tanzania) was only 68th out of 133 countries for which data are available. Equally important, roughly half of the LDCs (those above the 45-degree line in Figure 2.13) lost some positions over time, suggesting that their acquisition of capabilities has lagged that of their competitors. As expected, most of the best performing LDCs in terms of income per capita (Figure 2.4) also improved their ECI ranking. 17 In spite of this, rankings tend to be rather persistent over time, with a correlation of 0.84 between the ranking in 1995 and 2018, resulting in relatively small changes (with an LDC average of five positions).

Overall, two main conclusions can be drawn to inform strategic efforts to "build back better". Structural transformation and the reallocation of factors from low productivity to higher productivity activities remain critical to TFP dynamics, and hence to sustainable growth. This is all the more valid in LDCs where sectoral productivity gaps are particularly wide, and where a substantial pool of labour toils in semi-subsistence agriculture or is "underemployed". This implies that an

The main exception to this pattern is Bangladesh, which recorded steady and sustained growth over the period considered, despite a poorly diversified export structure, largely hinging on ready-made garment. Between 1995 and 2018, the country lost 19 positions under the ECI. Bangladesh's export diversification challenges are discussed in greater detail in the country's Vulnerability Profile (UNCTAD, forthcoming).

Figure 2.13
Changes in LDC ranking according to Economic Complexity Index (1995–2018)



Source: UNCTAD Secretariat calculation based on data from Atlas of Economic Complexity database [accessed May 2021].

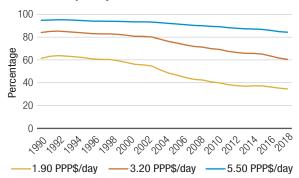
emphasis on productive capacities acquisition, through the intertwined processes of capital accumulation, structural change and productive capabilities acquisition, plays a key role in laying the ground for sustainable development. In addition, the above analysis shows that if, during the period of relatively rapid GDP growth, some LDCs managed to kick-start a long-term process of structural transformation, this is at best barely incipient. Moreover, it is unclear whether these emerging cases of nascent industrialization will continue unabated in the midst of the sharp recession triggered by the COVID-19 outbreak, or if the downturn will thwart them. Moreover, structural transformation has remained largely sluggish in about half of the LDCs. Such a mixed picture is largely linked to the challenges of nurturing the emergence of a dense network of mid- and large-sized enterprises, connected through dense input-output linkages, both domestically and in global and regional value chains (UNCTAD, 2018a; Nkurunziza, 2019).

2. Growth and inclusiveness

Notwithstanding considerable variation across countries, there is little question that economic growth has been a key driver in reducing poverty

levels in the LDCs, (UNCTAD, 2020a; World Bank, 2020). Between 1990 and 2019 poverty levels in LDCs have shrunk by 27, 23 and 10 percentage points, respectively, depending on which international poverty line is utilized: the \$1.90 per day; \$3.20 per day; or the \$5.50 per day (Figure 2.14). Even prior to the COVID-19 shock, historical trends show that the pace of poverty reduction slowed in the wake of

Figure 2.14
Historical trends in headcount ratios in LDCs, by international poverty line



Source: UNCTAD Secretariat calculation based on data from PovcalNet database [accessed April 2021].

the global financial and economic crisis of 2008/9, at least in relation to the \$1.90 and \$5.50 daily poverty lines. Although it is too early to rigorously

assess the full impact of the COVID-19 pandemic, preliminary assessments suggest that the cost of the crisis is severe across all poverty lines (Box 2.3).

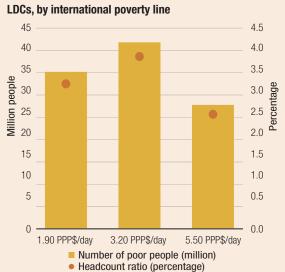
Box 2.3 The socioeconomic costs of the COVID-19 pandemic in the LDCs

Although household survey data to rigorously assess the impact of COVID-19 pandemic are not yet available, preliminary estimations and early evidence based on rapid phone interviews clearly anticipate a dramatic rise of worldwide poverty levels (Sumner et al., 2020; Valensisi, 2020; Alkire et al., 2021). As months have gone by, and the health and economic situation has continued to deteriorate, estimates of the pandemic's impact on global poverty have been revised upward, and currently stand at 119–124 million additional people living with less than \$1.90 per day (Lakner et al., 2021). South Asia and Africa are found to be particularly badly hit, accounting for the bulk of the people pushed into poverty due to the fallout from the COVID-19 pandemic (Valensisi, 2020; World Bank, 2020).

This box updates previous estimates for LDCs contained in UNCTAD (2020a), applying the so-called line-up methodology to the April 2021 vintage of IMF's growth forecasts, contained in the World Economic Outlook database. This methodology – discussed in detail in Valensisi (2020) – allows for a comparison of poverty estimates consistent with IMF's downgrading of growth forecasts between October 2019 (i.e. the latest round of pre-COVID-19 forecasts

used as a counterfactual) and those of April 2021. While this so-called line-up exercise is fraught with uncertainties, a number of reasons suggest that the figures obtained are - if anything - a conservative estimate. First, simulations are only run until the end of 2021, and therefore neglects any protracted effect of the crisis beyond that date (Box 2.1). Second, the methodology employed implicitly assumes that the shock does not affect the distribution of income; however, it is reasonable to believe that poorer segments of the population will be the hardest hit. For example, with 70 per cent of the LDC labour force self-employed, strict social distancing is likely to exert a disproportionate effect on informal workers and micro- small- and medium-sized enterprises (MSME), which already had meagre resources to weather confinements without disruptions (UNCTAD, 2020a; Djankov and Panizza, 2020). Third, this methodology does not account for the fact that deprivation across multiple dimensions tend to compound each other, and that adverse coping mechanisms may give rise to long-term effects on households' living standards, for instance when the school drop-out, or the sale of assets to weather a temporary crisis, end up lowering future income prospects, potentially turning a temporary shock (so-called "transient poverty") into a longer-term phenomenon ("chronic poverty").

Box Figure 2.2 Increase in poverty due to the COVID-19 pandemic in the



Source: UNCTAD Secretariat calculation based on data from PovcalNet and World Economic Outlook [accessed April 2021].

With the preceding caveats, the updated estimates for LDCs confirm a further deterioration compared to 2020 results – estimates point to a rise of 35 million additional people living in extreme poverty (that is below \$1.90 per day) in the LDCs as a result of the COVID-19 pandemic. This is equivalent to an increase of 3.3 percentage points in the corresponding headcount ratio, compared to the counterfactual. The increase in poverty due to the COVID-19 pandemic is even larger – 42 million people or +4 percentage point in the headcount ratio – when assessed against the \$3.20 per day poverty line. When assessed against the (more reasonable) poverty line of \$5.50 per day, the COVID-19 outbreak is found to increase the poverty headcount by 2.6 percentage points (28 million people), but largely because the overwhelming majority of LDC population (over 80 per cent) was already living below the poverty line prior to the pandemic.

These aggregate figures hide, admittedly, a large heterogeneity across individual LDCs, reflecting both the differential incidence of poverty prior to the COVID-19 outbreak, and the distinct patterns of crisis/recovery. In this respect, LDCs such as Afghanistan, Democratic Republic of Congo, Mozambique, Sudan and United Republic of Tanzania, account for a substantial share of the "new poor". It remains clear that the setbacks triggered by the COVID-19 pandemic will pose major challenges to the achievement of 2030 Agenda for Sustainable Development, and that sustainable poverty reduction efforts will require specific attention in the new PoA for LDCs.

Moreover, the longer the downturn engulfs LDCs, the more dramatic are the humanitarian costs likely to be; this will especially be the case if the crisis – so far largely limited to urban areas –extends to rural areas and disrupts food and agricultural value chains. ¹⁸

These aggregate figures hide, admittedly, a large heterogeneity across individual LDCs, reflecting both the differential incidence of poverty prior to the COVID-19 outbreak, and the distinct patterns of crisis/recovery. In this respect, LDCs such as Afghanistan, Democratic Republic of Congo, Mozambique, Sudan and United Republic of Tanzania, account for a substantial share of the "new poor". It remains clear that the setbacks triggered by the COVID-19 pandemic will pose major challenges to the achievement of 2030 Agenda for Sustainable Development, and that sustainable poverty reduction efforts will require specific attention in the new PoA for LDCs.

What remains clear is that LDCs continue to be characterized by deep and widespread levels of poverty, to the point of representing the main locus of extreme poverty worldwide (UNCTAD, 2020a). In 2021, it is estimated that on average close to 35 per cent of LDC population is living below the international extreme poverty line of \$1.90 per day. Similarly, the incidence of poverty using the \$3.20 per day is 60 per cent, while the headcount ratio under the highest international poverty line of \$5.50 per day is estimated at 84 per cent.

Against this background, it is clear that inclusive growth plays a central role from a developmental point of view. The depth and pervasiveness of poverty generates widespread and often reinforcing patterns of deprivation; this, in turn, can dampen economic dynamism by, among others: (i) undercutting human capital accumulation; (ii) lowering cognitive skills; (iii) lessening labour productivity; and (iv) potentially leading to undue pressure on natural resources (UNCTAD, 2002, 2016a; Mullainathan and Shafir, 2014; UNDP and OPHI, 2020).19 The limited purchasing power of such a wide segment of the population constrains domestic markets, potentially giving rise to poverty traps (UNCTAD, 2002, 2016a). Moreover, widespread poverty and elevated inequality can have perverse effects on the institutional framework,

Economic growth is a key driver of sustainable development, but the sectoral and spatial pattern of growth, as well as related policies, have an important bearing on inclusivity and sustainability

fueling instability and undermining the social contract (UNCTAD, 2002, 2016a; Collier, 2008).

A broad body of literature has underscored how, even if income growth is the major driving force behind changes in poverty rates, differences in the distributional, geographical and structural patterns of economic expansion play a key role in explaining the trajectory of individual countries (Nissanke and Thorbecke, 2007; Fosu, 2009). In particular, growth in the agricultural sector and employment-generating expansion in manufacturing, or in relatively more productive services, are typically found to pay the highest dividends in reducing poverty (Warr, 2002; Christiaensen et al., 2011).

Table 2.2 highlights the heterogeneity across individual LDCs and provides a summary of their record in terms of inclusive growth in the post-2000 period, following the established methodology of pro-poor growth (Ravallion and Chen, 2003).²⁰ To do so, the table relies on household-level data on consumption or income in two given years, and compares the average annual growth rate (AGR) for the whole population to the so-called pro-poor growth rate (PPGR), i.e. the mean yearly growth rate in consumption/income for the segment of population found to be below the poverty line.^{21,22}

The impact of COVID-19 pandemic is compounded by other idiosyncratic shocks such as droughts, conflicts and locust, which already triggered alarming worsening of the food security outlook in LDCs, e.g. Madagascar, Yemen, or Ethiopia.

Beyond money-metric notions of poverty, the analyses based on multidimensional poverty emphasize the fact that multiple overlapping facets of deprivation tend to interlinked and reinforce each other (UNDP and OPHI, 2020).

As a first approximation, pro-poor growth is here regarded as a proxy for inclusiveness, even though pro-poor growth focuses on the poorer segments of the population and not on the whole distributional spectrum. Note also that by construction the analysis cannot take within-household inequality into account as the data are collected at a household level and transformed in per capita values, with every member being assigned an equal share of household income or consumption.

The analysis is carried out for the longest available time span in the post-2000 period; as household surveys are carried out sporadically and in different years, the period covered varies from one country to the other.

There are typically ample discrepancies between the growth of household final consumption expenditure derived from the national accounting systems, and that of mean consumption in household surveys. These inconsistencies stem mainly from the fact that wealthier households are less likely to participate in surveys and are more prone to under-reporting (Korinek et al., 2006).

Based on a comparison between AGR and PPGR, one can the define the following cases:

- Growth is inclusive in both an absolute and relative sense if PPGR > AGR > 0;
- Growth is inclusive only in an absolute sense if AGR > PPGR > 0;
- Growth is not inclusive if AGR > 0 > PPGR; and
- Growth does not materialize at aggregate level nor for the poor, if AGR, PPGR < 0.

Table 2.2 should be interpreted in conjunction with Figure 2.15; the latter reports the growth incidence curve for selected LDCs, along with the corresponding AGR and PPGR, as well as the initial and final headcount ratios. It highlights that as many as 17 LDCs (out of 39 for which data are available) displayed a pattern of inclusive growth, in both relative and absolute terms. This is the case for most of the fastest-growing LDCs, including Lesotho and Bangladesh (whose growth incidence curves

Table 2.2

Summary table of LDC growth patterns
(Variable years depending on post-2000 data availability)

Growti	n pattern	Country	Initial year	Final year	Average growth rate	Pro-poor growth rate	Headcount rate (initial year)	Headcount rate (final year)	
		Lesotho	2003	2017	5,2	7,0	61,9	27,8	
		Liberia	2007	2016	4,8	5,2	71,4	44,4	
irowth in average		Nepal	2003	2010	4,6	8,1	49,9	15,0	
		Niger	2005	2014	4,5	6,8	75,3	45,4	
crowth in average er capita income		Bhutan	2003	2017	4,3	4,4	17,8	1,5	
		Gambia	2003	2015	3,7	6,7	46,1	10,3	
		Solomon	2005	2012	3,3	7,4	48,6	24,7	
	Inclusive in both	Sierra Leone	2003	2018	3,1	3,8	73,0	43,0	
	absolute and	Guinea	2002	2012	3,0	5,1	63,0	36,1	
	relative sense	Uganda	2000	2017	2,7	2,7	66,8	41,5	
		Rwanda	2000	2017	2,3	2,9	78,0	56,5	
		Bangladesh	2000	2016	1,7	1,8	34,2	14,3	
		Mauritania	2000	2014	1,7	3,1	19,6	6,0	
		Burkina Faso	2003	2014	1,4	3,5	57,4	43,8	
		Myanmar	2015	2017	1,3	14,3	4,8	1,4	
		Mali	2001	2010	0,7	2,6	58,8	50,3	
Growth in average		Timor-Leste	2001	2014	0,6	2,2	38,5	22,0	
per capita income		Dem. Rep. of the Congo	2005	2012	10,6	10,6	94,3	77,2	
		Chad	2003	2011	6,1	4,6	62,7	38,1	
		Tanzania	2000	2018	4,8	4,5	86,2	49,4	
		Mozambique	2003	2014	4,5	2,9	79,9	63,7	
		Lao People's Dem. Rep.	2002	2018	3,6	2,4	32,1	10,0	
	Inclusive in	Ethiopia	2000	2016	2,8	2,1	63,4	32,6	
	absolute sense only	Haiti	2001	2012	2,5	1,6	63,2	53,6	
		Burundi	2006	2014	1,6	0,4	78,6	72,8	
		Senegal	2001	2011	1,3	1,0	49,1	38,5	
		Malawi	2004	2016	1,1	0,4	73,9	70,8	
		Djibouti	2002	2017	0,9	0,1	20,2	17,0	
		Togo	2006	2015	0,8	0,1	56,6	51,1	
		Central African Rep.	2003	2008	4,2	-2,4	64,5	65,9	
		Sao Tome and Principe	2001	2017	2,4	-1,6	31,4	35,6	
	Non inclusive	Zambia	2003	2015	0,8	-3,9	52,1	58,8	
	(poor worse off)	Benin	2003	2015	0,4	-2,9	49,0	49,6	
		Guinea-Bissau			-4,6	56,6	68,4		
	But growth for the poor	Sudan	2009	2014	-0,5	2,7	15,7	12,2	
	But relatively	Angola	2000	2018	-1,9	-1,3	36,4	51,8	
Decline in average	smaller decline	Madagascar	2001	2012	-2,1	-0,9	68,4	77,4	
per capita income	among the poor	Comoros	2004	2014	-3,0	-2,2	15,0	19,1	
	Sharper decline among the poor	Yemen	2005	2014	-1,6	-2,7	9,4	18,3	

 $\textit{Source:} \ \ \text{UNCTAD Secretariat calculation based on data from PovcalNet database [accessed April 2021]}.$

Note: The headcount rates are obtained adopting the extreme poverty line of \$1.90 per day.

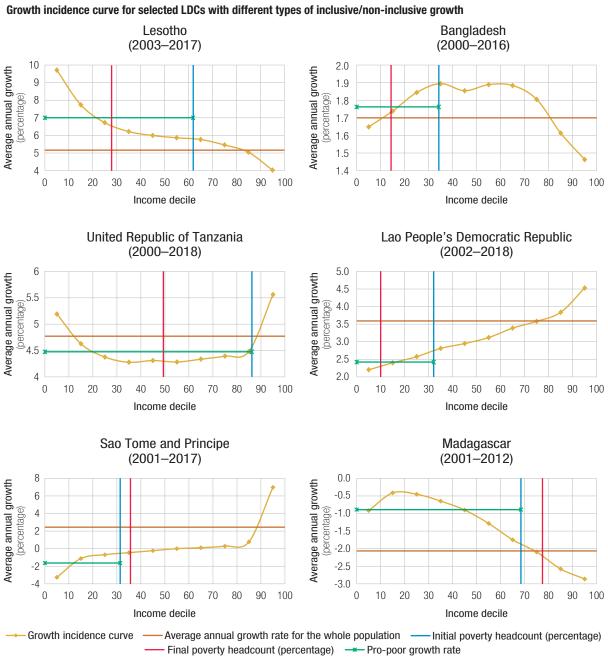
are displayed in Figure 2.15), but also for other LDCs with a less impressive growth record. Clearly, in these cases economic expansion benefitted poorer segments of the population more than the average, with the corresponding distributional changes reinforcing the pace of poverty reduction. In another 12 LDCs, growth did benefit the poor in an absolute sense (i.e. they experienced an increase in their consumption/income), but they accrued a less rapid improvement than the rest of the population. Examples of countries that exhibited this pattern of

rapid growth, but somewhat skewed towards the non-poor, include the United Republic of Tanzania and Lao People's Democratic Republic.

Five LDCs displayed a non-inclusive pattern of growth in which the expansion of average consumption/income corresponded to an actual deterioration of the well-being of the poor, with a predictable increase in poverty incidence. This was the case, for instance, in Sao Tome and Principe, where – as can be seen from the corresponding growth incidence curve in Figure 2.15 – the benefits

Figure 2.15

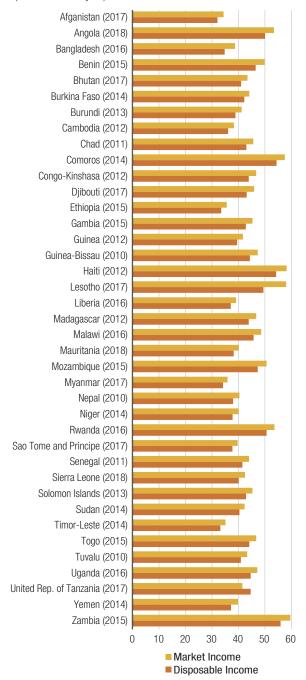
Growth incidence curve for selected LDCs with different types of inclusive/non-inclusive growth



Source: UNCTAD Secretariat calculation based on data from PovcalNet database [accessed April 2021].

of growth accrued mainly to the top 40 per cent of the income distribution. Finally, five other LDCs displayed a contraction in household consumption/income over the period considered. Of these, only in the case of Sudan has the average deterioration been accompanied by an expansion of the per capita consumption/income of the poor; in all other cases, the poor are also negatively affected and predictably

Figure 2.16
Gini index for market and disposable income in LDCs
(Latest available year)



Source: UNCTAD Secretariat calculation based on data from Solt (2020).

pushes poverty incidence trends upwards. As a paradigmatic example of this situation, Figure 2.15 reports the growth incidence curve for Madagascar, which suggests that the poor experienced on average a -1 per cent contraction in their per capita consumption/income, as compared to an overall mean deterioration of 2 per cent. At the end of the spectrum, in Yemen the poor were more adversely affected than the rest of the population, suffering a 1-percentage point deeper contraction than the average (-2.7 for PPGR compared to -1.6 AGR).

Overall, the evidence presented confirms that sustained growth has been a key driver of poverty reduction in the LDCs, particularly when accompanied by a degree of structural transformation and economic diversification, as occurred in the best performing LDCs. Yet, initial inequality (especially in terms of asset ownership), sectoral and geographical growth patterns, and other idiosyncratic factors appear to have a big influence on the shape of the growth incidence curve. So, for example, LDCs characterized by heightened dependence on hard commodities display inclusive growth in both a relative and absolute sense (e.g. Guinea, Liberia, or Timor Leste), but other countries have proved unable to capitalize on the commodity boom to improve the well-being of the poor (e.g. Angola and Zambia).

To complement the above analysis and address the role of inequality more explicitly, the whole distributional spectrum needs to be examined, not just the extremely poor. However, the scope for rigorous analysis is limited by patchy related data. A snapshot of inequality levels across LDCs is nonetheless insightful and provided in Figure 2.16. The latter reports the standardized Gini coefficient for market income and disposable income in the latest available year.²³ The usefulness of this picture is reinforced by the fact that inequality appears to move relatively sluggishly over time, hence initial conditions entail a strong path dependency.

Focusing on market income inequalities, southern African LDCs appear to be among the most unequal, with Angola, Lesotho and Zambia all recording a Gini coefficient above 50, much like the Comoros and Haiti. Conversely, Asian LDCs and some Island LDCs (e.g. Kiribati or Timor-Leste) display a significantly lower Gini index of 40 or less.²⁴ The ranking is only slightly changed when considering disposable income inequality, suggesting that the capacity/willingness on the part of LDCs to carry out redistributive policies

Unlike market income, disposable income also takes taxes and transfers into consideration.

Some African LDCs, such as Ethiopia, Liberia and Niger, also have relatively low Gini indices.

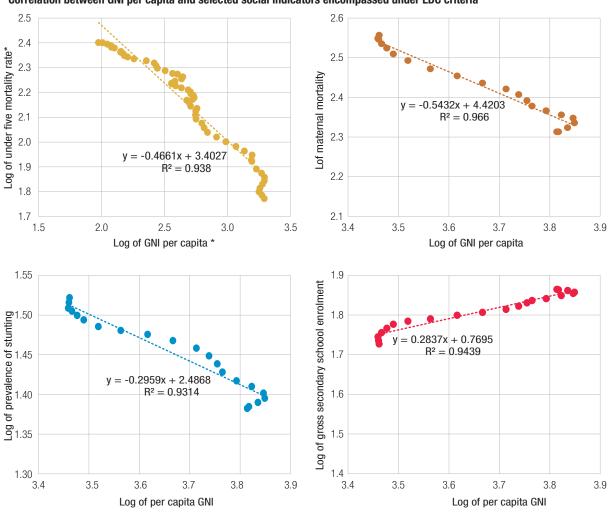


Figure 2.17

Correlation between GNI per capita and selected social indicators encompassed under LDC criteria

Source: UNCTAD secretariat calculations based on data from CDP for the 2021 triennial review.

is relatively limited (Ravallion, 2009). The difference between the market income Gini coefficient, and the one referring to disposable income is about 2.5 percentage points in the median LDC; Lesotho is the only country where the Gini coefficient decreases by more than eight percentage points (compared to less than four for all other LDCs).²⁵

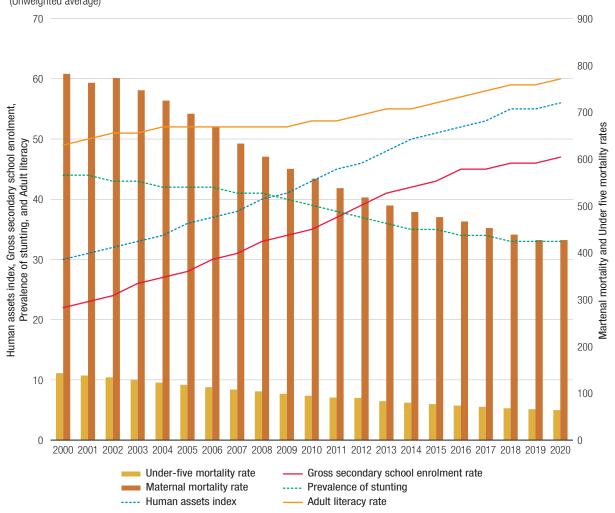
This suggests that, lacking a stronger capacity to mobilize public revenues and a more effective system of social safety nets, the structural drivers of economic dynamism continue to be the key inclusiveness determinants in LDCs. Considering the challenges LDCs face in stepping up their domestic resource mobilization efforts, it is likely that this will remain the case for the foreseeable future (UNCTAD, 2019a; UNECA, 2019). The effect of any growth pattern is mediated by initial levels of inequality (notably asset inequality), so that predictably more unequal LDCs tend to be less likely to display inclusive growth, at least in a relative sense.

More generally, economic growth has been a key-albeit surely not the only-driver of socioeconomic progress and shared prosperity in the LDCs, as can be confirmed by assessing their performance against selected LDC criteria. This task is not straightforward given the various revisions to the latter; however, the close correlation between per capita income and positive social development outcomes is confirmed in Figure 2.17; the latter suggests that strong economic

The United Republic of Tanzania represents an exception, in that in 2017 its Gini coefficient for market income was slightly lower than that of disposable income. This is broadly in line with the finding of another study referring to the 2011/12 Household Budget Survey, according to which, notwithstanding some redistributive effects of fiscal policies, the headcount ratio (vis-à-vis the national poverty line) is higher for consumable income than for market income, primarily due to the impact of high consumption taxes on basic goods (Younger et al., 2016).

Figure 2.18

Performance of LDCs against 2021 Human Asset Index criterion (Unweighted average)



Source: UNCTAD secretariat based on data from CDP for the 2021 triennial review.

growth in the 2000s was accompanied by significant social progress, as captured by various indicators encompassed under LDC criteria.

Data reported in Figure 2.18 clearly show a significant improvement along all dimensions of the Human Assets Index (HAI). The average HAI score for the LDCs almost doubled from 31 in 2000 to 55 in 2020, pulled by a rise in gross secondary school enrolment (from 23 per cent in 2000 to 47 per cent in 2020), and significant reductions in maternal and under-five mortality rates. Despite this positive development, the average maternal mortality rate of 427 and under-five mortality rate of 64 in 2020 were among the highest in the world. Improvements to basic health systems, expanding access, infrastructure, and the provision of sexual and reproductive health services, particularly to the youth, should thus remain a priority.

3. Environmental sustainability

The complex relationship between growth, structural transformation and environmental sustainability has been the subject of a considerable body of literature, as well as of a widening range of concrete efforts to reconcile the evaluation of wealth/income with a more rigorous assessment of ecosystem services (UNEP, 2018; Landes, 1998). The notion of sustainability has been typically linked to that of intergenerational fairness, an approach dating back to the so-called Bruntland report (World Commission on Environment and Development, 1987), and enshrined in the Rio Declaration on Environment and Development (Agenda 21) and the 2030 Agenda for Sustainable Development (United Nations, 1992, 2015).

In the presence of exhaustible but essential natural resources, the key challenge for policymakers is

Figure 2.19
Schematic representation of total wealth and its relationship to GDP and prosperity



Source: UNCTAD secretariat adapted from Wealth Accounting and the Valuation of Ecosystem Services WAVES.

not simply to achieve short-lived economic gains, but rather ensure sustainable benefits for future generations. Neoclassical growth theorists have shown that the utilization of such natural resources can achieve intergenerational fairness (i.e. generate a constant stream of consumption per capita across generations for an infinite period of time), provided that the elasticity of substitution between man-made capital and natural capital is not lower than one (Solow, 1974). If society is to achieve these outcomes, all the rents obtained from the utilization of exhaustible resources should be invested in man-made capital (Hartwick, 1977; Solow, 1974).

Broadly speaking, this reasoning lies at the core of the so-called "weak sustainability" principle, according to which sustainability is maintained when exhaustible resources are extracted and transformed into man-made capital, as long as the sum of natural and man-made capital does not shrink. This approach has been criticized because of its theoretical foundations and practical applications and measurement (Cabeza Gutés, 1996). Several ecologists have advocated instead for a "strong sustainability" principle, arguing that natural and manmade capital should be considered complements, rather than substitutes, since many of the key functions and services provided by natural capital cannot be replaced (Ayres, 2007; Cabeza Gutés, 1996; UNEP, 2018). Others have also highlighted the practical difficulty in determining natural resource rents, since commodity price volatility often

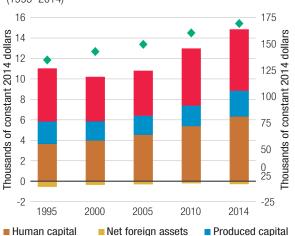
overshadows market fundamentals, thereby blurring the usefulness of price signals. Ecologists have, similarly, highlighted how certain ecosystem services do not lend themselves to market evaluation.

Unlike the "strong sustainability principle", which is linked to notions of carrying capacity and planetary boundaries (Ehrlich and Pringle, 2008; Rockström et al., 2009), the "weak sustainability" principle underpins the usefulness of wealth accounting. Under this approach, distinct forms of capital (man-made, human and natural, as well as net foreign assets), are jointly evaluated to characterize the evolution of total wealth. A schematic representation of this approach is reproduced in Figure 2.19. Notwithstanding its limitations, this approach can be a useful step to complement earlier discussions.

Total wealth components are generally evaluated on the basis of the discounted flow of income each of them can generate over its lifetime (Lange et al., 2018). Accordingly, human capital is measured as the present value of lifetime earnings of the labour force (using household surveys), while natural capital is measured as the discounted sum of the value of the rents generated over the lifetime of the asset. However, produced capital is evaluated at market price, while net foreign assets are obtained as a difference between external assets and liabilities, hence also on the basis of price signals. Admittedly, this conceptual approach to wealth accounting has its own limitations - most importantly, it is subject to measurement errors (especially where informality is prevalent), and does not incorporate uncertainty on prices (hence future rents) and on the impacts of climate change - but it has the advantage of providing a set of consistent measures for cross-country analyses.

Figure 2.20

Total wealth per capita in LDCs, by component (1995–2014)



■ Natural capital ◆ World average wealth per capita (right axis)

Source: UNCTAD Secretariat calculation based on data from Lange et al. (2018).

To shed more light on the sustainability of the development trajectory of LDCs, the remainder of this section discusses the evolution of their total wealth and adjusted net savings. Figure 2.20 illustrates the evolution and composition of total wealth per capita over the period 1995-2014 (the longest for which data is available), and averaging it across all LDCs; it also reports, for the sake of comparison, the world average wealth per capita over the same period. In the interpretation of the graph, it should be borne in mind that the various wealth components are typically computed as the discounted sum of the value of rents generated over the lifetime of the corresponding asset; whereas in the case of produced capital and net foreign assets, they are evaluated at market price. Accordingly, differences over time (or across countries) reflect the variability in the stock of capital and the differences in the "productivity" with which the various forms of capital are transformed into future income streams (Lange et al., 2018).

With this premise in mind, Figure 2.20 suggests four main considerations. First, during the 1995–2014 period – which, as seen before, spans a period of rather buoyant GDP growth – LDCs managed to increase their total wealth per capita at an annual compound rate of 1.7 per cent (from a total of \$10,482 in 1995 to \$14,565 in 2014). This gradual expansion is slightly higher than the world average (+ 1.4 per cent per year), and reflects an initial decline, followed by a steady expansion in the new millennium. Second, despite these improvements, the gap between total

wealth per capita in LDCs and the rest of the world remained very wide: throughout the period total per capita wealth in LDCs hovered at about 8 per cent of the world average. This not only reflects huge gaps in the availability of capital, especially with respect to human and man-made capital, but also in relation to the effectiveness with which given assets are put to fruition or good use (think of the difference in discounted lifetime income for two workers with the same educational achievement but living in different countries). Third, the graph visibly underscores the importance of the human capital component, which grew at a annual compound growth rate of 3 per cent throughout the period, expanding its share of the total to over 43 per cent (up from 35 per cent at the beginning of the period). This is particularly significant since human capital is derived here as the present value of lifetime earnings of the labour force, and hence it not only reflects improvements in educational achievements or health, but also - to some extent – in their economic counterpart.²⁷ Fourth, the graph underscores the prominence of natural resources in the composition of the total wealth of LDCs where, in 2014, natural capital accounted for 41 per cent of the total, compared to a world average of 9 per cent.²⁸ For most LDCs this first and foremost reflects the contribution of agricultural land, although comparatively lower yields reduce its economic evaluation. The contribution of protected areas, which attract considerable tourism to LDCs, and subsoil assets is also noteworthy, with the latter increasing their per capita value fourfold between 1995 and 2014.

Figure 2.21 reveals considerable heterogeneity in the trajectories of individual countries (Figure 2.21). Only a handful of the 31 LDCs for which data is available achieved some improvement in the real value of total wealth per capita over the period considered. Large variations emerge, however, on the overall change and its composition. If, in general, rapidly growing LDCs did increase their total wealth more substantially than other LDCs, as occurred in Bangladesh, Cambodia, Ethiopia, Lao People's Democratic Republic, or Rwanda, the specific pattern of growth had a significant bearing on the evolution

Improved social outcomes in LDCs, particularly those occurring in the past two decades, have been documented in more detail in other issues of this report (UNCTAD, 2010, 2020a).

The prominence of natural resources for LDC economies corroborates similar findings obtained from the analysis of LDC productive capacities and UNCTAD's PCI (UNCTAD, 2020a, 2020h). Indeed, the only subdimension along which LDCs were outperforming ODCs was in natural resources.

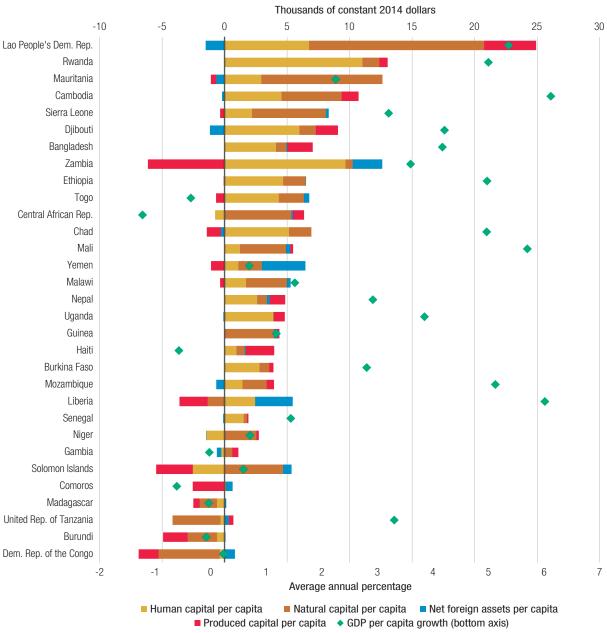


Figure 2.21

Absolute change in total wealth per capita between 1995 and 2014, by LDC and main component

Source: UNCTAD Secretariat calculation based on data from Lange et al. (2018).

