



Senegal

Vulnerability Profile





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This publication has been edited externally.

UNCTAD/ALDC/VP/INF/2025/3

Prepared by UNCTAD in anticipation of the 2024 review by the Committee for Development Policy of the United Nations list of Least Developed Countries.

This profile was prepared in accordance with resolution 59/209 of the General Assembly, which decided that «after a country has met the criteria for graduation for the first time, the Secretary-General of the United Nations will invite the Secretary-General of the United Nations Conference on Trade and Development to prepare a vulnerability profile on the identified country to be taken into account by the Committee for Development Policy at its subsequent triennial review».

Acknowledgements

The *vulnerability profile of Senegal* was undertaken by the Division for Africa, Least Developed Countries and Special Programmes of UNCTAD, under the guidance of Junior Davis, Head of the Branch and supervision of Rolf Traeger. The report was prepared by Giovanni Valensisi and Stefan Csordas. Anya Slany and Stefanie West provided inputs, as did and Bohan Yang (UNCTAD intern).

UNCTAD gratefully acknowledges the inputs by Mare Sarr (UNCTAD consultant).

UNCTAD extends appreciation and further gratefully acknowledges comments from the Directorate General for Planning and Economic Policies (Ministry of Economy, Planning and Cooperation) and Sakiko Fukuda-Parr (Committee for Development Policy), as well as valuable insights from participants during the validation workshop held on 4–5 July 2023, in Dakar.

Analysis from this report formed the basis of UNCTAD contributions to the graduation assessment document prepared jointly with the secretariat of the Committee for Development Policy, and which informed the deliberations of the Committee for Development Policy at its 2024 Triennial Review of the list of LDCs.

David Einhorn edited the text. Rostand Ngadjie Siani of UNCTAD undertook the overall layout, graphics and desktop publishing



Notes

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

The term “billion” signifies 1,000 million.

Annual rates of growth and change 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 profile, 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.

Percentages do not necessarily add up to totals because of rounding.



Tables of contents

1. Introduction	1
2. Situation analysis	5
2.1 Senegal's structural transformation trajectory	5
2.2 International trade	14
2.3 Social development and related challenges	29
3. The 5 Ps and the least developed country criteria: Progress but lingering vulnerabilities	39
3.1 Prosperity	40
3.2 People	42
3.3 Planet	50
3.4 Peace	55
3.5 Partnership	56
4. Towards a policy agenda for graduation with momentum	63
4.1 Accelerating structural change and strengthening competitiveness	65
4.2 Investing in human capital for productive employment creation	67
4.3 Charting an inclusive low-carbon transition path	68
4.4 Mobilizing adequate resources for sustainable development	68



Figures

Figure 1	Timing of the least developed country graduation process and national development planning	2
Figure 2	Expenditure-side real GDP per capita in Senegal, Sri Lanka and Malaysia, 1960–2019	6
Figure 3	Senegal: Real GDP and real GDP per capita, 1970–2023	6
Figure 4	Real GDP growth, 2000–2023	7
Figure 5	Senegal: Development accounting decomposition of growth in real GDP per worker, 1971–2019	8
Figure 6	Senegal: Sectoral composition of value added, 1970–2022	9
Figure 7	Senegal: Contribution to growth by supply and demand components, 1992–2021	10
Figure 8	Senegal: Dynamics of sectoral employment share and labour productivity, 1991–2019	11
Figure 9	Productive Capacities Index scores for Senegal and related comparators, 2000–2022	13
Figure 10	Components of the Productive Capacities Index for Senegal and related benchmarks, 2022	14
Figure 11	Senegal: Merchandise exports by broad product group, 1995–2023	15
Figure 12	Number of active export lines, Senegal and Africa average, 2000–2019	16
Figure 13	Senegal: Merchandise imports by broad product group, 1995–2023	17
Figure 14	Senegal's merchandise exports to the European Union by tariff treatment and related preference utilization, 2008–2021	21
Figure 15	Tariff treatment and use of preferences for Senegalese exports to the European Union by product category, 2020.....	21
Figure 16	Senegal's backward and forward integration in global value chains, 2000–2018	22
Figure 17	Senegal's product space, 2019	25
Figure 18	Senegal: Top 10 product groups with diversification potential and high demand in Africa.....	28
Figure 19	Senegal: Top 10 sectors with untapped export potential to Africa	28
Figure 20	Proportion of informal employment in total employment by sex and sector, 2015 and 2019	32
Figure 21	Poverty headcount ratio in Senegal according to different international poverty lines, 1991–2018	35
Figure 22	Senegal: Income share by population decile, 2018	35
Figure 23	Senegal: Per cent share of respondents reporting a loss of income due to COVID-19, by region	36
Figure 24	Senegal: Key micro-level data on the impact of the COVID-19 crisis, total and by region, 2022	37
Figure 25	Current structure of the criteria for identification and graduation of least developed countries	39
Figure 26	Senegal's performance against the graduation criteria as per the 2024 Triennial Review	40
Figure 27	Gross national income per capita (Atlas conversion method), 1970–2022	41
Figure 28	Senegal: Percentage of the population with access to basic infrastructure services, 2000, 2010 and 2020	42

Figure 29	Senegal: Number of deaths per 1,000 live births over the five-year period prior to the Demographic and Health Survey, 1997–2018	43
Figure 30	Senegal: Maternal mortality rates, 1992–2017	45
Figure 31	Senegal: Birth location	45
Figure 32	Global and regional trends in the prevalence of stunting, 2000–2020	46
Figure 33	Stunting trends in Senegal and neighbouring countries, 2000–2020	46
Figure 34	Senegal: Key primary school indicators: Gross enrolment, completion and dropout rates, 2011–2020	49
Figure 35	Export Concentration Index, 1995–2020	51
Figure 36	Senegal: Frequency of natural hazards and number of people affected, 2000–2022	53
Figure 37	Senegal: Number of natural hazard events, by type, 2000–2023	54
Figure 38	Senegal: Number of critical events and related number of fatalities per year, by type of incident, 2000–2022	55
Figure 39	Senegal's resource gap, 1970–2022	56
Figure 40	Senegal: Main inflows of external finance, by type, 1980–2021	57
Figure 41	Trends in overseas development assistance, other official flows and private development finance to Senegal, 2007–2022	58
Figure 42	Senegal: Amounts mobilized from the private sector for development, by leveraging mechanism, 2012–2022	59
Figure 43	Key indicators of Senegal's external indebtedness, 2000–2022	60
Figure 44	Senegal: Selected components of the external debt stock as a proportion of the total, 2000–2022	60

Tables

Table 1	Senegal: Main merchandise trade partners, average over 2020–2023	17
Table 2	Selected potential export diversification opportunities for Senegal, by world demand	26
Table 3	Senegal: Working-age population by gender, age and education, 2018	31
Table 4	Senegal: Labour force by gender, age and education, 2018	31
Table 5	Senegal: Gross and net enrolment by gender and education level, 2018/2019	47
Table 6	Senegal: Literacy rate by gender, location and income, 2018–2019	49

Boxes

Box 1	Sénégal 2050 : Agenda National de Transformation	2
Box 2	UNCTAD's Productive Capacities Index	13
Box 3	Linkages between trade and industrial policies: The case of agro-processing	19
Box 4	Methodology to identify feasible product diversification opportunities	24
Box 5	Selected experiences of graduated least developed countries	64

Abbreviations

AfCFTA	African Continental Free Trade Area
ANSD	Agence Nationale de la Statistique et de la Démographie
BCEAO	Banque Centrale des Etats de l’Afrique de l’Ouest
CDP	Committee for Development Policy
CET	common external tariff
DGPPE	Direction générale de la Planification et des Politiques économiques
DHS	Demographic and Health Survey
EBA	Everything but Arms
ECOWAS	Economic Community of West African States
EDS-C	Enquête Démographique et de Santé Continue
EM-DAT	Emergency Events Database
ENES	Enquête nationale sur l’Emploi au Sénégal
EVI	Economic and Environmental Vulnerability Index
FCFA	Franc of the Financial Community of Africa
FDI	foreign direct investment
GDP	gross domestic product
GNI	gross national income
GPI	Gender Parity Index
GSP	Generalized System of Preferences
G7	Group of Seven
GVC	global value chain
HAI	Human Assets Index
HS	Harmonized System
ILO	International Labour Organization
IMF	International Monetary Fund
INFF	Integrated National Financing Framework
ISIC	International Standard Industrial Classification
ISM	international support measure
JETP	Just Energy Transition Partnership
LDC	least developed country
MFN	most-favoured nation
ODA	official development assistance
OECD	Organization for Economic Co-operation and Development
PAP	Plan d’Actions Prioritaires
PCI	Productive Capacities Index
PPP	purchasing power parity
PSE	Plan Sénégal Emergent
SDG	Sustainable Development Goal
SEZ	special economic zone
SITC	Standard International Trade Classification
SME	small- and medium-sized enterprise
SYSCOA	Système Comptable Ouest Africain
TFP	total factor productivity
UNCTAD	United Nations Conference on Trade and Development
UNDESA	United Nations Department of Economic and Social Affairs
UNECA	United Nations Economic Commission for Africa
UNGA	United Nations General Assembly
UNHCHR	United Nations Office of the High Commissioner for Human Rights
UNICEF	United Nations Children’s Fund
VP	vulnerability profile
WAEMU	West African Economic and Monetary Union
WHO	World Health Organization
WTO	World Trade Organization

Senegal in brief

Data refers to 2022 unless otherwise indicated	
Land area: 196,710 km ²	Population: 17.3 million
Population growth: +2.6 per cent	Urban population: 49 per cent
Density: 87 people/km ²	Main ethnicities: Wolof 37 per cent, Pular 26 per cent, and Serer 17 per cent
GDP: \$27.8 billion	≈ 4 per cent of Western Africa's GDP ≈ 1 per cent of Africa's GDP
Real GDP growth (2017–2022): +4.3 per cent	Real GDP per capita growth (2017–2022): +1.6 per cent
GDP per capita: \$1,604	≈ 89 per cent of Western Africa's GDP per capita ≈ 79 per cent of Africa's GDP per capita
Exports of goods and services: \$7.5 billion	Imports of goods and services: \$14.6 billion
Trade-to-GDP ratio: 79.9 per cent	Foreign direct investment inflows: \$2.6 billion (9 per cent of GDP)
Least developed country (LDC) criteria as per the 2024 Triennial Review	
Gross national income per capita: \$1,558	LDC graduation threshold: above \$1,306
Human Assets Index score: 66.7	LDC graduation threshold: above 66
Economic and Environmental Vulnerability Index score: 42	LDC graduation threshold: below 32

Source: UNCTAD secretariat based on data from UNCTADstat, CDP and UNDESA, and the World Bank's World Development Indicators.



1.

Introduction

This report presents the vulnerability profile (VP) of Senegal, as mandated by the United Nations General Assembly resolution 59/209 of 20 December 2004, which stated that “After a country has met the criteria for graduation for the first time, the Secretary-General of the United Nations will invite the Secretary-General of the United Nations Conference on Trade and Development to prepare a vulnerability profile on the identified country (...) to be taken into account by the Committee for Development Policy at its subsequent triennial review” (paragraph 3(b)). As Senegal fulfilled the graduation criteria for the first time in 2021 and then in 2024, this study will serve as a background document for the CDP deliberations on Senegal’s progress towards graduation from the least developed country (LDC) category. As such, the VP serves a triple purpose:

1. To inform the Committee for Development Policy (CDP) in its assessment of the economic and social progress achieved by Senegal through evidence-based considerations as they pertain to broad vulnerabilities. This complements and goes beyond the country’s performance under the three eligibility criteria considered for LDC inclusion/graduation, namely per capita income, and scores on the Human Assets Index (HAI) and Economic and Environmental Vulnerability Index (EVI).
2. To provide the government of Senegal with a broad range of findings that enrich the debate on preparations for LDC graduation and the engagement of development partners in that context.
3. To outline evidence-based policy recommendations to build resilience and address the identified vulnerabilities,

including through concrete insights on potential elements of a smooth transition strategy to post-LDC status, in line with the corresponding mandate in General Assembly resolutions 59/209 (20 December 2004) and 67/221 (21 December 2012).

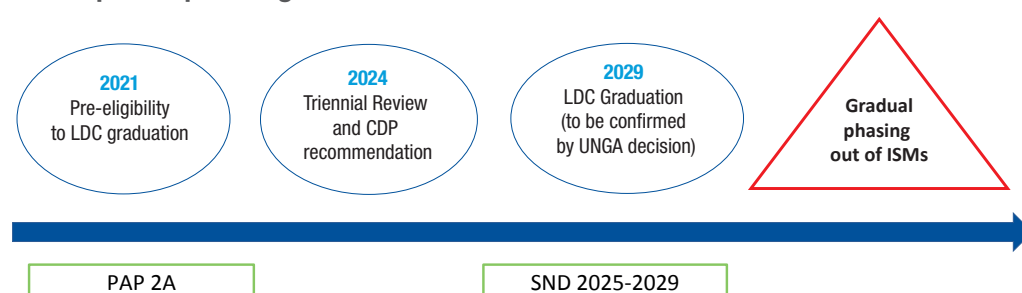
The timing of this VP deserves specific mention in this regard. Deliberations on the VP are taking place at a critical time, when Senegal (like many other developing countries) is coping with what is called a “polycrisis” that encompasses several elements, of which the primary ones are: (i) the lingering socioeconomic and health effects of COVID-19; (ii) the impact of the war in Ukraine and a related cost-of-living crisis (through shocks to key food, fuel and financial markets); (iii) the global slowdown and rising macroeconomic vulnerability; and (iv) the escalating impact of climate change and environmental degradation. These aggravating risk factors need to be adequately considered, since they impede Senegal’s progress towards sustainable development in the short term, as well as potential output, exacerbate inequalities and expand development needs.

Simultaneously, discussions on the VP take place at a critical moment when Senegal is finalizing the Stratégie nationale de Développement (SND) 2025-2029 (figure 1), in the context of a new national development strategy, Sénégal 2050: Agenda National de Transformation, which was launched in 2024 (box 1). Given the relevance of LDC graduation issues for long-term development planning – notably the phasing out of international support measures (ISMs)¹ – this timeline presents a precious opportunity to

¹ Countries belonging to the LDC category have access to specific international support measures beyond those available for other developing countries. These can be grouped into three main areas: trade-related ISMs (such as preferential market access and special and differential treatment provisions), development cooperation (for example access to dedicated windows of concessional finance) and support for participations in international



Figure 1
Timing of the least developed country graduation process and national development planning



Source: UNCTAD secretariat.



Box 1
Sénégal 2050 : Agenda National de Transformation

In 2024, Senegal adopted a new development policy framework, entitled Sénégal 2050: Agenda National de Transformation (ANS). The ANS enshrines Senegal's long-term sustainable development strategy, which is carried out through five-year implementation plans. The first phase of implementation is detailed in the Stratégie Nationale de Développement (SND) 2025-2029, a five-year investment plan to align the economic and social aspirations of the ANS and development programmes and projects budgeted by the Senegalese government over that period. The ANS was designed along four pillars:

1. Good governance
2. Sustainable regional planning and development
3. High-quality human capital and strong social equity
4. A competitive economy

Key objectives of ANS include for Senegal to reach upper middle-income status by 2050 and a top-100 rank in the Human Development Index. In this context, ANS aims to address challenges in critical areas including the energy sector, food security, poverty and inequality, and environmental protection.

Important milestones of the implementation of ANS include the objective to reach universal access to electricity by 2034, reducing the mortality ratio to 70 by 2050 and achieving universal access to clean water and sanitation by 2050.

mainstream LDC graduation into the national planning process, anticipating the likely evolution of key external conditions and undertaking the required early preparation and awareness-raising. This will result in a renewed “development bargain” capable of driving the country towards graduation with momentum – that is, an exit from the LDC category that is part of a broader and longer-term process of economic transformation.

It is worth mentioning from the outset that this study relies on both national and international data sources, depending on availability, comparability and relevance for the specific discussion at issue. As a consequence, data points may not always coincide with those derived from international sources, notably with those utilized by the CDP in the assessment of LDC criteria or in the supplementary

forums. For more information on ISMs, see the United Nations LDC portal available at <https://www.un.org/ldcportal/> (accessed 29 June 2024).

graduation indicators. In any case, the distinct data sources used are specified in the text, tables and figures.

Section 2 of this report analyses Senegal's growth and structural transformation trends as well as its global and regional trade performance. It also outlines some of the challenges related to social development and summarizes key related effects of the COVID-19 pandemic and the cost-of-living crisis. Section 3 identifies Senegal's key areas of vulnerability based on the 5 Ps of the Sustainable Development

Goals (SDGs) – people, planet, prosperity, peace and partnership – as well as the LDC criteria, including gross national income (GNI) per capita and scores on the Human Assets Index (HAI) and Economic and Environmental Vulnerability Index (EVI). Section 4 takes a more forward-looking stance by analysing the key development challenges Senegal faces to graduate with momentum from the LDC category and beyond. The section also provides some elements of potential policy priorities toward that end.



2.

Situation analysis

2.1 Senegal's structural transformation trajectory

This section situates Senegal's performance towards graduation from the LDC category in the broader perspective of the country's long-term structural transformation trajectory. The purpose is to go beyond a narrow assessment of performance against LDC criteria and instead, frame that evolution of specific indicators within the long-term process of structural transformation, which should ultimately underpin progress towards the graduation milestone in the spirit of graduation with momentum (UNCTAD, 2016).

The section begins by examining Senegal's long-term economic growth performance, then turns to the underlying structural transformation dynamics. It concludes by using UNCTAD's Productive Capacities Index (PCI) to assess Senegal's progress in strengthening productive capacities.

2.1.1 Economic growth

Despite its strategic location and stable political institutions, Senegal has historically experienced a low and volatile economic growth trajectory that placed it among the slowest growing economies in Africa. Figure 2 shows the magnitude of Senegal's long-term stagnation. In 1960, Senegal, Malaysia and Sri Lanka had roughly the same expenditure-side real gross domestic product (GDP) per capita (\$3,003, \$2,929 and \$3,029, respectively), measured in purchasing power parity (PPP) 2017 dollars.² By 2019, Malaysia's per capita income was nearly \$28,000 (nine times greater

than that of Senegal), and Sri Lanka's was \$13,000 (four times higher than Senegal).

However, the long-term trend in per capita income blurs a more nuanced trend. As shown in figure 3, real GDP grew five-fold between 1970 and 2023, with a pronounced acceleration — even in per capita terms — from the late 1990s, similar to other African LDCs (UNCTAD, 2021a). The growth opportunities unleashed by the 1994 devaluation of the Franc of the Financial Community of Africa (FCFA) and the increased competitiveness of Senegalese products, combined with favourable economic conditions, led to positive growth trends. Senegal's pace of growth then further accelerated, pulled by the successful expansion of export-oriented industries, buoyant remittance inflows, and rapid improvements in agricultural productivity. In the new millennium, Senegal has thus achieved significant economic progress, more than doubling its GDP between 2000 and 2023. However, this translated into a rise of only 42 per cent of GDP per capita in real terms, owing to relatively fast population growth exceeding 2.6 per cent per year.

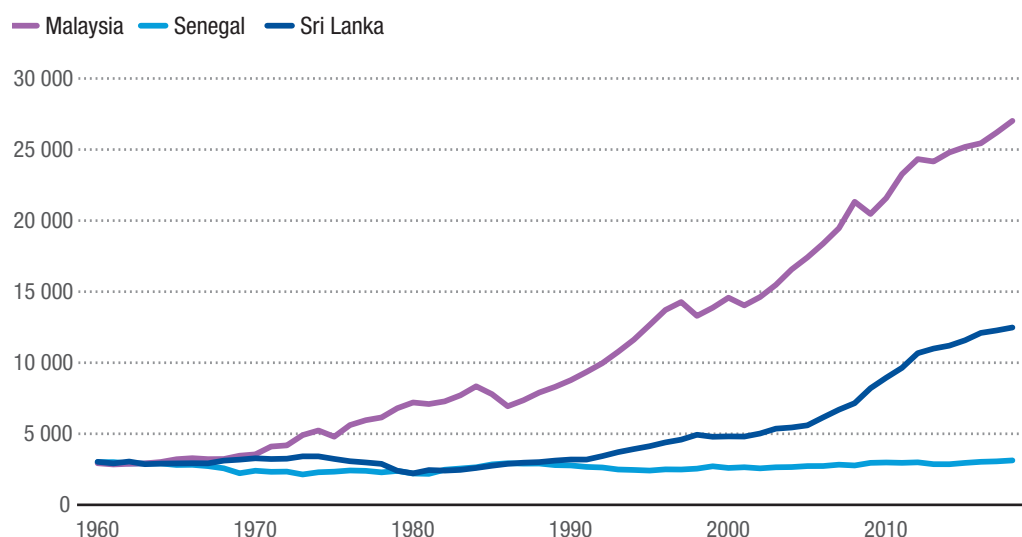
Focusing on the 21st century, real GDP growth in Senegal has been, for the most part, below that of Africa and the LDC group. However, the Senegalese economy has embarked on a new path of growth since 2014, with the start of implementation of the Plan Sénégal Emergent (PSE), as well as a rebasing of GDP in 2018 that led to an upward revision of approximately 30 per cent. Figure 4 shows that economic activity over 2014–2019 grew at roughly 6 per cent per year, at a time when growth in Africa (and to a lesser extent, the LDCs) slowed. This buoyant phase suffered

² In this context, GDP per capita from the expenditure side of PPP is intended as a comparative measure of living standards across countries and over time (Feenstra et al., 2015).



Figure 2
Expenditure-side real GDP per capita in Senegal, Sri Lanka and Malaysia,
1960–2019

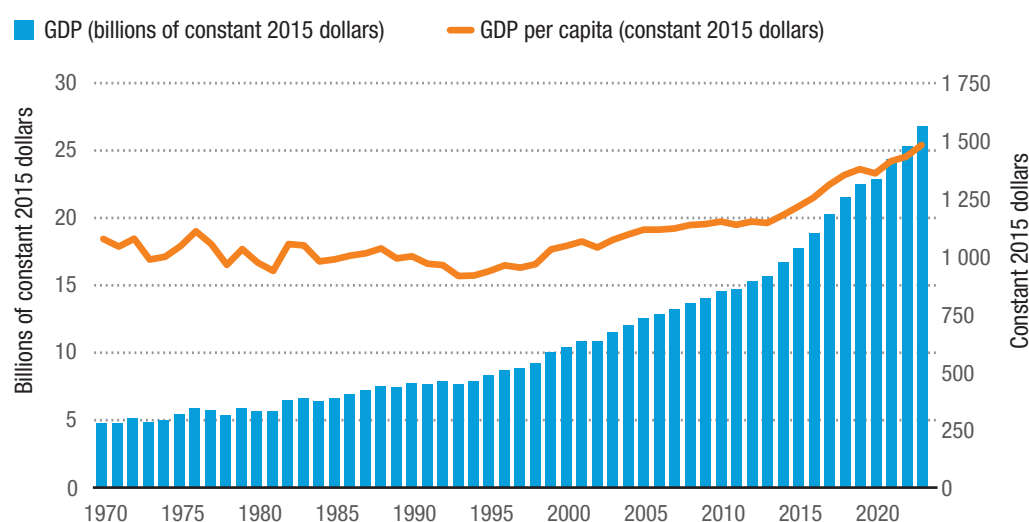
(In PPP 2017 dollars)



Source: UNCTAD secretariat calculations based on data from the Penn World Tables 10.0 database.



Figure 3
Senegal: Real GDP and real GDP per capita, 1970–2023



Source: UNCTAD secretariat calculations based on data from the UNCTADStat database.

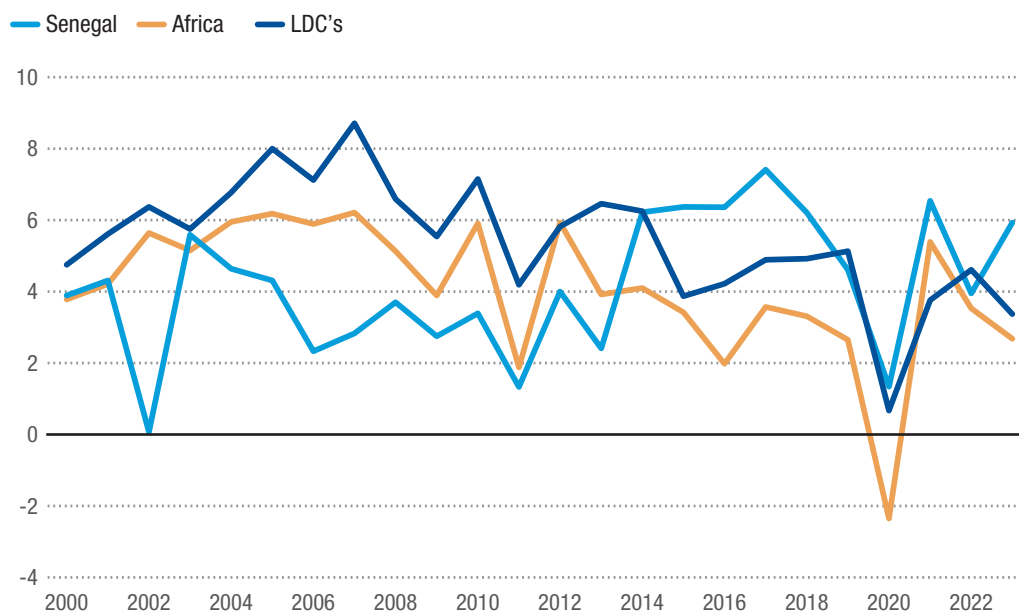
a sharp interruption in 2020 when the COVID-19 pandemic disrupted vital sectors, such as tourism, catering, fishing, trade, education and transport. As a result, GDP growth decelerated to 1.3 per cent in 2020 (-1.3 per cent in per capita terms), even though the negative impact of containment measures was partially offset by an 8.2 per cent surge in agriculture production. That surge was the result of favourable weather

conditions and the rapid roll-out of the Programme de Résilience économique et Social worth roughly 7 per cent of GDP (United Nations, 2023). The resulting slowdown from the COVID-19 crisis has been less deep than in either Africa or the LDCs, and Senegal's rebound in 2021 was 6.5 per cent. A moderate slowdown in 2022 was the result of sanctions imposed by the Economic Community of West

African States (ECOWAS) on Mali (a key trading partner for Senegal), the lingering impact of the pandemic, and the ripple effects of the war in Ukraine (DPEE, 2022). Despite this encouraging macroeconomic resilience, however, there are concerns that the series of shocks experienced by Senegal over the last three years — the

aforementioned COVID-19 pandemic, the sanctioning of Mali, and the cost-of-living crisis triggered by fallout from the war in Ukraine — entailed widespread socioeconomic costs, raising some apprehensions about worsening inequalities and uneven social development prospects.

Figure 4
Real GDP growth, 2000–2023
(Percentage)



Source: UNCTAD secretariat calculations based on data from the UNCTADStat database.

2.1.2 Dynamics of structural transformation

The pace of economic growth is certainly an important driver of welfare improvements, but equally important from a structural point of view, is the pattern of such dynamism. Starting from an aggregate level, development accounting provides a framework, derived from neoclassical growth theory, to trace changes in GDP per worker

to their proximate determinants, namely accumulation of production factors and total factor productivity (TFP) (Caselli, 2005; Feenstra et al., 2015).³ Although not free from criticism, development accounting can be useful to shed light on the role of capital deepening (i.e. the increase in the stock of physical capital per worker) and human capital accumulation.⁴ Figure 5 presents the result of this exercise for Senegal.

³ In a nutshell, the derivation of development accounting decomposition in figure 5 is obtained from an aggregate constant return to scale production function denoted as:

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

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

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

where the dot indicates the growth rate of the corresponding variable, and y and k respectively indicate income and capital in per-worker terms. GDP per worker is considered here to abstract from considerations related to labour participation and demographic growth.

⁴ The three main lines of criticism of the development accounting framework focus on (i) its saving-driven

During the 1971–1994 period, the analysis shows that the small positive contribution of human capital accumulation was more than offset by the decline in capital per worker (i.e. negative capital deepening) and

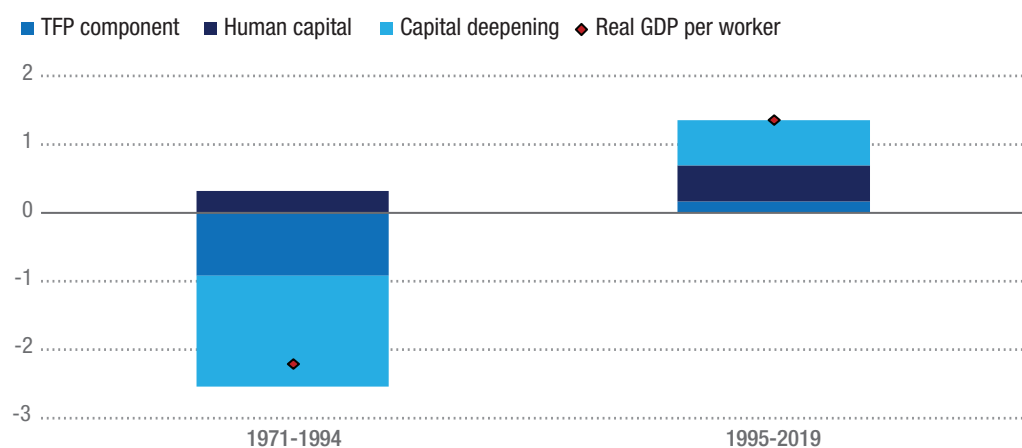
in TFP. Conversely, during the 1995–2019 period, both physical and human capital accumulation played a significant positive role. TFP also contributed to the growth of GDP per worker, albeit to a far lesser extent.⁵



Figure 5

Senegal: Development accounting decomposition of growth in real GDP per worker, 1971–2019

(Percentage)



Source: UNCTAD secretariat calculations based on data from the Penn World Tables 10.0 database.