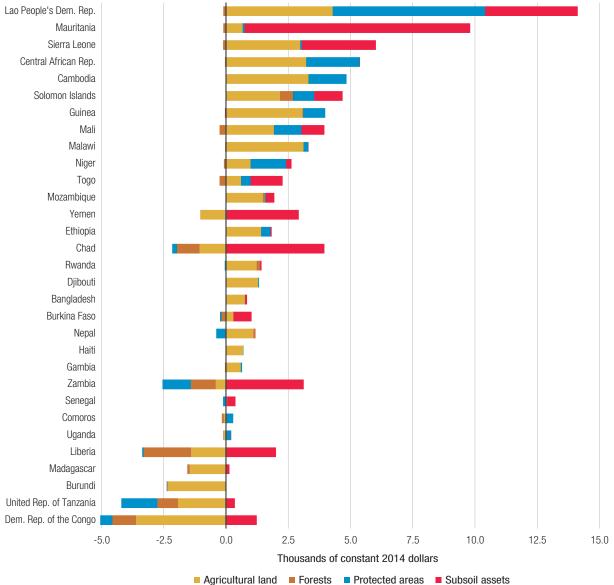
of total wealth. Countries, such as Mozambique, Liberia, or the United Republic of Tanzania, which also achieved rapid per capita GDP growth in the 1995–2014 period, recorded lukewarm results in relation to total wealth per capita. Worryingly, six LDCs (including relatively large and natural resource-rich countries, such as Madagascar, the United Republic of Tanzania, or the Democratic Republic of Congo) posted an overall decline in total wealth per capita, raising serious sustainability concerns. Beyond aggregate changes, the chart shows that human capital plays a key role in total wealth dynamics

across all LDCs, but particularly so among the best performers. Conversely, the contributions of natural and man-made (physical) capital are more varied and likely driven by idiosyncratic factors.

Focusing more specifically on the dynamics of natural capital, signs of pressure on natural resources emerge in a slightly larger number of LDCs (Figure 2.22). Among the components of natural capital, the generalized importance of agricultural land stands out unambiguously: in 2014, on average, it accounted for over 60 per cent of the natural capital

Figure 2.22

Absolute change in natural capital per capita between 1995 and 2014, by LDC and main component



Source: UNCTAD Secretariat calculation based on data from Lange et al. (2018).

of the LDC group (i.e. 25 per cent of total wealth), and was typically the main driver of natural capital dynamics, being distributed more uniformly across countries than other natural resources. Besides, the rise in the value of natural capital per person in terms of agricultural land occurred at a time of increasing pressure on land resources, as demographic growth in LDCs outstripped the expansion of agricultural (or arable) land.²⁹ Similarly, from a wealth accounting

perspective the value of forests in LDCs increased at about 1 per cent per year in per capita terms, despite forest areas having actually declined by over 60 million hectares over the same period. These apparently counterintuitive trends are essentially a reflection of the approach adopted in the wealth accounting framework, which evaluate natural assets based on the flow of income they generate. The above picture also highlights the differences between the weak and the strong sustainability approach – the latter focuses mainly on the availability of given forms of natural capital and its ecological functions, whereas the former concentrates more on the economic side of the picture.

According to FAOSTAT data, agricultural land in LDCs increased at an average rate of 0.3 per cent per year over the 1995–2014 period, while arable land increased at a rate of 1.5 per cent per year; at the same time, LDC population grew at an annual rate of 2.5 on average.

Subsoil assets represented 17 per cent of LDCs' overall natural capital (i.e. 7 per cent of total wealth) in 2014, and constituted the fastest-growing component over the period considered, which encompasses the commodity boom of the mid-2000s. As expected, fuels and mineral exporters (e.g. Yemen, Chad, Mauritania, Sierra Leone or Zambia), recorded sizeable increases in the value of subsoil assets per capita, having capitalized on the "commodity super-cycle", whether in terms of higher prices and productivity increases (hence the higher value of the resources), or of additional investment and new discoveries (by increasing the overall stock of economically viable mineral reserves). Finally, if the extension of protected areas generally expanded over the period considered, their contribution to natural capital per person was highly heterogeneous across LDCs, with significant increases in Cambodia, Central African Republic, Lao People's Democratic Republic, or Niger, but shrinking values in the Democratic Republic of Congo, United Republic of Tanzania and Zambia.

More recent data are needed to update the analysis to the past few years and shed more light on the impact of the COVID-19 pandemic. Overall, however, the evidence from wealth accounting raises questions on the sustainability of the LDC trajectory. Despite the fact that data are only available for a period of relatively favourable international environment and rapid economic growth, the total wealth per capita in a number of LDCs has shrunk or increased very sluggishly. In the African region, where population growth is relatively higher, productivity levels have improved only sluggishly, and challenges remain in terms of generating sufficient employment for the cohorts of new entrants into the labour market (UNCTAD, 2014a, 2020a); in addition, pressure on natural capital has been on the rise in several countries.

This reading of the evidence is confirmed and complemented by the analysis of long-term trends in another related proxy for environmental sustainability, namely adjusted net savings. The latter magnitude is derived from the national accounting system, being defined as gross national savings minus depreciation of produced capital, depletion of subsoil assets and timber resources, the cost of air pollution damage to human health, plus a credit for education expenditures. As such, consistently negative values for adjusted net saving essentially indicate that a given country is consuming more than it is saving, thereby eroding long-term sustainability. It is worth noting that there are several methodological differences in the wav in which investments in human capital and natural resource rents are measured in the computation of total wealth and adjusted net savings. For example,

Lacking domestic value addition and productivity improvements, growing LDC reliance on natural resources has often failed to translate into sustainable outcomes

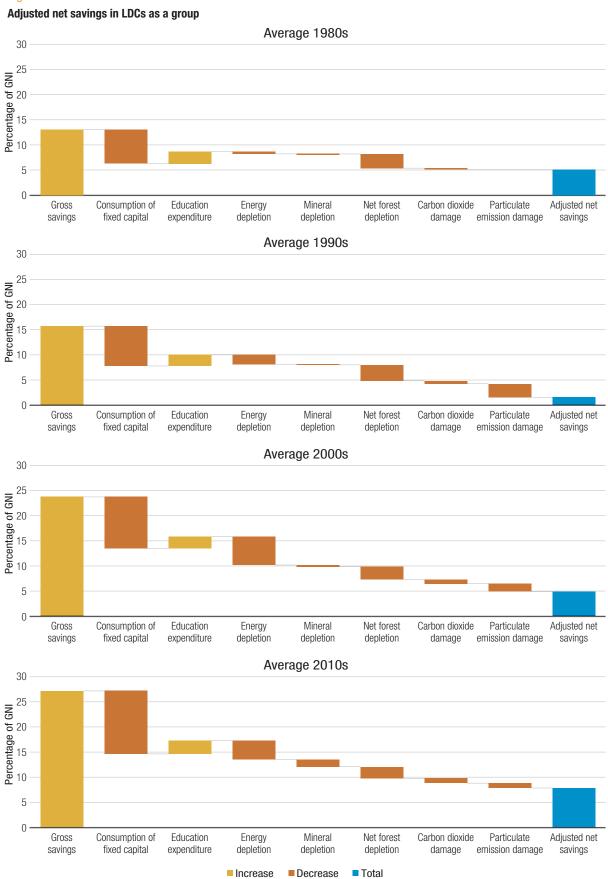
in the computation of total wealth, human capital is determined as the present value of earnings for the labour force, unlike in adjusted net savings, where the corresponding provisions reflects investments through the public budget in education. Again, policy changes, for example with respect to reforms to the business environment, may affect the return and hence the value of various assets (including human capital) in the wealth accounting framework, but have no corresponding effects in the determination of adjusted net savings. Finally, several factors affecting national wealth are typically omitted from adjusted net savings, as in the case for: (i) land use changes; (ii) new discoveries of subsoil assets; (iii) technological changes affecting the productivity of an asset; or (iv) the volume of economically feasible resources to exploit (Lange et al., 2018).

A bird's eye view of adjusted net savings for the LDC group is provided in Figure 2.23. The latter reports the different components as a share of Gross National Income (GNI), averaging across decades and up to 2019 (hence without accounting for any impacts arising from the COVID-19 shock).30 Gradual improvements in the macroeconomic fundamentals for a number of LDCs have clearly boosted gross national savings, which doubled their weight relative to GNI. This remarkable expansion, however, has gone hand in hand with a progressive increase of natural resource depletion, notably in relation to energy and forests. Meanwhile, education expenditure has only marginally increased as a share of GNI, rising from an average of 2.4 per cent of GNI in the 1980s to 2.7 per cent in the 2010s. As a result, the improved macroeconomic outlook has only partially translated into an expansion of total adjusted net savings for the LDCs as a group.

Aggregate data conceal, however, wide heterogeneity across individual LDCs, as underscored by the boxplot of natural resource depletion relative to GNI shown

Available data for adjusted net savings are rather patchy, both for the LDC group – for which aggregate estimates are consistently available only since 1980 – and, even more so, for individual countries. For this reason, the following charts present only aggregate data and are limited to periods where country coverage was at least 50 per cent.

Figure 2.23



Source: UNCTAD Secretariat calculation based on data from World Development Indicators database [accessed February 2021].

in Figure 2.24. The data reveal a generalized increase in the figurative costs for natural resource depletion relative to GNI, as well as an increasing variability across individual countries. In the 2016-2018 period, natural resource depletion exceeded 10 per cent of GNI in 13, out of the 42 LDCs for which data is available; at the other end of the spectrum, the same variable accounted for less than 1 per cent of GNI in 12 other LDCs. Interestingly, the acceleration in natural resource depletion appears to pre-date the "commodity super-cycle" of the mid-2000s, and has not subsided in the wake of the global financial and economic crisis of 2008/9. This is consistent with the idea that reliance on natural resources continues to be a structural feature of many LDCs, much like commodity-dependence (UNCTAD, 2010, 2016a, 2019d).

The evolution of adjusted net savings across individual LDCs reflects the above considerations and reinforces earlier sustainability concerns. Despite the overall improvements reported in total adjusted net savings for the LDC group (Figure 2.23), there appear to be signs of a growing heterogeneity across individual countries. This is evidenced by the widening of the interquartile range in Figure 2.25, with the median value hovering between 3 and 5 per cent of GNI for the past 30 years. Moreover, as many as 15 LDCs (out

Figure 2.24
Boxplot of natural resource depletion across LDCs

(Percentage of GNI)

45

40

35

30

25

20

1986–1988
1996–1998
2006–2008
2016–2018

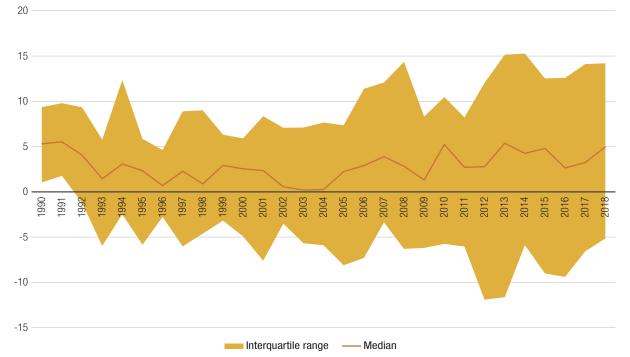
Source: UNCTAD Secretariat calculation based on data from World Development Indicators database [accessed February 2021].

Note: Boxplots visually display the distribution of LDC data over their quartiles, highlighting the mean (cross), median (horizontal line), first/third quartile (box), upper/lower extreme (whiskers), and outliers.

of the 37 for which data is available) posted negative adjusted net savings for the period 2016–2018, including many commodity-dependent (mainly African) LDCs. This highlights the fact that, lacking structural transformation, it remains hard to envisage LDCs' decoupling – at least in a relative sense – their

Figure 2.25

Adjusted net savings excluding particulate emission damage, across LDCs (1990–2018; percentage of GNI)



Source: UNCTAD Secretariat calculation based on data from World Development Indicators database [accessed February 2021].

economic performance from natural resources, with all the attendant risks this holds for the sustainability of their future trajectory.

E. Conclusions

Overall, this analysis has documented some encouraging improvements in the performance of LDCs since the mid-1990s. Over this period, they have experienced renewed economic dynamism, less frequent growth deceleration, and, in some cases, an incipient process of structural transformation. Notwithstanding this silver lining, most LDCs continued to fall behind in terms of income per capita, with weak progress in labour productivity and remaining vulnerable to premature de-industrialization. These trends, themselves stemming from the weak development of LDC productive capacities, were also associated with limited inclusiveness and rising pressure on natural resources, all of which undermines the sustainability of their trajectory.

While it is too early to rigorously account for the impact of the COVID-19 shock, it is already clear that it could well derail the progress of even the best performing LDCs, thus exacerbating global inequalities, and potentially derailing the achievements of the 2030 Agenda for Sustainable Development. It is thus imperative for the LDCs and for the international community to renew their endeavours to avert such a dangerous outcome.

Four take-away messages from the past 50 years of LDC experience should inform on-going efforts to lay the foundations for an inclusive and sustainable recovery. First, maintaining adequate

levels of investment, including public investments in infrastructure and human capital, remains as crucial as ever, not just to sustain aggregate demand but also to lay the foundations for future growth. It is therefore critical to mainstream productive capacity development into the response policies and recovery plans of LDCs. Second, productivity improvements are fundamental for long-term prosperity, not only within sectors (through capital deepening and innovation), but also - and perhaps more fundamentally - through the reallocation of inputs towards more productive and innovative activities. Third and related to this, the importance of domestic value addition as a key avenue to redress primary commodity dependence, improve natural resource efficiency and boost intersectoral linkages, cannot be overemphasized, as it could pave the way for commodity-based industrialization. This hinges on marrying a forward-looking approach to the sustainability imperative with bold industrial policies and an effective science, technology and innovation (STI) ecosystem. Fourth, although LDC proneness to boom-and-bust cycles declined in the new millennium, it remains high by international standards and the fact that LDCs entered the COVID-19-induced recession with far less means at their disposal than in 2008/9 at the height of the global financial crisis does not bode well for the recovery to come. It is therefore critical that the international community boosts the financial resources available for LDCs to respond to the downturn, at the same time as helping to strengthen their institutional capacities to ensure: (i) ownership of their respective recovery strategies; (ii) guarantee effective public spending; and (iii) enhance policy coherence.



Greater complexity in Progamme of Action policy agenda

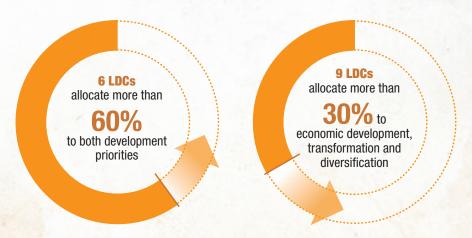
exerts greater demand on and for state capacity



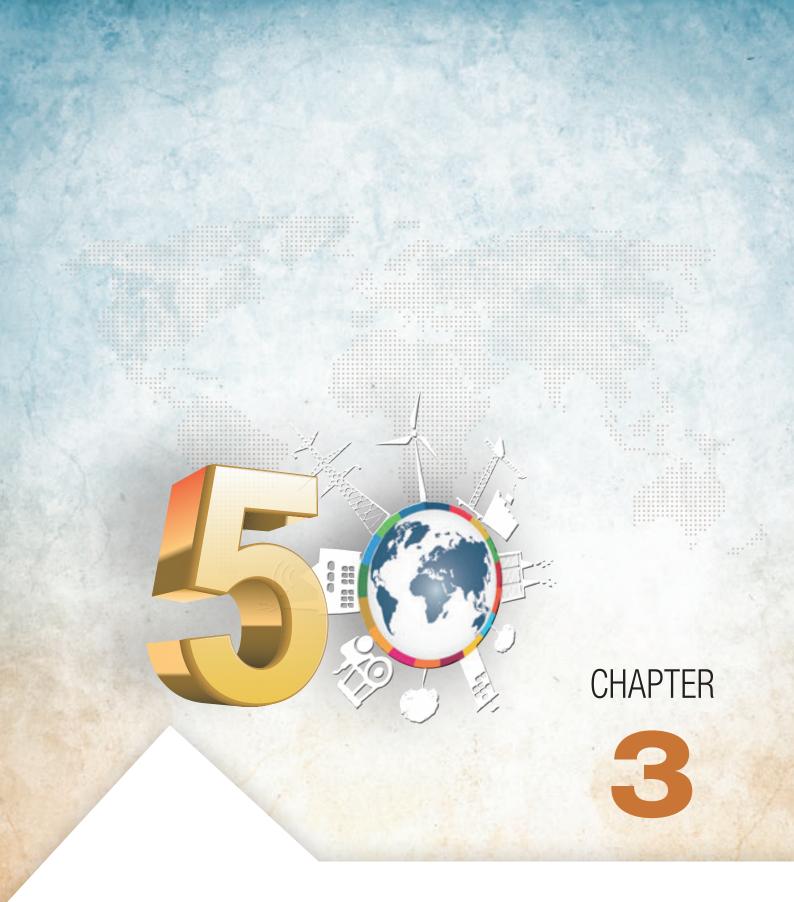
Out of 23 LDCs studied:

52% is the average national budget allocation spent on (i) Economic development,transformation and diversification; and (ii) infrastructure





is undermined by low tax revenue and low allocations of ODA to budget support



Evaluating past and present strategies for furthering development

CHAPTER 3

Evaluating past and present strategies for furthering development

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A. Introduction

This chapter describes the strategies that have underpinned the development outcomes analysed in chapter 2, and encompasses programmes of action (PoA) negotiated at the international level and approaches embodied by national development plans and policies. Since the 1980s, milestone events, processes and development challenges, such as the end of the Cold War, globalization, the economic surgency of the global South, financialization, migration and climate change have had profound impacts on the political economy of underdevelopment and alter the policy options available to LDCs and their development paths and trajectories. Each of the PoAs was thus a product of its time, and influenced by prevailing dominant strands of economic thinking and interpretations of development concepts in the period immediately preceding and during their respective decades of implementation. An exhaustive consideration of these shifts in economic thinking and their political economy impacts is beyond the scope of this report. However, it suffices to note that it is intrinsically difficult to distinguish the impact of the PoAs from the shortcomings of the strands of thinking that influenced their crafting or the global climate in which they are implemented because the degree of their implementation was jointly aided or disrupted by these factors.

In practice, the extent of impact that PoAs can have on national policies and domestic resource allocation is difficult to discern or attribute, as domestic policies typically embody a multitude of other national, bilateral, multilateral, and in more recent decades, global developmental values and processes. The PoAs have often been implemented in the context of other international frameworks of action on specific dimensions of development (e.g. Millennium Development Goals, Sustainable Development Goals, and years/decades of international action on designated developmental problems). In addition, although the PoAs define a specific policy agenda, few objectives are associated with specific or measurable targets and targeted priority actions can often serve multiple objectives. In line with this critical need for nuanced policy approaches to development, LDC governments are expected to take ownership and establish national frameworks for the achievement of the PoAs in accordance with country-specific conditions and aspirations. This leaves the difficult task of infusing specificity, prioritization, leveraging synergies and resolving trade-offs to national governments, which renders

PoAs do not replace national development plans

international-level monitoring and evaluation (M&E) challenging.

B. Multilateral strategies for furthering development in LDCs

Every ten years, the United Nations convenes a conference devoted exclusively to LDCs. Programmes of action (PoA) have been decided for each of the four decades during 1980 and 2021 (Box 3.1).

As the outcome of a multilateral approach development involving negotiation compromise, PoAs are not legally binding. They inevitably encompass a political agenda and reflect the unequal power plays and interactions existing between different constituencies and ideological leanings within the multilateral system (Browne, 1997; Koehler, 2015; Weiss, 1983, 2016). It is important to bear in mind that PoAs do not replace national development plans as this would overlook the heterogeneity of the LDCs and infringe on their sovereignty and agency. PoAs thus inherently generalize LDC internal factors, both in: (i) the articulation of structural impediments to development; (ii) in the evaluation of implementation; and (iii) placing greater emphasis on areas of international action more oriented to outcomes.

Continuity and change across programmes of action for the LDCs

Within the framework of the overall and specific goals set by each of the POAs (Annex Tables 3.1–3.3), it is useful to examine continuity and consistency across the four PoAs. Each of them identify outcomes that address the social, economic and environmental impediments to development in the LDCs, as well as the role and value of development planning. While all seek comprehensive coverage of the various dimensions of development, it is possible to discern, especially with respect to national measures, a progressive trend to more explicitly pinpoint the approaches through which outcomes could be

The BPoA and IPoA placed less emphasis on this point.

Box 3.1 Forty years of LDC decadal programmes of action

The Substantial New Programme of Action for the 1980s

By the time of the inaugural decadal programme of action – the Substantial New Programme of Action (SNPA) for the Least Developed Countries for the 1980s – was proposed by UNCTAD at the fifth Session of the United Nations Conference on Trade and Development in 1979, the international community had already been unified by collective actions in support of all developing countries under the international development strategies for the First and Second United Nations Development decades (United Nations, 1961, 1970). This period encompassed two phases: (i) the Immediate Action Programme (1979–1981) was intended to meet LDCs' most pressing short-term social needs and aimed to pave the way for the second, much larger and longer-term development effort foreseen by the decadal programme. This second phase emphasized transformational investments which were: (i) proportional to the magnitude of the challenge facing the LDCs; and (ii) were large enough to have a durable impact (United Nations, 1982). The SNPA was finalized and adopted by the first United Nations Conference on the Least Developed Countries held in Paris in 1981.

Paris Declaration and Programme of Action for the Least Developed Countries for the 1990s

The Paris Declaration and Programme of Action (PPoA) for the Least Developed Countries for the 1990s was the outcome of the second United Nations Conference on the Least Developed Countries held in Paris in 1990 (UNCTAD, 1992). With interdependence in the world economy and the marginalization of LDCs even more accentuated at the end of the implementation period of the SNPA, the PPoA was premised on forging a strengthened partnership to ensure greater commitment by all parties in the implementation of a more coherent action-oriented programme to reverse in the 1990s the trend of continued economic deterioration in the LDCs.

Programme of Action for the Least Developed Countries for the Decade 2001–2010

The Programme of Action for the Least Developed Countries for the Decade 2001–2010 (commonly referred to as the Brussels Programme of Action – BPoA) was agreed by the third United Nations Conference on the Least Developed Countries held in Brussels in 2001. The 1990s were marked by a ramped up focus on issues of poverty and social development (United Nations, 2017). The BPoA thus reflected, the urgency the global community attached to redressing the neglect of the poor and growing inequalities within and across countries in the context of structural adjustment lending and the economic strife evident during the 1990s.

Programme of Action for the Least Developed Countries for the Decade 2011–2020

The Programme of Action for the Least Developed Countries for the Decade 2011–2020 (commonly referred to as the Istanbul Programme of Action – IPoA) was adopted by the fourth United Nations Conference on the Least Developed Countries held in Istanbul in 2011 (United Nations, 2011). The IPoA lent more focus to a strategic and ambitious commitment from LDCs and their development partners to bring about structural transformation, and the graduation of countries from the LDCs category as an explicit goal.

Source: United Nations, 1980b, 1980c, 1982, 2011, 2017; UNCTAD, 1992.

achieved, rather than focusing on justifying desirable outcomes, with the SNPA being the least, and the IPoA the most operational of the PoAs. A review of the structure of the respective PoAs to be found in Annex Tables 3.1–3.3 shows successive PoAs giving greater attention to matching objectives to priority areas of action.

All the PoAs are underpinned by a common acceptance of the structural transformation of LDC economies as the unique vehicle to achieve sustained and self-reliant development; however, notable differences exist with respect to the focus and level of detail accorded to the priority areas key to advancing the process of the structural transformation in LDCs; therefore, successive PoAs could be seen as having increasingly targeted productive capacity/capacities and diversification even though this has not been recognized as an explicit and central goal.

Policy guidance on the PoAs is, for the most part, specified only in aspirational terms, e.g. "articulating or considering" certain policies and measures, or "attracting, facilitating, promoting, fostering or taking concrete measures" on certain desirable outcomes, or "complying with" existing multilateral frameworks. By default, areas of action that offer the greatest scope for joint and complementary action between LDC governments and the international community, such as foreign trade, official development assistance (ODA) and technical assistance, represent "low hanging fruit" in that they represent the "how" of proposed policy measures and targets incorporated. While an increasingly favoured feature of the global development agenda is the inclusion of built-in measures to capture progress, the existence of many areas of development policy which are not conventionally quantifiable or measurable, or for which data are lacking, is a binding limitation. The measurements and indicators included in PoAs are also intended to incentivize improvements in data collection,² and application in development planning and cooperation.

Successive shifts in emphasis across the PoAs have served to amplify certain dimensions of development over others, and attempt to "fix" problems/issues that occurred during the implementation of previous PoAs. This represents a progression in the complexity and the number of policy measures (including related trade-offs and sequencing challenges), with the corollary being greater demands on (and for) state capacity. All the PoAs are heavily dependent on the capacity and leadership role of LDC governments, who have primary responsibility for their own development. However, LDCs' state capacity has been susceptible to erosion throughout the PoAs' implementation, as evidenced by the adverse effects of the austerity measures taken in the context of the structural adjustment programmes (SAPs) of the 1980s and 1990s - the latter almost completely overshadowing longer-term concerns with sustainable development and structural transformation ambitions embodied in the SNPA and the Industrial Development Decade for Africa. Moreover, ODA commitments and measures intended to improve aid allocations and mechanisms have consistently remained unmet and hampered goals on aid effectiveness and the building of state capacity to deliver on the PoAs and other development goals. It is thus notable that all the PoAs have functioned imperfectly, with neither party able to say they have fully met their objectives.

a. PPoA versus SNPA

Annex Table 3.1 presents the priority areas of the SNPA and the PPoA. A dominant feature of the SNPA is that it refutes the notion that underdevelopment was solely an endogenous problem (i.e. that it was due to a lack of qualified professionals, capital, technology or know-how) internal to the LDCs. The protectionist responses of developed countries to the oil shocks of the 1970s intensified external and domestic disequilibria in most developing countries, requiring considerable efforts on their part to adapt their economies (UNCTAD, 2012b; United Nations, 1980a, 2017). As part of the required "concerted international action in support of national

State capacity has been susceptible to erosion throughout the PoAs' implementation

efforts" that are needed, the SNPA highlights the importance to the substantial and transformational transfers of resources from advanced economies to the LDCs as a prerequisite for overcoming their structural impediments to development.

Much of the national policy guidance proposed by the SNPA is directly or indirectly linked to expanded international support. The expectation that such a transformational increase in financial transfers would materialize is explained by the then prevailing context of decolonization, and the solidarity and atonement that imbued international development strategies. This included the contemporaneous international discourse on a new international economic order, and United Nations General Assembly discourses linked to human rights3 and the collective responsibility of the international community for global development (United Nations, 1970, 1980b). Thus, within the framework of the internationally agreed ODA target to developing countries of 0.7 per cent⁴ of the gross national product (GNP) of developed countries, the SNPA initiated the LDC-specific target of 0.15 per cent to double the level of ODA to LDCs by 1985.

The SNPA sought to transform the economies of LDCs and set them on the road towards self-sustained development. It also aimed to enable them to provide internationally accepted minimum standards of nutrition, health, transport and communications, housing and education, and job opportunities, to all their citizens, and particularly to the rural and urban poor (United Nations, 1982). The SNPA can be viewed as seeking to address problems of underdevelopment arising with high population growth rates,⁵ and the inability of LDC economies to meet basic human needs, including

Despite the rhetoric around big data, less than 0.5 per cent of ODA goes into supporting or building the capacity of national statistical offices, with most low- and middle-income countries (LMIC) unable to fund even half of their national statistical plans (World Bank, 2021a).

These discourses preceded the declaration on the Right to Development in 1986. https://www.ohchr.org/EN/Issues/ Development/Pages/Backgroundrtd.aspx

This target is quoted in the international strategies for the second and third United Nations Development Decades. With the revised System of National Accounts in 1993, gross national product was replaced by an equivalent concept of gross national income (GNI). The OECD shows DAC members' performance against the 0.7 per cent target in terms of ODA/GNI ratios.

Both the SNPA and PPoA encourage LDCs to adopt population control measures but these remain unspecified and are not subject to specific targets.

The 1980s are considered a 'lost decade' for developing countries, and especially for the LDCs

human and institutional development. This emphasis can be understood in the context of the dominant view in the 1950 to 1970s that uncontrolled population growth was at the root of poverty and underdevelopment in poor countries (Bongaarts et al., 2020; Sinding, 2009). In addition, the SNPA emphasizes the importance of building LDC state institutional capacity as a fundamental requirement to achieve development, including with respect to: (i) the crucial role played by state enterprises; (ii) the exploitation of national resources; (iii) expansion of the manufacturing base for the purposes of boosting economic growth and trade expansion; and (iv) safeguarding the environment. The SNPA also references the objectives and targets of the International Development Strategy for the Third United Nations Development Decade, the Nairobi Programme of Action for Development and Utilization of New and Renewable Sources of Energy, the Global Strategy for Health for All by the Year 2000 and the first Industrial Development Decade for Africa.⁶

The four specific measurable and timebound targets set by the SNPA for the decade covered: (i) GDP growth (7.2 per cent average annual rate); (ii) agricultural production (4 per cent minimum average annual growth); (iii) manufacturing output (9 per cent minimum overall annual growth); and (iv) ODA.

The 1980s are generally considered as a 'lost decade' for developing countries, and especially for the LDCs (Singer, 1989; United Nations, 2017).⁷ The PPoA's primary objective was to arrest the deterioration in their socioeconomic situation, to reactivate and accelerate growth and development and set them on the path of sustained growth and development. New issues on the development agenda included the external indebtedness of the LDCs (including from ODA, multilateral and commercial debt), private

sector development, and the industrial base beyond the manufacturing sector. Food aid was included in the PPoA following widespread incidents of famine in the developing world in the 1980s (FAO, 2006; Singer, 1988).

The PPoA maintains most of the priority areas of action articulated by the SNPA, but the latter's enthusiasm for the tradition of state-driven industrialization and central planning had begun to wane by the second oil shock in 1979. In the 1980s, consistent with the Washington Consensus, and often at the expense of everything that had previously been understood as development, attention firmly shifted to debt settlement, stabilization, adjustment, structural change, liberalization, etc. (Singer, 1989). The PPoA still sought to maintain an appropriate balance between the roles of the government and the market in industrial development - much in keeping with UNCTAD's more prudent attitude on the merits of the free market, but the fundamental shift to the greater reliance on market forces is quite evident in the articulation of its objectives (Annex Table 3.1).

The macro-economic policy framework (as an overall enabling environment), is at the core of the PPoA. It advocates the role of the private sector, and the requirement to modernize LDC economies as the basis for overcoming the structural bottlenecks of underdevelopment. The PPoA accords greater emphasis to policies needed to develop and accumulate productive capacities (although not explicitly articulated as such), including human, institutional, economic infrastructure, and technological and entrepreneurial capacities. In addition, the PPoA realigns and broadens the policy focus in sectors and policy areas, including: (i) agriculture; (ii) human capital; and (iii) rural development and manufacturing. To emphasize the goals of industrialization, the PPoA advocates diversification across markets/products, expanding productive capacities and technology transfers as prerequisites for growing the industrial base. For the first time, guidance on economic diversification is linked to expanding local private enterprise for sustainability and balanced growth.8 The perspective on the productive base is

Prior to the Paris Conference, the United Nations General Assembly had endorsed the SNPA to be undertaken as an essential priority within the International Development Strategy for the Third United Nations Development Decade (1981–1990). The SNPA was also implemented within the framework of the Programme of Action on Agrarian Reform and Rural Development (United Nations, 1980b, 1980c).

While there was broad consensus that the decade was 'lost' for Latin America, Africa and (generally) for oil exporters, the situation was relatively less serious for Asia.

During the 1980s, private sector development began to play an increasing role in development policy, driven by structural adjustment policies focused on privatization and market liberalization. The generic and popular use of the term "private sector development" in development cooperation seldom drew a distinction between foreign direct investment (FDI) and local entrepreneurship, but policies aimed at promoting one or the other cannot always be assumed to unequivocally benefit both (UNCTAD, 2019a, 2018a).

broadened to include the services sector, as well as the manufacturing and agricultural sectors already featured in the SNPA, and addresses the goal of diversification in both domestic and external trade. The PPoA dispenses with the tradition of specifying a target for manufacturing production.

The PPoA improves on various other priority actions captured in the SNPA. For example, it broadens the concern for building institutional capacities to explicitly encompass various other sectors besides the public administration emphasized by the SNPA. It also posits a more positive role for population growth in accelerating rural development and the modernization of the agricultural sector through, among others, raising domestic demand. The PPoA elevates South-South cooperation in supporting development efforts in LDCs, and calls for its strengthening, including in terms of trade preferences and trade facilitation, during the 1990s (UNCTAD, 2011c). However, in most policy areas guidance is articulated in generic and aspirational terms. For example, on diversification, LDCs are simply encouraged to adopt policies and measures which could stimulate new export sources.

Another notable new feature in the PPoA is the attention paid to articulating the responsibilities of different actors in advancing development. For example, the PPoA states that "the contribution would be most effective if made within the framework of goals, policies and priorities outlined in national plans and programmes and the positive role" that could be played by "indigenous NGOs" (non-governmental organizations). This can be viewed in the context of the rise of a pro-NGO norm in the 1980s and 1990s among donor states and intergovernmental organizations (Reimann, 2006; Kamat, 2004; Marberg et al., 2016; UNCTAD, 2019a) that accompanied the rise of the concept of "good governance" (the corollary being the lack of it in developing countries), and the perceived indispensable role of international NGOs as vectors of democracy, inclusion and transparency. In addition to diverting development finance away from host governments, this clashed with the international community's insistence that LDCs bore primary responsibility for their development and the principles of national ownership and leadership. This serves not only to recognize new actors in development cooperation since the 1980s, but also to emphasize issues of aid effectiveness and LDC leadership and agency in mobilization of domestic resources. The PPoA calls for a significant and substantial increase in the aggregate level of external financial resources, and retains this undertaking as the only quantitative target for the 1990s decadal programme.

Ramped up focus on issues of poverty and social development by the end of the 1990s

b. BPoA versus PPoA

Annex Table 3.2 presents the priority areas of action of the BPoA compared to the PPoA. Again, there is a reshuffling in terms of the prominence accorded to different dimensions of development policy. The widespread expectation in the early 1990s that the globalization of production systems and finance, would help diminish income disparities between countries within the global economy (UNCTAD, 2002) was tempered by a ramped up focus on issues of poverty and social development towards the end of the decade (United Nations, 2017). Widespread agreement was seen on the need to focus attention on human development, the coverage and quality of basic public services, and the right policies for aid, including reversing the decline in ODA, improving aid coordination and its effectiveness - all factors that were also viewed as having contributed in undermining LDC progress on development. Growing inequalities within and across countries received increased policy attention.9 This renewed spirit of multilateralism was embodied in the internationally agreed Millennium Development Goals in the year 2000. In this respect, the BPoA replicates 12 targets of the Millennium Development Goals, with eradicating poverty featuring prominently in the overall objective of the PoA. Thus, the entry of the notion of a people-centred enabling policy framework alongside the Washington-Consensus-consistent focus¹⁰ introduced by the PPoA, is the most notable change in nuance established by the BPoA. Accordingly, building human capital and institutional capacities assumes an elevated profile; as agents and beneficiaries of development, women, men and children are named as the LDCs' "greatest assets". Emphasis is placed of social services, education, computer literacy, health and nutrition, and measures to address inequalities within these various dimensions.

Including in the context of structural adjustment lending, whereby the September 1999 Annual Meetings of the World Bank Group and the IMF endorsed the proposal that country-owned poverty reduction strategies (PRSPs) should provide the basis of all World Bank and IMF concessional lending, and guide the use of resources freed by debt relief under the enhanced heavily indebted poor countries (HIPC) Initiative.

Solely focussed on stabilization, fiscal adjustment and liberalization.