A key determinant of productivity dynamics is the pace and direction of structural change; that is, the process of intersectoral reallocation of inputs and the corresponding changes in the composition of output, which typically accompany long-term economic growth. This process is crucial to ensure long-term development convergence and catch-up, as the ensuing productivity gains contribute to reducing poverty and improving living standards (Diao et al., 2021; Kuznets, 1966; Rodrik, 2013).

Generally speaking, structural change has progressed at a sluggish pace in most LDCs, and Senegal is no exception. Despite the long-term expansion in the size of the economy, the composition of value added has not changed drastically (figure 6).

The declining weight of agriculture has essentially been mirrored by the expansion of transport as well as mining, construction and utilities. Meanwhile, the share of value added by the manufacturing sector increased from some 19 per cent in the early 1970s to a peak of 26 per cent in 1994, only to decline thereafter to some 16 per cent of the total (a level slightly lower than in the early 1970s). As a result of these trends, the current Senegalese economy is marked by the predominance of the services sector, which accounts for some 57 per cent of the country's GDP, compared with 18 per cent and 25 per cent for the primary sector and industry, respectively.

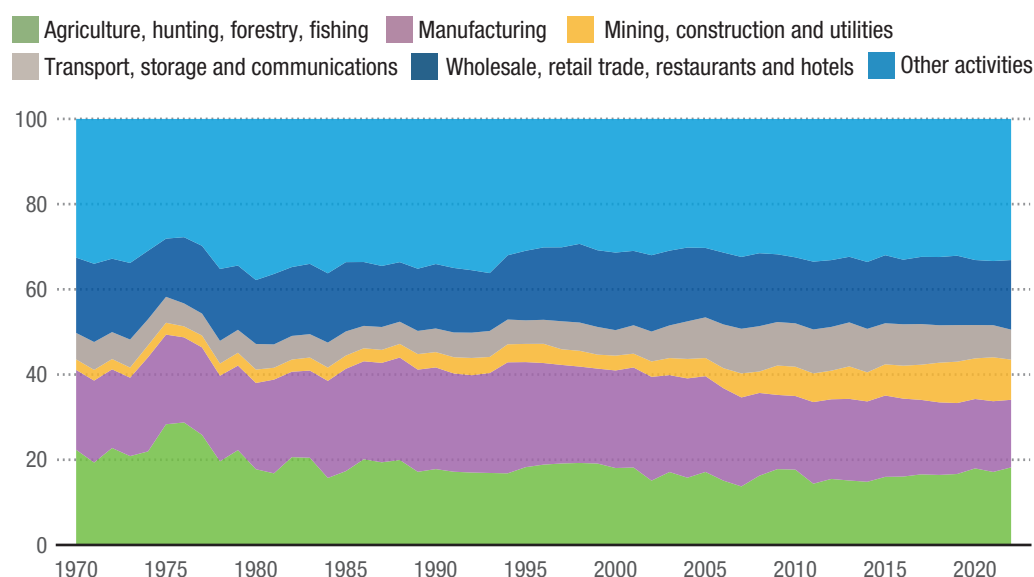
To explore the structural dynamics underpinning growth in Senegal, figure 7

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 (e.g. capital deepening and TFP); and (iii) the adequacy of the notion of an aggregate production function to contexts where productivity levels differ across sectors (Abramovitz, 1989; Banerjee and Duflo, 2005; Taylor, 2004).

⁵ The conclusions of this analysis are broadly consistent with those derived for the 2009–2018 period by the Direction générale de la Planification et des Politiques Économiques, which identified labour growth as the main driver of GDP expansion (DGPPE, 2019). International data have been preferable in this case because they allow for singling out the contribution of human capital.



Figure 6
Senegal: Sectoral composition of value added, 1970–2022
 (Percentage)



Source: UNCTAD secretariat calculations based on data from the UNCTADstat database.

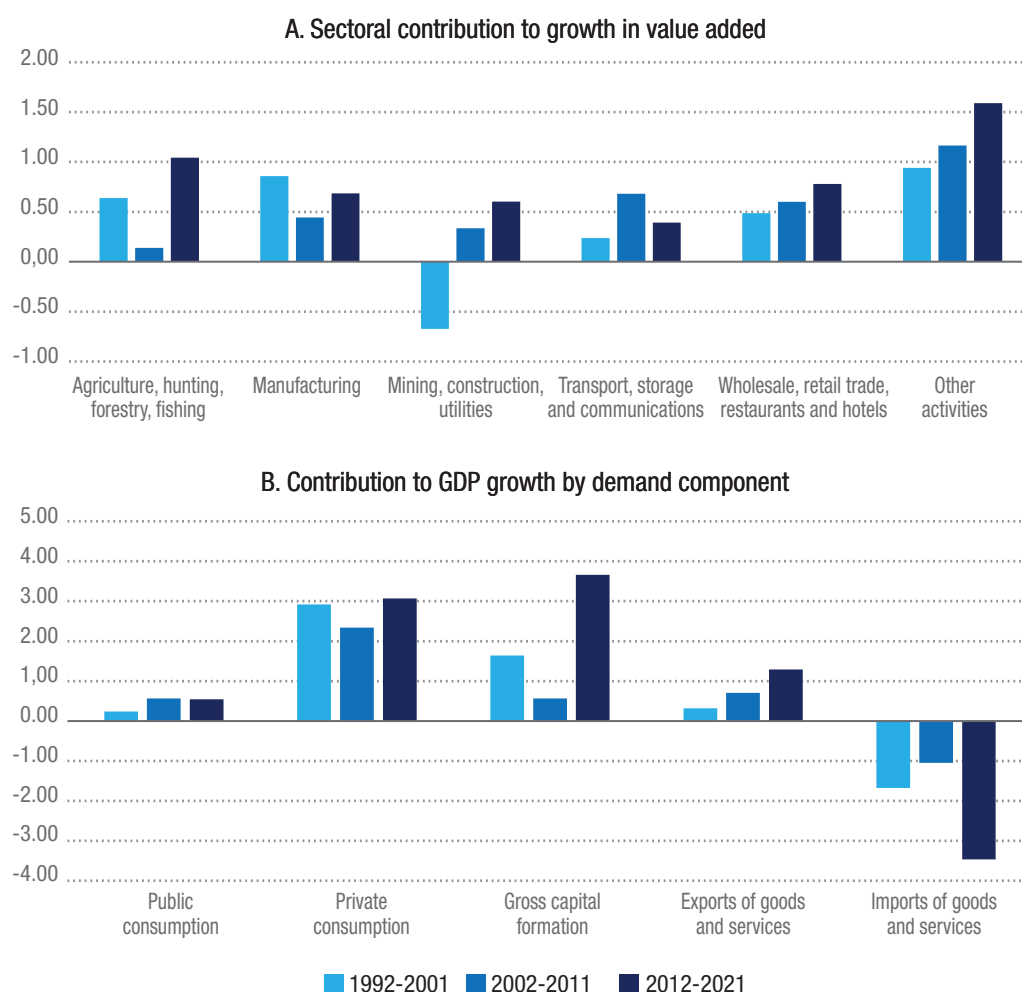
presents the contribution to growth by supply and demand components for 1990–2021. All sectors contributed to the expansion of value added, with the exception of mining, construction and utilities, in the 1990s. Throughout the period considered, services have been — by far — the main driver of economic expansion (panel A of figure 7). The sector labelled “other activities,” which corresponds to the residual category of services (sections J to P according to the International Standard Industrial Classification, Revision 3), represent the main contributor to growth throughout the period considered, but even other services segments significantly underpinned the economic expansion of the last two decades. Interestingly, in all of the three subperiods considered, manufacturing constituted the main driver of growth in industrial value added, ahead of mining, construction and utilities. On the expenditure side (panel B of figure 7), the figures suggest that private consumption has been the main driver of growth in Senegal over the past three decades, followed by gross capital formation. Importantly, after the decline in 2002–2011, gross capital formation saw a remarkable

increase in its contribution to growth from 2012–2021, underscoring accelerated investments over the last decade when the investment-to-GDP ratio averaged 30 per cent. The contribution of the export sector to growth also witnessed a significant expansion over time (especially in the last decade), even though this was more offset by demand leakage stemming from imports.

The structure of employment changed significantly over the last three decades, as a growing share of workers migrated from the primary sector, in line with the intuition of the Lewis (1954) model of a dual economy. To capture the corresponding labour reallocation process, figure 8 shows the changes in the sectoral employment share between 1991 and 2019 on the horizontal axis, and the (log of) sectoral labor productivity relative to economy-wide labour productivity in 2019 (the latest year for which disaggregated sectoral data are available) on the vertical axis. The figure shows that the reallocation of labour from agriculture implied a contraction in the employment share of agriculture by almost 20 percentage points (in almost 30 years). While the reduction in the agricultural employment



Figure 7
Senegal: Contribution to growth by supply and demand components, 1992–2021
 (Annual percentage change)



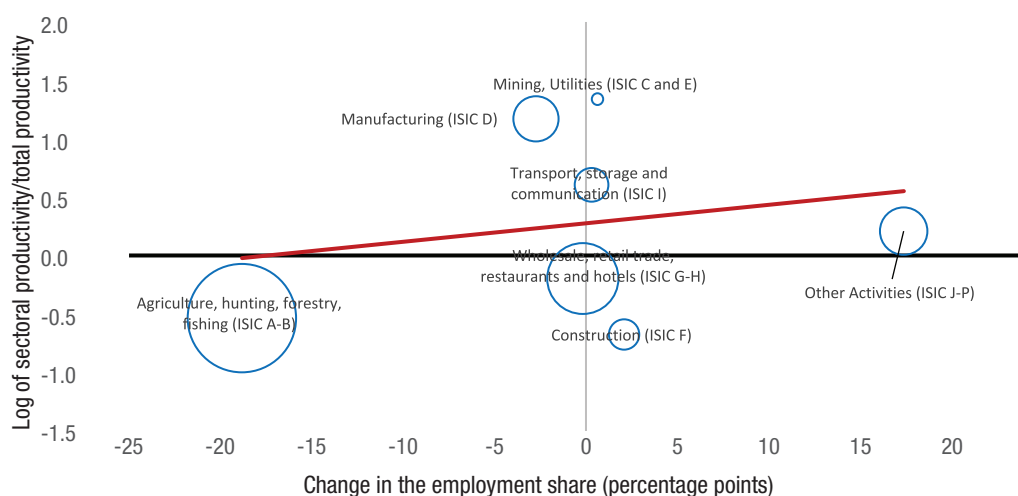
Source: UNCTAD secretariat calculations based on data from the UNCTADstat database.

share follows the typical structural change pattern, it is important to observe that most workers leaving agriculture found jobs in the tertiary sector, while manufacturing witnessed a contraction of its employment share in spite of comparatively high sectoral labour productivity.⁶ As a result of this tertiarization, the services sector employed slightly more than half of the total labour force by 2019, with the residual services segment “other activities” registering a 17 percentage point gain in its employment share between 1991 and 2019. Additionally, services appear to play an even more critical role for female employment, as

it absorbed more than two-thirds of the female labour force (ANSD, 2016).

Figure 8 also underscores the persistence of large intersectoral productivity gaps, such as construction and agriculture, having average labour productivity that is roughly one-seventh of that for manufacturing or mining and utilities. Yet, the sectors with relatively lower labour productivity remain among the most important for employment creation: agriculture (with a labour share of 30 per cent), other activities (27 per cent) and wholesale and retail trade, restaurants and hotels (21 per cent).

⁶ This also appears to be the case during over the period of implementation of the PSE (2014–2019).

**Figure 8****Senegal: Dynamics of sectoral employment share and labour productivity, 1991–2019**

Source: UNCTAD secretariat calculation based on data from the World Bank's World Development Indicators database and the United Nations Statistics Division.

Note: The size of the bubble is proportional to each sector's employment share in 1991.

Combined, this evidence suggests that, to date, Senegal's pattern of structural change has contributed only weakly to the dynamism and increasing sophistication of the economy. Not only has within-sector productivity growth been somewhat sluggish and uneven, but the premature tertiarization of the economy has also left an ample untapped scope for reallocating labor towards higher-productivity sectors through growth-enhancing structural change (McMillan and Rodrik, 2011; UNCTAD, 2021a). Although intersectoral productivity differentials have somewhat shrunk as more workers looked for jobs outside agriculture, the potential boost to labour productivity has been dampened by the fact that many of them had to resort to relatively low-productivity activities. This pattern, which is common in many other African countries, has led to questioning the classic pattern of structural transformation in the region (Dihel and Goswami, 2016; Ghani and O'Connell, 2016). While some studies (Dihel and Goswami, 2016; Ghani and O'Connell, 2016) suggest that innovation-generating services could be the engine of development, others (Rodrik, 2016) consider services incapable

of playing this role, given the sector's low and slowly rising productivity.

Without dismissing the potential for innovation and increasing returns in high-productivity services – especially those with potential positive spillovers, such as finance, digital and business services – it is worth noting that these tend to play a limited role in terms of employment creation in Senegal. In addition, these services tend to be specialized and knowledge-intensive, and are hence unlikely to absorb mostly unskilled workers leaving low-productivity agriculture. In Senegal, instead, the mobility of low-skilled labour appears to have been largely driven by self-employment in service-related activities with low entry barriers, but also relatively low productivity. Indeed, according to quarterly GDP data released by the Agence Nationale de la Statistique et de la Démographie (ANSD), the proportion of value added accounted for by the informal sector expanded from 46 per cent of the total in 2015 to over 51 per cent in 2020, while households' contribution went from 6 per cent to nearly 13 per cent. This dynamic, driven by what has been called “entrepreneurs by necessity,” represents a challenge in terms of harnessing innovation

and enhancing the sophistication of the economy, which would decisively increase its total productivity (UNCTAD, 2018).

Looking ahead, it is critical to realize that this is a crucial juncture for Senegal's structural transformation path and energy transition. The country is poised to become an important fossil fuel producer in the coming years, with the beginning of production from its recently discovered oil and gas fields. The exploitation of these resources, expected to start in 2024, could reach around 140,000 barrels in the Sangomar oil field and over 28 million cubic meters of gas per year in the Tortue-Teranga natural gas field (United Nations, 2023).⁷ This could be an important engine of growth, with the government anticipating a total of 33,703,000,000 FCFA (roughly \$56 million) in revenue from hydrocarbons for 2023 in its draft finance law. To avert the risk that these developments exacerbate Senegal's commodity dependence, it will be critical to ensure the emergence of strong productive linkages between the extractive sector and downstream processing. In this respect, it is encouraging that the government plans to use these resources not only to generate revenue but also to accelerate progress towards universal access to electricity, strengthen energy security, and boost domestic value addition through the production of fertilizers. The country's "gas-to-power strategy" is expected to lower energy costs for households and firms, with positive effects on competitiveness. Moreover, gas-based generation is well placed to effectively complement the increasing penetration of renewable technologies – which currently account for some 29 per cent of the energy mix – and reduce related greenhouse gas emissions, with gas gradually replacing "dirtier" energy sources such as coal and fuel oil. From a macroeconomic perspective, it will be equally important to ensure that the rents derived from these natural resources are mobilized effectively and reinvested in

both physical and human capital, thereby supporting diversification of the economy away from a persistent reliance on resource-based sectors and boosting structural transformation (UNCTAD, 2022a).