The BPoA entrenched export orientation as the dominant model for development in LDC

The BPoA assumes a sharper focus on productive capacities11 and the issue of promoting the expansion of domestic markets centred on income and employment generation. In 2006, UNCTAD developed the concept of productive capacities and highlighted their pivotal role in overcoming the structural impediments to development in LDCs (UNCTAD, 2006). The explicit goal to enhance the productive capacities of LDCs advances the agenda initiated by the PPoA, including by linking it to South-South cooperation, as well as subregional and regional cooperation. The BPoA accords the local entrepreneurship base specific attention, and restores the SNPA's focus on manufacturing and natural resources (mining) because of the former's potential to enhance technological capacities and the contribution made by the extractives sector as a significant source of foreign exchange earnings in many LDCs. The BPoA reconfirms the importance of domestic resource mobilization and emphasizes the accountability and mutual responsibility of the international community in the light of the aid crisis of the 1990s (Wood et al., 2008).

The BPoA's focus on trade facilitation and infrastructure issues reflects the influence of the Uruguay Round and globalization, and entrenches export orientation, dominant since the PPoA, as the dominant model for development in LDCs.

The BPoA stands out among LDC PoAs as it incorporates a total of 30 measurable and time-bound goals and targets. The urgency the global community attached to redressing neglect of the poor and the overall drive to focus interventions at the micro/individual levels that defined the basic needs agenda on poverty alleviation and inclusion, is reflected in the incorporation of no less than 20, out of 30, measurable targets (United Nations, 2001). Of the remaining measurable targets: (i) two pertain to economic growth (GDP growth rate of at least 7 per cent per annum and ratio of investment to GDP of 25 per cent per annum), which is reminiscent of

the SNPA and the UN Development Decades; (ii) five pertain to economic infrastructure related mainly to trade facilitation; and (iii) three relate to the PPoA ODA goal.

The BPoA stands out for introducing a new PoA layout that charts, in a reader-friendly format, the commitments (and principles) underpinning the PoA partnership, and lists the joint actions required of the LDCs and development partners separately under each of the priority areas of action. The BPoA effectively clarifies and raises the bar on the LDC PoA accountability framework, albeit on a non-binding basis; and thus, explicitly attempts to leverage the prevailing renewed spirit of multilateralism and addresses the persistent malfunctions of the development partnership on which the PoAs are predicated. The BPoA seeks to influence the allocation of ODA across all the priority areas of action by associating the role of the international community under each of the priority areas of action. One of the ways it does this is by enshrining acceptance that LDCs and industrialized countries have common but differentiated responsibility for actions on climate change, as well as the need for an integrated approach to development.

c. IPoA versus BPoA

Annex Table 3.3 presents the priority areas of action of the IPoA compared to the BPoA. The overarching goal of the IPoA was to overcome LDC structural challenges in eradicating poverty, achieving internationally agreed development goals, and enabling graduation from the LDC category. The IPoA set an ambitious target of enabling half the number of LDCs to meet the criteria for graduation by 2020. This was the first time that a PoA formulated an explicit recommendation on graduation from the LDC category. Despite not achieving this latter target, 2011–2020 is the most successful decade of LDC PoA implementation.

The IPoA expands the number of PoA governing principles from five to eight – the three additional ones being: (i) equity, voice and representation; (ii) peace and security; and (iii) development and human rights. It modifies the BPoA principles on market considerations and country ownership to emphasize the balanced role of the state and market considerations, as well as country ownership and leadership on matters of development policy. Of note and for the first time, the IPoA emphasizes the voice and representation of LDCs in the international economic system. Moreover, the principle of a balanced role of the state entailed a qualitative shift to emphasize the active role of the (developmental) state in the process of development.

It was only in 2006 that UNCTAD advanced the concept of productive capacities and highlighted their pivotal role in overcoming the structural impediments to development in LDCs (UNCTAD, 2006). Some elements of what became known as productive capacities were targeted by the BPoA.

These changes essentially reflected the outcomes of the Monterrey Consensus, ¹² World Summit on Sustainable Development of 2002, the 2005 World Summit, ¹³ and the High-level United Nations Conference on South-South Cooperation, 2009 (United Nations, 2009). ¹⁴

The IPoA maintains quantitative targets on ODA and seeks to double the share of LDCs in global trade - a target later reiterated by the Sustainable Development Goals in 2015. Fundamentally, the IPoA reiterated and furthered the aims of the BPoA by adopting an even more operational approach to: (i) eradicating poverty; (ii) building productive capacities; (iii) advancing actions on broadening the economic base in LDCs; and (iv) mobilizing financial resources for development. The IPoA also sought to address problems that had emerged during the BPoA implementation, such as the weak participation of local actors in the economy (concerns centred on issues of equity and inclusion, including: (i) issues of private sector development: (ii) technology transfer and women's entrepreneurship; (iii) increased vulnerability of LDC economies to external shocks (trade, environmental disasters and climate change impacts); (iv) related smooth transition issues for graduating countries; (v) aid-related debt risks; (vi) the long-standing problem of aid quality and effectiveness; and (vii) the growing complexity of peace and security issues. The IPoA elevated the recognition of the role and contribution of South-South cooperation in the development of LDCs in line with the emergence since the 1990s of strong and sustainable growth poles in the global South and increased South-South trade (OECD, 2010; UNCTAD, 2011a, 2011b; UNDP, 2013; United Nations, 2008).

2. Forty years of international support measures for LDCs

Each of the PoAs called for commitments on international support measures (ISMs). In addition to ODA and technical assistance, trade is the main area through which concrete LDC-specific ISMs have

DONORS HAVE NOT EXPANDED

ODA at the pace required to achieve agreed PoA targets



been pursued and operationalized, including outside of the PoAs. While the special needs of LDCs are widely recognized, major financial institutions, such as the World Bank and the International Monetary Fund (IMF), do not recognize or apply the LDC category in their operational work. Nonetheless, multilateral institutions are parties in the PoA development cooperation partnership, and jointly associated on donor commitments on financing for development, including ODA, technical assistance and debt relief.

While most aid donors wish to appear as generous as possible (OECD, 2019), the track record on greater differentiation in the special treatment of LDCs is inconsistent. It can be said that the PoAs have had influence on the international discourse on development in LDCs serving as a useful tool for advocacy since donors need to secure their public's buy-in for aid policy. Policy statements notwithstanding, many donor countries have not expanded ODA to LDCs at the pace required to achieve agreed targets; concerns about this were raised as early as the first LDC Conference in 1981 when the topic of the limited progress achieved in the implementation of the Immediate Action Programme was broached (United Nations, 1982). There are several dimensions to the less-than-satisfactory record on the fulfilment of ODA goals and targets, not least the lagged constraints imposed on the capacity and inclination of donors to meet ODA targets during times of domestic economic strife. These factors likely contribute to explaining why donor commitments on ODA in the PoAs weakly translate to actual aid transfers and why aid allocations are unequally distributed across the various dimensions of development.

Donor ambition is also measured by the nature of their commitments. Critics point out that ODA

This is the first UN-sponsored summit-level meeting to address key financial and related issues on global development and widely considered to be a turning point in the international community's approach to development cooperation and financing for development issues.

The Summit reaffirmed common fundamental values, including freedom, equality, solidarity, tolerance, respect for all human rights, respect for nature and shared responsibility. It recognized development as a central goal of multilateralism and addressed issues of interdependence, global partnership, and good governance.

Member States stressed that South-South cooperation is a complement to, North-South cooperation and not a substitute.

The political context for the PoAs is as important as the targets themselves

commitments do not amount to a promise to attain the targets; furthermore, the graduated nature of the PPoA-established commitments skews donors' incentive because the few relatively small countries that consistently reach the upper-level target (0.20 per cent of GNI) are required to do more. Bigger and richer donor countries that do not attain even the lowest target (0.15 per cent of GNI) are subject to less pressure to commit to a volume of ODA in proportion to their GNI (Diallo et al., 2020; Scott, 2019).¹⁵

The political context for the PoAs is as important as the targets themselves because donors inevitably respond to development goals in ways that are specific to their local situations. Accordingly, it is also important to recognize that the messages that may be most effective in garnering donor support for pro-development policies and sustained aid programmes may be different from those that incentivize sustainable progress on the ground (Manning, 2009). Studies have distinguished a variety of donor motivations for giving, e.g. solidarity, recipient need, donor self-interest, recipient characteristics, donor ideology, historical path dependencies, geopolitical competition, trade interests, enlightened self-interest, and domestic security concerns (Alesina and Dollar, 2000; Alonso, 2018; Brück and Xu, 2012; Carbonnier, 2010; Fuchs et al., 2014; Gulrajani and Swiss, 2017; Maizels and Nissanke, 1984; Tierney et al., 2011; UNCTAD, 2019a; Woods, 2008; Wood et al., 2008). Also noteworthy is that the Monterrey Consensus, which underpins 21st century development financing, and which advanced the view that sound governance is necessary for aid to be used effectively. This endorsement effectively justified selectivity in aid allocation by donors and tilted the balance of responsibility for aid effectiveness towards aid recipients.

One troublesome issue is the multitude and contested meanings on the concept of development. Such ambiguity and elusiveness serves to justify a variety of different agendas held by national governments, donors, and the diverse and increasing number of actors in development cooperation; this is further complicated by power imbalances that tend to negate the rhetoric on LDC ownership and leadership on decisions on this question (Manning, 2009; UNCTAD, 2019a). Since the Monterrey Consensus, the meaning of the concept of development is heavily weighted towards poverty alleviation and development perspectives emphasizing individual well-being versus a holistic view of the national economy functioning as a system that simultaneously addresses societal well-being. The interplay of stagnant ODA flows and a sectoral allocation disproportionately geared towards social sectors and humanitarian activities leaves economic infrastructure and productive sectors relatively underfunded (UNCTAD, 2019a).

The recent DAC rule changes on ODA reporting has generated controversy. A major concern is that under the new reporting rules, other than the fall in the degree of ODA concessionality, is that ODA ceases to be a reliable gauge of donor effort, and thus negates United Nations ODA targets, which themselves were based on the 1969 DAC definition of ODA (Rogerson and Ritchie, 2020; Scott, 2019; UNCTAD, 2019a).16 The DAC contends that ODA plays an indispensable role in catalysing the private development finance needed to close the funding gap for the Sustainable Development Goals; accordingly, since 2019, DAC donors increasingly channel ODA through their bilateral development finance institutions (DFIs) to facilitate blending finance. However, the evidence on increased and additional private flows remains far from convincing (UNCTAD, 2019a). The establishment in January 2020 of the first privately-owned development finance institution by J.P. Morgan not only belies the DAC logic, but raises questions on the trend to financialize development. Available evidence suggests that the private DFI engages more in "rearranging existing investments", rather than unlocking new and additional private capital to address development issues (Saldinger, 2021). In this process of turning development into a financial asset, Sustainable Development Goals concepts and development

In recognition of the few donors that exceeded the SNPA LDC-specific target on ODA, the PPoA further modified the measurable and time-bound targets for ODA as follows:

Donor countries providing more than 0.20 per cent of their GNP as ODA to LDCs to continue to do so and increase their efforts;

[•] Other donor countries which met the 0.15 per cent target to undertake to reach 0.20 per cent by the year 2000;

All other donor countries to reaffirm their commitment to the 0.15 per cent target, and to undertake either to achieve the target within five years (by 1995), or to make their best efforts to accelerate their endeavours to reach the target.

Starting with 2018 data, the new grant equivalent measure of ODA became the standard for reporting. https://www.oecd.org/dac/financing-sustainabledevelopment/development-finance-standards/What-is-ODA.pdf

impact are reduced to symbolic branding tools to achieve commercial profit and side-lining the principles of LDC ownership and leadership (Alonso, 2018; Dissanayake, 2021; Saldinger, 2020; UNCTAD, 2019a).

Trade is the main area through which concrete LDC-specific ISMs have been pursued and operationalized. This is perhaps unsurprising given that export orientation is entrenched as the dominant development model. Trade preferences have the greatest international momentum to provide special treatment for LDCs, both in the context of market access and in the implementation of WTO rules and disciplines.¹⁷ The Generalized System of Preferences (GSP) was instituted in 1971 under the aegis of UNCTAD and saw all developing countries granted trade preferences by most industrialized countries (UNCTAD, 2018c, 2018d, 2019c). The provision and utilization of trade preferences is a key goal of all the PoAs, further reaffirmed in Sustainable Development Goal 17. Since the early 2000s, more generous provisions have exclusively been introduced for LDCs under the GSP. While some evaluations on the impact of trade preferences on LDCs suggest otherwise (Klasen et al., 2021), evaluations by UNCTAD and scholars concur that they have generated limited results (Gay, 2020; Tanaka, 2021; UNCTAD, 2010, 2003), especially with respect to fostering structural transformation. A related concern is the risk that preferences entrench production patterns that are not sustainable in the light of progressive liberalization. Facilitating development-inducing export growth in LDCs requires a holistic approach, rather than merely focusing on tariffs. LDCs are typically characterized by narrow export bases - market access alone does not provide sufficient impetus to change the composition of their exports. Their narrow export base can also prevent them from fully exploiting available market access opportunities, including in effectively meeting the rules of origin requirements of such unilateral schemes (WTO, 2019, 2021). The merchandise export structure of LDCs differs substantially in that some countries can better take advantage of available preferences than others: Bangladesh is an example of an LDC that has exercised its state capacity to substantially benefit from ISMs.

C. National strategies for furthering development

The preceding sections of this chapter have examined, first, the evolution of the priorities for development

Trade preferences have the greatest international momentum to provide special treatment for LDCs

strategies agreed by LDCs and the international community and enshrined in the successive programmes of action, and second, the international policy initiatives adopted by LDC development partners to assist LDC development, as translated by the ISMs that have been put into action. The present section examines the domestic development policies and strategies adopted by LDCs, and completes the analysis of the policies steering the development outcomes analysed in Chapter 2. While international developments are a determinant of development outcomes (especially for aid-dependent countries and those most integrated into the global economy), domestic dynamics are just as important. This section concentrates on the types of development objectives and sectors prioritized by governments, and which are mostly financed from domestic resources. The analysis is based on a scrutiny of spending plans in the latest generation of national development plans, and on the patterns of public spending going back to the 1990s.

1. Overview of national priorities

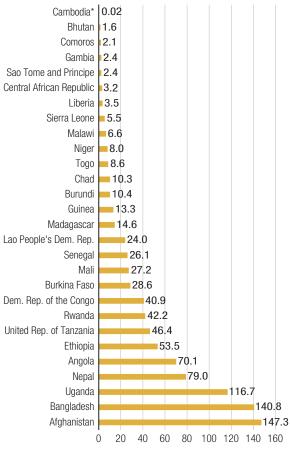
Countries follow different development paths and trajectories as a result of initial conditions, national policy choices, and exogenous factors (Mkandawire and Soludo, 2014; Olukoshi, 2008). The implication of unique country challenges requires that countries strike a balance among different priorities, while pursuing their own development agenda. At the centre of development planning processes are the governance structures and institutions that define national visions and develop strategies and policies to realize them. These governance institutions have the concomitant responsibility to develop policies that foster cohesion across the populace and balance the trade-offs and unintended consequences of policies. These contrasting forces have once again become a major feature of national policymaking process in developing countries since 2015 (Chimhowu et al., 2019). Therefore, an analysis of LDCs' national development plans was made, covering various overlapping periods beginning in 2014/2015-2020/2021 and ending in 2020/2021-2030/2036.

Several of these plans contain an implementation cost estimate, while others only include an indication

¹⁷ https://unctad.org/topic/trade-agreements/generalizedsystem-of-preferences

Figure 3.1

Total budget allocation based on national development priorities in billion dollars covering the latest plan period**



Source: UNCTAD secretariat calculations based on data from various national development plans.

Notes: * The figure represents only 25 per cent of the infrastructure investment estimates. ** Plan periods vary, beginning in 2014/2015–2020/2021 and ending in 2020/2021–2030/2036.

of the spending allocation according to broad areas of priority. The budgets are largely tied to an economy's size and not necessarily indicative of the country's level of ambition. For example, Angola, Bangladesh, Ethiopia, Nepal, Uganda and United Republic of Tanzania have relatively large budgets, consistent with their size. By contrast, the development plans of Rwanda and Burkina Faso exhibit considerable ambition, compared to other LDCs at similar income levels (Figure 3.1). Afghanistan is a particular case. There, the economy size is not a limiting factor, which demonstrates the country's expectations to mobilize sizeable external resources to boost the prospects for peace and recovery after years of conflict, clearing backlogs in public service delivery, and strengthening institutions (Islamic Republic of Afghanistan, 2021). In fact, Afghanistan received the highest share of ODA

to LDCs in 2018–2019 accounting for 10 per cent of the \$57 billion of aid to all LDCs.

The selection and costing of flagship projects for implementing national plans vary according to country priorities, and from actual budget spending data. An analysis of the national development plans providing details and costing of spending for the implementation of the plans reveals that national governments place a high level of priority on the development of productive capacities, economic diversification and structural transformation. A sectoral breakdown of the national budgets of 23 LDCs for which data is available, reveals that they foresee an average 52 per cent of their budget allocations dedicated to the two sectors of: Economic development, transformation, diversification; and infrastructure. In the case of Burundi, Ethiopia, Liberia, Nepal, Madagascar and United Republic of Tanzania, their share of allocations in these sectors is especially high, with the two categories accounting for more than 60 per cent of planned spending (Figure 3.2). Burundi, for example, allocated 77 per cent of the cost of implementing its national plan to those broad themes. Although, infrastructure development, which is central to economic transformation, received only 2.5 per cent of the budget, despite currently having only 1,646 km of paved roads out of a total of 5,211 km in the classified national road network (Government of Burundi, 2018). Several countries have allocated an above-average (at least 30 per cent) of their budgets to economic development, transformation and diversification, including Guinea, Madagascar, Malawi, Mali, Nepal, Niger, Sao Tome and Principe, Senegal and United Republic of Tanzania.

At the same time infrastructure appears as a high priority for Chad, Comoros, Democratic Republic of the Congo, Ethiopia, Gambia, Liberia, Sierra Leone, and United Republic of Tanzania, where it accounts for over 30 per cent of planned spending. Ethiopia and Comoros (both at 49 per cent) and Sierra Leone (46 per cent) present contrasting prominence of infrastructure expenditures in their respective national budgets, relative to their economy and land masses. Ethiopia's goal of attaining middle-income country status by 2025 is robustly supported by the country's implementation of mega-infrastructure projects, such as: (i) in energy, the Grand Ethiopian Renaissance Dam project; (ii) in transport (multi-modal transport linkages - rail, road, and upgrades to airports); (iii) housing, urban infrastructure projects; and (iv) industrial parks (Girma et al., 2019). Apart from infrastructure, Ethiopia is also prioritizing economic diversification and human capital development.

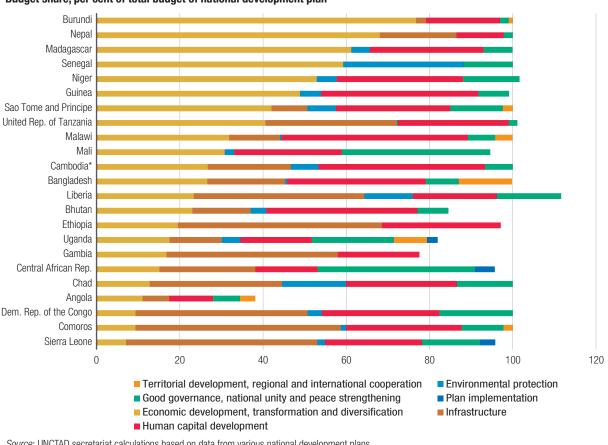


Figure 3.2 Budget share, per cent of total budget of national development plan

Source: UNCTAD secretariat calculations based on data from various national development plans.

Among the countries with data (Figure 3.2), Malawi, Cambodia and Guinea devote most of their national development budget to human development, which ranges from 38 to 45 per cent of planned spending. By contrast, Bangladesh, Liberia, Mali, United Republic of Tanzania, and to some extent Gambia, have spread their resources evenly across economic development, transformation, diversification, infrastructure, and human development.

Government expenditures typically involve trade-offs between tax implications and macroeconomic impacts, including those deriving from its effects on inflation, private investment and savings (Shenggen, 2008; UNCTAD, 2019a). Not all public expenditures are effective in stimulating economic growth, reducing poverty, or addressing other development challenges. Advocates of the endogenous growth model highlight the important link between social spending and human capital development. Education and health are considered key channels for augmenting "capital", and improving labour productivity (Piabuo and Tieguhong, 2017). However, spending on other functions of government,

for example general government services (operations), may have a larger impact on economic growth than expenditure on health and education, hence the need for governments to seek optimal fiscal policies (Ghosh and Gregoriou, 2007).

Environmental protection emerges as an important outlay in relation to total budgets for some LDCs, especially for Chad (15 per cent), Liberia (12 per cent), and Senegal (29 per cent). As coastal countries, Liberia and Senegal share unique environmental challenges related to marine resource protection and other coastal problems caused by climate change (Jönsson, 2019; Sherif, 2019). Chad's location in the Sahel is challenging for several reasons, including access to water, and the threat of desertification (Hussaini et al., 2019).

2. Public spending and economic growth

The analysis of the total costing and issues prioritized by national development plans is complemented by a discussion of the trends in, and composition of, actual government expenditures, as these reflect the policy priorities of national governments.

Table 3.1
General government final consumption expenditure in selected LDCs

(In billions of US dollars, period average)18

Country	1990-1999	2000-2010	2011-2019
Angola		7.25	21.13
Bangladesh	1.87	3.82	9.81
Benin	0.31	0.65	1.29
Bhutan	0.05	0.18	0.36
Burkina Faso	0.57	0.93	2.02
Burundi	0.16	0.22	0.65
Cambodia	0.12	0.37	0.93
Central African Rep.	0.17	0.13	0.26
Chad	0.13	0.37	0.71
Comoros	0.04	0.07	0.11
Dem. Repu. of the Congo	0.21	0.86	2.71
Djibouti			0.36
Eritrea	0.20	0.37	0.08
Ethiopia			5.64
Guinea	0.27	0.37	1.43
Guinea-Bissau	0.02	0.07	0.11
Haiti		0.59	1.10
Kiribati	0.01	0.02	0.12
Lao People's Dem. Rep.		0.33	1.54
Lesotho		0.26	0.97
Liberia		0.14	0.50
Madagascar	0.52	1.11	1.84
Malawi	0.30	0.50	0.87
Mali	0.38	0.98	2.27
Mauritania	0.33	0.54	0.84
Mozambique	0.53	1.43	3.62
Myanmar		0.49	11.48
Nepal	0.37	0.85	2.20
Niger	0.54	0.84	1.67
Rwanda	0.22	0.50	1.13
Senegal	0.99	1.48	2.71
Sierra Leone	0.08	0.18	0.39
Solomon Islands	0.04	0.07	
Somalia			0.25
South Sudan		0.58	1.74
Sudan	0.66	3.98	3.86
Tanzania	0.82	2.20	4.39
Timor-Leste		0.58	0.92
Togo	0.19	0.30	0.73
Uganda	0.55	1.34	2.62
Zambia		0.17	3.26
LDC average*	10.66	35.13	98.49

Source: UNCTAD Secretariat calculations based on World Bank, World Development Indicators database [accessed May, 2021].

Notes: * Average of countries indicated in the table.

Budget allocations to productive and non-productive sectors determine both social welfare and economic development but have different impacts (Barro, 1990; Shenggen, 2008; Ghosh and Gregoriou, 2007). The level, composition and targeting of government spending are important fiscal policy instruments, as they not only reflect government priorities but also signal government commitment to the development agenda to private sector investors and partners (UNCTAD, 2019a).

Government spending power and patterns vary significantly among developing countries, including LDCs, and largely depends on: (i) a state's capacity in mobilizing domestic resources, including tax revenue; (ii) the availability of international support (mainly ODA); and (iii) access to domestic and international borrowing. State capacities are also needed to translate national priorities into appropriate fiscal and monetary policy instruments to support development (Nnadozie et al., 2017).

Despite the challenge of data availability, spending trends are important to understand the dynamic impact of government expenditure on economic growth, capital stock, structural change, social development and poverty reduction. They also, to a certain extent, highlight the role of domestic resource mobilization in economic development.

This section explores some of the macroeconomic debates based on real budget data from selected LDCs with expenditure data on agriculture, manufacturing and industry. These sectors are explicitly targeted as they are specifically named as key sectors in several national development plans, for example, Ethiopia's Growth and Transformation Plan II, Rwanda's National Strategy for Transformation and Myanmar's Sustainable Development Plan (2018–2030) (Government of Ethiopia, 2018; Government of Rwanda, 2017; Government of Myanmar, 2018).

For LDCs as a group, public final consumption expenditures increased from about \$11 billion in 1990–1999 to close to \$100 billion in 2011–2019 (Table 3.1), reflecting improved spending capacity as LDC economies grew, and radical shifts in demand for public investments and services as national populations ballooned. Angola, Bangladesh and Myanmar more than trebled their public expenditures in 2000–2019 compared to 2000–2010. Many other LDCs doubled expenditures during the same period. Government expenditures were mainly boosted by the push to meet targets or goals missed during the implementation of Millennium Development Goals, as well as during fiscal readjustments as the 2008/2009 global economic crisis receded, and commodity

General government final consumption expenditure includes all government current expenditures for purchases of goods and services (including employee compensation). It also includes most expenditures on national defence and security, but excludes government military expenditures that are part of government capital formation.

markets recovered. The adoption of the IPoA in 2011 also played a role in improving external resource flows to LDCs, although the most prevalent channel of development financing was through project support (UNCTAD, 2019a).

Government spending in LDCs for which data are available averaged just above 20 per cent of GDP in every decade during the period 1990-2020. As large developing economies grow, they tend to experience a decline in the government spending to GDP ratio. This may be challenged by Wagner's law which states that government expenditure grows faster than the economy. However, regardless of the stability or increased public goods demand level, when public service delivery is constrained on the supply side by infrastructure and other gaps, a growing economy does not immediately translate into larger government (Dluhosch and Zimmermann, 2006). This has been the case for Angola over the three decades for which data are available (Figure 3.3). Smaller economies are more likely to have difficulty in ensuring fiscal consistency from one planning cycle to another, due to instability in revenue collections which in turn leads to oscillating government expenditure as a share of GDP.

Typically, in a small cash-strapped open economy, budget deficits from previous years, current

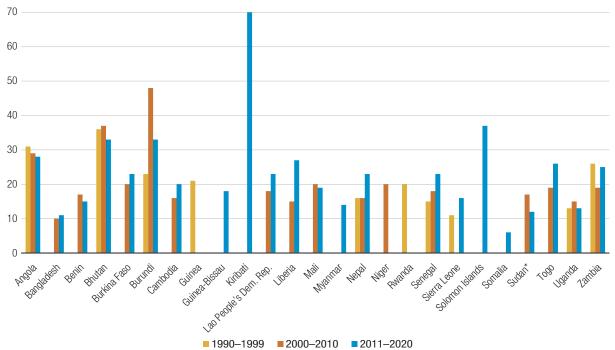
Government spending in LDCs



Average in 1990-2020

tax revenue and size of economy are important determinants of a country's capacity to spend. A declining or constant trend of the past budget deficits may reflect improvements in revenue collections, which is important because of the long-term nature of national development plans, and the limited tax collection in some of the countries. The capacity to spend is therefore key in reducing primary government deficits, which may have a crippling

Figure 3.3
Government spending share of GDP for selected LDCs, 1990–2019



Source: UNCTAD secretariat calculations based on data from IMF, Government Finance Statistics (GFS) database [accessed May 2021]. Note: * The spending share for Sudan in 1990–1999 was 810 per cent of GDP.

The link between social development and government expenditure may not be positive

effect on economic growth. The relevant question is therefore what determines government's capacity to spend.

Some studies consider only tax revenue and size of the economy as relevant indicators of the current capacity to spend (Shenggen, 2008; Ghosh and Gregoriou, 2007). However, contrary to Shenggen (2008), developing countries with low per capita income spend proportionately more relative to GDP than countries with higher income levels. It can therefore be assumed that the relationship between spending capacity and per capita income level becomes negative for sufficiently large developing countries. Consistent with this assumption, Awaworyi et al. (2015) meta-analysed empirical studies of the effects of government size on economic growth, and found evidence of a negative effect in the developed countries sample, but the relationship was statistically insignificant in the LDC sample. The relationship between socioeconomic development (proxied by the underfive mortality rate) is slightly complex. It is commonly accepted that developing countries have high under-five mortality rates, but countries that have relatively more spending capacity have been able to reduce child mortality by channelling resources to the health sector. Therefore, both per capita income and under-five mortality are expected to be inversely related to the spending power of sufficiently large economies. This implies that as the economy grows, the share of public spending in GDP is expected to decline for larger economies, and that low social development should trigger more government spending. It is also expected that ODA adds to spending capacity of recipient countries. The model can be estimated empirically using either pooled cross-section time series regression or panel data methods. 19 The dynamic panel specification and the

⁹ Assuming the following specification:

$$E_{it} = \beta_0 + \beta_1 E_{it-1} + \sum_{(j=2)}^k \beta_j X_{jit} + \mu_{it},$$

where E_{it} is expenditure at time for country i at time t, X_j , j=2, ..., k are other factors determining expenditure, β 's are parameters to be estimated, and μ_{it} is the error term. Dynamic panel estimation methods that consider endogeneity and country effects can be used to generate the result, assuming autoregressive disturbances and country-fixed effects.

instrumental variables estimation method used in this chapter is robust.²⁰

The most important determinant of government **expenditures** is the level of tax revenue (Table 3.2). This highlights the importance of domestic resource mobilization as a crucial determinant of the capacity of LDC governments to execute investments and spending to implement the priorities singled out in their national development plans. The second most important determinant of government spending is past levels of spending, which highlights the importance of consistency in government's fiscal policy efforts. ODA contributes positively to a government's capacity to spend, but its coefficient is low and statistically insignificant, reflecting the weak link between international support and government expenditure. The reasons for this are: (i) budget support constitutes a negligible share of ODA received, the bulk of which is channelled as project financing; and (ii) total ODA figures are generally much lower than LDC governments' own resources (UNCTAD, 2019).

The relationship between government spending and the level of economic development is important as it establishes, first, the fundamental role of an economy's size in determining an LDC's capacity to finance its own development. However, the low and significant coefficient shows how insufficient that capacity is in the context of narrow tax bases and lingering low taxation rates. Second, the general assumption that government expenditure increases with economic growth is critical for growing economies, but – as explained above – the major drawback among LDCs is the low rate by which government expenditure increases per unit increase in income level.

A low **social development** (proxied by under-five mortality rates) also triggers more spending as can be expected. The link between the level of social development and government expenditure may not always be positive, as it depends on the proxy used for social development and model assumptions. The positive role of government expenditure in reducing child mortality is an endogenous relationship that has been established empirically using various estimation techniques, including micro-survival data and panel data methods with economic growth as part of model

The model was estimated using a more flexible dynamic panel data estimator introduced by Ahn and Schmidt (1995). It is not only dynamic but also allows low order moving average correlations between the idiosyncratic error term and regressors. The model has two features that improve its performance in small samples – namely, the use of excluded exogenous variables as instruments, and robust standard errors – both of which address misspecification problems.

(Wang, 2003; Hall et al., 2021; Nyamuranga and Shin, 2019).

It may not be immediately clear what determines spending in specific sectors in each country without reference to national development plans. However, depending on resource constraints and the focus of national policies, countries constantly prioritize between different productive sectors and between them and social sectors. To illustrate this, Angola, Bhutan, Burundi, Nepal and Zambia are compared over two periods, 1990-1999, and 2010-2019. The comparison is limited to these countries because they have consistent data over the study period. As noted earlier, the dominant pattern among countries is for the expenditure share of GDP to fluctuate from year to year, except for Angola (Table 3.3). In Angola, remarkably, with the exception of defence expenditure, the share of government spending (per cent of total government expenditure) increased for all sectors. As can be seen in 2010–2019 expenditure levels compared to 1990-1999, spending on social protection, general public services, and economic affairs sectors - particularly transport and communication - fuels and energy have all been increased.

Similarly, economic sectors attracted the largest shares of Bhutan's spending in both 1990–1999 and 2010–2019. Compared to other LDCs, Bhutan's share of spending was significantly higher in agriculture, and transport and communication. Of the remaining sectors, it is notable that the education sector received a significantly higher share of spending in 2010–2019, with the rest staying largely unchanged

Table 3.2

Determinants of government expenditure in LDCs, 2000–2019

Dependent: expenditure (per cent of GDP) x variable	Coefficient	Elasticities: log (govt. exp.)/log (x variable)	Mean	
Lagged expenditure (per cent of GDP)	0.308*	0.290	28	
Tax revenue (per cent of GDP)	0.531*	0.235	13	
GNI per capita	0.003*	0.116	1 070	
ODA (per cent of GDP)	0.014	0.005	9	
Under-five mortality rate	3.4 mm	0.158	90	
_constant	5.745*			

Source: UNCTAD secretariat calculations based on data from IMF, Government Finance Statistics (GFS) database and World Bank, World Development Indicators database [accessed May 2021].

Note: * Significant at 1 per cent level.

across during the two decades. By contrast, Burundi – whose current national development plan emphasized the role of economic transformation and diversification – did not match this ambition with spending on economic affairs sectors in 2010–2019. As shown in Table 3.3, spending fell in all economic subsectors, and in other sectors during 2010–2019, reflecting an ongoing adjustment in its resource basket. However, the GDP share of expenditure increased during 2010–2019, and coincident with a period in which the country experienced significant growth in its economy since 2003.

The last two cases in Table 3.3 show contrasting trends. In Nepal, expenditure on the economy declined as investments, mainly in the energy sector, dropped as projects came to completion. The share of

Table 3.3
Government expenditure share on selected sectors by country, 1990–2019

Country		Total expenditure (per cent GDP)	Economic affairs (per cent of total expenditure)					Other sectors (per cent of total expenditure)				
			Economic affairs total	Agriculture, fishing, forestry, and hunting	Mining, manufacturing, and construction	Transport and communication	Fuel and energy	Health	Education	Defense	General public services	Social protection
Angola		31	7	1.3	0.1	3.1	2.1	4	7	46	29	1.47
Bhutan	666	36	46	16.3	1.3	15.0	12.0	8	11		23	
Burundi	_	23	17	5.2	2.9	4.7	1.7	4	17	22	33	1.59
Nepal	1990-	16	42	8.3	3.4	13.1	9.1	4	13	6	24	1.95
Zambia		26	12	3.0	0.7	4.3	0.2	8	11	7	52	1.57
Angola		29	17	1.1	1.0	7.5	5.1	5	9	13	33	14.9
Bhutan	019	34	32	12.8	0.5	14.1	2.0	9	20		24	
Burundi	2010–2019	37	7	2.5	0.7	1.7	1.6	7	17	7	18	0.8
Nepal		23	29	9.0	0.9	10.8	2.8	6	16	7	24	3.9
Zambia		24	34	9.7	0.3	0.2	0.1	7	13	7	31	0.4

Source: UNCTAD secretariat calculations based on data from IMF, Government Finance Statistics (GFS) database [accessed May 2021].

The impact of ODA expenditure is negative on agriculture

spending on agriculture remained largely unchanged, with education and social protection increasing slightly. In Zambia, spending on the economy increased as agriculture spending was ramped up in the sixth and seventh national development plans. At the same time, spending on social protection and general public services declined, but spending on education rose slightly.

In all five cases, it is important to note that **most countries prioritized economic sectors**. With respect to other sectors, countries boosted resources to education and general government services. This lends credence to the earlier assertion that LDCs prioritize economic transformation and diversification, confirming once again the pattern gleaned from the analysis of national development plans of a much larger sample of LDCs in the previous subsection. Government's awareness of the central role of productive capacities in their development has led them to dedicate significant policy attention and resources to this issue.