2.1.3 Productive Capacities Index

Although the pace of economic growth is certainly an important driver of welfare, the pattern of such dynamics is at least as important. In particular, several studies have suggested that the sustainability of growth is largely determined by the extent to which countries develop their productive capabilities, as defined in box 2 (UNCTAD, 2006). Productive capacity development operates both within firms and sectors, as the profit-investment nexus promotes capital deepening and productivity gains, and across sectors, as capacity acquisition, itself dependent on the existing pattern of production, which paves the way for the emergence of new products and higher-value-added activities (UNCTAD, 2020a). UNCTAD has developed a composite index to capture this articulated process of expanding a country's productive capacity (box 2).

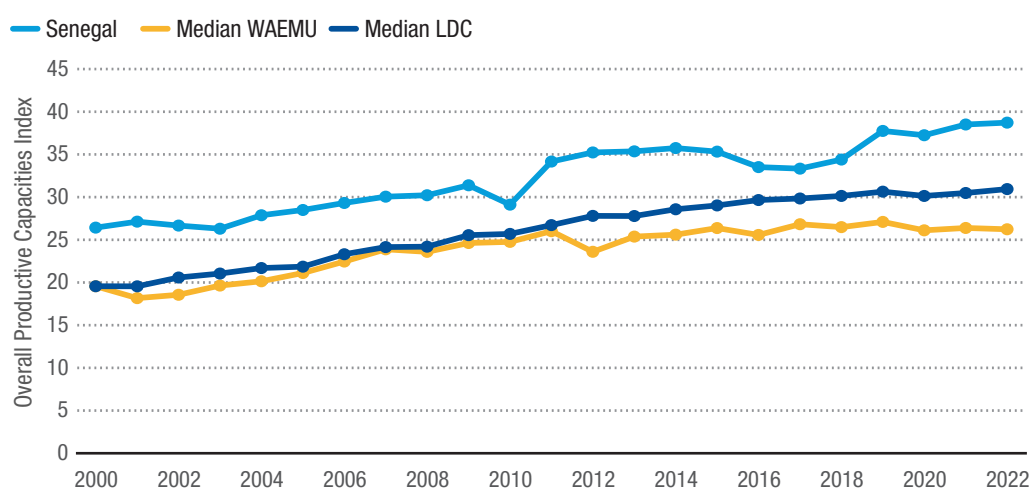
Figure 9 shows the trend of PCI scores for Senegal, the median LDC, and the median West African Economic and Monetary Union (WAEMU) country for 2000–2022. The PCI score for all three regions trends upward at a roughly similar pace, indicating comparable improvements over time. While Senegal consistently outperforms the median LDC, which in turn outperforms the median WAEMU country, it should also be noted that Senegal's PCI score for 2022 places it 138th out of 193 countries. This indicates that, despite some relative strengths vis-à-vis other LDCs, Senegal needs to make further improvements to strengthen competitiveness and catch up with most other developing and developed economies.

⁷ The Sangomar oil field was discovered in 2014 and the Grand Tortue/Ahmeyin and Yakaar-Teranga natural gas fields in 2015 and 2016, respectively.

**Box 2****UNCTAD's Productive Capacities Index**

The UNCTAD Productive Capacities Index (PCI) is the first attempt to measure productive capacity in all economies, including LDCs, as well as developed and developing countries. The Index builds on the conceptualization of productive capacity, defined as “the productive resources, entrepreneurial capabilities and production linkages which together determine the capacity of a country to produce goods and services and enable it to grow and develop” (UNCTAD, 2006: II).

As such, the PCI is a composite index of 46 indicators grouped under eight components: natural capital, human capital, energy, transport, information and communications technology, institutions, structural change and the private sector. UNCTAD (2020b) provides a detailed description of the methodology of the construction of the PCI. For the purposes of this report, suffice it to note that – after imputation and/or forecasting of missing data as required – principal component analysis is applied to reduce the dimensionality of the data. The resulting factor weights are then used in the weighting of the individual indicators to construct each PCI component, which is subsequently standardized using the maximum and minimum normalization. The overall PCI score is finally obtained as a geometric mean of the eight components, whereby the geometric mean is chosen to reduce the level of substitutability across components. The PCI scale, both for the aggregate index and its components, ranges from 0 to 100, with 100 being the best score.

**Figure 9****Productive Capacities Index scores for Senegal and related comparators, 2000–2022**

Source: UNCTAD secretariat calculations based on data from the UNCTADStat database.

Note: The Productive Capacities Index scale ranges from 0 to 100, with 100 being the best score.

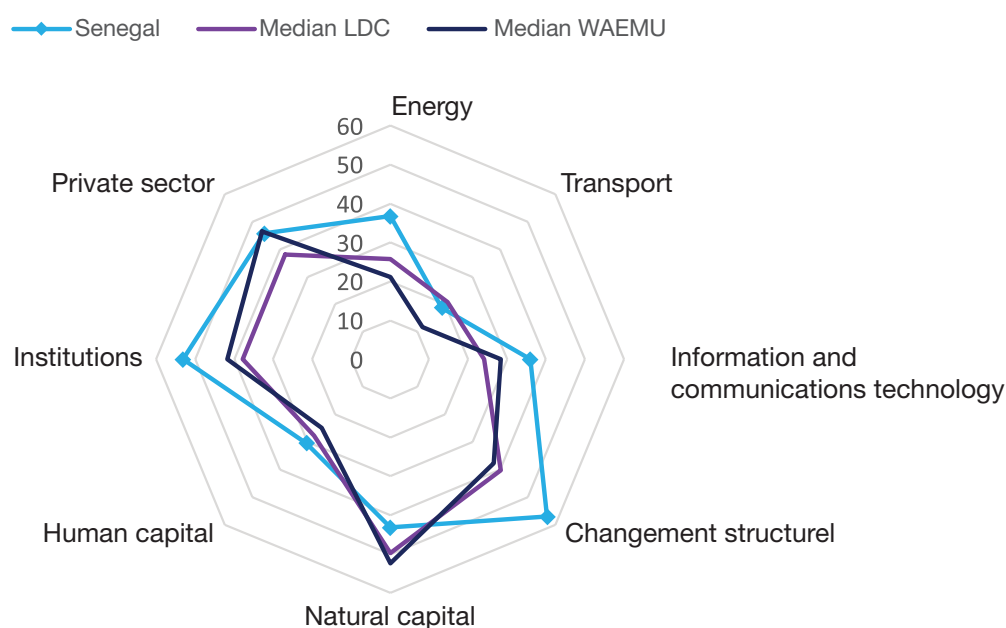
To better identify areas of comparative strengths and weaknesses, it is instructive to shed light on the subcomponents of the composite index. Figure 10 confirms that although Senegal's productive capacity is superior to that of comparative regions in terms of energy, information and communications technology, structural

change and institutions, the country continues to face serious supply-side constraints regarding transport and relies heavily on natural-resource-based sectors. Other impediments to sustainable development are the country's low scores for human capital (despite significant





Figure 10
Components of the Productive Capacities Index for Senegal and related benchmarks, 2022



Source: UNCTAD secretariat calculations based on data from the UNCTADStat database.

Note: The Productive Capacities Index scale ranges from 0 to 100, with 100 being the best score.

improvements over the 2000–2018 period) and private sector development.

The evidence pertaining to the PCI confirms that poor infrastructure, such as insufficient power generation and deficient road networks, is constraining Senegal's development and has a negative effect on the overall productivity of the economy (Isaksson and Ng, 2006). Efforts to improve and reinforce infrastructure in Senegal explain the need for positioning Senegal as a regional industrial logistic hub by developing its productive capacity to achieve an industrial leap forward.

Through implementation of the PSE, considerable investments are under way to develop infrastructure projects, including the Aéroport international Blaise Diagne, Dakar-Diamniadio toll road extension, Thiès-Touba road, Train Express Regional (TER), Diamniadio industrial park, rehabilitation of the Dakar–Bamako rail network, opening up of rural areas, investment in rural equipment, and development of

new tourist centres. Despite these recent achievements, however, Senegal still has a notable infrastructure gap and lags most emerging economies. Senegal's road network is estimated at about 14,500 km, of which 4,500 km are paved (31 per cent of the total).⁸ Rural communities have little access to water, transport, energy and economic services facilities, and wide regional disparities persist. In addition, the agriculture sector, which employs more than 40 per cent of the population, still depends on rain-fed crops, and is therefore highly vulnerable to adverse weather conditions.

2.2 International trade

2.2.1 Senegal's trade patterns

With foreign trade accounting for roughly 60 per cent of GDP — only 1 percentage point higher than in 2020 (ANSD, 2021a) — Senegal is a small, open economy. According to the Direction générale de la Planification et des Politiques économiques

⁸ Estimates are drawn from Senegal's road assessment: <https://lca.logcluster.org/23-senegal-road-assessment>.

(DGPPE), in absolute value, total exports of goods and services rose from FCFA 3,419 billion (approximately \$5.8 billion) in 2019, to FCFA 4,156 billion (approximately \$6.7 billion) in 2022 and is expected to reach FCFA 4,523 billion (approximately \$7.3 billion) in 2023. Meanwhile, imports of goods and services have also increased, from FCFA 5,882 billion in 2019 to FCFA 9,063 billion in 2022, with only a marginal decline expected in 2023 (FCFA 9,005 billion).

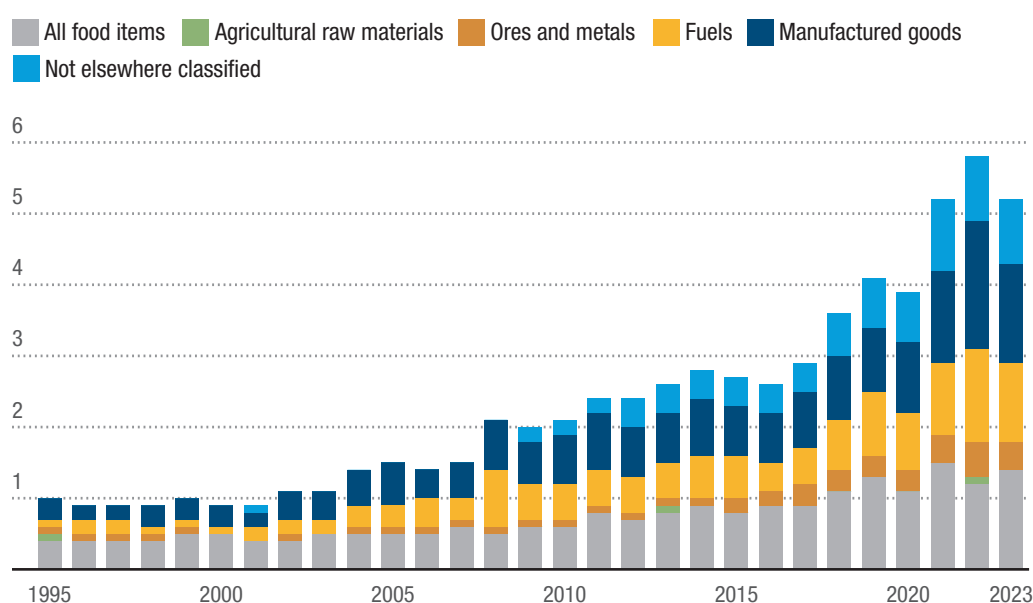
These figures highlight that Senegal, like most LDCs, is characterized by a structural (and in fact widening) trade deficit for both goods and services. According to ANSD (2022), the trade balance reached FCFA 2.6 trillion (15.7 per cent of GDP) in 2022, compared to FCFA 2.0 trillion (13.3 per cent of GDP) in 2021. This reflects Senegal's growing trade deficit vis-à-vis the European continent, its main supplier, and a growing surplus vis-à-vis the African continent, its main export destination.

Focusing on trade in goods, according to UNCTAD data Senegal's merchandise

exports increased more than fivefold between 1995 and 2023, when it surpassed \$5.3 billion according to preliminary estimates. This overall upward trend is the result of a strong performance in the period of implementation of the PSE, interrupted in 2015–2016 by the sharp decline in fuel and other commodity prices, and in 2020 by the sharp impact of the COVID-19 pandemic.

The expansion of merchandise exports was mainly driven by refined petroleum products, phosphoric acid, minerals and metals (gold, zirconium, titanium etc.), seafood and fish products, groundnuts products, horticulture, cement and mineral fertilizers. Since 2010, Senegal has experienced a sharp increase in exports of horticultural products, particularly to the European market. As this list suggests, the export structure has traditionally been relatively diversified and split across broad product groups, with food items, fuels, and manufactures accounting respectively for 30, 20 and 25 per cent of the total (figure 11). A similar conclusion about the

Figure 11
Senegal: Merchandise exports by broad product group, 1995–2023
(Billions of dollars)

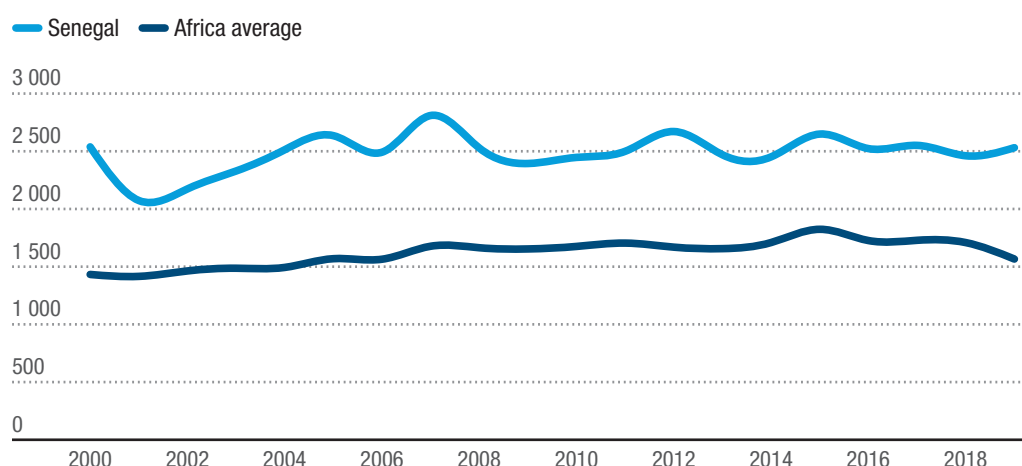


Source: UNCTAD secretariat calculations based on data from the UNCTADStat database.