How the impact of government spending on productive sectors of the economy influences budgeting processes and periodic evaluations of development plan implementations remains unclear. The literature on the determinants of various components of spending shows mixed results across regions. For example, Shenggen (2008) found that as total expenditures increase, the share of agriculture spending declines. The study also established a negative but statistically insignificant correlation between agricultural GDP in Africa and expenditure on agriculture. By contrast, a reduction in agricultural GDP in Asia seemed to trigger more spending in the agriculture sector – a result attributed to protectionism. In Africa, most components of government spending increase with government revenue and size of an economy. However, some components tend to suffer, as budget constraints oblige governments to prioritize. For example, Shenggen (2008) found that in Africa, expenditure on social protection had a negative relationship with an economy's size. However, countries may need to increase spending on social services to effectively reduce poverty.

The designation of agriculture, industry or services as priorities has implications for fiscal policy.

The fundamental consideration for policymakers in developing countries are the trade-offs and complementarities and synergies across policy choices. For example, the development of the agriculture sector may have higher multiplier effects for poverty reduction in many LDCs. Similarly, targeted public spending in infrastructure and other public services can have significant effects on efficiency and competitiveness of manufacturing and other industries (ECA and UNEP, 2016). In the case of the LDCs for which data exist, government expenditure on both agriculture and industry has positive and significant impacts on growth in these respective sectors. However, the available data suggests that the impact of ODA expenditure is negative on agriculture (Table 3.4). This is likely related to the kinds of activities that are supported by ODA in agriculture, which in many LDCs shows a concentration in specific areas, e.g. policy and administration, that do not have an immediate and direct impact on productivity (see also (UNCTAD, 2019a, 2020a).

The share of labour employed in agriculture has a negative and significant relationship with the value-added share of agriculture. This implies that labour is either inefficiently utilized in agriculture, or that under certain labour market conditions, excess labour employed in the sector should be reallocated to other productive sectors. Excess employment in agriculture contributes to low growth, and declining average product of labour in the sector. By contrast, the labour employment share of industry has a positive but insignificant relationship with industry value added. The main difference in developing countries between agricultural labour and labour employed in industry is the set of skill endowments, with the labour in industry having slightly more skills attributes. However, on a global scale, the labour in industry is not statistically significant because of low productivity. The results are consistent with previous findings that agriculture's contribution to GDP has been declining much faster than the transformation of labour employment. Agriculture still employs the majority of the labour force in many LDCs, while labour productivity has, overall, grown at a very low rate (UNCTAD, 2020a).

Government expenditure in the agriculture and industry sectors have positive and significant impacts on agriculture productivity, respectively, reflecting complementarity between industry and agriculture. The potential mechanisms include growth in an industry with a demand feedback on agriculture, either as raw materials or through increased final consumption as income per worker improves in both sectors. However, relative to other sectors, the

Table 3.4 Impact of government expenditure on agriculture and industry in selected LDCs, 2000–2020

Dependent/explanatory variables	Agriculture value added share of GDP	Dependent/explanatory variables	Industry value added share of GDP
Labour employment share of agriculture	-0.14*	Labour employment share of industry	0.24
Land (share of arable land)	0.03	Private investment	0.59*
Gross fixed capital formation in agriculture (per cent of GDP)	4.73*	Growth in household final consumption share in GDP	0.06
Share of government expenditure on agriculture	0.90*	Share of government expenditure on agriculture	-2.04*
Share of government expenditure on manufacturing and industry	11.33*	Share of government expenditure on manufacturing and industry	1.62*
Share of sector specific ODA to agriculture	-0.53*	Share of sector specific ODA to industry	1.76***
Constant term	-4.13	Constant term	13.14*

Source: UNCTAD secretariat calculations based on data from IMF Government Financial Statistics database, and World Bank, World Development Indicators database [accessed May 2021].

Note: * significant at 1 per cent level; ** significant at 5 per cent level; and *** significant at 10 per cent level.

negative and significant coefficient on government expenditure on agriculture in the industry value-added equation may reflect excessive agricultural bias in government spending. This is not necessarily a problem given the sector's role in poverty eradication and food security, but it does point to the need for a balanced budgeting approach which incorporates complementarities and trade-offs.

Sector-specific ODA to agriculture has a negative and significant relationship with value added in agriculture because of the unproductive nature of the resources spent on agriculture. This implies that ODA support to agriculture is counterproductive as it contributes to the inefficiency of the sector. A closer interrogation of the composition of ODA to agriculture suggests that the support falls under various other sub-themes indirectly linked to productivity. By contrast, the positive and significant impact of ODA on industry suggests that some scope exists for ODA to support productive capacities in the LDCs. A closer inspection of the data also suggests that ODA support to industry is substantial in volume, but support through this channel is concentrated in very few LDCs.

The share of gross fixed capital formation in agriculture is low in many LDCs, but its positive and significant impact on agriculture value added suggests that agriculture productivity can be enhanced by increasing investment in agriculture. Similarly, private investment has a positive and significant influence on industry value added, suggesting an important link between capital investment and economic growth through the industrialization channel. Growth in final demand also positively influences industrial value added but the coefficient is low and insignificant, suggesting low domestic absorption of intermediate and final industrial output. Hence, while the impact

on industrial value added on economic growth is important for most countries, the effectiveness of industrial growth on economic development would depend on growth in domestic markets and interlinkages among sectors of the economy.

The results presented here put into perspective the importance of national priorities and their link to government spending patterns. Results highlight a lack of depth and power for ODA to influence a positive fiscal response in LDCs. The lack of synergy between ODA and government expenditure is discussed at length in UNCTAD (2019). ODA should support the intricate link between the national development planning framework and the fiscal policy instrument (national budget). More importantly, if government spending and ODA fail to achieve maximum complementary and synergic alignment, it will not be possible to maximize the potential from LDC investments in productive sectors.

D. National case studies

Having analysed national policymaking trends in a preceding review of national development plans, fiscal planning and government expenditure, the present subsection narrows down the analysis by focusing on two LDCs that have adopted contrasting development strategies, but which each has shown success (though to different extent) in overcoming some of the major structural barriers to LDC development: Bangladesh and Senegal. Both countries are currently engaged in the process of graduation out of the LDC category, which largely reflects the success that they have achieved in their development policies. Bangladesh was recommended for graduation in 2021 and is expected to no longer be an LDC in 2026. Senegal is at an earlier phase of the graduation process, as

Bangladesh's investment-to-GDP ratio was 31 per cent in 2019.

it pre-qualified for graduation in the 2021 review of the LDCs.

1. Bangladesh

a. Structural transformation

In Bangladesh, structural transformation and economic growth have taken the form of the expansion of the manufacturing and services sectors. This has diversified the economy and brought forward economic growth, which accounted for over 1.5 per cent of annual growth in the 2010–2018 period. Along with incipient industrialization – largely driven by ready-made garments – agricultural development and growing value addition from services also contributed to accelerating economic growth and spur structural change.²¹

In the space of 30 years, the share of employment in agriculture decreased by 30 percentage points, leading to a transfer of workers to labour-intensive sectors with higher average labour productivity than agriculture. This pattern of labour reallocation partly reduced sectoral differences in productivity, and made Bangladesh a case of "growth enhancing structural change" (McMillan and Rodrik, 2011b). Despite this, a significant share of labour left low-productivity agriculture to flow to other services sectors, such as trade and hospitality, whose productivity is higher than agriculture yet lower than average. With persistent sectoral productivity gaps, scope still exists for harnessing productivity growth both within sectors and through further structural change towards higher productivity activities. This consideration is particularly important if read in conjunction with the finding that Bangladesh has been slow in developing dense input-output linkages and economic clusters to enable its economy to eventually move up global production chains and benefit thereof (Mercer-Blackman et al., 2017).

International trade growth, particularly in the ready-made garment industry, has supported structural change and economic growth in Bangladesh. Targeted policy and ISMs have enabled the country to grow its garment industry, diversify its market access and reduce export revenue

fluctuations. However, specialization in garment and clothing has been accompanied by some neglect of the business constraints in other industries, as highlighted by the country's export product concentration index score of 0.422 since the 2000s. The development of global value chains (GVCs) in Bangladesh has been somewhat limited, especially when compared to the progress made by Cambodia and Lao People's Democratic Republic, as well as other Asian countries, such as China and Vietnam. Bangladesh stands out for having relatively high backward participation and low forward participation in its GVC, driven by a textile and clothing industry accounting for 83 per cent of domestic value added in exports. Conversely, sectors expected to drive structural transformation, such as agro-food and low-technology manufacturing, have made minor contributions. The country is beginning to show some incipient examples of diversification in technology-intensive products and service sectors but progress in product and export diversification is slow with the emergence of input-output linkages across sectors a persistent weakness underlying the country's economic structure.

From 2006, the country's investment-to-GDP ratio surpassed 25 per cent of GDP, reaching 31 per cent in 2019. Domestically, investment in infrastructural provision and rural development has improved, in spite of low tax-to-GDP ratio of 10 per cent, 50 per cent of which is from custom duties and indirect taxes.

b. Development policies

Economic growth, driven by export and remittances expansion, has accelerated since 2002. This growth began with the trade liberalization policies of 1990, which led to an export boom driven by LDC-specific preferential market access in ready-made garments. Bangladesh's growth over the period 1983-2016 occurred in the midst of worsening inequality; a period in which the Gini index rose from 25.6 to 32.4, before plateauing again as rural development and employment creation made growth more inclusive. Despite these increases the Gini index remains relatively low by international standards. Bangladesh has reduced income poverty rates and incidence. Between 2000 and 2016 the incidence of poverty halved 24.6 percentage points. 90 per cent of the reductions occurred in rural areas (World Bank, 2019).

²¹ This subsection is largely based on (UNCTAD, forthcoming).

This index (also named Herfindahl-Hirschmann Index – product HHI) is measured between 0 and 1. For each country, it captures the degree of concentration of goods exported. A low score signifies that a large share of merchandise exports is accounted for by a small number of products.

The share of agriculture, forestry and fisheries in GDP decreased to 14 per cent in 2018, reflecting a rise in manufacturing and services. However, country's supply-side bottlenecks logistical inefficiencies render its transport costs higher than other regional LDCs, which inhibits accelerated trade growth. In fact, the lack of export diversification - 80 per cent of Bangladesh's exports are in ready-made garments - highlights the concentration and dependence on a narrow range of products. Although this is concerning in the long-term, the stability of textile and clothing has served to stabilize terms of trade and purchasing power.

Identifying the country's position as a "follower" of technology, the government established a "Digital Bangladesh" initiative to enhance technology adoption across sectors. This initiative followed an earlier diagnosis of the pressing need for technological and skill upgrading, and advancing innovation ecosystems to transfer, domesticate and adopt technology.

Economic growth in Bangladesh has been underscored by continuous social policy efforts. Women's education and empowerment were the most crucial factors contributing to the progress in the reduction of child mortality in Bangladesh. According to the NGO Save the Children (2019), this was largely the result of the government's effort in setting up community clinics and digitalization of the primary health care (PHC) system, both key to children's health outcomes.²³ Child mortality ratios confirm that Bangladesh reduced its under-five mortality rate to 31 deaths per 1,000 live births in 2019 - a similar level as Afghanistan, Bhutan and Nepal. Health policy reforms, including service delivery, coverage of effective interventions and socioeconomic conditions, explain the country's improvement and its reduction in urban-rural and regional disparities in child mortality rates (Khan and Awan, 2017). Effective family planning programmes, improved delivery attendance, and access to maternal care services reduced total fertility rates; the combination of these three factors led to the decline in the maternal mortality ratio. Pioneering girls' education and women's empowerment and free primary education policies combined to increase enrolment rates and reduced adult literacy rates and supported maternal and child health improvements.

The **gender parity index** for the gross school enrolment ratio shows that gender disparities in

Bangladesh has the highest adult literacy rate among LDCs in South Asia

access to education have reduced significantly since the 1990s. Girl's participation and educational attainments have improved faster than that of boys, resulting in the gross secondary school enrolment exceeding the value of 1 since the early 2000s.²⁴ Government initiatives, non-formal education delivered by NGOs, formal sector employment requiring secondary education for women, are among the reason for closing the gender gap. Nonetheless, girls' outcome in education is lower than boys, and low completion rates and grades highlight the negative difference in investments in education quality for girls.

Bangladesh has pursued efforts to improve food security by enhancing rural connectivity in a sustainable and "climate-proof" manner (IFAD, 2019), as evidenced for instance by the Coastal Climate-Resilient Infrastructure Project (CCRIP), which targets beneficiaries in coastal rural districts. The country reduced the number of severely food-insecure people from 20.7 million in 2014–16 to 17.2 million in 2017–19 (FAO et al., 2020). From 1990s to 2019, the prevalence of stunting by 40 per cent and the country also achieved progress in reducing chronic malnutrition.

Bangladesh has the highest adult literacy rate among LDCs in South Asia, although it performs poorly in universal literacy. Literacy rates rose from 48.6 per cent in 2017 to 74.7 per cent in 2019. Bangladesh's commitment to education and human capital development to tap the demographic dividend is reflected in efforts by NGOs and other national efforts, such as universal enrolment in primary education and gender parity in school access.

Environmental vulnerability ranks highly in the case of Bangladesh, not least because of the size of its territory and the numbers of its population living in low elevated areas, leaving them vulnerable to disasters, and unstable agricultural production. Bangladesh "is one of the most climate vulnerable countries in the world" (MOEF, 2009: xv). Over 70 million people in Bangladesh could be affected by climate change, according to the National Adaptation Programme of Action (NAPA) estimates. The Government of

This initiative helped Bangladesh win the award "Digital Health for Digital Development" from the United Nations in 2011 in recognition of its use of information and communication technology (ICT) for health and nutrition.

The gender parity index for gross enrollment ratio in secondary education is the ratio of girls to boys enrolled at secondary level in public and private schools.

Bangladesh has experienced widening resource gap averaging 6 per cent over the past 15 years

Bangladesh has adopted measures to mitigate climate risk, including approving 678 projects under the Climate Trust Fund between 2010 and 2021. Notwithstanding this, the country remains at risk compared to other South Asian LDCs. Bangladesh's yearly average of seven natural disasters has claimed the lives of 110 million people, according to the EM-DAT (2000–2019) estimates. Lower income households dependent on natural ecosystems are often the most vulnerable.

c. Smooth transition in the path to graduation with momentum

Bangladesh is set for LDC graduation but vulnerabilities to development persist. The country will need to maintain the efforts that have allowed it to meet the graduation criteria. As advanced by UNCTAD's The Least Developed Countries Report, Bangladesh could benefit from adopting a strategy to graduate with momentum. This strategy highlights the importance of viewing graduation as "the first milestone in a marathon of development rather than the winning post in a race to escape LDC status, and of focusing primarily on longer-term development processes rather than on the technicalities of the graduation criteria" (UNCTAD, 2016a: 162). The framework of graduation with momentum explicitly links the development of productive capacities with building continuity in the development trajectory beyond graduation by bridging the pre- and post-graduation development processes (UNCTAD, 2021b: 18).

Bangladesh is faced with the prospect of lower special and differential treatment in trade. Crucially, graduation from the LDC category entails the phasing out of ISMs that Bangladesh has effectively leveraged for its development. It can therefore expect a loss of ISM-linked preferential market access, the impact of which could range between -7 and -14 per cent of baseline exports (UNCTAD, forthcoming). In the context of the country's integration into buyer-driven value chains in the textile sector, which has circumscribed upgrading opportunities (UNCTAD 2018), similar prospects underscore an important source of vulnerability. Thus, alongside maximizing LDC-specific ISMs through stakeholder before negotiations graduation, Bangladesh needs to build its productive capacities to manage its graduation dynamics through: (i) the use of context-specific assessments; (ii) informed long-term national development strategies; and (iii) industrial policy.

In this context, successful LDC graduation requires several challenges to be addressed. The country needs to aggressively pursue GVC diversification, as increased tariffs from LDC preferential treatment loss and domestic infrastructural constraints pose a threat to continued export revenue and investment flows. A concerted push towards patterns of specialization with higher levels of complexity, and where knowledge and technological spillovers are higher, needs to be at the centre of such a diversification effort. The COVID-19 shock has triggered a process of GVC restructuring, bringing renewed emphasis to supplier diversification, dependability and regional embeddedness. Bangladesh will need to harness technological advancements to adjust its existing GVC linkages to sustain its export capacities. Overall, strategic industrial, trade and structural policies are needed for longer-term impact. In addition, Bangladesh can further harness technological ventures by strengthening connectivity and logistics through system-wide reform.

Bangladesh can expect a lower degree of concessionality in accessing development finance, with resulting reductions in available policy space. The country will need to ramp up domestic resource mobilization efforts as external development finance decreases. The country has experienced a widening resource gap averaging 6 per cent over the past 15 years – a gap largely covered by remittances of \$18.3 billion in 2019. LDC graduation is expected to reduce capital accumulation generated by external finance.

Environmental policy is key in a country affected by frequent natural disasters induced by climate change, as well as for Bangladesh's smooth transition to developing country status. Since climate change can disproportionately hurt the livelihoods of the poor, climate change adaptation should become a policy priority to mitigate inequalities, and avoid further marginalization of the poor. Bangladesh's high adaptation investment needs call for correspondingly increased national attention to the formulation of appropriate environmental policies. Priorities to reflect on include: (i) mobilizing climate finance; (ii) capitalizing on climate-resilient infrastructure; (iii) adopting green technology; and (iv) developing social protection for vulnerable groups affected by climate change. Issues around poverty and improving literacy will remain policy priorities for the foreseeable future.

The following policy options are relevant for Bangladesh to ensure smooth graduation and structural transformation. Some of these options may require accelerated action to mitigate on-going threats due to the COVID-19 pandemic:

- Strengthening domestic resource mobilization by improving tax administration systems and business environments to boost public revenues and private sector investments.
- Bolstering investments in climate-resilient and digital infrastructures to improve physical and soft infrastructures, that could hinder efficiency in the transport and logistics sectors.
- Sustaining investments in human capital by improving access to education and the job market
- Supporting technological upgrading and improvements to the science, technology and innovation (STI) ecosystem.
- Continue fostering rural development through intersectoral linkages, infrastructure provision and innovative business practices.
- Adopting a proactive industrial policy framework to enhance productive capacities and stakeholder collaboration, and thus reduce market failures and strengthen economic linkages.

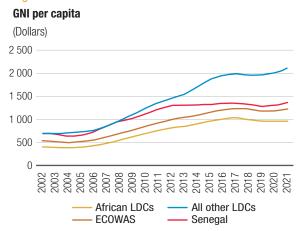
2. Senegal

Senegal reached pre-qualification for graduation in the 2021 review of the LDC category by the Committee for Development Policy (CDP), following a development trajectory quite different from that of Bangladesh and other Asian LDCs on the path to graduation. The industrialization of Senegal has been less decisive, but its economic structure is broadly more diversified.

a. Structural transformation

Senegal's level of income per capita is higher than that of its peers in the Economic Community of West African States (ECOWAS) region, as well as other

Figure 3.4



Source: UNCTAD Secretariat based on data from UN DESA LDC time series data [accessed July 2021].

African LDCs. Its per capita income growth trajectory was strongly influenced by the commodity price decline in 2011, and has remained broadly stagnant since then (Figure 3.4).

Senegal has a somewhat more diversified economic structure than its peers. The country has a much lower share of the primary sector (agriculture, fishery and forestry) in its GDP compared to its regional peers and other LDCs (Table 3.5). The country also has a lower export concentration and export instability than its peers. However, given Senegal's climatic and agro-ecological conditions, agricultural production is less stable, which explains why the country attains a modest Economic Vulnerability Index (EVI) score.

Senegal's merchandise exports are dominated by commodities, which account for about 70 per cent of its exports. In 2019, commodity exports were composed of food items (33 per cent), fuels (18 per cent), and ores and metals (8 per cent). At the same time, manufactures accounted for almost one quarter of merchandise exports.

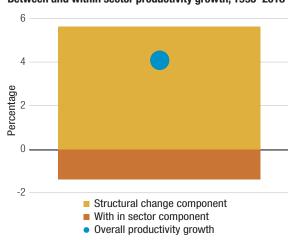
Table 3.5
Graduation criteria and relevant economic sub-components, 2021

	GNI per capita	EVI index value	HAI Index value	Share of agricultural, fishery, forestry products in GDP	Export concentration	Export instability	Agricultural instability
Senegal	1,370	42.98	66.37	16.51	0.23	1.85	14.98
ECOWAS	1,223	37.77	53.31	32.61	0.50	10.89	6.16
African LDCs	959	40.31	51.84	28.17	0.47	14.16	6.52
Other LDCs	2,109	36.09	71.56	21.43	0.42	14.07	4.81

Source: UNCTAD Secretariat based on data from UN DESA LDC times series data.

Figure 3.5

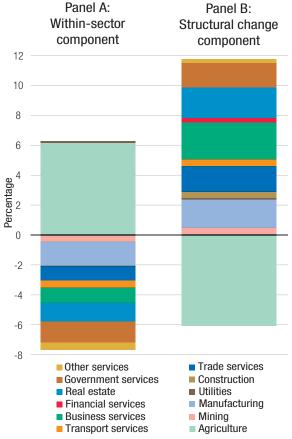
Between and within sector productivity growth, 1995–2018



Source: UNCTAD Secretariat calculation based on data from Vries et al. (2021).

Overall productivity growth in Senegal stands at 4 per cent per year, and is driven by the structural change component of output decomposition (Figure 3.5).

Figure 3.6
Sectoral decomposition of economic growth



Source: UNCTAD Secretariat calculation based on data from Vries et al. (2021).

The within-sector labour reallocation contributes negatively to overall productivity growth. This happens if employment share in the sector increases faster than the output share.

The sectoral decomposition of the two growth elements (Figure 3.6) shows each sectors' contribution to the overall productivity increase. In the case of Senegal, the agricultural sector was the main contributor to within-sector productivity growth, with a small addition by the utility sector (Panel A). This shows that the agricultural sector has a large and declining employment share, and is increasing value added per worker. Decreasing employment is then reflected by the negative contribution of the sector in Panel B.

The contribution of the manufacturing sector to within-sector productivity growth, by contrast, is negative (Panel A), as employment in the sector grew (positive contribution in Panel B), and average output per worker fell. The services sector plays a larger relative role than the manufacturing sector, as it has the potential to absorb more employment. This applies to all services categories, but especially to government, business and trade services in Senegal. Labour reallocation from the agricultural sector to other sectors is a critical driver of the structural change component (Panel B). The real estate sector is the only other sector that emerges as an important driver for structural change.

As is the case with Asian LDCs, industrialization – led by the manufacturing sector – is not the main contributor to structural change in Senegal. Digitalization has enabled the services sectors to play a more important role in generating economic growth.

b. Development policies

Senegal has followed sound macroeconomic policies and accomplished peace – both of which are the fundamental drivers of long-term growth. As a member of the CFA franc zone (franc de la Communauté financière d'Afrique), it has benefitted from low inflation and stable exchange rates as the CFA franc is hard pegged to the euro but faces a potential drawback if low inflation in the Eurozone is imported to a country with much higher growth rates, which would benefit from a faster expansion of its money base.

At a time when many African countries struggle with rising debt levels, Senegal's risk of debt distress is moderate, with public debt to GDP ratio at 67 per cent, and external public debt at 54 per cent of GDP in 2020 (IMF Debt Sustainability Analysis, April 2020). Further debt forecasts until 2030

indicate a lower public debt of 4 per cent and lower external public debt of 23 per cent (IMF Debt Sustainability Analysis, April 2020). This would, mean greater reliance on domestic savings and lower dependence on international financial markets and the dollar, which in turn leads to a better insulation against external shocks and foreign geopolitical interests.

Senegal has a persistently negative current account. Even though its export volume has almost doubled since 2015, and has experienced merchandise exports growth of 15 per cent. In 2019, it exported merchandise worth \$4,175 million and imported \$8,143 million worth of merchandise, leading to a merchandise trade deficit of \$3,969 million (UNCTAD Stat). Senegal had, by contrast, a large positive financial account surplus in 2019, with \$983 million foreign direct investment (FDI) inflows and \$114 million FDI outflows (UNCTAD Stat).

Senegal's structural policies have changed considerably since independence. In the 1960s, the government intervened extensively in agriculture as part of an attempt to rely on traditional import substitution industrialization (ISI). The state aimed to increase the value added of local resources by emphasizing diversification of agricultural production and providing inputs to local producers, including many smallholders. In the 1970s, public investment shifted to industrial manufacturing as the government tried to avert rising unemployment and the social unrest of 1968-1969. Numerous attempts to imported development included government-supported natural resource processing industries, such as fishing and groundnut production and setting up of industrial free trade zones outside the capital, Dakar. However, the success of these policies was undermined by 'clientelism' (Daffe and Diop, 2004).

The 1980s ushered in a World Bank-inspired "New Industrial Policy" that was framed as part of the structural adjustment programme (SAP) consisting of full trade openness, export orientation, and labour market liberalization, deregulation and privatization. Yet, trade-opening measures prompted significant job losses, as local enterprises succumbed to the competition from cheap imports. Foreign investment and related foreign interests dominated domestic investment in strategic sectors, such as phosphates. By the mid-1980s, FDI started to fall with the deteriorating economic situation. Between 1980 and 1990, agricultural production declined, GDP growth slowed down, public finances deteriorated with rising debt, and foreign borrowing surged to meet

Senegal's industrial and agricultural policies show continuity and refinement over time

rising domestic and external deficits (Boye, 1992). The new policy reforms had adverse recessionary pressures on Senegal's economy, and weakened industrialization efforts.

Trade liberalization agreements under the WTO have restricted the country's available industrial policy tools, e.g. export subsidies, performance requirements, and local content clauses (Bora et al., 2000). In parallel, membership in the CFA franc zone has restricted the use of monetary policy tools.

Given this reduced policy toolbox, efforts to support structural transformation have become more refined and targeted since the 2000s. Senegal's industrial and agricultural policy priorities show continuity and refinement over time, which combined with stable macroeconomic and social policies has driven Senegal's relative economic success. Next to the on-going institutional reforms, a central feature of Senegal's industrial policy are industrial zones—the aim is to spread industrial facilities previously concentrated in the Dakar region across the country—and orientate the productive base towards promising sectors and promoting highly productive competitive industries (Newman, 2016).

Since 2006, a new accelerated growth strategy (AGS) has been implemented and has identified five economic areas that constitute drivers for economic growth and diversification; (i) agro-industries and food processing; (ii) fisheries; (iii) tourism, crafts and cultural industries; (iv) cotton, textiles and clothing; and (v) information and communication technologies (ICT) (African Economic Outlook, 2006).

A new national development strategy was adopted in 2014, the Plan Sénégal Emergent (PSE), which promotes a holistic approach to development based on social, economic and environmental pillars. By 2035, it aims to transform the country into an emerging economy, defined by social solidarity and rule of law (UNIDO, 2019). The focus areas are in line with the ASG, but further refine policies to include: (i) industrial development; (ii) the establishment of agro-poles; (iii) the operationalization of a new generation of integrated industrial parks; (iv) the development of a regional mining hub; and (v) special economic zones and investment package reform.

Senegal's economic success is backed by solid social policies. It is close to achieving universal health care (UHC) coverage and subsidizing health insurance for low-income groups (World Bank, 2016). This is reflected in much better outcomes for under-five mortality and maternal mortality rates, and lower

prevalence of stunting than its regional peers in the region. Its outcomes for schooling are in line with ECOWAS averages, and more girls than boys are enrolled in secondary school, which is on average is not the case for ECOWAS countries, or other African LDCs (Table 3.6).

Table 3.6
Human Asset Index and its sub-components, 2021

	HAI	Under-five mortality rate (per 1,000)	Maternal mortality rate (per 100,000)	Prevalence of stunting children under five (per cent)	Secondary school enrolment rate (per cent)	Adult literacy rate (per cent)	Gender parity in secondary school enrolment, ratio
Senegal	66.37	45.31	315.00	17.80	46.24	51.90	1.13
ECOWAS	53.31	78.54	550.36	26.23	50.61	50.91	0.87
African LDCs	51.84	72.27	515.16	32.81	41.62	56.84	0.88
Other LDCs	71.56	39.48	209.53	28.59	65.10	73.66	1.03

Source: UNCTAD Secretariat based on data from UN DESA LDC times series data [accessed July 2021].

Annex Table 3.1

Comparison between the Substantial New Programme of Action 1980s and the Paris Programme of Action 1990s

Arrangements for implementation, follow-up and monitoring	Arrangements for implementation.									International support measures														National measures										Objectives/issues	Substa
	Regional and global levels	Dogional and alabal	National level		measures	economic policy	Other international		Technical assistance	Immediate action co Action		resources	Transfer of financial		Disaster assistance	Foreign trade	Land-locked and isl	Transformational investments	Environment	Physical and institutional infrastructure	Manufacturing industry	Natural resources and energy		-	development	Human resources					agriculture				Substantial New Programme of Action 1980s
	leveis			Multicountry scheme	Transfer and development of technology	Food and agriculture	Transport and communications	Commercial policy measures	8	Immediate action component of the Substantial New programme of Action	Aid modalities	New mechanisms for increased financial transfers to the least developed countries	Increased allocations to least developed countries in multilateral programmes	Financial resources requirements and policies	Disaster assistance for least developed countries		Land-locked and island least developed countries	/estments		ional infrastructure	stry	nd energy	Human settlement	Population policies	Health and nutrition	Training and administration	Education and culture	Human resources	Rural development	Forestry, fisheries and livestock	Food production	Food security	Food strategies	Priority areas for action	of Action 1980s
rollow-up and monitoring	follow up and manifesting	Arrangements for implementation	countries	of certain groups of least developed	Coping with the special problems	preparedness and prevention	Environment and disaster mitigation	Infrastructure				Development, particularly expansion and modernization of the economic					countries	capacities in the least developed	Mobilizing and developing human			and other developing countries	technical co-operation between LDCs	Charathonian oppositional	External trade				External indebtedness of the LDCs		Financing growth and development	Iraillework	The macro-economic policy	Objectives/issues	Pa
Global laval	Regional and global levels	National level	No.			Disaster mitigation, preparedness and prevention	Forment and development in the least developed countries	Iransport and communication	Energy		Development of Developing the services sectors	security Food aid	-	Rural development, Agriculture	of human capital Health and sanitation	The strengthening Education and training	The role of non-governmental organizations		the actors Full participation of women in the development		Improving institutional capabilities			Compensatory financing	Commodities	Access to markets	Diversification	Commercial debt	Other official bilateral debts	ODA debt	External resources	Dompetic resources		Priority areas for action	Paris Programme of Action 1990s

Annex Table 3.2

Comparison between the Paris Programme of Action 1990s and the Brussels Programme of Action 2001–2010

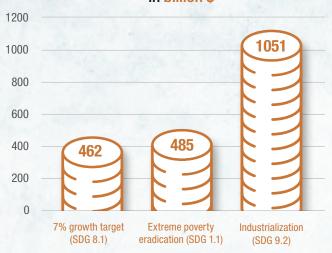
Par	Paris Programme of Action 1990s	SO	Brussel	Brussels Programme of Action 2001–2010	
Objectives/issues	Priori	Priority areas for action	Objectives/issues	Priority areas for action	ıction
The macro-economic policy framework			Fostering a people-centred policy framework		
Financing growth and development	Domestic resources External resources		Good governance at national and international levels		
External indebtedness of the LDCs	Other official bilateral debts			Social infrastructure and social service delivery	ivery
	Debt and the multilateral instit	Debt and the multilateral institutions and development funds		Population	
	Diversification		Building human and institutional	Education and training	
External trade	Access to markets			Health, nutrition and sanitation	
	Compensatory financing			Social integration	
Strengthening economic and				Physical infrastructure	
and other developing countries				Technology	
	Improvii	Improving institutional capabilities		Enterprise development	
	The involvement of The role	The role of public enterprises The role of the LDC private-enterprise sector	Building productive capacities to	Energy	
Mobilizina and developina human		Full participation of women in the development	make globalization work for LDCs	Agriculture and agro-industries	
capacities in the least developed	process	of non associated organizations		Manufacturing and mining	
countries	_	Population		Rural development and food security	
	The strengthening Education of human capital	Education and training		Sustainable tourism	
		Health and sanitation		Market access	
	Rural development, Agriculture	Agriculture Develonment of fisheries resources		Special and differential treatment	tial treatment
		Rural development		Trade, commodities Accession to WTO	
Development, particularly expansion	production and food Food security	scurity	and the second s	and regional trading Standard-setting and quality control	d quality control
and modernization of the economic		Developing the industrial sector	development	arrangements Regional trading arrangements	angements
0000	industrial, service, Strength scientific and	Developing the services sectors Strengthening the scientific and technological		Integrated Framework technical cooperation	Integrated Framework (IF) and other trade-related technical cooperation
	technological base Energy			Services	
Infrastructure	2			Reducing the impact of external economic shocks	shocks
	Human settlements	in the least to be real or the rist	Reducing wilhershillty and protecting	Protecting the environment	
preparedness and prevention	Disaster mitigation, preparedness and prevention	crivironnent and development in the least developed commes Disaster mitigation, preparedness and prevention	the environment	Alleviating vulnerability to natural shocks	
Coping with the special problems of certain groups of least developed	Land-locked and island least developed countries	developed countries		Domestic resource mobilization	
countries			Mobilizina financial recursors	Aid and its effectiveness	
Arrangements for implementation,	National level			External debt	
follow-up and monitoring	Global level			FDI and other private external flows	

Annex Table 3.3

Comparison between the Brussels Programme of Action 2001–2010 and the Istanbul Programme of Action 2011–2020

Q		tion,		F		Mobilizing financial resources			Reducing vulnerability and protecting		(A)		aevelopment	trade in	o —			(a)	т):		make globalization work for LDCs		n	٩	CO.	capacines	nstitutional		(A)	international levels	framework	Fostering a people-centred policy	Objectives/issues
anangements		National, regional N	Main orientations F	FDI and other private external flows	External debt	Aid and its effectiveness	Domestic resource mobilization	Alleviating vulnerability to natural shocks	Protecting the environment	educing the impact of	Services	-		arrangements F		·	7	Sustainable tourism	Rural development and food security	Manufacturing and mining	Agriculture and agro-industries	Energy	Technology	Physical infrastructure	Social integration	Health, nutrition and sanitation	Education and training	Population	ocial infrastructure an				
GIODAI IEVEI	Subregional and regional levels	National level	Role of the United Nations system	cternal flows		S	bilization	to natural shocks	nent	Reducing the impact of external economic shocks		technical cooperation	Integrated Framework (IF) and other trade-related	Regional trading arrangements	Accession to WTO	Special and differential treatment	Market access		food security	ing	dustries					nitation			Social infrastructure and social service delivery				Priority areas for action
	Implementation, follow-up and	Graduation and smooth transition	•	The complementary role of South-	good governance at all levels	Good governance at all levels			development and capacity-building	Mohilizing financial resources for				wurupie crises and omer emerging challenges					initial and social acadiophicin	Human and social develonment				Commodities	Trade	development	Agriculture, food security and rural			Productive capacity			Objectives/issues
							Remittances	Foreign direct investment	External debt	Official development assistance	Official dovolopmont assistance	Domestic resource mobilization	Disaster risk reduction	Climate change and environmental sustainability	Economic shocks	Social protection	Gender equality and empowerment of women	water and sanitation	Water and constation	Shelter	Youth development	Population and primary health	Education and training					Filvate sector developillerit	Drivata sector development	Science, technology and innovation	Energy	Infrastructure	Priority areas for action

Annual investment requirement for LDCs in billion \$



The annual average investment requirements for LDCs to reach the SDGs are daunting, especially for targets related to structural transformation

The goal of universalizing major social and ecosystem services in LDCs entails huge financing gaps

Average financing gaps in LDCs

7.9% Heath

12.1%) Education

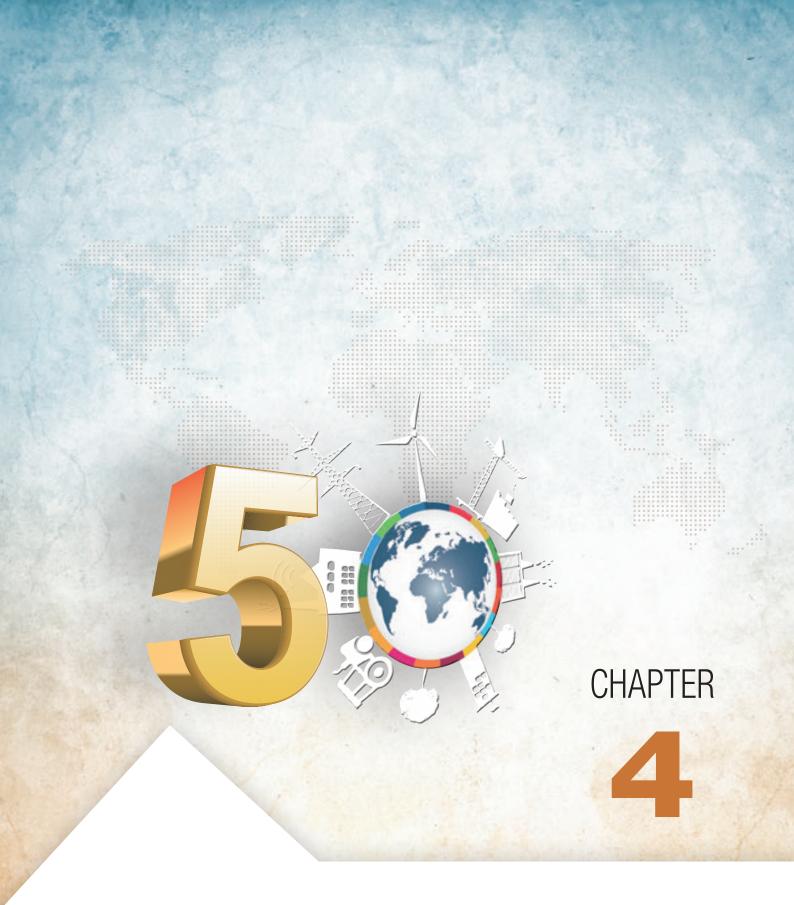
21% Social protection

0.6% Biodiversity conservation

% of GDP



Expanding the sources of financing available to LDCs **is** as **critical** as ever in the wake of COVID-19



Estimating the cost of achieving Sustainable Development Goals in the LDCs during the post-pandemic decade

CHAPTER 4

Estimating the cost of achieving Sustainable Development Goals in the LDCs during the post-pandemic decade

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A. Introduction

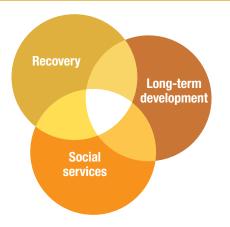
1. Rationale

The least developed countries find themselves at a crossroad. As the category completes its 50 years of existence, these countries - which are inherently characterized by heightened structural vulnerabilities - remain battered by the lingering effects of the COVID-19 crisis. At the same time, they need to project themselves into the future, recover from the current slump, but also trace their future development path in the new decade. The importance of the latter task is two-fold: (i) 2022-2031 will be the period of implementation of the new programme of action (PoA) to be decided by the Fifth United Nations Conference on the Least Developed Countries (LDC5); (ii) the years up to 2030 fall within a Decade of Action to deliver the Sustainable Development Goals (SDGs) called for by world leaders at a summit held in September 2019.1

When planning for the future, the 2030 Agenda for Sustainable Development provides the overarching medium- and long-term Goals and targets for both international and domestic policymakers. LDCs need to set their future development trajectory on a more solid and sustainable footing and adopt measures to address the long-standing structural impediments and shortcomings of the development strategies and policies LDCs have followed. To this end, LDCs and the international community need to take into account the lessons learned both over the past half century, and since the outbreak of the COVID-19 pandemic.

Faced by the magnitude of issues to resolve, policymakers and broader stakeholders are increasingly preoccupied by the challenge of financing the effort required to reach the Sustainable Development Goals. At this stage, however, it is crucial to have an estimate of these financing requirements, in order to devise strategies and policies to mobilize the necessary resources, either from domestic or international sources. Costing the key targets of the Sustainable Development Goals is even more urgent in the present context, as multiple policy priorities, be they short, medium- or long-term priorities, imply greater trade-offs in the allocation of scarce resources. On this basis, it is also vital to creatively forge financing options to construct a more promising developmental horizon for the LDCs up to 2030.

The forecast of financial costs for time-bound and target-based development goals is at the core of



LDCs face **multiple policy priorities**with attendant **trade-offs** in the
allocation of scarce resources

the methodology underpinning the Sustainable Development Goals. This feature has the advantage of tying policymakers, donors and stakeholders to well-determined objectives, guiding both resource mobilization and operation strategy (Sachs, 2015). One advantage of the goal-based method is "backcasting". As the Goals set are time-bound, one can start from the assigned targets and work out backward an operational plan to achieve them. This planning approach lends itself to being costed, which enable us to assess various modes of financing and related financing gaps.

This chapter contributes to the debate by undertaking a novel LDC-specific costing exercise of the most critical Sustainable Development Goals targets, which LDCs need to reach to achieve structural transformation and attain sustainable development. The development of productive capacities is seen as the means to reach those Goals and targets, and should be used as the framework guiding the formulation and execution of the programme of action (PoA) for the LDCs in the decade 2022–2031.

The costing exercise presented in this chapter aims to make a vital contribution to the international community's efforts to construct a more promising developmental horizon for the LDCs during the post-pandemic decade.

Other costing exercises related to the Sustainable Development Goals have already been carried out, and are outlined in the next section. Revisiting them is more urgent in the present context, for two main reasons: First, it is critical to revise the costing in light of the protracted impact of the COVID-19 crisis. Second, and perhaps more importantly, it is

https://www.un.org/development/desa/dspd/2020/09/ decade-of-action/ and https://www.un.org/ sustainabledevelopment/decade-of-action/

Costing is critical for prioritizing and allocating resources to key Sustainable Development Goal targets

fundamental to revisit the costing from the perspective of the structural transformation and industrialization of LDCs, which has not been the central concern of previous costing estimations.

The present chapter complements and goes beyond previous efforts by:

- focusing exclusively on LDCs, while the other estimates have been made for other country groups;
- (ii) highlighting the financing needs related to structural transformation, whereas previous exercises have tended to concentrate mainly on social development and infrastructure;
- (iii) building alternative scenarios, rather than arriving at a single headline figure. These scenarios are useful for domestic and international policymakers in view of the priorities they decide to focus on, as well to mobilize the resources needed to achieve different scenarios;
- (iv) combining a different and innovative methodology with some elements of previous costing work.

For the sake of clarity, the previous exercises are surveyed hereafter, and a comparative table between these efforts and the contribution of this report is presented in the annex (Annex Table 4.1).

Costing the Sustainable Development Goals is, in practice, a challenging endeavour due to: (i) intrinsic methodological limitations; and (ii) sizeable data gaps, which are especially wide in the case of LDCs. Costing exercises can be misleading for a variety of methodological reasons, including the sensitivity of findings to underlying assumptions, and attendant failures to discount costs or consider operational and maintenance costs in a consistent manner. Moreover, the multifaceted, and yet interrelated, nature of the Sustainable Development Goals raises the probability of double counting, and overlooking the dynamic interactions and synergies in the pursuit of different Goals and targets.

Moreover, the complexity of the Sustainable Development Goals is much greater than the Millennium Development Goals. Some goals are complex to measure (e.g. SDG 8.5 – decent work for all, or SDG 10 – reduced inequalities within and among countries). By contrast, other Sustainable Development

Goals are more easily targetable and typically require public funds, e.g.: (i) universal health coverage (SDG 3.8); (ii) universal access to pre-primary school and secondary education (SDG 4.1); (iii) universal access to water and sanitation (SDG 6); and (iv) universal access to affordable, reliable, sustainable and modern energy services (SDG 7).

While inevitably imprecise and despite these provisos and shortcomings, costing exercises are useful exercises as they can boost the level of ambition of both national and international policymakers; at the same time, costing exercises help in collaborative effort to mobilize the necessary resources to implement promising strategies and projects to achieve internationally agreed development goals in the LDCs.

2. Previous costing exercises

The development agenda prior to the onset of the COVID-19 crisis inspired earlier costing exercises by various institutions and authors. Since the launch of the Sustainable Development Goals, a few exercises have been published estimating the financial needs to reach some of the Sustainable Development Goals in middle- and low-income countries² (Gaspar et al., 2019; J. Sachs et al., 2018) and worldwide (McArthur and Kharas, 2019; UNCTAD, 2014b). Other studies have focused on ending extreme poverty by 2030 (Manuel et al., 2020), or in reaching selected Goals and targets in specific sectors, such as infrastructure (Rozenberg and Fay, 2019); health (Stenberg K, Hanssen O, Edejer TT-T, Bertram M, Brindley C, Meshreky A, Rosen James E, et al., 2017); food security (FAO et al., 2015); or social protection (Elizondo-Barboza, 2020). However, none of these studies has focused exclusively on LDCs.

UNCTAD's *World Investment Report 2014* (UNCTAD, 2014b) carried out the first global costing exercise of the Sustainable Development Goals, prior to their official launch in 2015. It found that total investment needs ranged between \$3,340–\$4,520 billion, while the investment gap – the difference between the investment needs to reach Goals and targets and the current level of expenditures – reached 55–68 per cent of the total.

An initial estimation based on key economic sectors conducted by Schmidt-Traub (2015) shows that low- and lower-middle-income countries would need to spend \$1.4 trillion per year to achieve the Sustainable

Low, lower-middle, upper-middle, and high-income countries are World Bank country classifications based on GNI per capita in current US dollars (using the Atlas method). Unless otherwise specified, the analysis in this chapter follows the UN country classification.

Development Goals, corresponding to 4 per cent of the GDP of these countries. Schmidt-Traub and Sachs (2015) present a more extensive projection of incremental investment needs for the Sustainable Development Goals in developing countries that amounted to \$1.6–\$2.8 trillion, with public funds accounting for about 47 per cent of the total.

In a more detailed analysis, Sachs et al. (2018) estimate the costs of the 59 low- and lower-middle-income countries to achieve selected Goals and targets relating to, among others, agriculture, biodiversity, education, health, and water and sanitation. The authors take the unit costs from the existing literature and multiply them by the population projections, assuming that the targets are met by 2030. They also add operational expenditures in public administration, courts, policing and defense as essential services to reach the Sustainable Development Goals. According to their estimation, low- and lower-middle-income countries will, on average, need \$1,011 billion per year³ from 2019 to 2030 to achieve the Sustainable Development Goals. The bulk of these investments – 86.4 per cent - are related to public services in health, education, biodiversity, agriculture, infrastructure, protection, justice, humanitarian and data sectors, and 13.5 per cent to operational public expenditures. Health and education account for 48 per cent of the expenditures, and 21 per cent for infrastructure.

The projected financing gap is about \$400 billion from 2019 to 2030. The calculated amount is 0.4 per cent of the annual global GDP, and about 0.7 per cent of the yearly GDP of advanced economies. Breaking down estimated value by country-groups, on average, this represents 24 per cent of the annual GDP of low-income countries, and 12 per cent of that of lower-middle-income countries. However, the authors make it clear that a high priority with respect to the financing of the Sustainable Development Goals is to prepare a more precise, detailed, and country-led⁴ costing and evaluate the revenue-raising potential of countries.

McArthur and Kharas (2019) developed a more granular analysis of the public financing needs of developing and developed countries with respect to the Sustainable Development Goals. Based on sector expenditures, they proposed a bottom-up estimate of present public spending, and then projected the potential financial gap to reach the Sustainable

The investment gap to reach Sustainable Development Goal targets is widest among LDCs

Development Goals by 2030. The authors find that adding up the spending in each country on the Sustainable Development Goals would amount in 2015 to \$21.3 trillion, rising to \$32.3 trillion annually in 2030. Thus, the projected annual gap is \$12 trillion.

A group of International Monetary Fund (IMF) economists used an input-outcome approach to calculate the additional annual spending required by countries to afford investments to reach Goals and targets in education, health, roads, electricity, and water and sanitation (Gaspar et al., 2019). The authors conclude that delivering on the 2030 Agenda for Sustainable Development will require increasing spending until 2030 by \$0.5 trillion for low-income countries, wherein the average additional expenditure represents 15 per cent of GDP.

Tiedemann et al. (2021), also from the IMF, prepared a cost estimate for 25 small developing states⁵ with climate vulnerabilities to meet the Sustainable Development Goals. The innovations of this paper were: (i) to bring country-specific unit costs for the climate-resilient investments in physical infrastructures, such as roads, energy, and water and sanitation; and (ii) to construct a multidimensional database through text mining to circumvent the limitation of data availability. The authors found that spending on physical infrastructure needs to increase by 3.7 per cent of 2030 GDP per year to reach the Sustainable Development Goals by 2030. In addition, health and education expenditure must expand from 3 per cent of GDP in 2019 to 8 per cent of GDP in 2030. Lower-middle-income countries, including six LDCs, have the highest cost estimates, amounting to 8.6 per cent of 2030 GDP.

Taking a different but complementary approach, Manuel et al. (2020) estimate the financial needs to end extreme poverty by 2030 by costing education, health, nutrition, and social protection transfers. The total cost for low and middle-income countries

³ Values in 2019 constant prices.

This can be achieved by conducting SDG Fiscal Needs Assessment, based on the guiding framework of the United Nations Integrated National Financing Framework.

The LDCs covered in the paper are: Bhutan, Comoros, Djibouti, Kiribati, Sao Tome and Principe. Solomon Islands, Timor-Leste and Tuvalu. In addition, non-LDC countries covered are: Antigua and Barbuda, Bahamas, Belize, Cabo Verde, Dominica, Fiji, Grenada, Guyana, Kiribati, Maldives, Mauritius, Micronesia, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and Grenadine, Samoa, Seychelles, and Vanuatu.

Public investment is critical in boosting private investment in the COVID-19 context

is \$2.4 trillion, wherein low-income countries represent a total of \$137 billion and \$188 per person per year.

The World Investment Report 2021 (UNCTAD, 2021c) also argues in favour of a push for sustainable investments in the post-COVID 19 pandemic recovery period. The report indicates that while developed countries have spent \$13.8 trillion on stimulus programmes in the context of the COVID-19 pandemic, developing countries have spent just \$1.9 trillion. About 10 per cent of these total amounts consist of new investments - mainly in infrastructure - in which public investment has leveraged private investments through equity participation, expansion guarantees, financing or tax incentives, and regulatory improvement. Leveraging additional private sector finance is critical to boosting investments. The report estimates that \$1 of public investments in infrastructure projects can mobilize \$10 of capital investments through public-private financing solutions. However, the report argues that these multipliers are lower in developing countries. Following this logic, a \$2-\$3.5 trillion investment push from the public sector could result in \$10 trillion in investments throughout this decade. The report highlights that LDCs are not well captured in the scenarios above. Concerns about mobilizing sustainable development finance are especially important in the context of reduced levels of investment in productive capacities in LDCs. From 2019 to 2020, for instance, the report shows that greenfield investment announcements fell by 44 per cent, negatively affecting investments that potentially contribute to structural change.

Despite the importance of these projections in guiding policymakers, these studies are not easily comparable because they use different methodologies, target countries, economic sectors, discounting methods and baselines. More fundamentally, Vorisek and Yu (2020) warn that cross-country costing exercises of the Sustainable Development Goals can be misleading, due to: (i) double counting; (ii) sensitivity to underlying assumptions; (iii) downplaying of policy and institutional dimensions; (iv) differences between short and long-term dynamics; and (v) difficulty in discounting costs.

Country-specific estimations, relying on official and detailed sources of information, is the most

efficient way to obtain more credible costing. The Inter-agency Task Force on Financing for Development, for instance, encourages countries to develop their own Integrated National Financing Frameworks, with support from the United Nations Joint Sustainable Development Goals Fund. To date, 28 LDCs have engaged in this initiative.⁶ One potential outcome of this initiative are country-based estimations of financing gaps. Bangladesh, for instance, published the "SDGs Needs Assessment and Financing Strategy: Bangladesh Perspective" (Bangladesh Planning Commission, 2017). Using a variety of methods⁷ to estimate the financing gap, the government projected the annual average cost of achieving the Sustainable Development Goals of \$66.3 billion at 2015 constant prices.

Acknowledging the potential challenges of cross-country projections, and taking stock of the surveyed literature, the following sections present the methods used to estimate the financing needs of LDCs to achieve the Sustainable Development Goals.

B. Methodology and data

This section presents the first detailed and differentiated Sustainable Development Goals costing exercise conducted exclusively for the LDCs, which focuses on a selection of critical Goals and targets for structural transformation. This is a deliberate choice, as past editions of *The Least Developed Countries Report* have argued that the only sustainable and realistic route through which LDCs can achieve sustainable development is by developing and upgrading their productive capacities, thereby embarking on the process of structurally transforming their economies (Box 4.1).

Structural transformation generates employment opportunities of increasing quality, and is associated with rising labour productivity and income. This is the key to the eradication of extreme poverty (SDG 1.1). While income transfers are an important part of social policies, especially in low-income countries, they are unlikely to be the decisive instrument to redress poverty in a sustainable, long-term manner. Given the incidence and depth of poverty in LDCs, coupled with their modest capacity to mobilize public revenues, financial,

For details, see the Integrated National Financing Framework Knowledge Platform jointly developed by the United Nations and the European Union: https://inff.org/

For instance, multiplicative factor analysis based on unit costs, incremental capital-output ratio to estimate investment needs, analysis of the currently funded budget and discount of overlaps among the different Sustainable Development Goals.

administrative, and logistical challenges would be formidable. In the absence of structural transformation, such transfers would need to be continued indefinitely, and on a very large scale, to prevent a return of extreme poverty (UNCTAD, 2014a). Poverty reduction in a context of low level of development of productive capacities is extremely vulnerable to economic downturns and shocks. This has been dramatically highlighted by the sharp rise in extreme poverty in 2020 brought about by the COVID-19 crisis, which has forced an estimated 35 million additional people to live in extreme poverty in LDCs.

Source: UNCTAD, 2020a: 28.

The sustainability of poverty eradication hinges on raising primary incomes (from employment and self-employment) and productivity levels to reduce the need for social transfers to a feasible level. This implies increasing employment, wages and incomes resulting from structural transformation. Moreover, the magnitude of potential transfers is itself contingent, at least partly, on the capacity of each country to mobilize public revenues, which in turn stems from the level of output, as well as institutional characteristics.

A similar reasoning applies to many other Sustainable Development Goals: it is only by achieving superior

Box 4.1 Structural transformation and the Sustainable Development Goals

Structural transformation results from the development of productive capacities through the different development dynamics/processes indicated in Box Figure 4.1 and discussed in greater detail in other issues of this report (UNCTAD, 2020a). Structural transformation occurs when a country's productive resources (natural resources, land, capital, labour and know-how) are transferred from low-productivity economic activities to high-productivity economic activities - the latter being associated with the economy's capacity to generate new dynamic activities with higher productivity and higher returns to scale (see chapter 2). Box Figure 4.1 **Productive capacities and structural transformation** Productive capacities Production Elements Development processes / Capital / Resource Technological learning **Dynamics** accumulation and Innovation Structural transformation End result

Fostering productive capacities is a critical pre-requisite for achieving structural transformation

levels of productivity that economies can generate the resources (fiscal or otherwise) required to invest heavily in social policies (and develop human capital in countries), environmental protection and greening of their economies (UNCTAD, 2014a). Hence, the previously referred to difficulties of costing the Sustainable Development Goals. It is therefore critical for countries to create a virtuous circle among the economic, social and environmental dimensions of sustainable development.

Another important feature of the present costing exercise is that it captures the short-term effect of the COVID-19 pandemic on economic activity. It does so by using growth estimated for 2020 to compute the baseline from which to project the expenditures that LDCs need to carry out to reach selected targets of the Sustainable Development Goals from 2021 to 2030. While many of the effects of the COVID-19 pandemic on LDCs cannot yet be fully comprehended or quantified – partially because of lack of immediate access to vaccines – the short-term outcomes have been economically and socially consequential (UNCTAD, 2020a).

The methodology adopted focuses on selected Sustainable Development Goals closely linked to measurable enablers of structural transformation, whose required progress can therefore be rigorously assessed. To derive from the required trajectory of target indicators and corresponding financing needs, two alternative estimation approaches are used, depending on the intrinsic nature of the target, namely: (i) one that estimates the growth and investment requirements, based on macroeconomic elasticities; and (ii) another that estimates spending requirements (and the financing gap), based on unit costs.

Before moving to the estimation of financing needs, it is worth discussing selected targets of the Sustainable Development Goals: the first target is the LDC-specific target of achieving an annual rate of economic growth of 7 per cent (SDG 8.1). This choice stems from the fact, documented also in earlier chapters of this report, that economic growth is a key driver for the attainment of other Sustainable Development Goals, and tackling structural impediments to the sustainable development of LDCs.

The second Sustainable Development Goals target considered is eradicating extreme poverty, presently

defined as people living on an income below the \$1.90 a day (measured in 2011 PPP dollars). As shown in chapter 2, LDCs in recent years have generally reduced extreme poverty incidence, yet the pace of poverty reduction achieved so far is not compatible with the target of eradicating poverty by 2030 (SDG 1.1).

The third Sustainable Development Goals target is more closely related to structural transformation, regarded as the main path towards sustainable development (and hence towards achieving other Goals and targets), as explained in Box 4.1. The complexity of the process of structural transformation renders this component of the exercise even more challenging than other cost estimations. As a proxy for structural transformation, this costing exercise singles out the SDG 9.2 target of doubling the share of industry in GDP in LDCs. However, it has slightly adapted the target, and estimates the costs of doubling the share of manufacturing - rather than industry - in GDP. The rationale for this choice is that industry technically comprises manufacturing, as well as mining, utilities and construction. Of these, only manufacturing, however, displays specific features which makes it: (i) a potent driver of structural transformation; (ii) rapid technological change; (iii) productivity spillover effects on other sectors of economic activity (both upstream and downstream); (iv) increasing returns to scale, (traditionally); and (v) high job-creation potential, etc. (Imbs and Wacziarg, 2003; UNCTAD, 2020a).

Mining (including both fuels and minerals) is technically part of industry. This is an activity in which many LDCs have comparative advantage. However, natural resources can be a curse or a blessing (van der Ploeg, 2011). In the case of LDCs, they have typically failed to work as a driver of broader structural transformation. On the contrary, in the early 2000s this comparative advantage was associated with the re-primarization of the economy of several commodity dependent LDCs (UNCTAD, 2018a).

Finally, structural transformation being a macro and multi-dimensional process is also connected to human capital accumulation and multiple environmental variables (Herrendorf et al., 2014; Herrendorf and Schoellman, 2018; Jänicke et al., 2000). This is why the Sustainable Development Goals were conceived as an integrated set of goals to achieve the economic, social and environmental dimensions of sustainable development. To partly account for these issues, Goals and targets universalizing access to health, education and social protection services (SDGs 3.8 and 4.1), and ensuring the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services

Table 4.1
Summary of the main estimation results for the LDCs

		Total inve nual aver		needs 21–2030)			Social a	nd enviro		_	ets: total 6 021–2030		ure need	S
	7% annual growth (SDG 8.1)	End ext pove (SDG	rty	Doub manufa (SDG 9	cture		alth i 3.8)		cation G 4.1)		rotection G 1.3)	Biodiv (SDG		Total
	Billion dollars	Billion dollars	GDP growth required	Billion dollars	GDP growth required	Billion dolars	% GDP	Billion dollars	% GDP	Billion dollars	% GDP	Billion dollars	ж др	Billion dollars
Mean	10.1	10.6	9%	22.4	20%	1.9	11.8%	2.7	16.9%	4.5	22.3%	0.11	0.7%	
Median	3.5	3.5		5.7		1.1	9.8%	1.6	14.1%	0.2	4.6%	0.06	0.6%	
Minimum	0.02	0.0		0.0		0.0	2.1%	0.0	3.0%	0.0	0.0%	0.00	0.1%	
Maximum	119.9	85.8		240.7		14.0	81.4%	20.0	116.2%	59.7	238.8%	0.80	4.7%	
Total	462.4	485.4		1 051.4		88.6		126.5		193.7		5.06		413.5
Financing gap						46.4	7.3%	95.0	14.2%	184.2	21.1%	4.50	0.6%	330.1
Financing gap (mediar	1)						5.2%		10.2%		3.1%		0.5%	

Source: UNCTAD Secretariat calculations based on data from United Nations Statistics Division, Penn World Tables, World Development Indicators (World Bank), Atlas of Social Protection Indicators of Resilience and Equity (World Bank), and United Nations Population Division of the Department of Economic and Social Affairs [accessed June 2021].

(SDG 15.1), are also costed by using the unit cost methodology, contrary to the methodology used for costing the first previously mentioned three targets.

To summarize, different targets of the Sustainable Development Goals were selected for the costing exercise, giving rise to the following corresponding estimates:

- (i) Achieving a 7 per cent annual GDP growth for the LDCs (SDG 8.1) investment requirements;
- (ii) Eradicating extreme poverty (SDG 1.1) growth and investment requirements;
- (iii) Promoting inclusive and sustainable industrialization – a major form of structural transformation – translated by the target of doubling the share of industry (manufacturing) in GDP in the LDCs (SDG 9.2) – growth and investment requirements;
- (iv) Achieving universal health coverage (SDG 3.8) spending requirement and financing gap;
- (v) Ensuring that all girls and boys complete free, equitable and quality primary and secondary education (SDG 4.1) – spending requirement and financing gap;
- (vi) Implementing nationally appropriate social protection systems and measures for all (SDG 1.3) spending requirement and financing gap;
- (vii) Ensuring the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services (SDG 15.1) spending requirement and financing gap.

Regardless of the costing frameworks, one of the main shortcoming of the present approach of obtaining target-specific investment requirements is that they cannot necessarily be added up due to potential double-counting and the distinct adopted frameworks. However, projected scenarios are relevant references for policymakers and donors to consider in formulating policies aimed at structural transformation and sustainable development in LDCs. Table 4.1 presents a summary of the main estimation results.

The subsections below present the estimation approaches adopted in the projections and costing, and outline the data.

1. Estimation approaches

The following subsections provide additional information on the estimation approaches that have been used.

a. Estimates using elasticities

The Sustainable Development Goals targets considered are typically time-bound and are expected to be met by 2030. In light of this, it is possible to estimate related investment needs through elasticities which capture how sensitive an economic variable is to another. As documented in earlier chapters of the report, LDCs are a heterogeneous group of countries with distinct, and at time divergent, development trajectories. Their highly differentiated state capacities, institutions, economic infrastructure,

LDCs require \$462.4 billion annually in additional investment to achieve the 7 per cent GDP growth target

and human capital levels influence how they react to the current crisis, as well as how capable (or not) they are at bringing about a sustainable recovery and build resilience. To capture this, the default approach used in this costing exercise was to calculate relevant elasticities *by country*, using panel data techniques for the period 1970–2020 and forecastingthe relevant series⁸ until 2030.

The standard methodology employed to estimate such elasticities is panel time series (Pesaran, 2006).⁹ With sufficient and consistent information as in this case, it estimates individual elasticities¹⁰ for each country in a macro panel. Three sets of elasticities are calculated below.

 i. Economic growth (SDG 8.1): growth-investment elasticities

SDG 8.1 targets growth at 7 per cent per year for the LDCs. The investment rate (i.e. the fixed capital formation/GDP ratio) is critical to sustain growth over the long term (Bond et al., 2010), as it partly incorporates expenditures necessary to achieve several targets contained in other Goals (e.g. clean water and sanitation (SDG 6); affordable and clean energy (SDG 7); industry, innovation and infrastructure (SDG 9); sustainable cities and communities (SDG 11); and climate action (SDG 13). Naturally, the investment rate is an aggregate measure and, as explained in Chapter 2, the sectoral allocation of investment and the effectiveness of expenditure are also important determinants of development outcomes.

Growth-investment elasticities measuring the impact of a 1-per centage-point increase in the investment rate on overall GDP growth were obtained by regressing investment,¹¹ structural transformation,

⁸ A detailed description of the data is in the Annex.

human capital, and employment¹² on GDP. Since the 7-per-cent growth rate for the 2021–2030 period is a given parameter, and the investment-growth elasticities were calculated by country, it is possible to gauge the level of investment required in individual LDCs until 2030. Clearly, the growth-investment elasticities are expected to be positive, since higher investment leads to stronger growth.

The exercise then took a step further, by differentiating the investment need by funding sources. To this end the IMF dataset on public, private, and public-private partnership (PPP) investments was used.

ii. Eradicating extreme poverty (SDG 1.1): poverty-growth elasticities

SDG 1 includes the target of eradicating extreme poverty by 2030. In this respect, the poverty-growth elasticity for LDCs is calculated taking into account income distribution within the countries (Ravallion, 2016).

National survey data for poverty and inequality are sparse. The lack of sufficient observations prevents the application of the panel time- series estimations. Therefore, in this case the elasticities were estimated by clustering the LDCs according to the geographic-structural classification long adopted by *The Least Developed Countries Report* series (African LDCs and Haiti, Asian LDCs and Island LDCs) using a fixed-effects methodology. The objective of analyzing the LDCs according to geographic-structural characteristics, rather than having one overall average number, is to capture the underlying differences among those sets of countries. The elasticities are expected to be negative because growth tends to reduce poverty. 14

Once growth rates are estimated, results can be plugged into the first model using previously computed investment-growth elasticities to project the investment needs of the LDCs to eradicate extreme poverty by 2030.

iii. Structural transformation (SDG 9.2): manufacturing-growth elasticities

For the exercise related to doubling of the manufacturing share of GDP (SDG 9.2), elasticities are obtained by regressing the manufacturing share of economy-wide value added, as well as other covariates, such as population and employment, on log GDP. For the countries with missing or

⁹ See Annex for more detailed information. Several tests were carried out to select the appropriate model to be used.

For a log-log equation, the coefficients calculated are elasticities.

The variable used is gross fixed capital formation. The same procedure was conducted using capital stock as the investment variable. However, this stock variable is more complex and more difficult for policymakers to rely on or employ as a target or benchmark. In any case, the estimation results conducted using both variables are coherent with each other.

See the description of variables in the Annex.

More information on this is available in the Annex.

The benefit of fixed-effects estimation is to reduce the omitted variables bias by capturing the country variation within variation over time. This is the key difference between the standard pooled ordinary least squares (OLS) and fixed effects.

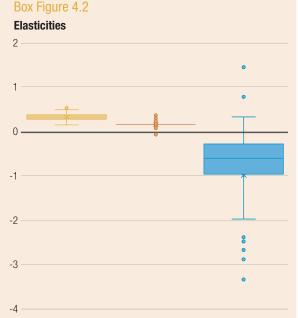
Box 4.2 Elasticities of GDP growth, poverty and structural transformation to fixed investment in LDCs

Elasticities are expected to be positive in growth-investment (SDG 8.1) and manufacturing-growth (SDG 9.2), but expected to be negative for poverty-growth elasticities (SDG 1.1), i.e. stronger economic growth will lead to more rapid poverty reduction. Figure 4.2 shows the estimated elasticities in a boxplot format, providing a visual representation of the distribution of the data among different LDCs.*

Box Figure 4.2 the median results correspond to the expectations, but there are a few outliers, especially in poverty-growth elasticities. The explanation of these unexpected results, and of the few LDCs that exhibit positive elasticities, is that: (i) the poverty-reducing effect of economic growth is not automatic or universal; (ii) the implementation of pro-poor policies has traditionally been difficult, due to lack of finance, weak state capacity and

political economy problems; and (iii) in some countries economic growth has been positive but lower than demographic growth, hence with declining income per capita, poverty incidence has also been on the rise. Two sets of countries exhibit positive poverty-growth elasticities, namely: (i) oil-based economies (e.g. Angola); and (ii) economies with a very high percentage of the population, i.e. with more than 50 per cent of its population living in extreme poverty (as is the case of Guinea Bissau, Madagascar and Zambia). In the case of Angola and Madagascar, a fundamental problem of their growth pattern is that their population growth rate exceeded their GDP growth rate, leading to stagnant per capita GDP growth and rising poverty rates, despite the fact that the overall economy recorded a small but positive expansion in GDP.

More broadly, oil-dependent countries typically tend to have a high degree of income concentration, due to the capital intensity of their oil industry, and an ensuing weak employment impact and limited embeddedness in the domestic economy. As for the high-poverty countries, economic growth does not always effectively translate into poverty reduction and, sometimes, even increases poverty – which is the case when captured by positive poverty-growth elasticities. This unexpected result can happen if economic growth is not accompanied by: (i) more effective tax collection; (ii) expenditures that lead to higher levels of human



Source: UNCTAD Secretariat calculations based on data from United Nations Statistics Division, Penn World Tables, and World Development Indicators (World Bank) [accessed June 2021].

capital; (iii) effective cash transfer programmes; (iv) healthier populations; (v) reduction of corruption; (vi) rising labour productivity; and (vii) sophistication of the economy. In these cases, the engines of growth are only poorly connected to effective distributive policies that seek to reduce poverty and expand opportunities.

* A boxplot is a standardized method to show the distribution of data based on five data points: "the minimum", first quartile (Q1), median, third quartile (Q3), and "the maximum". The dots outside the box are outliers.

non-significant elasticities, the LDC average was applied. ¹⁵ In this way, it is possible to: (i) estimate the annual GDP growth required to double the weight of the manufacturing sector by 2030; and (ii) plug GDP growth into the growth-investment model described above, to obtain the necessary rate of investment to reach the target considered.

b. Estimates using unit costs

The majority of social and environmental services (targeted by SDGs 1.3, 3.8, 4.1 and 15.1) are not classified as investments but as current spending. While this distinction is a technical detail in public accounting, it matters in this exercise because it suggests that the forecasts using elasticities (subsection 2.2.1.) exclude most of the resources required to reach universal health coverage (UHC), education, social protection services, as well as ensuring the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services.

LDCs estimations tend to reflect the values found in countries reporting results. It possibly adds an upward bias because income might be correlated to level of reporting/ data availability. However, since the main interest is gauging elasticities, the mentioned procedure seems appropriate.

Ending extreme poverty or doubling the share of manufacturing in GDP will require LDCs to achieve astronomical GDP growth rates

In the case of these social and environmental targets, forecasting with elasticities is not possible due to a general lack of data for LDCs, including more detailed government expenditures or outcomes. Therefore, the estimation technique adopted to gauge pending needs and financing gaps is as follows: first, it calculates the total cost to reach the universality of services by 2030 by multiplying unit costs from the academic literature (McCarthy et al., 2012; Stenberg K, Hanssen O, Edejer TT-T, Bertram M, Brindley C, Meshreky A, Rosen James E, et al., 2017; Waldron et al., 2013). Second, these data are subtracted from current expenditure data, resulting in financing gaps similar to those developed in other costing estimates (McArthur and Kharas, 2019; J. Sachs et al., 2018).¹⁶ Third, the progress of interventions is modelled linearly from 2021 to 2030, and those parameters are used to estimate annual expenditures for the period.