Note: All food items include Standard International Trade Classification (SITC) 0+1+22+4; agricultural raw materials include SITC 2 less 22, 27 and 28; ores and metal include SITC 27+28+6; fuels include SITC 3; and manufactured goods include SITC 5 to 8 less 667 and 68.



Figure 12
Number of active export lines, Senegal and Africa average, 2000–2019



Source: UNCTAD secretariat calculations based on data from the Base pour l'Analyse du Commerce International of the Centre d'Etudes Prospectives d'Informations Internationales (BACI-CEPII).

relatively diversified nature of Senegal's exports can also be derived from analysis of the country's Export Concentration Index (discussed in section 3.3.1) or by looking at the number of products exported. In 2019, Senegal exported 2,531 products out of 5,018 export lines at the six-digit Harmonized System (HS) classification, a value that is higher than the African average of 1,566 products (figure 12).

Despite Senegal's diversified exports, it remains a commodity-dependent developing country like most of its neighbours and 70 per cent of LDCs, with commodities representing some 75 per cent of total merchandise exports.⁹ Although its relatively diversified export structure has spared Senegal from the most pernicious effects of commodity dependence — such as pronounced terms-of-trade volatility, Dutch disease, or crowding out of investments in human and physical capital — some of the pitfalls of commodity dependence are betrayed by the country's relatively sluggish structural change dynamics and its pattern of integration into global value chains (GVCs) (see section 2.2.2). Indeed, the bulk of Senegal's export products tend to be either natural-resource-intensive or capital-intensive, and hence generate few

highly skilled jobs and foster only limited linkages to the rest of the economy. The current pattern of specialization is therefore incapable of creating paths to labour-intensive exports that could help absorb the unskilled and uneducated workers who make up the bulk of the Senegalese labour force. A major problem of Senegal's comparative advantage in primary products and manufacturing activities based on primary products is that it could lock the country in a low-value-addition trap, since most exported goods undergo either little or rather simple transformation.

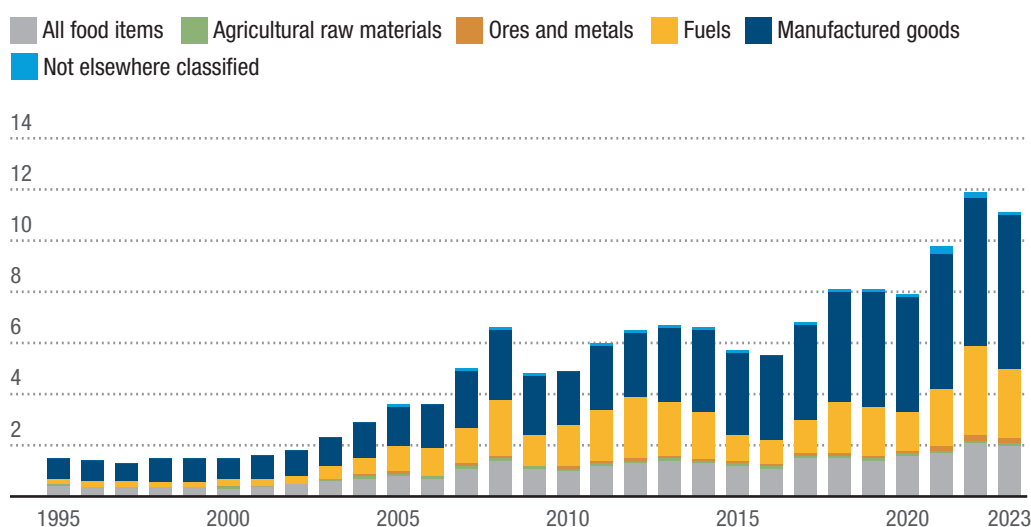
Moving to Senegal's merchandise imports, they surpassed \$10 billion in 2023, according to UNCTAD data (figure 13). These exports grew by more than sevenfold between 1995 and 2023, driven by buoyant domestic consumption and investments. The bulk of merchandise imports consist of petroleum products, manufactures (especially capital and intermediate goods), and food products.

In terms of trading partners, Senegal's foreign sales are mainly directed to the African, Asian and European continents, with the main export destinations being Mali, Switzerland, India, China and Côte d'Ivoire

⁹ According to UNCTAD, countries are classified as commodity-dependent if more than 60 per cent of their merchandise exports are accounted for by primary products.

Figure 13**Senegal: Merchandise imports by broad product group, 1995–2023**

(Billions of dollars)



Source: UNCTAD secretariat calculations based on data from the UNCTADStat database.

Note: All food items include SITC 0+1+22+4; agricultural raw materials include SITC 2 less 22, 27 and 28; ores and metal include SITC 27+28+6; fuels include SITC 3; and manufactured goods include SITC 5 to 8 less 667 and 68.

Table 1**Senegal: Main merchandise trade partners, average over 2020–2023**

(Percentage)

Major export destinations	Percentage of merchandise exports	Major suppliers of imports	Percentage of merchandise imports
Mali	29.2	China	19.6
India	11.7	Russian Federation	9.8
Switzerland	11.0	France	8.0
China	5.5	India	6.0
Australia	3.8	Belgium	5.2
United States	3.4	Netherlands	5.0
Côte d'Ivoire	3.3	Nigeria	4.3
Spain	3.1	United Arab Emirates	3.9
United Arab Emirates	2.1	Spain	3.4
Guinea	1.6	Türkiye	3.2

Source: UNCTAD secretariat calculations based on data from the UNCTADStat database.

(table 1). Overall, the African continent, and in particular the West African region, remains the main destination for Senegalese exports, which steadily increased over the last few years. According to UNCTAD data, Senegalese exports to African countries over 2020–2023 averaged \$2.2 billion per year, representing a 44 per cent market share. ECOWAS countries (40 per cent), and in

particular those of the WAEMU (36 per cent), are traditionally Senegal's main customers. Among these countries, Mali — for which Senegal represents a key transit country — remains the main export market with a share of 29 per cent despite sanctions imposed on Mali by ECOWAS in 2021 in the wake of that country's military coup. Deliveries to WAEMU countries consist

mainly of petroleum products, cement and, to a lesser extent, manufactured food products (BCEAO, 2021). Unlike exports to Africa, Senegal's exports to Europe and Asia (each accounting for per cent of the total) suffered a significant slump in 2020 because of the disruptions caused by the COVID-19 pandemic. However, they rebounded markedly in 2021 and expanded further in 2022.

Conversely, Senegal's main suppliers are China, France, the Russian Federation, India and Belgium (table 1). Taken together, European countries continue to be Senegal's leading supplier with an average of \$4.1 billion in 2020–2023, or a 41 per cent market share. Imports from Europe are comprised mainly of petroleum products, capital goods and pharmaceutical products. After a decade of expansion, imports from Asia are now rivalling those from Europe, also at \$4.2 billion or 41 per cent of the total. Only 12 per cent of Senegal's imports originated from Africa, with ECOWAS countries providing some 7 per cent of the total, including 2 per cent from WAEMU countries.

Given the widening trade deficit, boosting export capacity through both the intensive and extensive margins, while generating productive employment in rural or peri-urban areas, is of paramount importance for Senegal. Interestingly, the PSE has identified key strategic sectors that could underpin significant expansions of production, employment, and exports that it aims to promote and develop as part of the plan's industrial and trade policy. Agro-processing represents a useful case in point, as discussed in box 3. The government aims to boost domestic value addition in the sector, including through the establishment of agro-pôles across the country. Although it is too early to rigorously assess the effectiveness of all related initiatives, there are promising signs. Moreover, the experience of the

agro-processing sector underscores the breadth of related interventions to boost production and export capacity, as well as the importance of coherence between trade and industrial policy interventions.

Considering that preferential market access is one of the key ISMs granted to LDCs, it is interesting here to briefly summarize the trends in Senegal's tariff treatments and use of preference. This, in turn, can give an idea of the extent to which Senegal benefits from this ISM, and consequently of the potential impact of its phasing out upon LDC graduation. With reference to Senegal's exports to Canada, the European Union, Japan and the United States, some 35 per cent of Senegalese exports face a zero most-favoured nation (MFN) tariff. This is typically the case for most minerals and fuels exports, but also for some vegetable products, footwear and headgear. Of the remaining dutiable export products originating from Senegal, a large majority — between 50 and 60 per cent of total merchandise exports — receive preferential treatment (be it LDC-specific or through other preferential schemes such as the African Growth and Opportunity Act), while another 3-5 per cent enter destination markets at MFN rates.¹⁰ Underutilization of preferences hence appears to be somewhat confined, a finding confirmed by a World Trade Organization (WTO) study focusing on a larger sample of large preference-granting countries (WTO, 2019).¹¹ Albeit circumscribed, the phenomenon of underutilization of preferences remains a concern, especially vis-à-vis certain destinations (such as India and Switzerland), and/or certain typologies of products, including fruits and vegetables.

Focusing on Senegal's exports to the European Union, which account for some 12 per cent of the total, figure 14 shows that approximately 30 per cent of Senegal's exports are of products for which the MFN

¹⁰ The residual exports are MFN dutiable.

¹¹ The WTO analysis covered the following list of preference-granting countries, economies or regions: Australia, Canada, Chile, China, the European Union, India, Japan, Republic of Korea, Norway, Switzerland, Taiwan Province of China, Thailand and the United States.

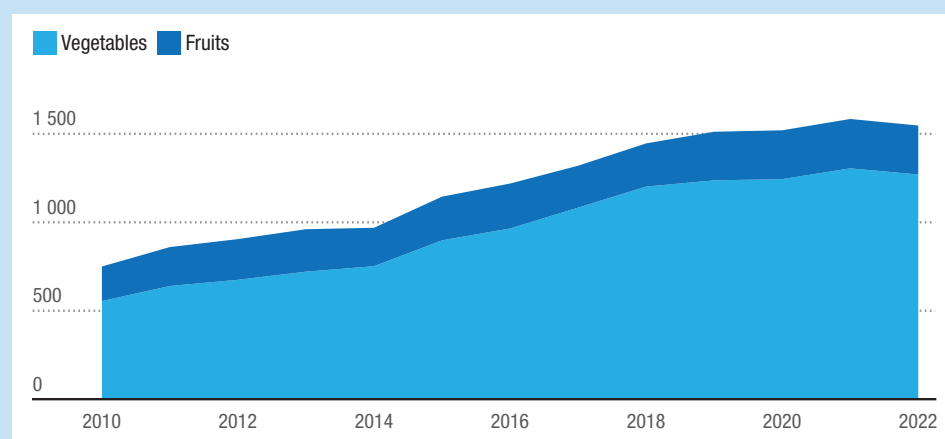
Box 3**Linkages between trade and industrial policies: The case of agro-processing**

One of the features of the Plan Sénégal Emergent (PSE) is that the government has identified key strategic sectors capable of driving the dynamics of increased production, employment and exports. The government aims to promote and develop these sectors as part of its industrial and trade policy. The agro-processing sector is a case in point. To achieve self-sufficiency in rice and onions, optimize the groundnut sector, and develop the fruit and vegetable sectors, the government has strengthened its support to rural communities by providing quality seeds, fertilizers, agricultural equipment and irrigation schemes in the northern and southern areas, all of which has helped strengthen the production potential of these sectors. The reasons for the choice of rice and onions, groundnuts and off-season fruits and vegetables are to (i) cover the whole of Senegal with these products, either through the number of producers involved or by the number of consumers concerned; (ii) gradually reduce the dependency on food imports; (iii) develop exports; and (iv) create new jobs and opportunities for additional income.

Over the past decade, agricultural production has increased tremendously in Senegal due to good weather conditions and proactive policy (box figure 3.1). The country has already reached or is in the process of achieving its production objectives (particularly for onions or groundnuts) and its export objectives (for fruits and vegetables). These improvements have already started to trickle down to exports, with new products exported, particularly horticultural products, which contributes to diversification of the export base.

Box figure 3.1**Senegal: Production of horticulture products, 2010–2022**

(Thousands of tons)



Source: UNCTAD secretariat calculations based on data from the Agence Nationale de la Statistique et de la Démographie data portal.

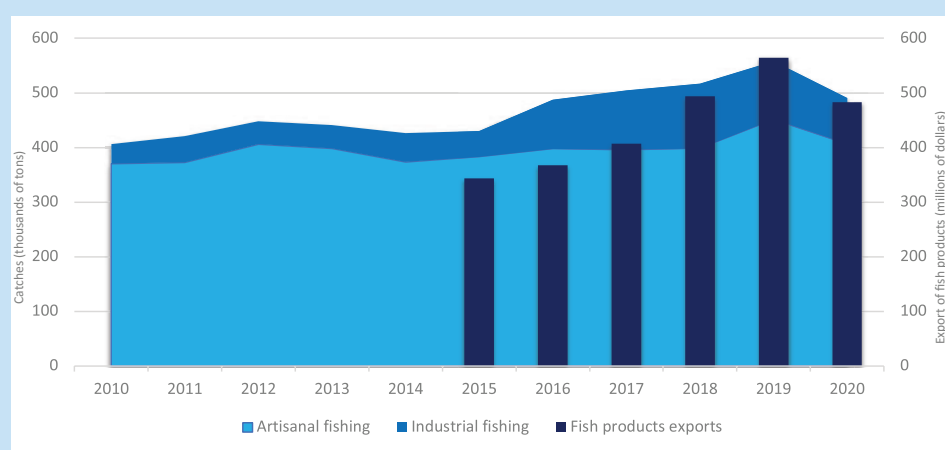
However, numerous issues remain. The agricultural development policy seems primarily restricted to production goals. Post-harvest activities (such as storage and marketing), as well as processing activities (for crops like millet or cashew), appear to be neglected despite the priority status of agro-industry in the PSE. Ultimately, the key challenge will be to maintain efforts in water control, modernization and mechanization of agriculture, provision of quality inputs in sufficient quantity (seeds and fertilizers), implementation of activities to mitigate and combat climate change, and the strengthening of storage and conservation infrastructures. It will also be necessary to accelerate implementation of

reforms to support the development of agribusiness and ensure proper implementation of the Strategic Plan for the Development of Agricultural and Rural Statistics.

Fishing is another important activity in the agro-processing sector (box figure 3.2). Although it is a major provider of employment (both direct and indirect jobs) and a major source of foreign currency (12 per cent of merchandise exports in 2020), the sector has been experiencing difficulties due to overexploitation, a situation that could threaten exports in the long term. Despite significant efforts to regulate the sector over the past two decades, the reform is still a work in progress, especially as it pertains to the artisanal subsector, which accounts for 80 to 90 per cent of all catches, depending on the year (Sarr et al., 2022).