2. Data

The analysis draws on a variety of datasets. Most of them exhibit long series, starting in the 1970s, and contain most of the LDCs, varying from 36 to 46 countries (maximum).

The primary datasets utilized are the United Nations Statistics Division, United Nations Department of Economic and Social Affairs (UN-DESA), the Penn World Tables (PWT), the IMF's Investment and Capital Stock Dataset and *World Economic Outlook 2021*, the World Bank's World Development Indicators, and its Atlas of Social Protection Indicators of Resilience and Equity (ASPIRE). The Annex provides a detailed description of the variables utilized from each dataset.

C. LDCs' financial needs to achieve selected Sustainable Development Goals

The methodologies used in the costing exercise has generated two sets of results. On the one hand, the

elasticities produced fixed investment levels and the GDP growth rates required to achieve some of the Sustainable Development Goals. On the other hand, the forecasting based on unit costs has spending requirements as the primary outcomes.

As indicated by the aggregate findings in Table 4.1, average annual growth rates of 7, 9 and 20 per cent, respectively, will be needed until the end of the decade to achieve the minimum economic growth (SDG 8.1) required, ending extreme poverty (SDG 1.1), or doubling the share of manufacturing in GDP (SDG 9.2). Clearly, compared to historical values, these scenarios imply very ambitious growth targets. Even the lowest of these three GDP growth rates – the annual 7 per cent foreseen by SDG 8.1 – is clearly above the highest annual growth rate achieved by the LDCs since the establishment of the category: 5.2 per cent in the 2000s (Figure 4.1).

Table 4.1 highlights that the median annual value to universalize health coverage (SDG 3.8), education (SDG 4.1), social protection (SDG 1.3), and ensuring the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services (SDG 15.1) by 2030 is 29.1 per cent¹⁷ of GDP. This implies more than doubling the current annual expenditure on those areas, which amounts to 13.1 per cent of GDP. In other words, LDCs would need to reach the same level of spending on these areas as the OECD average of 32.4 per cent (OECD, 2021). This confirms again the enormous challenges involved in reaching these selected targets given their limited resources available to LDCs, or for their similarly limited capacity to mobilize resources.

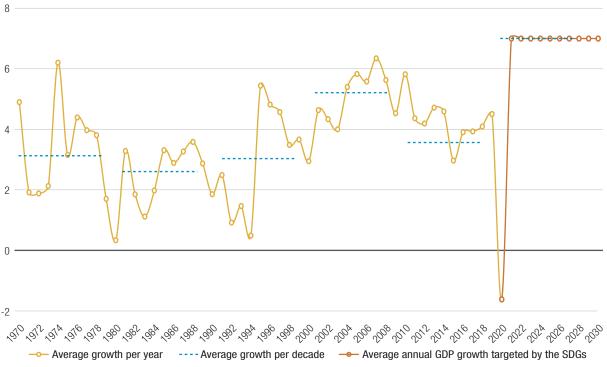
Adding the fixed investment requirements under one of the three scenarios, and the forecast total social and environmental spending needs obtained from estimates, the total average annual spending of LDCs would range from \$876 billion to \$1,465 billion. To give an idea of the magnitude of this challenge, these values correspond to 80134 per cent of the GDP of LDCs in 2019. i.e., before the COVID-19 crisis hit them. It should be noted that adding up these two sets of data presents the risk of double counting, but less so than the fixed investment estimates, which cannot be added. The major risks of double counting are two-fold. First, fixed investment boosts growth, which is likely to boost public revenue mobilization, and hence the capacity to pay for social protection. Second, the sectors of education and health require both current spending and fixed investment, but the latter expenditures are usually minor in these sectors

Gaspar et al. (2019) offered an alternative solution using an input-outcome approach, where the Sustainable Development Goals index captures the outcome in the respective area.

¹⁷ The median value was used to avoid the outliers that are absorbed in the average values.

Figure 4.1

Average annual GDP growth of the LDCs: 1970 to 2030



Source: UNCTAD Secretariat calculations based on data from United Nations Statistics Division [accessed June, 2021].

compared with the previous one. The country-specific results of the estimation exercise are shown in Annex Table 4.5.

Once the aggregated results have been presented, the subsections below present estimated investment and expenditure needs.

1. Investments need to grow at high rates to eradicate extreme poverty and promote structural transformation

a. Estimation results

The main differences in the three initial scenarios are that different GDP growth rate are required to reach targets of the Sustainable Development Goals. For SDG 8.1, the growth rate is part of the target itself, i.e., 7 per cent growth. To end extreme poverty (SDG 1.1), the growth rate needs to be on average 9 per cent throughout the decade. By contrast, the requirements for structural transformation are significantly higher as LDCs would need to achieve a whopping 20 per cent average annual growth rate to reach the target of doubling the manufacturing sector share of GDP (SDG 9.2). This highlights how challenging the task of achieving long-term structural economic transformation, even in comparison with the other two already challenging targets.

The annual average fixed investment requirements from 2021 to 2030 for LDCs to reach the above-mentioned growth rates are as follows: (i) \$462 billion for economic growth (SDG 8.1); (ii) \$485 billion for poverty eradication (SDG 1.1); and (iii) a much higher sum (\$1,051 billion) for structural transformation (SDG 9.2).

These results highlight the fact that the structural transformation target is much more ambitious than the others, i.e., strong economic growth and even poverty eradication - themselves already challenging issues. During the 2010-2019 period, only seven LDCs met or exceeded that growth target, while the vast majority of these countries (39 of them) falling short of it, including countries that displayed prolonged collapses in GDP levels. Moreover, these growth results were achieved prior to the outbreak of the COVID-19 pandemic. The latest crisis not only brought about the worst growth performance of LDCs in 30 years (UNCTAD, 2020a), but also risks introducing hysteresis in the form of sub-par economic and social performance in many LDCs over the medium term.

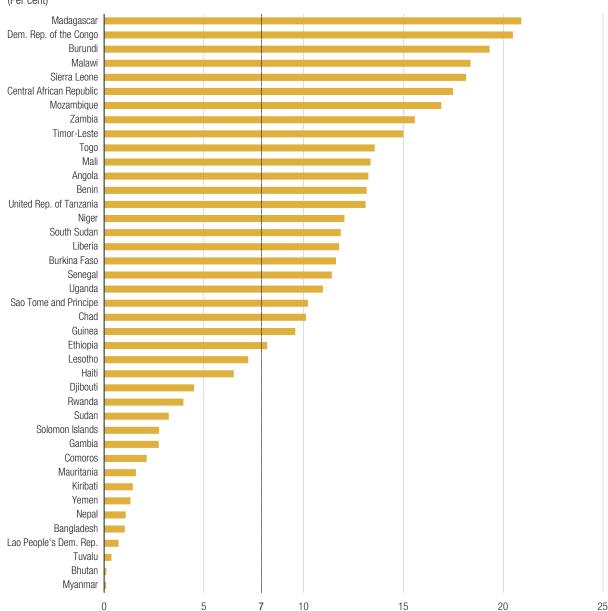
Concerning the poverty target, LDCs achieving the highest economic growth rate and/or that have advanced most towards structural transformation have been the most successful in strongly reducing

poverty (for example, Bangladesh, Cambodia, Ethiopia, Liberia and United Republic of Tanzania). Conversely, LDCs that have the highest rates of extreme poverty are those that need to make the strongest effort to eradicate this scourge. These contrasting performances are reflected in equally contrasting investment needs to eradicate extreme poverty; this, in turn, translates into a very wide range of economic growth rates required to eradicate poverty. Among the most challenging cases are Madagascar and Democratic Republic

of the Congo, which have very high poverty rates and would need to grow at more than 20 per cent annually in 2021–2030 to eradicate poverty by 2030. By contrast, the growth needs of several Asian and Islands LDCs are much lower, given their success in reducing extreme poverty since the beginning of the century (Figure 4.2). It is important to recall that these growth rates concern only the poverty eradication rate, and do not take into consideration broader targets, such as structural transformation or environmental goals.

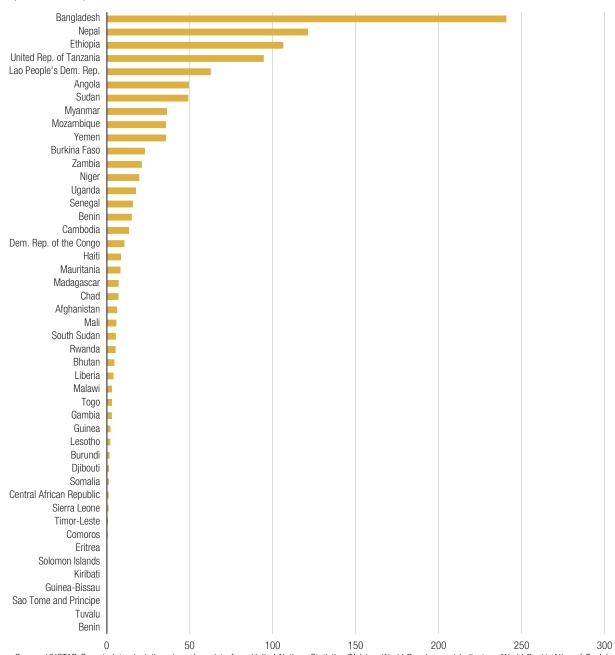
Figure 4.2

Average annual GDP growth rates required to end extreme poverty by 2030 (Per cent)



Source: UNCTAD Secretariat calculations based on data from United Nations Statistics Division, World Development Indicators (World Bank), Atlas of Social Protection Indicators of Resilience and Equity (World Bank), and United Nations Population Division of the Department of Economic and Social Affairs [accessed June, 2021].





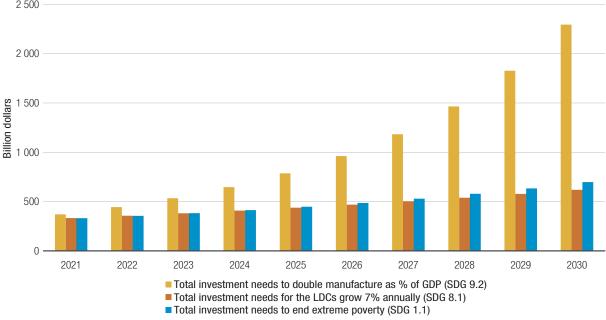
Source: UNCTAD Secretariat calculations based on data from United Nations Statistics Division, World Development Indicators (World Bank), Atlas of Social Protection Indicators of Resilience and Equity (World Bank), and United Nations Population Division of the Department of Economic and Social Affairs [accessed June, 2021].

The most ambitious of the selected targets, i.e., the one related to structural transformation (SDG 9.2), has an average fixed investment requirement over the new decade that amounts to more the three times the total fixed investment of these countries in 2019, which amounted to \$313 billion. This once again highlights the magnitude of the challenge of mobilizing resources to achieve structural transformation.

Achieving structural transformation would simultaneously enable LDCs to address most other of the other Goals: not only would the growth target be exceeded by a wide margin, but it would also bring a lasting and sustainable solution for poverty. This confirms the argument put forward by *The Least Developed Countries Report* series that achieving structural transformation is one of the preconditions

Figure 4.4





Source: UNCTAD Secretariat calculations based on data from United Nations Statistics Division, Penn World Tables, and World Development Indicators (World Bank) [accessed June, 2021].

for reaching the Sustainable Development Goals. However, the difficulty in attaining these targets in a relatively short time is highlighted by the fact that the associated average rate of economic growth – a 20 per cent annual growth rate spanning over a decade – has not been achieved over the medium term even by the fastest growth experiences of developing countries in recent years.

Cross-country analysis suggests that countries in which manufacturing provides a strong contribution to GDP are those for which the target of doubling the manufacturing share of value added by 2030 would entail the greatest challenges. By contrast, countries where the manufacturing share is lowest would require less of an investment effort to double this proportion (Figure 4.3). These results may seem paradoxical but are not. They simply indicate that - in general terms, initial conditions matter as the target is defined as a doubling of the existing share. It should be noted, however, that in countries where the contribution of manufacturing to GDP is very low, even reaching the relevant target of the Sustainable Development Goal would still leave them at relatively low levels of industrialization.

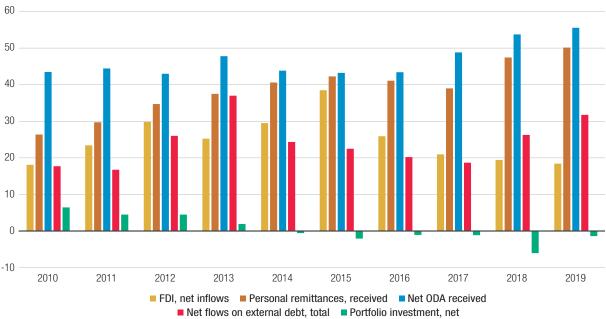
The results of the estimations show that, under the three scenarios, fixed investment should grow by 78–305 per cent, as compared to the previous decade (2011–2020). Figure 4.4 highlights these findings.

b. Sources of financing

Past patterns of financing of gross fixed capital formation provide an indication of where the funds should be mobilized to finance the realization of the Sustainable Development Goals by 2030. The bulk of the funding is expected to come from private sources (78 per cent), according to the projections based on the latest IMF's Investment and Capital Stock dataset. As a reference, during the period 2017-2020, the average weight of private investment was 75 per cent. In other words, the average private investment for the 38 LDCs for which data are available, would need to more than double (in real terms), and jump from \$457 billion in 2017 to \$1,050 billion in 2030. About one-fourth of total investments should be financed by the public sector (26 per cent). The average value for public investment starts at \$152 billion dollars in 2017, and would need to reach \$357 billion in 2030. Finally, public-private partnerships (PPPs) would represent just 1 per cent of total investment requirements, - the value of their investment would start at \$5.2 billion in 2017 and need to rise to \$12.4 billion by 2030.

Another important dimension of the sources of financing which policymakers need to consider is the geographical origin of the funds to finance investments. In 2019 the total fixed investment of all LDCs amounted to \$313 billion and financed from both domestic sources and external financing. Total external financing of LDCs amounted to \$155 billion,

Figure 4.5
External finance to the least developed countries, 2010–2019

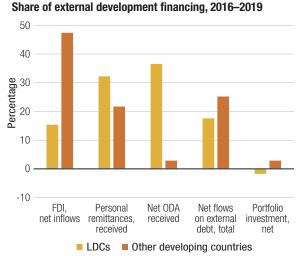


Source: UNCTAD Secretariat calculation based on data from World Development Indicators database [accessed July 2021].

including about \$50 billion of ODA and personal remittances each, \$32 billion of net flows of external debt and \$18 billion of foreign direct investment (FDI) (Figure 4.5).¹⁸

The composition of external financing of LDCs is in sharp contrast with that of other developing countries (ODCs). For the latter, private commercial flows (FDI, external debt and portfolio investment) accounted for three-fourths of external development financing in the period immediately preceding the COVID-19 pandemic (2016-2019). The LDCs, by contrast, rely much more on official flows (ODA and other official flows whose concessionality does not meet aid definition), and to a lesser extent, personal remittances, which jointly account for 69 per cent of their external development financing (Figure 4.6). An additional challenge faced by LDCs in financing the investment to reach their development targets is that personal remittances are more likely to be channeled towards current household consumption instead of investment (UNCTAD, 2012c).

igure 4.6



Source: UNCTAD Secretariat calculation based on data from World Development Indicators database [accessed July 2021].

Expenditure needs to universalize major social and ecosystem services by 2030

LDCs currently spend 2.9 per cent of GDP, on average, on social and ecosystem services, as measured by the four targets of the Sustainable Development Goals (SDGs 1.3, 3.8, 4.1 and 15.1) by 2030, LDCs would need to mobilize additional resources, amounting to 10.4 per cent of the GDP per year, on average, until end of the decade.

Total external financing mobilized by a country does not automatically translate into fixed investment. Moreover, these two sets of figures come from different sources: external financing is part of balance of payment statistics, while gross fixed capital formation is part of national accounts. Part of the net foreign resources mobilized by a country does serve to finance fixed investment. However, available statistics do not enable a precise determination of the share of gross fixed capital formation that is financed from domestic or external sources.

Table 4.2

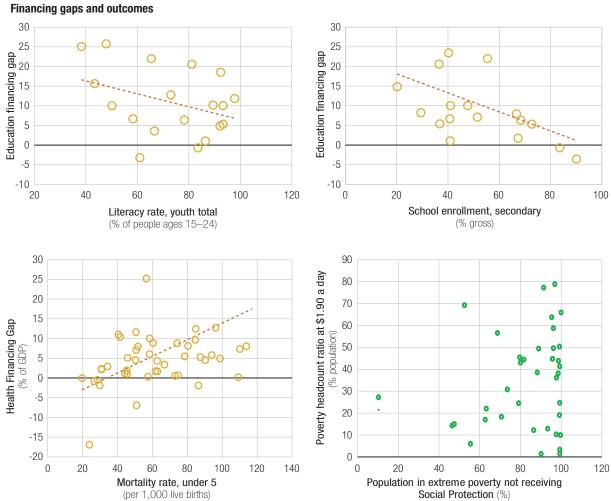
Main parameters used to calculate the financing gaps

SDGs	Unit cost	Average expenditure to universalize the service by 2030	Current expenditure	Average financing gap*	Annual rate of grow to universalize services by 2030
	\$ per capita	% GDP	% GDP	% GDP	%
Health (3)	85.7	12	6.1	7.9	6.2
Education (4)	122.4	16.9	3.9	12.1	5.7
Biodiversity conservation (15)	4.9	0.7	0.1	0.6	20.2

SDGs	Population living in extreme poverty receive social protection	population live with less than \$1.9 per day is not covered by social programs	Expenditure in social protection	Average financing gap	Annual rate of grow to universalize services by 2030
	%	%	% GDP	% GDP	%
Social Protection (1)	10.3	29.2	1.6	21	17
Global average	55.8	14.7	2.9	10.4	12.3

Source: Stenberg et al., 2017; McCarthy et al., 2012; Waldron et al., 2013; McArthur and Kharas, 2019; J. Sachs et al., 2018; World Bank, 2021.

Figure 4.7



Source: UNCTAD Secretariat calculations based on data from World Bank (2021a).

Notes: The data relating to education financing and health financing gaps are based on our own calculation (year 2019); all the other variables are taken from the World Bank's WDI and refer to 2019.

^{*} Only countries with a financing gap compared to the benchmark were considered.

Reaching these four targets at issue requires tripling social and ecosystem spending as a share of GDP. In other words, the level of expenditures would need to increase by 12.3 per cent per year relative to the level observed in 2019.

It is important to highlight that the estimates for ensuring the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their respective services are a lower bound, and probably underestimate the financial needs to reach the target contained in SDG 15.1. The costing of financial needs relating to environmental conservation and climate change is very challenging, ¹⁹ which has led to the use of the Sachs et al. (2018) methodology for LDCs, based on the unit costs of environmental protection (McCarthy et al., 2012).²⁰

For the selected social and ecosystem targets, both total expenditure and financing gap are estimated. The methodology for calculating the financing gap is straightforward, and requires the prior projection of the average expenditure needs (Table 4.2, column three), corresponding to the unit costs in column two. Subtracting from the total expenditure needed to universalize a given service, the corresponding level of current expenditure obtains the average financing gap (column five). Finally, the last column is the linear growth rate of expenditure that countries need to follow to universalize the selected services by 2030.

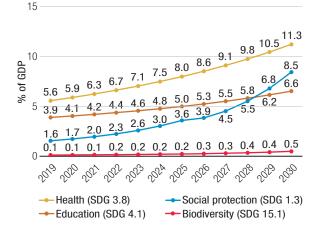
The estimated financing gaps plotted against variables, such as the under-five mortality rate, literacy rate, school enrolment or social protection coverage, show that more actual spending is associated with better outcomes (Figure 4.7).

Countries can also track progress in decreasing the financing gap over time. Figure 4.8 shows the average annual incremental financial targets that LDCs need to attain from 2021 to 2030 to universalize services and achieve selected Sustainable Development Goals. This is a tool to guide countries' resource mobilization, both domestically and internationally.

The total average expenditure per year would need to rise by about 55 per cent of GDP, once combining the current and the forecasted social and environmental expenditures (current spending and financing gap) with one of the three scenarios based on investment data.

Figure 4.8

Average yearly incremental spending targets for the LDCs to universalize health, education, social protection and provide ecosystem conservation services: 2019-2030



Source: UNCTAD Secretariat calculations based on data from United Nations Statistics Division, World Development Indicators (World Bank), Atlas of Social Protection Indicators of Resilience and Equity (World Bank), and United Nations Population Division of the Department of Economic and Social Affairs.

D. Expanding sources of financing to reach the targets

The main priority of countries worldwide in the context of a global pandemic is to focus attention and resources on the health sector. This implies that other areas might have been neglected, including in terms of budgetary allocation. Therefore, the economic recovery of countries that will be possible once vaccinations are rolled out needs to be anchored in Sustainable Development Goals' priorities, and with the mid- to long-term horizon in mind.

A clear message emerges from the estimates shown and analyzed in the present chapter. The message is that, in spite of the uncertainties necessarily surrounding them, substantially higher amounts are needed for the LDCs to reach the Sustainable Development Goals than what is available to them at present. This points to the acute need for the international community to earnestly mobilize itself to assist these countries to achieve the necessary sharp scaling up of sustainable development finance. The mobilization of additional funding sources for the Sustainable Development Goals is essential (De Neve and Sachs, 2020).

Substantial transfers of resources to LDCs capable of kickstarting the productive capacity development process constitute the critical mainstay of the PoAs for the LDCs. They are a major component of the

Sachs et al. (2018) explain in detail the main shortcomings of the data and the difficulties in costing environmental-related SDG targets.

McCarthy et al. (2012) estimate the financial costs for the two targets of protected areas and prevention of extinctions. The authors use data from birds to develop models that can extrapolate to the costs for biodiversity.

To **mobilize** sufficient **development finance** LDCs need to:







strengthen their fiscal capacities

increase domestic resource mobilization

improve the effectiveness of public expenditures

partnership between the international community and the LDCs, and underpin the international support measures that are integral to the design of the PoAs for the LDCs. Such a transfer of resources is similarly recognized by the 2030 Agenda for Sustainable Development in the "means of implementation": an interdependent mix of financial resources, technology development and transfer, capacity-building, inclusive and equitable globalization and trade, regional integration, buttressed by the creation of an enabling national environment for the successful implementation and realization of the Sustainable Development Goals.

LDCs will need to continue to strengthen their fiscal capacity, and improve the effectiveness of public expenditure to manage the increasing expenditure demands being made on them (Gaspar et al., 2019). The quoted study assumes that a 5-per-cent annual growth in domestic fiscal revenues is a realistic rate to consider. Even in such an event, domestic tax revenues would not be sufficient to cover all the estimated costs. Official development assistance (ODA), for instance, funds 25 per cent of the health spending in LDCs, and the demand for related services cannot but increase in the current context. Outlays will also be needed with respect to other key basic services, such as education or conservation, as well as investments in productive infrastructure. Against this background, reaching the Sustainable Development Goals will inevitably require a massive scaling up of sustainable development finance in the LDCs.

An important motivation for this costing exercise is to underline the continued and increased relevance of **grant-based ODA** as a major source of external development finance in the face of stronger risk aversion among international sponsors in the context of the COVID-19 crisis.

FDI trends in the LDCs suggest that the COVID-19 pandemic is impeding progress towards achieving the Sustainable Development Goals and widening productive capacities investment gap in structurally weak LDC economies. These developments pose a risk to LDCs' attainment of the Sustainable Development Goals and worsen LDCs' structural weaknesses (UNCTAD, 2021). The number and value of greenfield project announcements in LDCs dropped sharply (-51 per cent compared with 2019, representing a 13-year low) in 2020. The number of LDC host economies that did not attract any project increased from 13 to 17. FDI tends to trail other macroeconomic indicators after a shock, resulting in the prospect of FDI in LDCs remaining subdued in the immediate future. Inflows are expected to remain sluggish over the next few years, and there is a heightened need for ODA to be stepped up to minimize the number of "lost" years in terms of progress toward the Sustainable Development Goals.

The future of FDI in LDCs will depend on how attractive these economies are in the wake of the ongoing reconfiguration of international production through reshoring and regionalization. It is increasingly clear that without prior and continuing public sector investments guided by strategic industrial policy in productive capacities in LDCs, the attractiveness of LDCs to private investment will continue to be low, and FDI flows will likewise be erratic. LDCs need access to adequate and stable flows of financing to achieve sustainable development.

Blended financing is frequently presented as the major response to the financing for development needs of developing countries. This topic is subject to major caveats, especially in the case of LDCs (UNCTAD, 2019a). This modality of financing for development is further discussed in chapter 5.

Additional financial instruments that have been discussed as potential revenue sources to fund the Sustainable Development Goals are:

- (i) taxes, contributions, and other obligatory charges, such as the "Big Techs" taxes;
- (ii) debt-based borrowing mechanisms, such as social impact bonds; and
- (iii) voluntary and solidarity contributions, such as the national lotteries.

Beyond public revenue sources, and if appropriately harnessed and geared towards an authentic partnership for LDC sustainable development, private philanthropy and other private investments, especially those concerned with environmental, social and

governance (ESG) issues could also play an important role in achieving the Sustainable Development Goals.

The analysis in this chapter also shows that LDCs will need to substantially and consistently accelerate their economic growth until 2030. This is especially true of the financing requirements to achieve structural economic transformation. The fact that the requirements here are much higher than

those (already high) of reaching other Sustainable Development Goals highlights once again the challenges of achieving structural transformation. Moreover, a truly sustainable structural transformation requires that parallel processes take place in tandem (e.g. human capital building, strengthening domestic entrepreneurial sector, strengthening state capacity), as argued in Chapter 5 of this report.



ANNEX

1. Literature on costing Sustainable Development goals

Annex Table 4.1

Comparison of the existing literature on the costing of the Sustainable Development Goals

	Unctad LDR 2021	SDSN Sachs et al. (2018)	Brookings McArthur and Kharas (2019)	ODI Manuel et al. (2020)	IMF Gaspar et al., 2019
Methodology	 Own methodology of forecasting based on elasticities Backcasting for social and environmental areas 	Backcasting	Backcasting	Backcasting Focus on ending extreme poverty	• Input-Outcome Approach
Sectors	 Manufacture Poverty health Education Social protection Biodiversity 	 Health Education Infrastructure Biodiversity Agriculture Social protection Justice Humanitarian Data 	 Conservation Agriculture Justice Education Infrastructure Health Social Spending 	 Education Health Nutrition Social protection transfers Water, sanitation and hygiene 	HealthEducationPowerRoadsWater and sanitation
Coverage	46 Least Developed Countries	59 low- and lower- middle-income countries	estimate public spending for 190 countries, and minimum SDG public spending needs for 134 developing countries	135 low-income countries (LICs) and middle-income countries (MICs)	155 countries. Focus on low-income developing countries (49 countries) and emerging market economies (72 countries)
Data	 Elasticities estimated Unit costs from the literature 	Unit costs from the literature	Unit costs from the literature, and sector-specific public expendifures data	Unit costs calculted by ODI Renenue capacity	 SDG index Inputs (e.g., number of health care workers) Unit cost (e.g., health care workers wage) Other factors (e.g., demographics, GDP)
Main results	The total average expenditure varies from \$875.9 – 1,464.9 billion per year for the LDCs, once combining the forecasted total social and environmental spending with estimated investments.	 Total financial need of \$1,011 billion per year on average from 2019 to 2030 to achieve the SDGs. The projected financing gap is of the order of \$400 billion from 2019 to 2030, or \$230 per capita, on average. 	 Total spending in 2015 would be \$21.3 trillion, rising to \$32.3 trillion annually in 2030. The projected annual gap is \$12 trillion. 	The total cost for Low and Middle-Income countries is \$2.4 trillion, while exclusively for Low-Income Countries represents \$137 billion and \$188 per person per year.	Additional spending of \$528 billion for low-income developing countries and \$2.1 trillior for emerging market economies in 2030

2. Data

To calculate the investments needs to grow 7 per cent per year from 2021 to 2030, the primary dataset utilized are:

- UN statistics, prepared by the National Accounts Section of the United Nations Statistics Division.
 - > Variables: investments (gross fixed capital formation), GDP at 2015 constant dollar values and structural transformation (as proxied by the Manufacturing share of GDP). The variables are used in natural log format.

Observations: 46 LDCs.Period: 1970–2019

- Penn World Table 10.0 (PWT), compiled by the University of Groningen
 - > Variables: capital stock at constant prices 2017, GDP (output-side real GDP at chained purchasing power parities 2017), employment (number of persons engaged), human capital (index), depreciation (average depreciation rate of capital stock). The variables are used in natural log format.

Observations: 38 LDCs.Period: 1970–2019

- Investment and Capital Stock Dataset, consolidated by the International Monetary Fund (IMF)²¹
 - > **Variables:** public, private, and public-private partnerships (PPPs) investments (gross fixed capital formation). The variables are used in natural log format.

Observations: 38 LDCs.Period: 1970–2017

 World Economic Outlook of the IMF, and projections from the Asian Development Bank and African Development Bank. To capture the effects of the COVID-19 pandemic in 2020, IMF projections (IMF, 2021b) are considered as the actual 2020 growth.²²

Variables: GDP growthObservations: 46 LDCs.

> **Period:** 2020

Second, the growth estimation to end extreme poverty by 2030 utilized as data source the World Bank's World Development Indicators (World Bank, 2021a), mainly because of the poverty headcount and inequality data, including the GDP calculated in purchasing power parity (PPP) terms.

> Variables: Poverty headcount ratio at \$1.90 a day is the percentage of the population living on less than \$1.90 a day at 2011 international prices, Gini coefficient, and GDP calculated in purchasing power parity (PPP)4 terms at constant 2017 prices. The variables are used in natural log format.

Observations: 44 LDCs.Period: 1980–2018

Third, the forecast of growth and investments needed to double the manufacturing share of the GDP by 2030 relied on two different datasets.

- UN statistics, prepared by the National Accounts Section of the United Nations Statistics Division.
 - > Variables: GDP and Manufacture Value Added. The variables are used in natural log format.

Observations: 46 LDCs.Period: 1970–2019

www.data.imf.org, accessed in May 2021.

When the IMF does not provide estimation for a given country, we used the estimation from regional development banks, such as the Asian Development Bank (www.adb.org), and the African Development Bank (www.afdb.org).

- Penn World Table 10.0 (PWT), compiled by the University of Groningen
 - > Variables: employment (number of persons engaged) and population were used as covariates. The human capital index was not included because it would reduce observations to 30 LDCs. The variables are used in natural log format.

Observations: 37 LDCs.Period: 1970–2019

Finally, the costing projections of universal social and environmental services until 2030 include different sources.

- UN statistics, prepared by the National Accounts Section of the United Nations Statistics Division.
 - > Variables: GDP, and population
 - Observations: 46 LDCs.Period: 2015–2019
- UN Population Division of the Department of Economic and Social Affairs
 - > Variables: Total population, medium
 - Observations: 46 LDCs.Period: 2019–2030
- Expenditure data and unit costs²³:
 - > Health
 - ⁺ Variables: Domestic general government health expenditure as % of GDP (World Bank, 2021a), and unit costs (Stenberg et al., 2017b)
 - > Education:
 - [†] Variable: Government expenditure on education as % of GDP (World Bank, 2021a), and unit costs (The International Commission on Financing Global Education Opportunity, 2016)
 - > Conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services
 - [†] Variable: Biodiversity conservation spending (Waldron et al., 2013) updated following McArthur and Kharas (2019) suggested procedure, and unit costs (McCarthy et al., 2012)
- World Bank's Atlas of Social Protection Indicators of Resilience and Equity (ASPIRE) prepared by the World Bank
 - > Variables: Coverage of all social protection and labor (per cent), coverage of all social assistance (per cent), and population in extreme poverty not receiving social protection (per cent)
 - Observations: 39 LDCs.Period: 2001–2018

McArthur and Kharas (2019) and Sachs et al. (2018) are the main references that use the data desbrided in this section.

3. Selecting the estimation methodology

Several of the empirical tests performed included ordinary least squares (OLS), fixed effects and panel time series methods, such as mean group, cross-sectionally demeaned mean group, and common correlated effects mean group estimators (see Annex B). In all those estimations, logged GDP was regressed with logged investment (gross fixed capital formation),²⁴ structural transformation, human capital, and employment.²⁵ As known, the log-log equations result in coefficients that can be interpreted as elasticities. This is an additional reason to adopt this methodology as a default option.

The panel time series models are reported with and without controls (reference). It is critical to choose one estimation to adopt as elasticity. Given the unit root, cointegration, cross-sectional dependence tests, the preferred model is the common correlated effects mean group with country trends (Pesaran, 2006).

More practically, the estimations rely on data extracted from the United Nations Statistics Division dataset and PWT (see more details in the following subsection). The growth-investment elasticities were calculated by country, and they are expected to be positive. Based on those elasticities and the GDP growth target of 7 per cent a year agreed on the Sustainable Development Goals, the level of investments required in the LDCs until 2030 were calculated. In addition, by analyzing the IMF dataset on public, private and PPP investments, it was possible to disaggregate the projections by funding sources.

Unfortunately, it is not technically viable to reproduce the same breakdown by the origin of funding, i.e. domestic or foreign. FDI and remittances, for instance, are financing mechanisms that can add fixed assets to the economy's gross capital formation. In this case, the investment rate necessarily incorporates them into it (Bjuggren et al., 2010; Nawaz, 2020). However, both types of financing can also be used for consumption or pay for current expenditures. In this case, they will not be reported as gross fixed capital formation. The difficulty in developing such estimation is the inexistence of more detailed panel data detailing all the outlays of investment and covering LDCs.

Annex Table 4.2

GDP growth and investment: Ordinary Least Squares and Fixed-Effects estimates

	(1)	(2)	(3)	(4)	(5)	(6)				
	OLS	OLS	OLS	FE	FE	FE				
	Dependent variable: GDP									
Investment	0.798***	0.543***	0.541***	0.574***	0.382***	0.340***				
Investment	-0.00922	-0.0123	-0.0124	-0.00694	-0.0106	-0.00997				
Structural Transformation			0.361***			1.914***				
Structural fransionfration			-0.0876			-0.116				
Human Capital		-0.0137	-0.0199		-0.027	-0.0342				
		-0.036	-0.0358		-0.0645	-0.0588				
Danulation		0.671***	0.665***		0.0897	0.487***				
Population		-0.0756	-0.0771		-0.0989	-0.0933				
Employment		-0.180***	-0.176***		0.0501	-0.117				
		-0.066	-0.0672		-0.0891	-0.0819				
Constant	5.893***	10.19***	10.22***	10.46***	14.15***	14.20***				
	-0.193	-0.225	-0.224	-0.141	-0.279	-0.255				
Observations	1 900	1 424	1 424	1 900	1 424	1 424				
Year dummy	No	Yes	Yes	No	Yes	Yes				
R-squared	0.802	0.908	0.909	0.786	0.875	0.896				
Number of LDCs	38	31	31	38	31	31				

Notes: Robust standard errors in parentheses.

Columns (1) to (3) exhibit the pooled OLS results, while (4) to (6) show fixed effects results.

^{***} p<0.01, ** p<0.05, * p<0.1.

²⁴ The same procedure was conducted using capital stock as investment, however this stock-variable is much more complex and more difficult for policymakers to use as a benchmark or target. Nevertheless, both estimations are consistent with each other.

See variables' description in the Annex.

Annex Table 4.3

GDP growth and investment: Panel Time-Series estimates

	(1)	(2)	(3)	(4)	(5)	(6)	-7	-8 CMG				
	MG	MG	CDMG	CDMG	CMG	CMG	CMG					
		Dependent variable: GDP										
IGFKF	0.259***	0.138***	0.524***	0.146***	0.231***	0.146***	0.189***	0.109***				
	-0.0359	-0.0247	-0.0424	-0.0298	-0.0307	-0.0298	-0.0287	-0.0177				
Controls	No	Yes	No	Yes	No	Yes	No	Yes				
Country trends	Yes	Yes	No	No	No	No	Yes	Yes				
CD-test	0	0.017	0	0.039	0.092	0.039	0.923	0.102				
Cointegration												
Observations	1 900	1 424	1 900	1 424	1 900	1 424	1 900	1 424				
Number of LDCs	38	31	38	31	38	31	38	31				

Notes: Standard errors in parentheses.

MG: mean group, CDMG: cross-sectionally demeaned MG; CMG: Pesaran (2006) common correlated effects MG.

Controls included are structural transformation, human capital, population and employment.

CD-test calculates the cross-sectional dependence for a panel. The test captures the mean correlation between panel units. The null hypothesis is cross-sectional independence.

Cointegration tests (Augmented Dickey-Fuller, Modified Phillips-Perron, and Westerlund) suggest that GDP and investment are cointegrated. For the equations including all the covariates, the tests also indicate they are cointegrated.

Annex Table 4.4

GDP growth, Public and Private Investment: Ordinary Least Squares and Fixed-Effects estimates

	(1)	(2)	(3)	(4)	(5)	(6)				
	OLS	0LS	0LS	FE	FE	FE				
	Dependent variable: GDP									
Public Investment	0.274***	0.207***	0.231***	0.356***	0.265***	0.259***				
Public lilvestifierit	-0.0179	-0.0142	-0.0148	-0.0161	-0.0185	-0.017				
D: 1 1 1	0.544***	0.358***	0.362***	0.332***	0.361***	0.301***				
Private Investment	-0.0179	-0.0122	-0.0121	-0.0152	-0.0186	-0.0171				
Structural Transformation			0.265**			2.021***				
Structural fransionnation			-0.125			-0.12				
11 02-1		0.168***	0.180***		-0.587***	-0.455***				
Human Capital		-0.0455	-0.0458		-0.0727	-0.0661				
Population		0.912***	0.873***		-0.0655	0.305***				
Population		-0.0553	-0.0545		-0.107	-0.0999				
Formier		-0.406***	-0.373***		0.786***	0.559***				
Employment		-0.053	-0.0526		-0.0951	-0.0869				
Constant	0.671***	-0.207*	-0.202*	0.965***	1.440***	0.718***				
Constant	-0.0294	-0.124	-0.118	-0.0176	-0.173	-0.161				
Observations	1 853	1 410	1 362	1 853	1 410	1 362				
Year dummy	No	Yes	Yes	No	Yes	Yes				
R-squared	0.804	0.887	0.89	0.781	0.857	0.884				
Number of LDCs	39	32	31	39	32	31				

Notes: Robust standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

Columns (1') to (3) exhibit the pooled OLS results, while (4) to (6) show fixed effects results.

^{***} p<0.01, ** p<0.05, * p<0.1

4. Econometric models

The literature suggests that macro panels, such as those used here, need different estimations than micro panels (Baltagi, 2008; Burdisso and Sangiácomo, 2016; Eberhardt, 2012). The main reason is that macro panels need to account for non-stationary issues commonly observed in time-series analysis. Besides, the presence of unit roots in time-series models should be a concern to avoid spurious correlation.

The methodology has additional advantages. It provides efficient estimation even in the occurrence of local spillovers, global or local business cycles, and structural breaks. Those features are very convenient for this type of estimation because it reduces potential risks of utilizing long time series to gauge elasticities. Second, it allows for heterogeneity across countries in all regression coefficients (Lee et al., 1998), which does not occur for pooled OLS or fixed-effects estimations. Moreover, the panel times series method allows for the influence of historical, geographical, and institutional influences on growth rates without requiring direct measurement of these factors. It happens because the fixed-effects model keeps the unobservable variables constant over time, suppressing omitted variables' bias.

a. Panel time series: common factor model

For
$$i=1,\ldots,N,\,t=1,\ldots,T,$$
 let
$$y_{it} = \beta_i^{\scriptscriptstyle t} x_{it} + u_{it} u_{it} = \alpha_i + \gamma_i^{\scriptscriptstyle t} f_t + \varepsilon_{it}$$

$$x_{mit} = \pi_{mi} + \delta_{mi}^{\scriptscriptstyle t} g_{mt} + \rho_{1mi} f_{1mt} + \ldots + \rho_{nmi} f_{nmt} + v_{mit}$$
 where.

 y_{it} is the observed output (GDP) in natural log

 x_{ii} is observed factor inputs (investment or capital stock) in the natural log. This is the coefficient that captures the elasticity we are looking for.

 f_t and g_t are unobserved common factors

 β_i captures country-specific factor parameters

 y_i , δ_i and ρ_i capture country-specific factor loadings

 α_i and π_{mi} is the country-specific fixed effects

 ε_{ii} and v_{ii} are i.i.d. erros

b. Fixed-effects model

Poverty_{it} =
$$\alpha + \beta GDP_{it} + \delta_t + \lambda_i + \mu_{it}$$

Poverty, is the dependent variable that captures extreme poverty (percentage of the population living on with less than \$1.90 a day in natural log) in a country i in year t

GDP_i is the explanatory variable (GDP in natural log) and β is the poverty-growth elasticity we are looking for

 δ_r captures time effects related to common trends in GDP, λ_r is the set of country dummies and μ_r is the error term

Annex Table 4.5

Average LDCs' investment needs in billion of dollars and as per cent of GDP: 2021–2020

	Average investment values 2021–2030													
	7% annual growth (SDG 8.1)		End extreme poverty (SDG 1.1)		Double manufacture (SDG 9.2)		Health (SDG 3.8)		Education (SDG 4.1)		Social protection (SDG 1.3)		Biodiversity (SDG 15.1)	
	Billion dollars	Investment as % of GDP	Billion dollars	Average GDP growth expected	Billion dollars	Average GDP growth expected	Billion dollars	% GDP	Billion dollars	% GDP	Billion dollars	% GDP	Billion dollars	% GDP
Afghanistan	3.7	13	4.1	13	6.2	16	3.3	18	4.7	26			0.2	1
Angola	31.4	20	44.8	1	49.5	15	2.7	3	3.9	5			0.2	0
Bangladesh	119.9	31	85.8	13	240.7	19	14.0	5	20.0	7	4.8	2	8.0	0
Benin	5.7	27	8.2	0	15.0	24	0.1	7	1.4	10	8.0	57	0.1	0
Bhutan	1.8	47	1.2	12	4.6	24	0.1	3	0.1	4	0.0	0	0.0	0
Burkina Faso	5.9	27	7.7	19	22.9	31	4.6	11	2.5	16	21.1	140	0.1	1
Burundi	0.7	16	1.5		1.6	20	1.0	33	1.4	47	0.1	2	0.1	2
Cambodia	7.4	22	8.3	17	13.4	17	1.4	5	2.0	7	0.2	1	0.1	0
Central African Republic	0.6	22	1.1	10	1.1	16	0.4	18	0.6	26	0.1	3	0.0	1
Chad	2.8	16	3.3	2	7.0	23	1.4	12	2.0	17	0.0	0	0.1	1
Comoros	0.2	14	0.2	20	0.5	21	0.1	6	0.1	9	4.7	50	0.0	0
Dem. Rep. of the Congo	4.7	34	10.1	5	10.7	21	7.4	16	10.6	22	0.0	0	0.4	1
Diibouti	1.2	25	1.0	J	1.4	10	1.0	3	0.1	4	0.0	0	0.4	0
Eritrea	0.1	4	0.2	8	0.3	23	9.6	15	0.1	22	0.0	U	0.0	1
											0.1	4		
Ethiopia	62.7	48	67.0	3	106.3	16	0.3	10	13.7	15	0.1	4	0.5	1
Gambia	0.7	27	0.5	10	3.0	33	0.1	11	0.3	16	0.0	0	0.0	1
Guinea	3.0	16	3.4		2.2	2	0.2	9	1.6	13	43.4	50	0.1	1
Guinea-Bissau	0.1	5	0.1	7	0.2	23	0.0	12	0.2	18	0.0	0	0.0	1
Haiti	4.1	34	4.0	1	8.6	20	1.1	12	1.4	17	0.0	0	0.1	1
Kiribati	0.1	42	0.1	1	0.3	23	1.0	5	0.0	7	1.7	20	0.0	0
Lao People's Dem. Rep.	8.4	31	5.9	7	62.6	42	0.6	3	0.9	5	0.0	12	0.0	0
Lesotho	1.1	31	1.1	12	2.1	18	0.2	7	0.3	11	0.2	6	0.0	0
Liberia	1.1	29	1.5	21	4.0	29	0.4	16	0.6	23	1.7	9	0.0	1
Madagascar	4.2	22	9.4	18	7.2	16	2.3	16	3.3	23	0.2	9	0.1	1
Malawi	1.4	13	2.8	13	3.1	20	1.6	20	2.3	28	0.2	3	0.1	1
Mali	4.3	17	6.3	2	5.7	11	1.7	10	2.4	14	9.7	73	0.1	1
Mauritania	3.3	33	2.4	17	8.3	23	0.4	5	0.6	7	1.4	8	0.0	0
Mozambique	12.1	45	21.3	0	35.6	26	2.6	17	3.7	24	19.8	25	0.1	1
Myanmar	32.7	29	22.3	1	36.3	9	2.5	6	6.6	9	0.0	0	0.3	0
Nepal	13.7	36	9.8	12	121.2	46	2.0	8	3.5	11	0.5	4	0.1	0
Niger	5.5	30	7.3	4	19.5	29	0.2	15	2.9	22	0.2	2	0.1	1
Rwanda	4.3	25	3.6	10	5.3	10	0.1	10	1.6	15	1.2	5	0.1	1
Sao Tome and Principe	0.1	20	0.1	11	0.1	13	1.1	4	0.0	6	0.0	0	0.0	0
Senegal	9.4	28	12.1	18	15.7	16	0.0	6	2.0	8	7.2	8	0.0	0
Sierra Leone	0.7	10	1.4	3	1.0	12	1.4	16	1.0	23	0.1	4	0.0	1
Solomon Islands	0.7	10	0.2	J	0.3	13	0.7	4	0.1	6	0.0	0	0.0	0
Somalia				10		22					0.0			
	0.5	20	0.5	12	1.2		1.3	81	1.9	116		0	0.1	5
South Sudan	1.9	20	2.6	3	5.4	25	0.9	19	1.4	27	3.8	239	0.1	1
Sudan	11.0	9	8.9	13	49.0	33	3.7	11	5.2	15	1.0	9	0.2	1
United Rep. of Tanzania	41.9	45	59.5	15	94.5	21	0.7	8	7.1	12	0.0	3	0.3	0
Timor-Leste	0.7	26	1.1	14	0.7	8	0.0	5	0.2	8	1.0	14	0.0	0
Togo	1.8	18	2.7	0	3.1	16	3.8	10	1.0	14	0.6	31	0.0	1
Tuvalu	0.0	29	0.0	11	0.1	33	5.0	2	0.0	3	0.0	0	0.0	0
Uganda	11.4	25	14.5	1	17.6	14	1.7	12	5.4	17	59.7	97	0.2	1
Yemen	22.0	76	16.0	16	35.6	15	2.5	10	3.6	14	0.0	0	0.1	1
Zambia	11.9	36	19.7		21.1	17	1.5	7	2.2	9	1.3	6	0.1	0

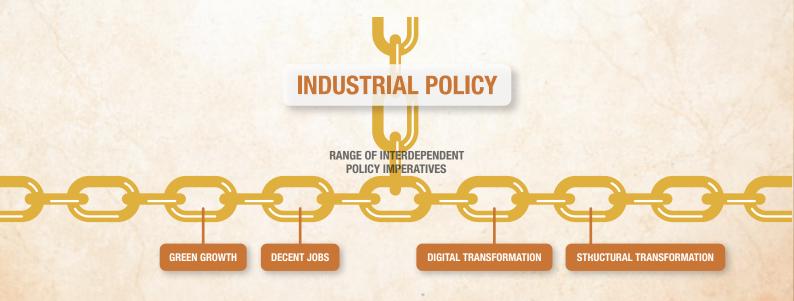
Source: UNCTAD Secretariat calculations based on data from United Nations Statistics Division, Penn World Tables, World Development Indicators (World Bank), Atlas of Social Protection Indicators of Resilience and Equity (World Bank), and United Nations Population Division of the Department of Economic and Social Affairs [accessed June, 2021].

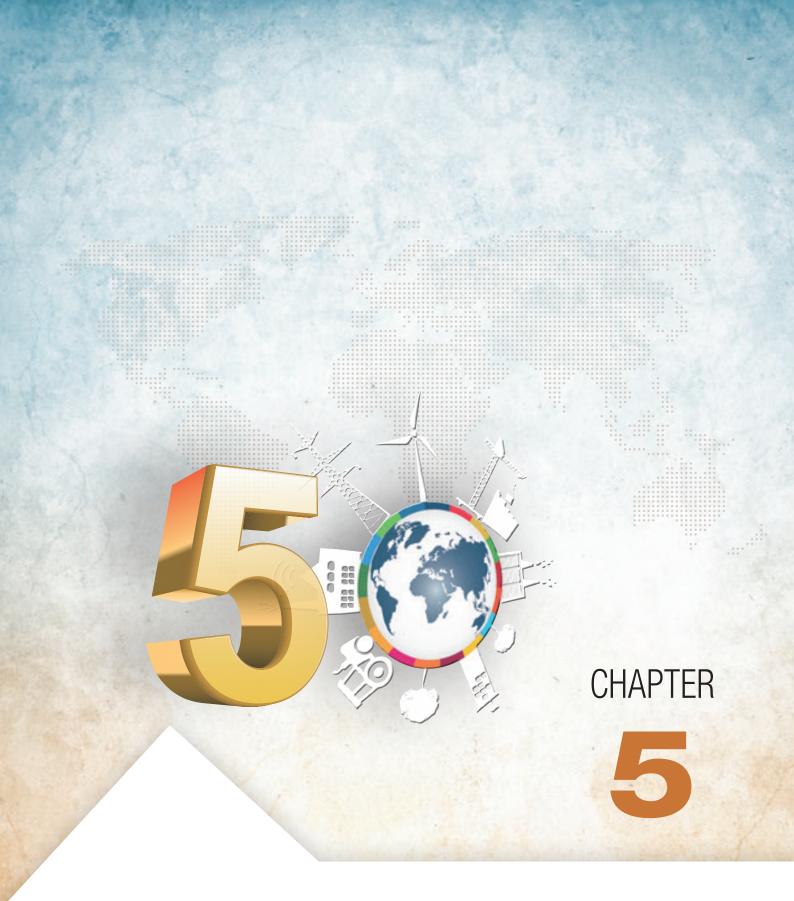


The development model has largely overlooked **the domestic supply side** and prioritised external demand side concerns



To build forward and transform, **LDCs need to adopt an industrial policy mindset**





From lessons learnt to future development trajectories

CHAPTER 5

From lessons learnt to future development trajectories

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A. Challenges for the next decade of development in LDCs

1. Introduction

The past 50 years of experience of the LDC development trajectory have highlighted the struggle of these countries to achieve sustainable development, as evidenced by their erratic growth trajectory over this period, but also by their widening income gap vis-à-vis other developing countries (ODCs). These reflect the failure of most of these countries to decisively advance in their structural economic transformation, as shown by Chapter 2 of this report. As a group, LDCs have realized significant improvements in GDP growth over the past 50 years of the existence of the category; however, consistent progress across the multiple dimensions of development has been elusive. The combination of these outcomes explains the disappointing results in the graduation record from the LDC category, including the failure to meet the graduation target included in the Istanbul Programme of Action (IPoA).

The policy efforts put in place by the international community and national authorities during the past half century have progressively become more focused and specific, as shown by Chapter 3. The sustainability and resilience of development outcomes in LDCs remains markedly fragile, with most of the development goals and targets set during 40 years of LDC programmes of action not fully achieved. This long period of policy efforts and the progression in policymaking have been insufficient to reverse the disappointing outcomes alluded to above. This has been mainly due to a combination of:

- the mis-oriented growth and development model, which – especially since the 1980s – has been largely focused on exports and foreign demand, while overlooking the domestic side of the economy;
- (ii) weak domestic demand, due to low average incomes and high levels of poverty, which brings in its wake weak domestic demand-side stimulus to domestic supply, and which thereby fails to create a dynamic supply-demand virtuous circle;
- (iii) weak domestic input-output linkages (partly deriving from the two shortcomings above), which fail to create dense linkages among companies (whether domestic or international, public or private), sectors, industries, different areas of the countries (e.g. rural and urban) and, therefore,

A majority of LDCs is heading into the new decade significantly below full strength

fail to stimulate the development of productive capacities;

- (iv) not placing structural impediments to sustainable development (such as low level of productive capacities and insufficient investment leading to structural transformation) at the centre of development planning and policymaking;
- (v) largely insufficient level of resources (financial, institutional) made available to reach the desired development goals;
- (vi) weak alignment between the priorities of development partners and those of national authorities, which fails to create synergies between the interventions and policies of these actors.

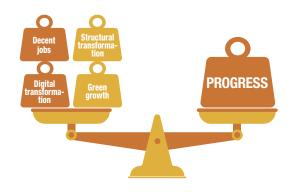
These results clearly indicate that ambition levels among the international community and domestic authorities needs to be raised. Looking forward, the estimates presented in this report – in spite of the uncertainties surrounding precise figures and the caveats expressed in Chapter 4 – clearly show that LDCs face enormous investment and spending requirements to reach the Sustainable Development Goals. Critically, these requirements by far exceed the amount and modalities of financing presently available to these countries.

2. Priorities for LDCs and for the international community

Coupled with the persistent existence of the LDC grouping, there is an apparent divergence within the grouping, with a majority of LDCs heading into the new decade significantly below full strength (UNCTAD, 2020g). This is compounded by the ongoing fallout from the COVID-19 global crisis and attendant risks of hysteresis. There is a fresh sense of urgency to the LDC underdevelopment problem; this represents an opportunity for a renewed and heightened focus on how to engineer a lasting transformation of development realities in LDCs. Countries need to progress concurrently on several

The theory of hysteresis suggests that if an economy experiences a recession for a long time, the average long run growth rate will be lower. https://voxeu.org/article/hysteresis-and-fiscal-policy-during-global-crisis

LDCs need to progress concurrently on several dimensions of development



dimensions of development, otherwise imbalances between the different dimensions could jeopardize progress in other dimensions.

The development trajectories of LDCs show that they are exceptionally vulnerable to boom-and-bust cycles. In this respect, the COVID-19 shock has aggravated pre-existing development challenges. Avoiding hysteresis is a priority at present and the risk of another lost decade in development is real. The remaining to-do list on achieving viable development is both long and long-term in nature.

As the global economy becomes ever more interdependent and global challenges multiply, there are correspondingly many more moving parts to be taken into consideration in the global quest of "prosperity for all" and "leaving no one behind". The impacts from the slowly rising threat of global climate change and the COVID-19 shock epitomize this complexity and interdependence, requiring coordinated, complementary, fair and mutually beneficial responses. The international community's failure to address the underlying causes of global imbalances imposes high adjustment costs on LDCs, with episodic global economic downturns continuing to present a difficult environment for the achievement of lasting development progress in these countries. Consequently, the challenge related to functional policy in LDCs and at the systemic global level remains.

The heterogenous nature of the conditions in individual LDCs advocates for a careful and strategic focus on the core underpinnings of their development challenges and the prioritization of transformational impact. It is now abundantly clear that the export-driven model that has underpinned past LDC plans of action suffers

from fundamental weaknesses in respect of assuring sustainability through economic resilience and inclusivity because it eschews some productive transformation objectives. This growth model can deliver growth, as evidenced by the fact that the LDCs as a group realized the greatest improvements in their growth trajectories from the mid-1990s; however, globalization's main failing as a model is that it accords insufficient attention to the requirement for a strong domestic enterprise base with requisite productive capacities.

Insufficient attention to the concrete measures and targets needed to build productive capacities in LDCs, as well as woeful progress on the implementation of the few such measures included in past PoAs, have hamstrung the development of resilient productive sectors in LDCs, and undermined multilateral efforts and commitments to overcome LDCs' structural impediments to development. Consequently, and despite 40 years of international action, the economic bases and requisite human capital expansion in LDCs remain insufficient for them to meaningfully participate in the global economy today, as well as their preparedness to do so in the foreseeable future.

The same shortcomings of the development trajectory of LDCs during the first 50 years of the existence of the group have been an impediment to the full realization of human rights, including the right to development. Such rights inform UNCTAD's overall actions overall in favour of LDCs (UNCTAD, 2016c: 14(a)), and should underpin future development efforts, including actions by the international community in support of the LDCs (United Nations, 2020).

The preceding analysis points to the need for an overhaul of the development policies and strategies pursued both by LDCs and the international community in the next decade. The following sections provide a contribution to the formulation of the new PoA, and the implementation of development policies. These sections draw attention to desirable priority areas for action and to the principles that underpin commitments to take into consideration, both for the formulation of the programme of action for the decade 2022–2031, and its subsequent implementation during that period.

B. The global community's interest in LDC development and support for it

A renewed and strengthened partnership for development cannot be disassociated from the urgent need to reassert, as global priorities, the importance of LDC development and of international support for it. This is a prerequisite towards giving a new lease of life to the notion of fair differentiation in the special treatment of LDCs within the group of developing countries. An authentic global partnership in support of LDCs goes well beyond the moral commitment to "leave no one behind". International support for structural transformation in LDCs is not an act of charity in favour of the weakest members of the international community.² Ultimately, in an interdependent global economy, it is an investment in systemic resilience, because developmental successes among LDCs solidifies global systemic resilience.

The marginalization of developing countries in the global race to vaccinate against the COVID-19 virus is emblematic of the scourge of self-defeating short-sightedness by richer countries in their responses to the COVID-19 pandemic, with LDCs most left behind. Official development aid (ODA) to LDCs rose by 1.8 per cent in 2020 – a rise spurred by spending on COVID-19-related programmes,3 which cannot be considered as an indication of a rising trend of development finance flows to LDCs. Development partners are therefore encouraged to take up the mantle of advocacy for continued and increased allocations of ODA, especially with respect to their domestic public. If the domestic public of donor countries were better aware of the self-interested nature of ODA, it can only strengthen political and parliamentary support for increasing ODA, especially to LDCs.

LDCs facing a lengthy timeline to graduation are among the most marginalized countries in the global economy and, because of this, are the natural focus of international efforts. However, the fragility of the progress towards structural transformation of graduating countries also makes it crucial for the international community to continue to pay attention to them during their period of transition to developing country status.

Advancing the structural transformation of LDCs through building productive capacities remains the single most viable route to inclusive and sustainable development. While it can be expected that reflections on the next PoA will be geared towards

Post-COVID-19 recovery should not overshadow LDCs' long-term development goals

post-COVID-19 recovery and other development agendas, including climate change, this should not overshadow the long-term development goals of the LDCs, which pre-dated the COVID-19 pandemic, but have become even more pressing since its outbreak. Rather, the implementation of short-term emergency measures should be undertaken with the longer-term objectives in mind and lead in that direction.

So far and in the face of the new realities, strategies on global development coalesce around growth driven by the interaction between: (i) rapid technological innovation; (ii) sustainable infrastructure investment; and (iii) increased resource productivity. All are elements of productive capacities and capabilities which are severely lacking in LDCs, and which imply substantial and practical needs for technology and significant resources transfers. LDC reliance on natural resources, including the minerals, energy and agriculture sectors, call for a substantial transformation of these sectors, not only in terms of green and environmental proofing but also in terms of the transfer of resources to other sectors. It is difficult to envision how LDCs that are heavily dependent on primary commodities for the bulk of their export earnings and fiscal revenues can realize rapid diversification from primary production without adopting an industrial policy mindset.

Industrial policy has become even more relevant than before in the context of technology transfer. This need became evident with the emergence of the digital economy, and more so in the wake of the COVID-19 pandemic. In this respect, policymakers need to refocus on the role of industrial policy and its interaction and interdependence with a range of other sectoral policies, including the gendered dimensions of the digital divide, and the changing nature of production and sectoral interdependencies.

Most LDCs have substantial proportions of their populations lacking in basic standards of living and access to public services, and are burdened by enormous deficits in decent jobs. This has implications not only for their successful transition but also for financing it, as well as assuring its inclusivity and maintaining the needed macroeconomic stability to incentivize private sector expansion (the main route to accelerating quality job creation). Social well-being

The wrong impression that ODA is motivated by charity in favour of poorer countries has long permeated common perceptions of ODA. In the 1980s ODA directed to food aid, emergency and distress relief was called "charity" (Hynes and Scott, 2013). The lingering perception of ODA as charity was reinforced in the 2000s by the emergence of private philanthropy in the aid architecture (OECD, 2018), which was a component of the increased number of actors in the aid architecture (UNCTAD, 2019).

https://www.oecd.org/newsroom/covid-19-spendinghelped-to-lift-foreign-aid-to-an-all-time-high-in-2020-butmore-effort-needed.htm

Green growth efforts should not come at the expense of developmental opportunities for LDCs

should be promoted, including through investing in health, education and social safety nets and support networks. Export growth and access to external development finance should likewise be maintained. For LDCs to benefit from green growth, it needs to be adapted to their current structural features, and aligned to their fundamental development needs. The priority for LDCs is "to build forward and to transform" – in tune with the motto of the 2030 Agenda for Sustainable Development, and set a more solid basis for sustainable development over the mid- to long-term. This is much more ambitious and transformative than "building back better".

C. The new programme of action: objectives

1. Structural transformation through the development of productive capacities

Structural transformation remains at the core of the LDCs' quest for economic dynamism and resilience. The focus on building productive capacities and their corresponding capabilities is rooted in the need to steer a path to development that assures economic, social and environmental sustainability (UNCTAD, 2021). It can best be pursued if corresponding policies are guided by the following principles:

- Build resilience to present and future shocks through the strengthening, upgrading, diversification and expansion of the domestic enterprise base in LDC economies across all productive sectors, including manufacturing, services and agriculture.
- Achieve dynamic job-creating and inclusive growth underpinned by enhanced access to basic services, with the aim of addressing critical cross-cutting issues of poverty and equity across all its dimensions.
- Ensure appropriate orientation and coordination of domestic policies and international support measures (ISMs) directed at the economic, social and environmental dimensions to align support to the overarching objective of structural transformation through the development of productive capacities, including through the implementation of a new generation of ISMs.

- Operationalize internationally agreed principles of common but differentiated responsibility on climate change. Ensure that adequate climate finance, technical assistance and technology transfer are mobilized to foster mitigation efforts in LDCs, and that the global transition towards a low-carbon economy reinforces their sustainable development prospects.
- Ensure that LDC interests are duly reflected in on-going discussions on the reform of the global international financial architecture, and in particular with respect to: (i) the revision of debt sustainability framework to enhance its alignment with the SDGs; (ii) the establishment of an effective debt workout system; (iii) the provision of technical assistance and capacity development to improve debt management and related transparency in LDCs; and (iv) the provision of debt relief, where appropriate.

2. Green growth and the call to build forward and transform

Good economic policy lies at the heart of any strategy for green growth (OECD, 2011). Addressing the question of climate change should not be conditional upon a contraction of overall economic activity. Accordingly, domestic policies and strategies implemented by development partners should take into consideration the economic circumstances and needs of LDCs. It is important to realize that LDCs are at the forefront of climate change impact and disproportionately affected by extreme weather events, with daunting costs of inaction. At the same time, it is equally critical that efforts towards green growth do not come at the expense of developmental opportunities for LDCs. If it is to be a catalyst for economy-wide structural transformation and poverty eradication green growth; however defined, it should support a virtuous transition towards more and better jobs, be geared towards domestic value addition and a qualitatively superior process of integration into regional and global value chains (GVCs) by the LDCs.

LDCs and their development partners should take into consideration the positive potential that they can possibly bring, such as shorter GVCs, stronger expansion of green sectors in which LDCs have comparative advantages, and scope for leapfrogging, etc.; they should take into account the risks of further marginalization brought about by the introduction of "green" measures.

LDCs have embraced the green transition through their Intended Nationally Determined Contributions (INDCs), or their Nationally Determined Contributions (NDCs)

commitments, but progress is lacking on addressing the fundamental question of their polarization. Given the potential for national responses to climate change in richer countries to generate negative international spillovers, it will be crucial for the multilateral system to guard against and prevent harm to LDCs, including from the rise of protectionist measures.

The following principles are desirable to guide the implementation of actions on climate change and green growth:

- The common recognition that LDCs, being among the most vulnerable countries to the consequences of climate change but the least well positioned to shield themselves from its impact, need effective multilateral mechanisms to ensure that their voices are heard, and that they can participate in decisions taken on matters of climate change. With developed countries currently taking the lead on the development of strategies for green growth, intensified efforts to move discussions to multilateral fora are needed to ensure that agreements and policies with global reach and consequences are inclusive and just to all members of the international community, especially the most economically vulnerable countries, i.e. the LDCs.
- The "polluter pays" principle is pivotal to the success of international action on climate change and green growth, and underpins a fair and just transition for all countries. Concrete progress by the international community to urgently identify workable and equitable solutions for compensating losers from global actions on climate change will contribute to the realization of this fundamental principle.
- There is a large gap between advocacy, commitments and actual investments to support developing countries in their transition to low-carbon, climate-resilient economies. The global pursuit of green growth requires commitments on climate finance to match disbursements, and achieving a greater balance between addressing the concerns for adaptation and mitigation in LDCs.
- The pursuit of green growth is reliant on public regulation and public inducements (i.e. incentives), which are fundamentally elements of industrial policy.
- The global pursuit of green growth strategies should consider the specificities and interests of LDCs. These countries have the right and responsibility to consider the cost-benefit analysis of climate and green growth actions and identify their national priorities according to their specific national circumstances. Development partners



The pursuit of green growth is reliant on **PUBLIC REGULATION** and **PUBLIC INCENTIVES**

are invited to take into account the consequences arising from their environmental policies on LDCs (e.g. carbon border adjustment measures), and assist them in evaluating the impact these policies will likely have on LDC economies.

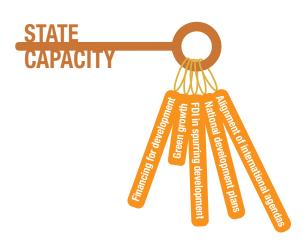
D. National measures: new priority actions for consideration

1. Strengthening state capacity and agency

The responsibility of countries for their own development is enshrined in numerous international policy documents, including past programmes of action for the least developed countries, the 2030 Agenda for Sustainable Development and the Addis Ababa Action Agenda (AAAA). All successful development experiences have occurred in the presence of a state whose capacities have co-evolved with those of the productive sphere. It is necessary to strike the right balance between short- and long-term transformational policy measures, and managing trade-offs between the different dimensions of development and related strategies. They also need to recognize and successfully leverage development opportunities, which form the basis for maintaining consistent progress on several dimensions of development at the same time and weathering periodic shocks.

State capability is a condition for the full enjoyment of human rights, including the right to development, by any country. It is therefore a distinct component of national development, and it cannot be separated from LDC ownership and leadership concepts, and

STATE CAPACITY is part of the meaning and usefulness of policy space



the ultimate responsibility they have for their own development (a core principle in all PoAs). As argued by UNCTAD, LDCs need strong developmental states to overcome their structural impediments (UNCTAD, 2010, 2018a, 2019a). However, state capacity in LDCs has not recovered from the debilitating austerity measures related to the structural adjustments instituted since the mid-1980s.

State capacity assumes paramount importance especially in the context of the growing complexity of the current environment of economic relations and international diplomacy. An ever-growing number of actors (whose interests can often be widely dissimilar) can now be found within the new international development cooperation architecture. A distinctive feature of 21st century development cooperation is that a wide variety of policy communities want their voices to be heard but there is no unified theory, or definition of development, or how to achieve it. While the diversity of players in international development cooperation broadens opportunities for LDCs in terms of potential risk diversification and lower concentration in markets and partners, it also imposes demands for greater state capacity, including in areas of effective negotiations with different trade partners and sources of external finance, trade and technology. Not least, the choice and sequencing decisions among the various Goals and targets of the Sustainable Development Goals is complex. Inevitably, simultaneously pursuing these different (and sometimes competing) global and national goals and applying diverse policy approaches to development involves trade-offs and, therefore, the capacity to analyse and weigh them, and come to well-grounded decisions.

The COVID-19 pandemic has revealed the limits of the private sector not acting in collaboration with the state - especially in LDCs - and the critical role of the state, even as it has exposed its weaknesses in LDCs. It has also underscored the co-dependence between markets and a well-functioning public sector, as well as the critical intersection and interdependence between health policy and the industrial policy objectives of safeguarding the vigour and continued operation of economies for global social well-being, as recalled once again by the lingering extremely unequal access to COVID-19 vaccines. This underlines the fact that the role of the state evolves but cannot retrench. Moreover, leveraging the potential benefits of FDI often requires actions by the developmental state to strengthen the capacities of local private sectors as an additional factor in LDCs.

State capacity is part of the meaning and usefulness of policy space and underpins: (i) the alignment of international agendas embodied by LDC preferences; (ii) effective action on financing for development, the potential role of FDI in spurring development; and (iii) green growth with national development plans and priorities. In this context, action to improve LDCs' state capability and capacity to identify and effectively manage inherent trade-offs in development strategies can no longer be soft-pedalled by future PoAs. It is one area where the potential of measurement in incentivizing cross-cutting change could deliver transformative results. Failure to act on this issue renders the notion of self-reliance both hollow and unrealistic. Actions at the international level to secure and safeguard policy space for LDCs are undermined if these countries are unable to use it effectively.

Strengthening state capabilities is an area that has tremendous scope for capacity-building by a variety of development partners, including UNCTAD. The transformative developmental potential of South-South and triangular cooperation and peer learning among LDCs has long recognized by the international community (United Nations, 2019). This report therefore recommends that every priority action determined by the new PoA include at least one relevant goal and/or measurable target to enhance state capacity for implementation. It is desirable that such measures are cross-referenced to a matching goal and/or measurable target on international support, to ensure the appropriate allocation of resources to this pivotal area of action.

a. Principles

In addition to broadening the policy space available to LDCs, useful principles underpinning the strengthening

national state capacity by the international community that could be considered in the new PoA are, first, to adopt a more holistic view of capacity development and technical assistance to LDCs. This important because current existing initiatives tend to suffer from two major shortcomings: (i) they are overly sectoral and unintegrated (e.g. focusing on trade policy, financial policy, macroeconomic management, while often losing sight of broader development processes); and (ii) they tend to suffer from the biases of the delivering agencies and are still often influenced by the basic tenets of the Washington Consensus (fiscal and monetary prudence, trade liberalization, implementation of international treaty obligations, etc.). Besides this more holistic view, the second principle to strengthen national state capacity is to develop instruments that enable gauging state capacities. They would facilitate the monitoring and evaluation of development strategies and plans, including the new PoA.

b. Priority areas of action

Some specific priority areas that could be considered for strengthening domestic state capacity and agency include broad areas, include:

- Equipping LDCs with national capacity to undertake synchronic policy trade-offs involving choices between policy resource allocations (such as budget resources/institutional capacities) between competing priorities, and diachronic trade-offs that involve arbitrages along time, and which require the sequencing of initiatives and balancing of competing priorities.
- Equipping LDCs with national capacity to mainstream industrial policy objectives, including the design and implementation of strategic FDI policy to facilitate the expansion of the local entrepreneurial base, and foster green growth across all sectors of the economy.
- Equipping LDCs with ramped up capacity on domestic resource mobilization, including:
 - > tax policy design, enhanced efficiency and effectiveness of revenue collection;
 - > public financial management and financial planning;
 - > strengthened capacity to combat illicit financial flows (IFFs), including simplified and fast-tracked access to international cooperation.
- Equipping the national development banks of LDCs with greater levels of capacity to support the growth of the local entrepreneurial base and their productive capabilities. Just under two-thirds of

Equip LDCs with national capacity to undertake synchronic policy trade-offs

LDCs have a national development bank (OECD and UNCDF, 2020).