Box figure 3.2

Senegal: Total catch and export of fish products, 2010–2020



Source: UNCTAD secretariat calculations for 2010–2019 based on data from Agence Nationale de la Statistique et de la Démographie/Banque Centrale des Etats de l'Afrique de l'Ouest (ANSD/BCEAO), Situations Economiques et Sociales 2019 and 2022 ; and for 2020 from DGPPE (2022).

rate is zero. The preference utilization rate for the remaining dutiable products remains above 95 per cent throughout the period considered. However, disaggregating the analysis by product category reveals considerable heterogeneity (figure 15). Preference utilization is close to 100 per cent for Senegal's most important export products, notably live animals, vegetables, prepared foodstuffs, footwear, fats and oils. But utilization rates are far lower for products such as minerals, base metals, machinery and electrical equipment, hides and skins, leather, etc., chemical products, textiles, plastics and rubber. Although a large proportion of related exports face a zero MFN rate anyway, such underutilization of preferences betrays a missed opportunity in terms of market access. Such low utilization

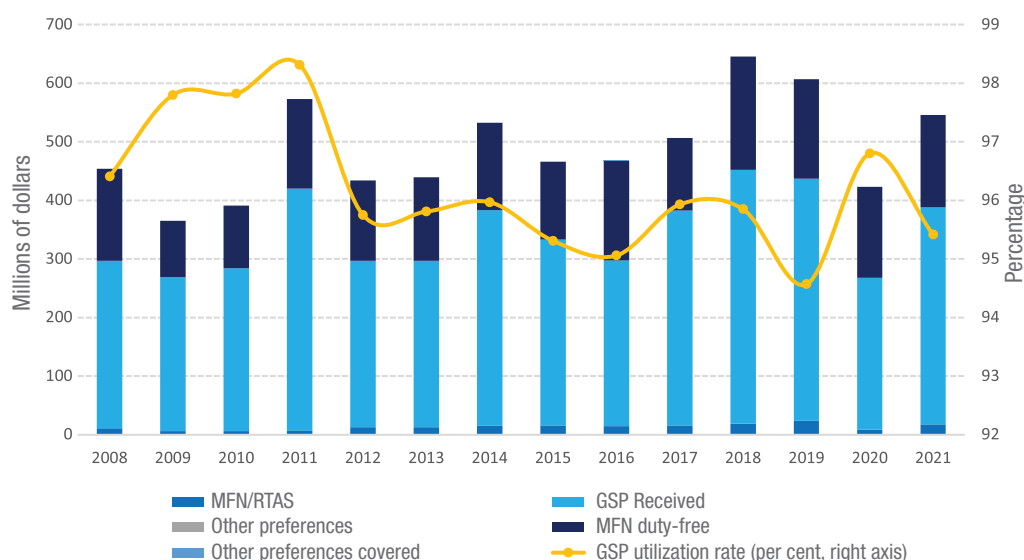
can be typically related to restrictive rules of origin, costly/difficult compliance with other non-tariff measures (notably sanitary and phytosanitary standards), and direct transport requirements (WTO, 2021).

2.2.2 Global value chain participation

Global value chain analysis helps refine the examination of Senegal's trade by focusing on the value addition the economy generates in its trade with the rest of the world. Such analysis is critical because, with the advance of globalization, relying solely on gross export and import data may be misleading due to double counting, given that value addition along the value chain (e.g. supply of inputs, intermediate and

Figure 14

Senegal's merchandise exports to the European Union by tariff treatment and related preference utilization, 2008–2021

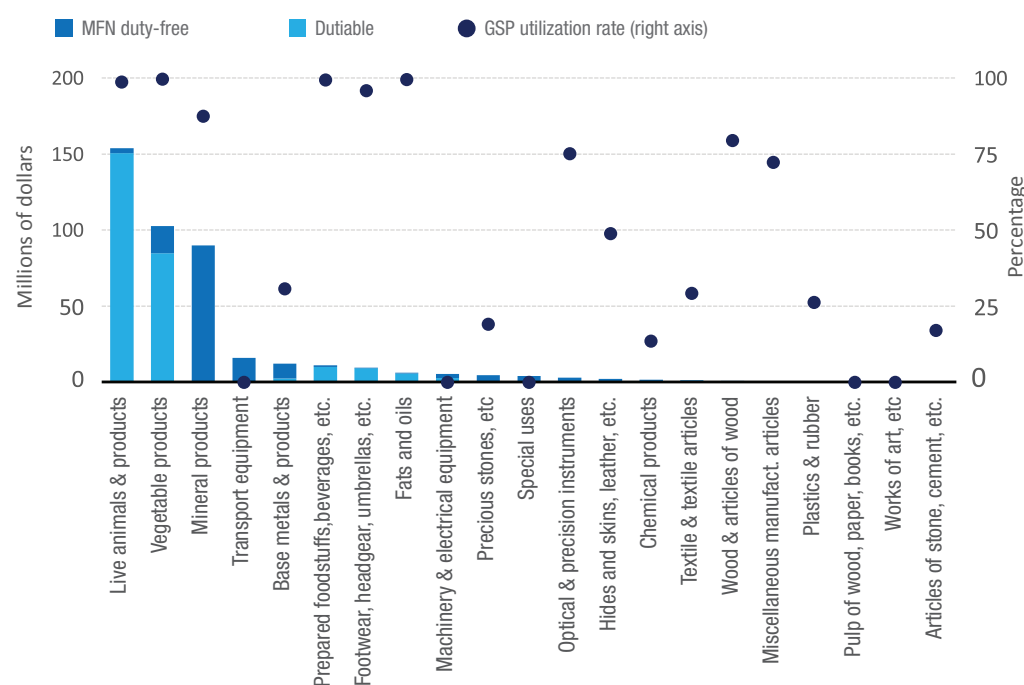


Source: UNCTAD secretariat calculations, based on data from the UNCTAD database on GSP utilization.

Note: RTA: regional trade agreements.

Figure 15

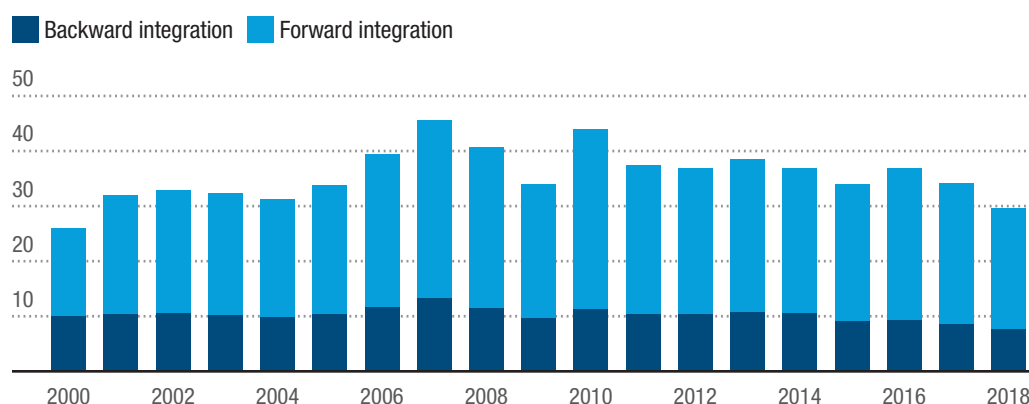
Tariff treatment and use of preferences for Senegalese exports to the European Union by product category, 2020



Source: UNCTAD secretariat calculation, based on data from the UNCTAD database on GSP utilization.

**Figure 16****Senegal's backward and forward integration in global value chains, 2000–2018**

(Percentage of gross exports)



Source: UNCTAD secretariat calculations based on data from the UNCTADStat database.

capital goods) typically comes from a range of national jurisdictions. Participation in the GVC is measured by backward and forward integration. The former is measured by the share of foreign value added embedded in a country's exports, while the latter is measured by the share of a country's domestic value-added exports that is further processed and re-exported by the importing country. Figure 16 shows the evolution of Senegal's backward and forward integration for the 2000–2018 period. The figure shows that the country's participation in the GVC has oscillated between 26 and 47 per cent of its exports, a non-trivial participation in GVCs. The most noticeable characteristic of Senegal's participation in GVCs is the predominant role of forward integration, which is on average two to three times the size of backward integration. Moreover, forward integration has increased over time by 6 percentage points.

By contrast, the Senegal's backward participation has been minimal, suggesting that, on average, only a minor share of foreign value added is further processed and embedded in Senegalese exports. For a small, open economy like Senegal, the respective magnitudes of forward and backward integration are indicative of the country's reliance on primary exports. Thus, the relatively large and increasing values for domestic value-added exports, combined with the relatively small and decreasing

values for foreign value added, corroborates the fact that the country has been unable to participate significantly in downstream production. Its involvement in GVCs has been and remains mainly focused on the provision of natural resources, intermediate inputs and simple manufacturing products.

Compared with other major economies from West Africa (Côte d'Ivoire, Ghana and Nigeria) and the rest of the continent (Kenya and South Africa), Senegal has had an intermediate level of GVC participation over the past two decades. Its economy was reasonably well integrated in GVCs (33 per cent of gross exports, with a share of 25 per cent and 8 per cent for forward and backward integration, respectively). Among the countries considered above, South Africa has had the highest backward and forward participation and experienced steady and sustained growth in its share of domestic value-added exports and foreign value added over time. West Africa's four largest economies, however, have lagged behind both South Africa and Kenya, with slower growth of forward integration and stagnation of backward integration. Two salient characteristics can be identified for Senegal. First, in terms of forward integration, and despite its lower natural resource endowment base, Senegal's economy is on par with all other West African major economies. Second, despite its rather low level of backward

integration, Senegal has a greater degree of backward participation in GVCs than resource-dependent countries such as Nigeria, Ghana and Côte d'Ivoire. Only Kenya and South Africa have greater backward participation in GVCs, which is probably due to their more dynamic and productive manufacturing sectors.

In the same vein, Senegal was found to have a pattern and level of integration in GVCs similar to that of the other LDCs from Africa (AUC and OECD, 2022). Like most African countries, its forward participation (22.8 per cent versus 25 per cent for African LDCs) was more important than its backward participation (10 per cent versus 9.6 per cent for African LDCs). The pattern of GVC participation underlines the critical role played by the processing of primary resources and agriculture in Senegal's contribution to GVCs. It also highlights the marginal role of manufacturing in general.

2.2.3 Export potential and product space assessment

This section discusses potential export diversification opportunities for Senegal. The identification of such potential export opportunities is based on the product space method (Hidalgo et al., 2007; Hausman and Klinger, 2007), which looks at the structure of output embodied in the network connecting countries to the products that they export. In this context, the product space is a visualization of the network depicting the connectedness between products based on the similarities of the know-how required to produce them (i.e. the probability of co-export of both products). Conversely, the complexity of an economy (product) represents a metric of sophistication based on how diversified and complex its export basket is (how many other countries can produce the product and what their overall economic

complexity is). The application of the product space method aims to provide a first indication of feasible product groups that could guide elements of a smooth transition strategy and industrial policy decision-making. The analysis is based on UNCTAD's Economic Development in Africa Report (UNCTAD, 2022b) complemented by the export potential assessment of the International Trade Centre and the Atlas of Economic Complexity.

This vulnerability profile only lists products that are feasible to produce, indicated by a close proximity to existing export products with a revealed comparative advantage (RCA) > 1 that have higher-than-average economic complexity and face favourable growing demand conditions (see box 4 for methodology).¹² The methodology is a revised version of the one used by the Atlas of Economic Complexity, in that it also considers product upgrading within products, measured by the reported unit values at the Harmonized System (HS) six-digit level.¹³ Products with higher unit values are also interpreted as “new” products, as they usually strongly differ in quality and use.

The product space method, proposed by Hidalgo et al. (2007) allows for linking products to each other, which facilitates the identification of pathways for future diversification into more complex products.¹⁴ While the product space map can inform the direction of active policies, it should not be applied as an automated policy instrument. Designing diversification policies requires a thorough assessment that includes economic, social and environmental considerations of new potential products and services. Figure 17 illustrates Senegal's product space for 2019, highlighting some of the currently exported products (with an RCA>1) that have high product complexity and close proximity to potential new products.

¹² This is measured through an increasing share of sectoral imports in total world imports.

¹³ The Atlas of Economic Complexity covers approximately 5,000 goods at the six-digit level, based on the 1992 Harmonized System. Available at <https://atlas.cid.harvard.edu/> (accessed 26 June 2024).

¹⁴ The product space is a geometrical representation of products built on the notion of proximity between different goods.

**Box 4****Methodology to identify feasible product diversification opportunities**

The following indicators and assumptions are applied to identify feasible product diversification opportunities:

- **Proximity in the product space**

The product space method (Hidalgo et al., 2007; Hausman and Klinger, 2007) which maps the distance between a country's current export basket and a new product, is based on how often countries export these products simultaneously. New products should be nearby in the product space in order to have a higher likelihood of success. In this respect, the measure of proximity between products A and B in the product space is calculated as the conditional probability that a country exports products A and B. The proximity between two products, therefore, ranges from 0 per cent in cases where no country produces both products, to 100 per cent, in case where all countries that produce one good also produce the other. "Feasible products" are close products with an 80 per cent probability that the country has similar technological capabilities and knowledge to produce those products.

- **Product Complexity Index**

An expected outcome of export diversification should be an increase in economic complexity of an economy as measured by its economic complexity index, as evidence of structural change. Therefore, only products of higher-than-average complexity are considered to promote diversification that benefits structural change.

- **Import demand**

There must be actual global demand for these products. Import demand in 2018/2019 is used here as an indicator of market opportunity, which is, by assumption, the same for each country.

Data are drawn from the United Nations COMTRADE dataset based on import data reporting bilateral trade using the 1992 Harmonized System commodity classification (six-digit level) covering 2018/2019 (average). The bilateral trade flow in the same six-digit classification is sorted by the unit value of the trade value.

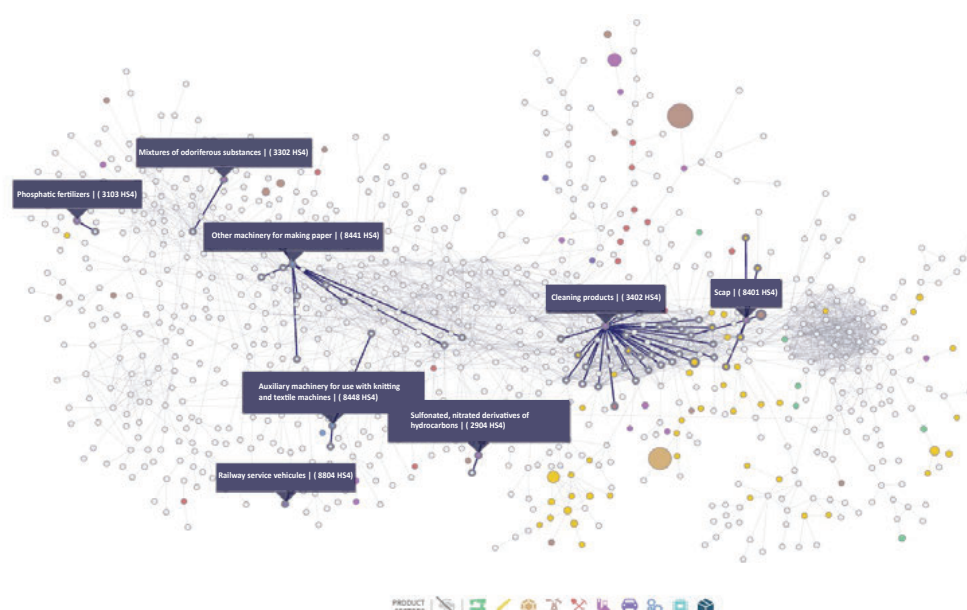
The top sectors with highest demand and number of close products are machinery and mechanical appliances (HS 84: \$38 billion), organic chemicals (HS 29: \$24 billion), electrical machinery (HS 85: \$22.2 billion), pharmaceutical products (HS 30: \$22.2 billion), iron and steel (HS 72: \$22.1 billion) and plastics (HS 39: \$21.3 billion). Senegal's chemical sector, which includes pharmaceutical and plastics, shows the highest potential for diversification, which

is also confirmed by the Atlas of Economic Complexity.¹⁵ Although the large opportunity value in these manufacturing industries is strongly driven by the technical computation and high proximity of related products in the product space,¹⁶ it also shows the high potential of the manufacturing sector for diversification, and to reduce the volatility of concentration of single- export products. Incentivizing investment and production into mechanical manufacturing promises

¹⁵ See <https://atlas.cid.harvard.edu/countries/191/product-table> (accessed June 26, 2024). The list of identified product depends on the assumptions of what is considered as "nearby" and how complex the new products are, explaining some of differences in the list of potential products for diversification.

¹⁶ Especially in the manufacturing of machinery and mechanical appliances, there is large number of related products and, therefore, a high chance that a country exports similar products at the same time.

Figure 17
Senegal's product space, 2019



Source: Atlas of Economic Complexity, available at <https://atlas.cid.harvard.edu/> (accessed 26 June 2024).

Note: Each node corresponds to a product (Harmonized System, level four), and its size is proportional to the country's trade. Grey nodes correspond to products that are not exported by Senegal; other nodes are color-coded according to the sector where Senegal has a revealed comparative advantage >1: green for textiles; yellow for agriculture; beige for stone; brown for minerals; red for metals; purple for chemicals; violet for vehicles; blue for machinery; and light blue for electronics; selected sectors with high proximity to new sectors are highlighted.

spillovers from the use of technology, knowledge, and skills. Table 2 lists the top product groups (ordered by world demand) in the machinery, chemical, and food processing industry sectors. Diversification through agriculture and the food processing industry remains an important channel to reduce the vulnerability of the population to droughts and climate change. The largest product diversification opportunities in agriculture are found in meat and edible meat (HS 02: \$5.4 billion), dairy products (HS 04: \$4.9 billion), cereals (HS 10: \$4.2 billion), and edible fruit and nuts (HS 08: \$3.6 billion). Food processing industries with promising diversification potential include preparations of vegetables and fruit (HS 20: \$1.4 billion) and preparation of meat and of fish (HS 16: \$1.3 billion) and sugars and sugar confectionery (HS 17: \$600 million).

The largest potential market in terms of demand is Asia and Europe.

Nevertheless, Africa is still an important strategic market due to increasing population and GDP growth, as well as increased market access and investment opportunities under the African Continental Free Trade Area (AfCFTA).

2.2.4 Regional integration and the African Continental Free Trade Area

As noted earlier, Africa remains the main destination of Senegal's exports, hence the importance of leveraging the regional market and implementing the AfCFTA to spur structural transformation. While the AfCFTA provides access to a market of 1.3 billion people, with an estimated GDP of \$2.6 trillion, Senegal also belongs to two regional economic communities — ECOWAS, composed of 15 countries, and WAEMU, a union of eight countries — that share the FCFA as their currency.¹⁷ This

¹⁷ WAEMU's common trade policy is based on the following:

**Table 2****Selected potential export diversification opportunities for Senegal, by world demand**

(Millions of dollars)

Harmonized System code	Harmonized System description	World demand (Millions of dollars)
Machinery and mechanical appliances (HS 84)		
8407	Spark-ignition combustion piston engine	4 177.1
8477	Machinery for working rubber or plastics	2 182.7
8479	Machines and mechanical appliances n.c.e.	2 135.1
8428	Lifting, handling, loading machinery	1 941.3
8419	Equipment for temperature change of material	1 615.4
Organic chemicals (HS 29)		
3002	Serums and vaccines	16 667.9
2933	Heterocyclic compounds with nitrogen-atom only	4 576.9
3004	Medicaments, packaged	4 312.8
3907	Polyacetals	3 686.3
3808	Insecticides, rodenticides, fungicides, etc	3 131.5
Food processing (HS 16-22)		
1602	Prepared or preserved meat	1 022.6
2004	Vegetables prepared or preserved	642.2
1702	Other sugars	574.9
2008	Fruits and nuts, otherwise prepared	271.7
1604	Prepared or preserved fish	261.8

Source: UNCTAD (2022b).

membership of subregional organizations provides access to a community market of approximately 300 million consumers, strengthens the intra-community competitiveness of businesses, and facilitates the free movement of people, goods, services and capital. It contributes to macroeconomic stability in member countries through mutual surveillance, the

establishment of a common external tariff and the harmonization of sectoral policies.

A number of previous studies have highlighted the scope for the AfCFTA to support Africa's industrialization objectives and foster the emergence of viable regional value chains, especially in relation to manufacturing products. Ex ante economic analyses have suggested that the AfCFTA

- A common market set up on 1 July 1996 for local and unprocessed products and traditional crafts, and until 1 January 2000 for approved industrial products. This common market was extended to all ECOWAS countries in 2004.
- A Customs Union set up on 1 January 2000 based on a common external tariff (CET) applicable to all WAEMU member countries that includes four categories of products, taxed from 0 to 20 per cent, in force until 1 January 2015. This was the date when the WAEMU CET was replaced by the ECOWAS CET, which enshrines the expansion of the Customs Union to the 15 ECOWAS countries. The CET aims to harmonize customs duties and taxes with a view to deepening economic integration by establishing a Customs Union; installing a platform to build common trade policy and regional trade negotiations such as the Economic Partnership Agreements with the European Union; stimulating regional production and investment capacity; and consolidating the regional market.
- Rules of origin and common competition, harmonization of the value-added tax and excise duties, harmonization and mutual recognition of standards, common safeguard and protection measures, that is, a degressive protection tax (a protective measure against the effects induced by the adoption of the common external tariff), a special import tax (to protect a country against erratic variations in the prices of agricultural products), and anti-dumping duties (ANSI, 2021b).

could generate substantial welfare gains and open new opportunities for diversification (Abrego et al., 2019; Depetris Chauvin et al., 2017; IMF, 2019; Mevel and Karingi, 2013; Saygili et al., 2017; UNCTAD, 2021b; World Bank, 2020; UNECA, forthcoming). While the precise results vary from one study to another depending on the theoretical assumptions, methodological choices, baselines and scenarios adopted, they concur in suggesting that:

- Tariff liberalization within Africa would create meaningful welfare gains — about 1 per cent of real income, albeit with large variation across countries — but these are far exceeded by the benefits of reducing non-tariff barriers.
- The AfCFTA would significantly boost intra-African trade and (to a lesser extent) Africa's total exports, particularly if trade costs and non-tariff barriers are also addressed.
- Tariff revenue losses would be limited for most African countries, and where the reduction in non-tariff barriers is also considered, all African countries accrue significant net gains (Mevel and Karingi, 2013; World Bank, 2020).
- The bulk of the increase in intra-African trade would be accounted for by manufacturing products, suggesting that the AfCFTA would support economic diversification.

To complement the above body of evidence, the export potential methodology is applied in this section with particular reference to the regional market. Sectors with high demand in Africa promising product diversification opportunities are machinery and mechanical appliances such as machinery for working rubber or plastics (HS 8477: \$200 million), iron and steel (e.g. flat-rolled products of iron or non-alloy steel (HS 7210: \$300 million), and vehicles (e.g. chassis fitted with engines (HS 8706: \$400 million). Figure 18 lists the top 10 product

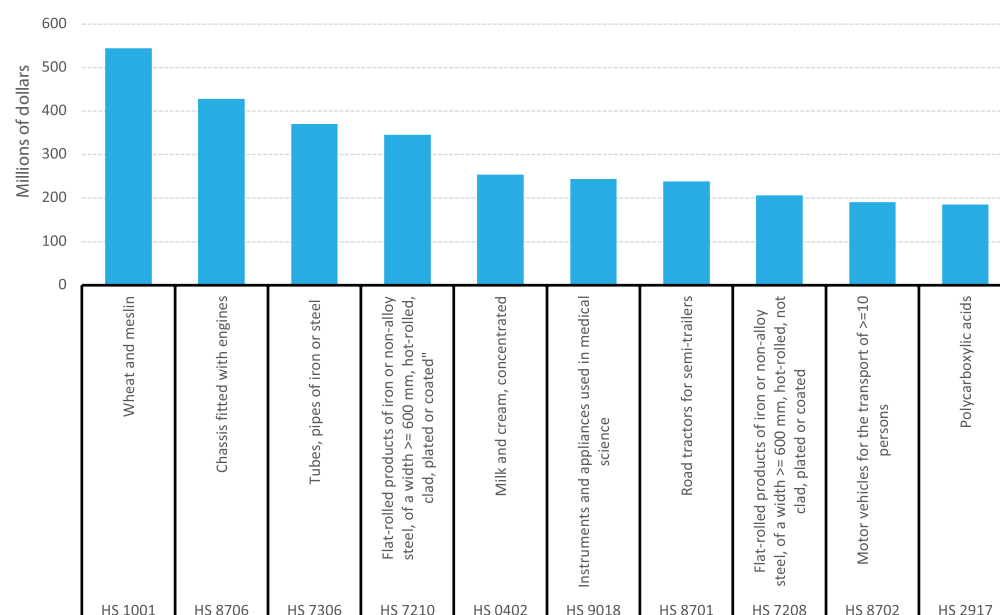
groups with export opportunities in Africa, summarized at the four-digit product level. The largest potential markets in terms of their demand are Egypt, with 26 per cent of total demand, followed by Morocco (11 per cent) and Nigeria (11 per cent).

An important step towards increasing exports is not only promoting diversification, but also tackling barriers to trade that hinder current exports from growing. In Africa, barriers stem from tariffs and from non-tariff barriers such as the lack of quality infrastructure, diverging regulatory requirements, lack of market information about export opportunities, and lack of business contacts. Such barriers account for a high level of untapped potential of intraregional trade of \$21.9 billion (UNCTAD, 2021c).

In this respect, according to UNCTAD (2021b), Senegal currently has an untapped potential of exports to Africa of \$658 million, equivalent to about 49 per cent of its actual exports to Africa. The sectors with the largest absolute untapped export potential are fish and crustaceans (HS 03: \$172 million, 52 per cent of actual exports), salt, sulphur (HS 25: \$183 million, 46 per cent), miscellaneous edible preparation (HS 21: \$105 million, 47 per cent) and cereals (HS 10: \$57 million, 58 per cent) (figure 19). Portland cement shows the largest absolute difference between potential and actual exports in value terms, leaving room to realize additional exports worth \$122 million.¹⁸ The processed foods, soups and broths preparations sector (HS 210410: \$109 million) and malt extract (HS 190190: \$57 million) also promise export growth from tackling trade barriers.

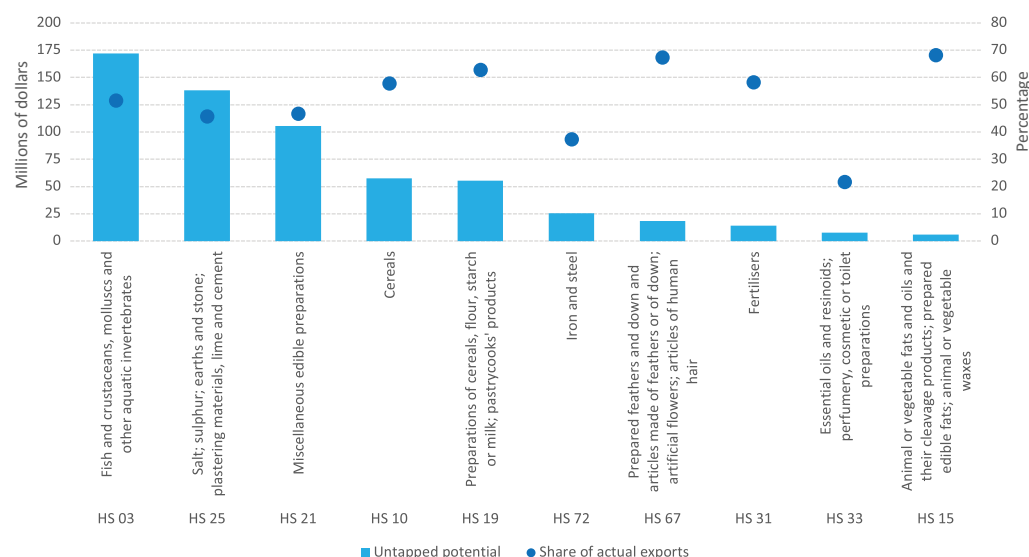
Senegal is also expected to gain some \$81 million (equivalent to an additional 6 per cent increase) from partial tariff liberalization, where LDCs liberalize over a period of 10 years and non-LDCs over five years. This shows that tackling non-tariff barriers

¹⁸ See International Trade Centre, Export Potential Trade Map, available at <https://exportpotential.intracen.org/en/products/tree-map?fromMarker=i&exporter=686&toMarker=re&market=1&whatMarker=k> (accessed 26 June 2024).


Figure 18
Senegal: Top 10 product groups with diversification potential and high demand in Africa


Source: UNCTAD secretariat calculations based on UNCTAD (2022b).

Note: The potential products for diversification are sorted by the demand value. Harmonized System: HS.


Figure 19
Senegal: Top 10 sectors with untapped export potential to Africa


Source: UNCTAD secretariat calculations based on UNCTAD (2022b).

Note: Harmonized System: HS.

and improving market information could be the main sources of export growth to Africa. Given these upbeat prospects, an option Senegal could consider would be to join the Guided Trade Initiative, which AfCFTA is currently piloting in eight African countries: Cameroon, Egypt, Ghana, Kenya, Mauritius, Rwanda, United Republic of Tanzania and Tunisia (UNECA, forthcoming).

2.3 Social development and related challenges

With a mean population age of 19 years, Senegal has a very young population, with more than half of people under the age of 20 (52 per cent), while people ages 65 and above represent 3.6 per cent of the country's total population. According to the ANSD, in 2021, more than half of Senegal's population lived in rural areas (roughly 53 per cent) compared to 47 per cent in urban areas. In particular, nearly a quarter of the population (23.2 per cent) lives in the Dakar region (the capital city Dakar and its surroundings), an area covering only 0.3 per cent of the total area of the country. In 2021, Senegal had a Human Development Index (HDI) value of 0.511, which positions it among the low human development group of countries, with a ranking of 170th out of 191 countries.¹⁹ Despite the remarkable improvements achieved over the last two decades — the HDI was 0.394 in 2001 and 0.482 in 2011 — the value of the HDI for 2021 reflects a small decline (-0.002) from 2020.