- > Local firms tend to have less access to financing and less accumulated historical wealth and assets, but a larger base of investors (including in the context of blended finance, FDI and DFI operations) entering high-risk LDC contexts. The focus will be on those companies with a capable management team, a strong track record, transparent business models, and an ability to measure results-conditions which are virtually absent in local SMEs (UNCTAD, 2019a, 2020a).
- Siven the profile of most local SMEs, there may be good reasons for commercial banks to reduce their credit exposure or avoid financing small businesses in the wake of the COVID-19 crisis, and it may take several years for the sector to grow again. Of concern, greater job losses may arise in the interim in the context of already high unemployment. With domestic financial sectors limited in their ability to scale up support and limited fiscal space, and in so far as the COVID-19 crisis leads to the widespread decimation of local SME sectors in LDCs, the knock-on effects could lead to economic and social collapse.
- Equipping LDCs with levels of statistical capabilities to accurately measure the impact of development spending allocations, and improve the design and ownership of development programmes, including in the areas of:
 - capacity to monitor the overall process of development and develop related indicators appropriate to country specificities and dimensions of development not usually considered by conventional statistics and development indicators. This entails developing a national statistical capacity that goes well beyond the sphere of Sustainable Development Goals' indicators;
 - > capacities to generate relevant information necessary to effectively support strategic engagement in external economic relations and international diplomacy, especially in the fields of trade, finance, investment and technology.

Meso- and micro-levels policy responses to address the challenges of the digital era are needed

2. Expanding the local enterprise base

The existence of a strong, diverse and appropriately balanced national entrepreneurial class as a critical condition for sustainable development, including in the acquisition, accumulation and upgrading of productive capacities, and the achievement of the critical goal of domestic resource mobilization has been emphasized by UNCTAD (2018a, 2019a, 2020). These are industrial policy objectives that have been insufficiently addressed by past PoAs for the LDCs. Such insufficiencies amount to bad risk management, in so far as they hinder investments in technology and forfeit options for productivity gains across various economic sectors. Moreover, economic growth is lost to population growth because the youth in LDCs have limited opportunities beyond swelling the informal economy. It further ignores the core problem inherent in the glaring inability of the international community to assure sustainability and consistency in external development finance. All these factors expose the systemic failure to effectively operationalize an integrated approach to development and, now more than ever, assume critical importance.

Developing the entrepreneurial base of LDC economies implies addressing systemic impediments to their establishment and growth, such as access to finance and the low levels of human capital endowment of countries. One critical cross-cutting issue for expanding the enterprise base and accelerating inclusive development is for LDCs to make the best use of all their existing human resources. The transformative expansion of opportunities and raising the level and quality of the contributions of hitherto vulnerable and marginalized groups (such as women, youth and ethnic minorities) in any economy is critical for harnessing all available opportunities for growth and equity. This is a much-favoured policy area for development cooperation is often seen to offer quick wins in terms of self-employment through the expansion of access to (micro-) finance. However, the COVID-19 pandemic has once again exposed the fallacy of development paths pursued through an over-reliance on these quick fixes, which are often associated with low-value high-volume entrepreneurship or employment.

Most local firms in LDCs operate at levels of productive capacities severely lacking in technological capabilities,

and still struggle to leverage production technologies associated with the second industrial revolution; they are also lagging behind developed countries where firms are already leveraging fourth industrial revolution production technologies (UNCTAD, 2020a). The marginalization of LDCs in the world economy is set to worsen as digital technologies underpin ever greater swathes of global economic and social transactions, with the digital economy becomes increasingly inseparable from the functioning of most economies. UNCTAD research confirms that LDCs are falling behind in the global digital transformation evidenced by the apparent trend of a widening digital divide between and within countries. It is also clear that traditional support programmes for small- and medium-sized enterprises (SMEs) are unlikely to be effective in addressing technological capabilities gaps (UNCTAD, 2020a).

Strengthening domestic entrepreneurship also requires strengthening the national innovation system, as it allows domestic companies to build technological capabilities and introduce products, processes that are innovative in the national context. This includes their absorptive capacity, and also entails addressing some of the structural impediments to the growth and expansion of local companies, e.g. their access to finance, which is a constraint especially for micro-, small and medium-sized enterprises (MSMEs).

In the context of the central aims of fostering competitive productive activities and structural economic transformation in LDCs, economic theory and emerging evidence from UNCTAD research (UNCTAD, 2020a) suggests that policy responses need to descend from the macro to the meso- and micro-levels to address the challenges of the digital era. This is particularly needed as technological capabilities are vested in economic actors at the level of the firm, or in other productive units, e.g. farms. While the critical role of Information and communications technologies (ICTs) as an obligatory gateway to the digital economy is undisputed, access to ICTs and other economic infrastructure needs to be complemented by investments in technological capabilities to fulfil the promise of enhanced productivity.

Many gaps in knowledge remain on how to boost quality local entrepreneurship, especially among marginalized segments of society. It is also an area in which national and cultural contexts and nuances perhaps matter the most, and for which generalizations and generic programmes can carry a greater risk of unintended consequences. For instance, it is increasingly recognized that

development policy needs to ensure that the inclusion of gender equity concerns does not further marginalize or entrench gender inequalities (Henry et al., 2016; Redien-Collot and O'Shea, 2015). This raises a wealth of opportunities for more targeted cooperation between the national and international community on research, application and innovative design of development policy on different areas of entrepreneurship, including on youth and SMEs generally, to simultaneously address inequalities and industrial policy objectives. It is an area of policy action that urgently needs the application of a productive capacities and capabilities lens to broaden the scope of entrepreneurship policy. It is also another area where South-South Cooperation and peer learning can potentially support structural transformation and inclusive development.4

The call to reinstate industrial policy objectives made in this report echoes that of other publications in recent years (Crespi et al., 2014; OECD, 2016; UNCTAD, 2018g, 2016b, 2014). As the COVID-19 pandemic plays out, the swift deployment of industrial policy measures – even by countries that traditionally preach a more laissez-faire approach – has decisively re-introduced industrial policy to the political economy and development policy debate.

Industrial policy objectives thus underpin the fundamental thesis of the policy recommendations of this report, which is two-fold: (i) for the programme of action for the decade 2022-2031 to prioritize the accumulation, continuous upgrading and dynamic utilization of productive capacities as the overarching framework of support for the least developed countries; and consequently: (ii) for policymakers in LDCs and the international community to implement novel policy initiatives and programmes aimed at accelerating the development of productive capacities, and the structural transformation of LDC economies. LDC's integration into the international trading system. enhancing macroeconomic governance and market efficiency may remain valid instruments for the LDCs, but cannot be pursued at the expense, or neglect of LDCs' productive capacities, and the central goal of structural transformation.

3. Strategic approach to human capital and labour policies

Human capital and labour policy underpin the expansion of the productive base and the creation of decent jobs in any economy. It is the dynamic

Adopt a more strategic view to investments in human capital

interaction between human capital, labour policies and productive capacities that enables a virtuous cycle of productivity increases, rising specialization and continuous upgrading that is at the heart of structural transformation and sustainable development. Thus, LDCs cannot hope to progress towards the realization of human rights, including the right to development, as well as attain goals on equity without adopting a more strategic view to investments in human capital. LDCs already face the struggle of recovering from the negative impacts of COVID-19 lockdowns on school enrolment and completion, which may have knock-on generational effects on inclusivity and employability. A longstanding lack of strategic investments in local talent carries important risks for peace and stability, in addition its potential to suffocate dynamic growth (UNCTAD, 2018a, 2019a: 19, 2020a). The COVID-19 crisis has raised awareness on the vulnerability of large chunks of the working poor in LDCs. More active labour market policy, including social policies, are likely to add to the ranks of pandemic-taught lessons.

Skills acquired through education and employment determine the utilization of all other productive capacities, including hard and soft assets (e.g. infrastructure, institutions and policies). Societies need to bear the cost of maintaining and educating the youth before they join the labour market, as human resources need to be transformed into human capital. Many LDC economies are potentially poised to reap the demographic dividend. However, such a dividend is contingent on: (i) prior investments in the professional, intellectual and technological capabilities of their burgeoning young populations; (ii) investments aligned to an explicit lifelong learning framework that respects the fundamentally interrelated nature of all levels of education (e.g. the quality of primary education has a bearing on achievable outcomes at that level and for all the following higher levels, including eventually the labour market); and (iii) if it is fit-for-purpose in terms labour market entrants' ability to meet current and future market requirements. The failure to fulfil these conditions renders the economy unable to make the best productive use of its human resources to enhance its overall performance. This is one of the major weaknesses of the export-driven model of development that was more oriented to the

This includes leveraging the UNCTAD Regional Centres of Excellence and similar initiatives by other multilateral bodies and agencies.

ISMs are at the heart

of the international partnership to advance development in the LDCs



outcome of integrating LDCs into the global trading system and ambiguously shifted the emphasis to market access concerns.

At the core of policies to bridge the technology gap between LDCs and ODCs and LDCs and developed countries are targeted public investments in education and skills development at the level of production. Ultimately, prior adequate investments in human capital determine the returns on investments in technology by firms, including how existing production systems are utilized and the potential to realize the structural changes needed to improve the production systems. Advances in fourth industrial revolution technologies will require current and future employees or economic actors to rapidly develop new competencies to keep abreast of technological innovations. Labour employability gaps in many LDCs impose a drag on both traditional and emerging sectors, and discourage the appearance of new economic activities. This is a critical issue that requires urgent attention to align with the conditions necessary to realize the dividends from investments in human capital and a youthful and growing population. A need also exists to simultaneously expand access to education and drastically improve the quality and diversity of human capital in LDCs.

E. A new generation of international support measures

The available options for LDCs to pursue different development paths and trajectories are strongly conditioned (but not pre-determined) by the

international economic environment in which their economies are inserted, particularly in the context of the global production networks dictated by the process of globalization. In addition, the level of dependence that most LDCs have on international trade, international financing (including ODA, despite its declining trend) places ISMs at the heart of the rationale for the existence of the LDC category, and the logic of an international partnership to advance development in the LDCs. ISMs encompass international support in terms of financial resources, capacity building and technical assistance. Such measures were traditionally associated with the agency of northern donors. The international partnership has evolved to recognize the important contributions of South-South cooperation – a cooperation which plays a complementary role to the rest of the international architecture, and raises no conflict of interests with North-South cooperation (United Nations, 2019).

Historically, the expansion of ISMs has at different times been driven by the implementation of individual initiatives adopted variously at the unilateral, bilateral and multilateral levels. They have often been external to the PoAs for LDCs. The consequence of this uncoordinated and fragmented approach to the development, design and implementation of ISMs is that existing LDC-specific ISMs do not necessarily represent a coherent and mutually supportive system of support for the development of LDCs. Worse, some are ineffective either because they are worded in ways that do not compel compliance or impose accountability (e.g. art. 66.2 of the TRIPS Agreement of the World trade Organization - WTO), or impose burdens on LDCs in terms of cost, access and operationalization.

1. Principles to guide the new generation of ISMs

A new generation of ISMs could consider alignment with the following principles:

- The need to establish coherence and synergy among ISMs in the fields of trade, finance, technology and capacity-building and their governance by a specially designed overarching multilateral framework.
- The new generation of ISMs should be aligned with the overall objective of fostering the development of productive capacities aimed at structural transformation, as advocated in this report and by other LDC development stakeholders.
- The aim to strengthen the effectiveness of existing and new ISMs in facilitating the LDCs in overcoming their structural impediments to

development, especially in the fields of financing for development and technology. ISMs in these domains should promote increasing the flows of financial resources and technology, widening the coverage and stabilizing the availability of resources allocated to financing structural economic transformation in LDCs, including the acquisition of technology and technological capabilities by economic agents in LDCs.

- The need to adapt ISMs to 21st century realities, including the lingering effects of the COVID-19 crisis, the principle of common but differentiated responsibility in relation to the climate change crisis, and the accelerated digitalization of the world economy.
- The need to adopt a coherent system of ISM monitoring and evaluation, which strengthens the mutual accountability of LDCs and their development partners; this includes adopting mechanisms for greater transparency in the operation of these ISMs.

2. Trade

The possibility to expand special treatment in future agreements has been tabled at the WTO, but some developed countries are pushing for the review of the notion of special and differential treatment (Pauwelyn, 2012; Trebilcock, 2015). It remains in the interest of LDCs to preserve trade multilateralism, as this is one of the areas in which special and differential treatment for LDCs by the international community has established unity on the recognition of the LDC category and the treatment of LDCs. This is unlike the case of other (non-multilateral) ISMs, whereby ISM instruments are adopted on a case-by-case basis, e.g., the G20-led Debt Servicing Suspension Initiative (DSSI). Such a case-by-case approach offers low predictability for LDCs, whose weak institutional capacities countries puts them at a severe disadvantage in negotiations of this nature. Trade multilateralism has increasingly been marked by the expansion of issue-by-issue negotiations under the aegis of the WTO, whereby small groups of advanced states push to set norms on difficult issues, first through negotiations among themselves and then striving to plutilateralize or multilateralize them (Pauwelyn, 2012). Such procedures deny LDC agency and negate the recognition enshrined in the PoAs that negative international spillovers undermine the ability of LDCs to pursue and achieve development. It likewise prevents the identification of decisive multilateral mechanism to address systemic global imbalances, which are at the root of the LDCs' development underperformance.

Systemic global imbalances are at the root of the LDCs' development underperformance

Possible goals and targets that could be considered for inclusion in the new PoA include:

- Taking up the various elements of the different proposals already tabled by the LDC Group at the WTO, including: (i) commitments on joint action to safeguard special and differential treatment as a permanent feature of future WTO agreements; (ii) commitments on joint action to achieve tangible results towards completing the unfinished business in respect of the negotiations on the duty-free and quota-free (DFQF) regime, especially rules of origin.
- Actions that align the coverage and depth of tariff cuts, rules of origin and administrative procedures of DFQF schemes with the productive and institutional capacities of LDCs. This is to ensure their full utilization and increase their ability to stimulate the growth of the local enterprise base and international investments.
- Secure the commitment of development partners to sustain and strengthen their support in facilitating the accession of LDCs to the WTO.
- ISMs aimed at facilitating the leverage of (new) opportunities from regional and sub-regional integration, e.g., from the Regional Comprehensive Economic Partnership (RCEP), South Asian Free Trade Area (SAFTA) and the African Continental Free Trade Area (AfCFTA).

3. External financing for development

Chapter 4 of this report has shown the scale of investments required by LDCs in their pursuit of Sustainable Development Goals. It has also made clear that domestic resource mobilization will not suffice in meeting the financing needs of LDCs, hence the importance of external financing for development. Chapter 4 mentioned some of the options available. Hereafter, the discussion is broadened in of the light of the proposed new generation of ISMs for LDCs.

LDCs stand to lose the most from declining trust in multilateralism, especially in respect of the external financing on which they are most dependent. The ongoing emergence of the new architecture for development cooperation provides a wider array of actors and financing instruments but this has yet to

Assess financial risks and contingent liabilities of blended finance projects

translate into meaningful increases in development finance. Also of concern is the fact that new forms of financing add complexity, but render transparency management and coordination a lot more difficult for LDCs. This raises questions in relation to LDCs' agency in: (i) optimizing the level and destination of mobilized financing; (ii) assessing its genuine additionality; (iii) monitoring its effectiveness; and (iv) alignment with national policies.

Increased pressures on aid budgets in the aftermath of the COVID-19 crisis add more uncertainties around the future of external official flows. The amounts associated with the aid spending target of 0.7 per cent of donors' gross national income (GNI) shrank amid the economic fallout of the pandemic. Yet scaling-up financing will be critical in reducing the risk of LDCs slipping further behind. Donor responses to LDC needs to mitigate the impact of the COVID-19 crisis have tended to rely on bringing forward funding previously programmed for delivery over a longer period. In addition, as donors have been striving to adopt adequate countercyclical responses to the crisis, increased demands for development assistance strain their financial resources. Some donors have reduced their aid budgets since 2020, and announcements made on planned increases by other donors are unlikely to be sufficient to offset these cuts in ODA. These cuts have affected individual countries directly or through allocations to projects and programmes at the bilateral and multilateral levels, including in key sectors of the Sustainable Development Goals (Devex, 2021a; Devex, 2021b; The Guardian, 2021).

Another thorny issue in the blended finance debate is ensuring the equal treatment of domestic private sector and foreign investors, including those originating from the country whose ODA is utilized in the blending. Moreover, it remains critical to assess the specific financial risks and contingent liabilities that certain blended finance projects may generate, for instance in the case of de-risking instruments. It is thus important to assess on a case-by-case basis whether blended forms of finance represent the most appropriate use of public development finance, considering the development rationale for the intervention, as well as related modalities,

partnerships and broader relations with the domestic business ecosystem.

It is imperative to avert the risk that the emergence of new forms of financing weaken the linkages between external development finance and national development priorities. These developments seriously challenge the institutional capacities of LDCs, already crippled by: (i) low levels of domestic resource mobilization; (ii) a sluggish trend in ODA flows; (iii) worsening levels of concessionality; and (iv) deteriorating debt sustainability (UNCTAD, 2019a). While the OECD DAC Blended Finance Principles Guidance represents a step in the right direction, it is clear that strengthening LDC institutional capacities related to newly created financial instruments, be it in the area of blended finance, of sustainable bonds, or other instruments linked to the environmental, social and governance (ESG) investing, remains of the utmost importance.

In this context, excessive trust and reliance on blending and blended finance using ODA as the main response to the challenges of mobilizing development finance in LDCs is to be avoided. As argued by UNCTAD (2019a), policymakers need a better understanding of the development impact of blended finance and its true costs to ensure value for money, and the effective allocation of aid. A critical consideration is the extent to which sources of development finance touted as alternatives to ODA contribute to the structural economic transformation of LDCs and creating more fiscal space. With the emergence of new forms of private sector engagement, blended finance is being pursued with enthusiasm by donors, but despite these high hopes, this report cautions that the scalability of blended finance as a tool in LDCs is severely limited in attracting private capital because of their structural features, which donor private sector engagement and blended finance are unlikely to compensate for. UNCTAD also cautions that to adequately address LDC needs, private sector engagement and the application of blended finance must heed the lessons from the structural adjustment era of the 1980s and 1990s. Being overly focussed on fostering FDI, the latter failed to ensure the emergence of a strong and resilient local entrepreneurial base as the core factor in sustainable development in LDCs through the acquisition of productive capacities (UNCTAD, 2018a).

The Least Developed Countries Report 2019 (UNCTAD, 2019a) shows that LDCs accounted for 6 per cent of the capital mobilized in the period 2012–2017, equivalent to only 5.8 per cent of the volume of ODA disbursed to LDCs. Moreover, the

distribution of that capital across LDCs was uneven and concentrated in a few countries; an additional problem was that development finance institutions (DFIs) and multilateral development banks (MDBs) were not yet mobilizing large pools of institutional capital.5 The top three recipients accounted for nearly 30 per cent of all additional private finance, while the top ten countries, accounted for about 70 per cent. UNCTAD analysis incorporating the year 2018 shows only a marginal change, with the LDCs' share (excluding regional allocations) accounting for 6.3 per cent of the total capital mobilized from private sources, and 6.9 per cent of private capital distributed to individual countries. Mobilized private capital remains insignificant, and accounts for about 5.8 per cent of the total volume of ODA disbursed (Abalkina, 2021). The sectoral distribution of mobilized private capital also shows a concentration in revenue-generating sectors in LDCs, especially energy, banking, financial services, industry, mining and construction. These are sectors that would in any case be likely to attract commercial finance, which puts into question the implicit additionality of blending. UNCTAD's findings and concerns are largely echoed by other sources (OECD and UNCDF, 2020; Meeks et al., 2020; Attridge and Gouett, 2021). While OECD and UNCDF (2020) highlights the potential for LDCs of blended finance as a tool in the long-term, it remains an agenda for action rather than a solution in the short- to medium-term. (Attridge and Gouett, 2021) show that countries in the lowest decile of per capita income received less than 2 cents of every dollar invested by DFIs and MDBs. They further highlight the limited countercyclicality of DFI and MDB investment in lower-income countries, and the concentration of blended concessional capital in the form of senior loans, which is unlikely to meet the risk-mitigation needs of private investors, especially in these countries. These collective findings serve to underline the continued need of LDCs for traditional official development finance.

Moreover, the mechanisms to align these investments with national development plans and priorities, and hold the private sector accountable to ODA recipients, remain unclear. The ability of LDC governments to design autonomous policies could be constricted by demands to allocate scarce resources (and thus relinquish fiscal space) into creating attractive conditions for private finance. In so far as the practice of blending relies on LDC government-backed guarantees, a case can be made for LDCs to impose conditionalities linked to

International financial flows to LDCs are likely to be volatile in the coming decade

national priorities on building productive capacities and structural transformation.

In the coming decade international financial flows to LDCs are likely to be quite volatile. Most LDCs will be prone to boom-and-bust cycles, and exposed to climate change and social pressures triggered by the COVID-19 crisis. For resilience-building, it will be imperative to try to prevent growth deceleration and huge shocks, and build capacity to react to them more effectively.

FDI inflows are forecast to remain sluggish in 2022, even as LDCs struggle to cope with the COVID-19 shock (UNCTAD, 2021c). Aggregate FDI flows to LDCs as a group remained stable in 2020, and the share of LDCs in global flows rose from 1.5 to 2.4 per cent – the highest percentage increase since 2003. However, at the country level, FDI declined in the majority of LDCs, mirroring bilateral official flows in its tendency to be unevenly distributed across these countries. The decline in FDI in LDCs affected investment announcements in sectors relevant for the Sustainable Development Goals, which is of concern for plans to help these countries graduate from LDC status.

What is clear is that LDCs have differing levels of fiscal space to mount the necessary countercyclical measures to mitigate the impacts of the COVID-19 crisis. Compared to more developed and other developing countries, LDCs have relied on small fiscal packages and are severely constrained in sustaining such expenditures. ISMs need to include targeted debt relief as a measure to increase LDCs' policy space. Existing initiatives, such as the G20-led Debt Servicing Suspension Initiative (DSSI)6, are not sufficient to address the debt vulnerabilities of many LDCs. Public debt in the form of private sector loans and bonds has also introduced new vulnerabilities. The limited debt relief received from official sources risks being diverted into payments to private creditors in the absence of a mechanism to ensure equal treatment across creditors, thereby generating perverse incentives in the negotiations for debt rescheduling or write-off. Development partners should accord particular attention to schemes, such

This is a concern given that FDI declined in the majority of LDCs in 2020 and their current sluggish growth in GDP.

⁶ https://www.imf.org/en/About/FAQ/sovereign-debt#DSSI

A renewed commitment by donors to obligations on ODA

as The Financing for Development in the Era of COVID-19 and Beyond Initiative, co-led by Canada, Jamaica and the United Nations, which contains many policy options targeted or highly relevant to LDCs.

As already mentioned in section B, development realities in LDCs advocate for an increase in grant-based ODA. In addition, it is desirable that ISMs aimed at mobilizing financing for development ensure allocations of external financing are aligned to the core objective of achieving sustainable structural transformation by enhancing the productive capacities and capabilities of LDCs, as well as that of economic actors (private sector), at the level of the state.

Areas for priority action on the mobilization of external financing that could be considered by the new PoA and its implementation include:

- A renewed commitment by donors to international obligations on ODA through a:
 - Call to donor countries to fulfil longstanding and regularly reaffirmed obligations concerning aid quantity and quality;
 - > The reiteration of the ODA targets endorsed by the 2030 Agenda for Sustainable Development for donors to achieve the target of 0.15–0.2 per cent of gross national income to LDCs and to increase both the quantity (0.15/0.2 per cent of GNI), and quality of aid to LDCs to ensure that ODA supports the sustainable development of LDCs and is put to the best possible use;
 - Scaling up financing for development in LDCs should not increase debt burdens further. The redefinition of ODA in grant-equivalent basis may, in this respect, reinforce donors' incentives to provide highly concessional loans; nonetheless, the need to use of grants as the primary modality of support for LDCs is reinforced by the fact that many LDCs are already struggling with deteriorated debt sustainability outlooks.
- LDCs need to be empowered to participate in the measurement of the effectiveness and alignment with LDC-determined national priorities

and impact of important new aid modalities and instruments, e.g. blended finance.

- > The design of LDC-specific modalities in this respect may need to be considered;
- > The provision of targeted funds for LDC capacity development to best leverage development interventions through blended instruments also deserves some consideration.
- Aligning the design and implementation of country-owned financing frameworks envisaged by the AAAA. These financing frameworks aim to help countries: (i) manage a complex financial landscape; (ii) align financing with long-term priorities; (iii) increase the effectiveness of financing policies; and (iv) translate priorities into strategic action in line with their country capacities and priorities) to the goal of structural transformation through building productive capacities. Opportunities exist for LDCs to learn from their peers that are early movers in this respect; consideration could likewise be given to incorporating tailored goals to that effect.
- The identification of a minimum set of ISMs/elements tailored to the needs of graduating LDCs. These would especially address the productive capacities needed to address immediate supply-side bottlenecks that might hamper their smooth transition to non-LDC developing country status.
- The international community has a unique opportunity through the IMF's initiative to allocate Special Drawing Rights (SDRs) to align the potential liquidity boost to LDCs' capacity to investment in productive capacities (rather than, for example, debt repayment), but this facility benefits countries with large foreign exchange reserves. Therefore, it will be crucial that LDCs are awarded a share of SDRs that is not tied to the system of quotas currently in place and that the re-allocation of donor countries does not come as an alternative to their already unsatisfactory levels of ODA disbursement.
- Concrete measures to both increase climate finance and achieve greater balance between mitigations and adaptation, which would be in favour of the acute adaptation needs and risks of LDCs, and in line with the principle of common but differentiated responsibility.
- Contingency financing facility whereby debt repayment is linked to contingent factors that influence a country's ability to service debt, such as natural disaster, GDP or commodity growth – needs to be further discussed and

developed as a financing for development modality that is counter-cyclical. Building on past and present experience of this modality, the international community can consider disaster risk insurance by means of a system that is financed by insurance premiums in a scheme that pools all countries, rather than just the most vulnerable.

- Concrete measures aimed at operationalizing mutually beneficial cooperation on Illicit financial flows (IFFs). This can include: (i) an ISM established at the multilateral level to facilitate the recovery of IFFs by LDCs with ease and speed, and on the basis of mutual collaboration among developed and developing countries (e.g. by means of simplified procedures for LDCs); and (ii) capacity-building support for LDCs to combat and recover such flows.
- Development partners should take adequate considerations of LDCs' interest and institutional challenges in the forthcoming discussions on global corporate taxes, and ensure that LDCs accrue a fair share of related revenue.
- A transparent mechanism to ensure that private creditors will also participate in debt suspensions and relief efforts on a comparable treatment basis, thereby ensuring that no creditor has a perverse incentive to "hold-out" from debt restructuring or, when appropriate, write-off a debt. Similarly, an independent mechanism for reviewing or writing down private sector debt is needed.

4. Technology transfer

International norms on the access to technology and innovation remain geared towards protection rather than diffusion (UNCTAD, 2010). Several international agreements contain clauses envisaging technology transfer to developing countries and/or LDCs. Foremost among them, article 66.2 of the TRIPS Agreement establishes an obligation for developed countries to provide incentives to their enterprises to transfer technology to LDCs. This was the result of a bargain between LDCs and developed countries during the Uruguay Round. 25 years after the entry into force of the Agreement, the purported objectives of this bargain have largely not been met, resulting in this disposition remaining mostly ineffective (Moon, 2011; Fox, 2019). The technological gap separating LDCs from developed countries, but also from ODCs, continues to be very wide (UNCTAD, 2020a). It is likely to have widened further since the outbreak of the COVID-19 pandemic, as technologically advanced countries have sharply accelerated their adoption of frontier technologies, and embarked on their transition to a digital economy,

Transfer of technology needs to be pursued through a number of channels

but technologically backward countries have not been able to make similar strides (UNCTAD, 2021d).

In this context, LDCs require a renewed partnership for the development and strengthening of their technological capabilities. A strengthened international partnership for technology transfer to LDCs would play a vital and complementary role to fostering sustainable development in these countries, as it would contribute to the upgrading and expansion of their productive capacities. Such a partnership would comprise coordinated initiatives by both national governments and development partners. In the former case, domestic policies for science, technology and innovation (STI) should be integrated with the previously mentioned policies for entrepreneurship development. They should assist local enterprises in identifying market opportunities which can be responded to by the introduction of solutions, products, processes, etc., which are innovative at the local level. Many of these necessitate foreign technologies, which could be met by matching local needs and the international supply of technological solutions; however, this process is typically beset by information asymmetries, coordination failures and a dearth of finance (which is always required for enacting innovative business ideas in local markets). This is where the international side of the partnership can intervene. Donors can support technology transfer centres to assist with: (i) services of a search and connecting agent (which connects demand for and supply of technological knowledge); (ii) SME support financing; and (iii) overcoming major obstacles to technology transfer. Some of these already exist and operate successfully. Expanding and strengthening the funding and operations of such centres is a way in which developed countries can comply with their obligations under art. 66.2 of the TRIPS Agreement.

Additionally, transfer of technology to LDC agents needs to be pursued through a number of channels, including through:

- More specific and concrete discussions between LDCs and developed countries on the implementation of the latter's obligations under art. 66.2 of the TRIPS Agreement;
- Greater emphasis on technology transfer in the design and implementation of investment

LDCs should exploit opportunities for transfers of technology and capabilities offered by subregional markets

promotion regimes for LDCs, referred to in target 17.5 of the Sustainable Development Goals;

- An explicit link of the use of ODA-backed private sector instruments to identifiable and verifiable technology transfer, such as joint ventures, creation of R&D facilities in LDCs, and partnership with local research institutions:
- Encouraging the adoption of concrete voluntary measures of technology transfer in the context of sustainability standards, corporate social responsibility (CSR), and responsible business conduct;
- The diffusion of open-source software and digital products;
- Creating a unified framework for the voluntary sharing of green technologies specifications and related intellectual property information (building on the models applied in the health sector through the World Health Organisation's Technology Access Pool⁷).

Climate change will require the building of climate-resilient infrastructure in the LDCs. The

changing technical specifications and characteristics of roads, energy plants, bridges, ports, buildings, etc., to make them climate-resilient will require different technological capabilities than those currently available. As LDC argue forcefully for an increase in climate finance (as seen in the previous subsection), it is important that they use this greening of their economies as an opportunity to build their technological capabilities. Regardless of the source of finance for these new infrastructure projects, it is crucial that they associate domestic agents (companies and professionals e.g. engineers, technicians, specialists) to the building and running of these works. This will allow LDCs to strengthen their knowledge base and skills in future-oriented technologies (e.g. renewable energies, thermic isolation, earthquake resistance, etc.).

LDCs should likewise exploit complementary trade structures offered by their subregional markets to exploit opportunities for transfers of technology and technological capabilities, and make best use of their more advanced neighbours, as recognized by the Buenos Aires outcome document of the second High-level United Nations Conference on South-South Cooperation⁸ and the World Intellectual Property Organisation's agenda on South-South and triangular cooperation.⁹ This will entail intensifying their investments in targeted interlinkages at various levels, e.g. at firm/industry, institutional and infrastructure levels.

⁷ https://www.who.int/initiatives/covid-19-technologyaccess-pool

⁸ https://undocs.org/pdf?symbol=en/A/RES/75/234

https://www.wipo.int/edocs/pubdocs/en/wipo_ southsouth_flyer.pdf



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The COVID-19 pandemic has exposed and amplified the vulnerability of least developed countries to external shocks. Once again, those with the least are suffering the most. At a time fraught with fragilities, UNCTAD's *Least Developed Countries Report* shines a light on how governments and the international community can pool efforts to build productive capacities as a pathway to sustainable development for all.

António Guterres, Secretary-General of the United Nations

Since advocating for the creation of the category of the least developed countries (LDCs) five decades ago, UNCTAD has been at the forefront of LDC development policy. Today, UNCTAD leads the analysis and search for practical national solutions for LDCs, rallying the international community to provide strengthened and appropriate support at the global level. This report proposes a pivotal agenda for the 2022-2031 decade for LDCs, a crucial time period that is flanked on one end by the COVID-19 pandemic and on the other by the culmination of the 2030 Agenda. Centred on building productive capacities for their programme of action, this report embodies UNCTAD's unique expertise and continued commitment to help LDCs transition to a more inclusive, prosperous and sustainable future for both their citizens and the global community.

Rebeca Grynspan, Secretary-General of UNCTAD

This is a game-changing report: it is unusual for a mainstream organization such as UNCTAD to examine the results of economic policies on the ground, challenge the ineffectiveness of the dominant economic discourse, and recommend radically new course of action. The least developed countries deserved such a hard look. After half a century of underperformance due to erroneous strategies, their plight is being felt around the world as a threat to global peace. This report sheds a vivid light on past mistakes and articulates a pragmatic agenda for building productive capacity in LDC, boosting global aggregate demand, and achieving shared prosperity.

Professor Célestin Monga, Harvard John F. Kennedy School of Government

Over the last 50 years most least developed countries (LDCs) have struggled to overcome the development challenges that led to the establishment of the category in 1971. Even their strong economic growth since the mid-1990s has generally been insufficient to redress their long-term income divergence with the rest of the world. The COVID-19 crisis and the emerging two-speed global recovery threaten to reverse many hard-won development gains, which is further aggravated by the creeping adverse effects of climate change.

Mainstreaming productive capacities development in these countries is a necessary condition for boosting their capacity to respond to and recover from crises. While LDCs prioritize economic transformation and diversification in their policies, they have critically lacked the means necessary to progress towards the objectives of the 2030 Agenda for Sustainable Development. The average annual investment requirements to end extreme poverty (SDG 1.1) in LDCs is estimated at \$485 billion, whereas doubling the share of manufacturing in GDP (SDG 9.2) is estimated at \$1,051 billion. The latter amounts to more than triple the current investment by LDCs, and therefore vastly exceeds LDCs' available resources.

The international community has therefore an essential role to play in supporting LDCs in their efforts to mobilize adequate resources for their sustainable development needs, including in financing and technology. A new generation of international support measures that are more closely aligned to the expressed needs of LDCs and 21st century realities will have to be rolled out to support their domestic efforts. Bolstering multilateralism and dealing decisively with external sources of instability affecting LDCs is necessary to create a conducive climate for the achievement of the next programme of action for the least developed countries for the decade 2022-2031.

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