These figures confirm that while Senegal has made significant improvements in terms of social development in recent years, related outcomes remain a source of concern. Renewed economic dynamism has benefitted ample portions of the Senegalese population, especially in urban settings, but regional disparities and inequalities remain an issue. Moreover, large segments of the Senegalese population continue to be vulnerable to adverse

shocks, including most recently the lingering effects of the COVID-19 pandemic and the cost-of-living crisis triggered by the shockwaves of the war in Ukraine.

Against this backdrop, while a range of indicators related to social development dimensions will be reviewed in section 3 (especially in relation to the Human Asset Index), this section aims to provide more context on Senegal's underlying socioeconomic features, starting with a discussion about the labour market structure, informality, and poverty, while presenting — wherever possible — evidence on the impact of the COVID-19 pandemic and the ongoing cost-of-living crisis.

2.3.1 Structure of the labour market

This section uses data from the National Employment Survey in Senegal (Enquête nationale sur l'Emploi au Sénégal - ENES) carried out by the national statistics agency (ANSD) to examine the structure of the labour market. According to the ANSD, more than half (55.8 per cent) of the population of working age (15 years or older) participated in the labour market in the fourth quarter of 2021. The participation rate declined by 2.1 percentage points compared to the same period in 2020 and varied according to geographic location (57.2 per cent in urban areas versus 54.3 per cent in rural areas) and gender (64.5 per cent of men versus 48.8 per cent for women).

The employment rate, which is measured as the proportion of the population in employment among the working-age population, was 39.3 per cent in the fourth quarter of 2021, down 4 percentage points from the fourth quarter of 2020, when it was estimated at 43.3 per cent. The rate was higher in urban areas (45 per cent) than in rural areas (33 per cent). In addition, women, who constitute more than half of the working-age population, have a much lower employment rate than men: 53 per cent of

¹⁹ Senegal's ranking according to the HDI is 10 places lower than its GNI per capita ranking, suggesting that economic welfare could translate more effectively into human development outcomes.

men of working age have a job compared to merely 28.2 per cent of women. Salaried employment accounts for 39.4 per cent of the employed population and varies according to gender, with employed men receiving a salary compared to 29.4 per cent of employed women. Salaried employment is also more prevalent in urban areas (48.5 per cent) than in rural areas (25.9 per cent).

By the end of 2021, following the COVID-19 crisis, the unemployment rate was estimated at 24.5 per cent, an increase of 7.8 percentage points from 2020. The unemployed, as defined by the International Labour Office (ILO), include all persons of working age who during the reference period were without work, available to work for a period of two weeks, and looking for work over the four-week period preceding the survey interview date. However, this definition is restrictive given that the Senegalese labour market is not well structured for job searches. Consequently, unemployed persons who are available but do not actively seek employment for reasons deemed beyond their control are counted among the unemployed and thus taken into account in determining the level of unemployment in the country. Unemployment is higher in rural areas, where the rate is estimated at 29.8 per cent versus 19.1 per cent in urban areas. Unemployment also affects women more (35.8 per cent) than men (13 per cent).

In terms of the distribution by age group in the labour market, table 3 presents the most recent available data from the 2020 ENES. The data show that the working-age population was predominantly female (51 per cent) and young. Persons below 35 years old accounted for nearly 60 per cent of the working-age population, and persons below 25 years old accounted for approximately a third. Furthermore, 74.2 per cent of the working-age population either have never attended school (57.7 per cent) or have only a primary school education (16.5 per cent). The proportion of people with a higher education level is estimated at less than 5 per cent. The low level of

education of the working-age population is more accentuated in rural areas, where more than 85 per cent have, at most, a primary school education, and less than 1 per cent have a tertiary education.

Geographically, the labour force is fairly evenly distributed between urban and rural areas, with a slightly greater concentration in urban centers (51.1 per cent). On the other hand, the age profile of the labor force differs considerably from that of the working-age population in that the share of the young population below age 35 accounts for no more than 50 per cent of the labor force, as opposed to accounting for 58 per cent of the working-age population. This lower labour force participation stems from the fact that a significant proportion of youth are still in school. For the same reason, the proportion of people with secondary education is greater among the working-age population than in the labour force, with labour force participation for those with secondary education being the lowest among all education groups.

The distribution of the labour force by gender also reveals greater underutilization of female labour. Women represent only 42.4 per cent of the labour force even though they make up nearly 51 per cent of the working-age population. This underutilization of female labour is greater in urban areas, where men account for approximately 58 per cent of the labour force. The data presented in table 4 suggest that women and youth are disproportionately underrepresented in the Senegalese labour force, which is largely unskilled and ill-qualified, especially for manufacturing and productivity-generating sectors that are thought to spur economic growth.

2.3.2 Informality

The Senegalese economy is characterized by a very strong presence of the informal sector, which accounted for an estimated 45.8 per cent of GDP in 2020 (calculations based on GDP data from ANSD). The informal economy is intrinsically difficult to categorize in a clear-cut way, as it

Table 3**Senegal: Working-age population by gender, age and education, 2018**

(Percentage)

	National	Urban	Rural
Gender			
Male	48.7	50.7	46.5
Female	51.3	49.3	53.5
Age			
[15-24]	33.7	33.1	34.3
[25-34]	24.7	26.1	23.1
[35-44]	16.9	17.4	16.4
[45-59]	15.2	14.8	15.7
> 60	9.6	8.7	10.5
Education			
None	57.7	40.1	76.5
Pre-school/Primary	15.2	20.4	9.6
Secondary	22.4	31.1	13.0
Higher	4.8	8.4	0.8

Source: UNCTAD secretariat calculations based on the National Employment Survey in Senegal carried out by the Agence Nationale de la Statistique et de la Démographie.

Table 4**Senegal: Labour force by gender, age and education, 2018**

(Percentage)

	National	Urban	Rural
Gender			
Male	56.6	58.2	54.9
Female	43.4	41.8	45.1
Age			
[15-24]	21.4	17.4	25.6
[25-34]	29	31.7	26.3
[35-44]	22.8	24.7	20.8
[45-59]	20	20.4	19.6
> 60	6.8	5.8	7.8
Education			
None	63.6	45.4	82.6
Pre-school/Primary	17.6	25.6	9.3
Secondary	14.4	21.4	7.2
Higher	4.3	7.6	0.9

Source: UNCTAD secretariat calculations based on the National Employment Survey in Senegal carried out by the Agence Nationale de la Statistique et de la Démographie.

typically encompasses a broad array of actors and activities. Therefore, there is a lack of a commonly agreed-upon and internationally comparable definition of what constitutes the informal sector. According to the national legal and reporting framework, the informal sector is defined

as all the production units that do not keep accounts that comply with the accounting standards of the West African Accounting System (SYSCOA). By contrast, according to the ILO – which is the custodian of SDG indicator 8.3.1 (the proportion of informal employment in non-agriculture

employment, by sex) – informal employment is comprised of own-account workers, self-producers, contributing family workers, and employees holding informal jobs (i.e. occupations that are not regulated by labour legislation, taxation or social protection) within formal or informal enterprises.

The informal sector is prevalent in almost all branches of the economy and is a major provider of jobs. With reference to SDG indicator 8.3.1, figure 20 shows that informal

of men. More than 90 per cent of youth employment is in the informal sector.²⁰ Level of education is also a determining factor in that the informality rate of economic units decreases with entrepreneurs' level of education. In fact, while almost all uneducated entrepreneurs manage informal economic units, this proportion decreases with the level of education (ILO, 2020).

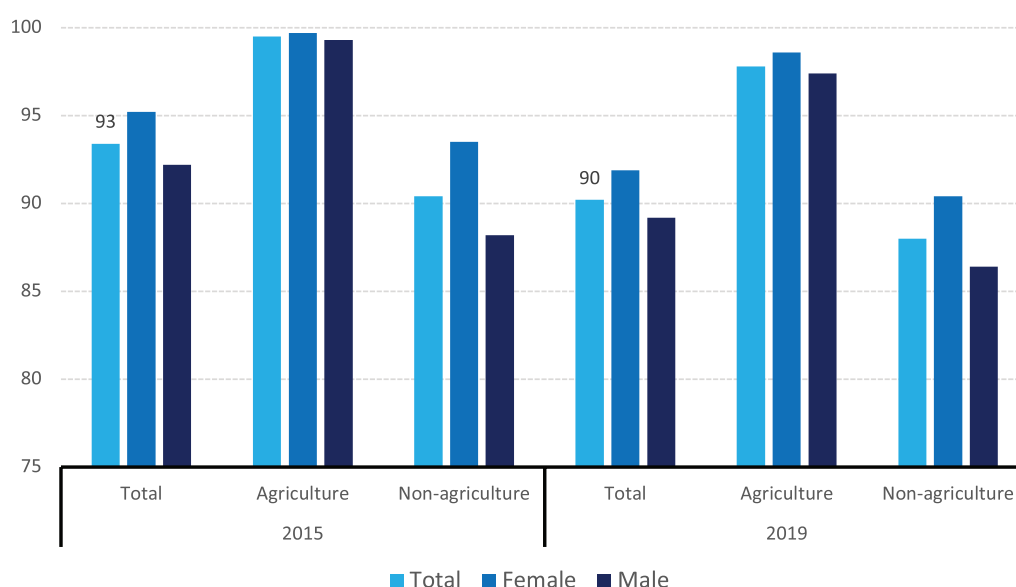
By hiring a large share of unskilled labor, the informal sector offers a low barrier



Figure 20

Proportion of informal employment in total employment by sex and sector, 2015 and 2019

(Percentage)



Source: UNCTAD secretariat calculations based on data from the ILOstat database.

employment accounted for approximately 90 per cent of employment in Senegal in 2019, with a minor decline compared to 2015. Informal employment appears to be omnipresent in the agriculture sector and accounts for some 88 per cent of employment in non-agricultural activities.

Women, young people, and people with a low level of education are most likely to be working in the informal sector or to having informal employment. Overall, 94 per cent of women entrepreneurs operate in the informal sector compared to 86 per cent

to entry for women and most young people who leave the school system with few qualifications. As formal labor demand is insufficient to absorb most low-skilled workers, the informal sector ends up being an essential pillar in the fight against vulnerability, unemployment and underemployment. However, evidence from the ENES (ANSD, 2016) suggests that workers in informal employment face great challenges in terms of decent work and experience greater precariousness, increased exposure to risks (including

²⁰ Mapping by the ILO (2020) showed that the proportion of informal economic units decreases with the increase in the age of the entrepreneur and the seniority of the company.

excessive working hours and the lack of protection), and low wages and profits. Moreover, despite the government's implementation of the Single Global Contribution, the informal sector contributes only marginally (3 per cent) to domestic tax revenue (DPEE, 2018).

So while the informal sector provides much-needed employment, questions remain about its long-term contribution to sustainable development and structural transformation. The Senegalese entrepreneurial landscape tends to be dominated by a plethora of micro- and small enterprises, with a few large players accounting for sizable market shares (including several state-owned enterprises), and evidence of the so-called “missing middle” (UNCTAD, 2018). The predominance of smaller businesses tends to be even more pronounced among informal establishments, many of which are created by “entrepreneurs by necessity,” rather than by entrepreneurs driven by opportunity. The productivity levels of these informal production units tend to be low due to the lack of adequate infrastructure, the difficulty of access to financing, inputs and technology, and the lack of capital.

Domestic credit to the private sector has increased significantly from 11 per cent of GDP in 2001 to 29 per cent in 2020, but remains far below the level of other African countries such as Morocco, Tunisia and South Africa. Moreover, credit constraints affect smaller and informal enterprises disproportionately. Even though they account for 99 per cent of Senegal's “economic entities” and about 70 per cent of the labor force, micro, small and medium-sized enterprises only receive 8 per cent of total financing from financial institutions (IFC, 2020).

The above constraints also imply that smaller firms face greater challenges to reach adequate scale economies and invest in long-term assets such as machinery and advanced technologies. Accordingly, while smaller informal firms may play a role in technology adoption and diffusion at

the bottom of the entrepreneurial pyramid (e.g. through trade of solar rechargers), it is the larger and mostly formal enterprises that are likely to spur productivity growth and technological upgrading (UNCTAD, 2018). Similarly, even if the use of simple digital tools and e-commerce platforms (e.g. Facebook marketplace) is within reach of a fairly good number of even informal enterprises, it is often the more established entrepreneurs or larger firms that can afford to invest in complementary skills to engage with digital technologies in deeper and more transformative ways (UNCTAD, 2020a).

The relationship between formal and informal establishments, however, is varied and multifaceted, spanning from the perceived threat of unfair competition to the subcontracting of some production. Moreover, the dichotomy between formal and informal establishments is far more blurred than one may initially think. Whether an enterprise is in the formal or the informal sector is essentially the result of a strategic decision on the part of the entrepreneur based on the costs and benefits of formalization. This relates, in part, to the time and financial costs of the formalization process, but also to the financial and non-financial costs and benefits of being a formal entity, be it in terms of regulations or access to finance and technology. Red tape and cumbersome registration procedures can certainly represent a significant obstacle, hence the importance of business facilitation initiatives such as eRegulations Sénégal, an online information service maintained by the Agence pour la Promotion des Investissements et des Grands Travaux. Yet, there is also some evidence that the incentive structures created by entry regulations may affect the size of informal establishments and post-registration firm performance (Amin and Islam, 2015; Williams et al., 2017). For some enterprises, at least, informality may be the result of a deliberate strategic decision on the “optimal degree of participation in formal institutions” (Maloney, 2004). Understanding the nature of this process is important both to disentangle the potential

contribution of informal enterprises to structural transformation, and to enhance the design of enterprise policies.

2.3.3 Poverty and inequality

The last nationally representative survey on household living conditions (Enquête Harmonisée sur le Conditions de Vie des Ménages) was conducted in 2018–2019 and aimed at understanding monetary and non-monetary poverty in Senegal. Unlike previous household surveys, the 2018–2019 survey followed a harmonized methodology common to all WAEMU countries. While this methodological innovation allows for comparability across WAEMU economies, it poses issues of comparability over time, to the extent that in recent years only the surveys referring to 2005 and 2011 are fully comparable (World Bank, 2023).

With this premise, figure 21 presents the long-term trend in the poverty headcount ratio for the World Bank's three international poverty lines: \$2.15 (extreme), \$3.65 (lower-middle income) and \$6.85 (upper-middle income) per day, respectively, all measured at 2017 PPP. Despite some caution warranted by the limited comparability over time, the figure points to a downward trend for poverty across all the poverty lines, with the decline measured against the two lowest international poverty lines being far more pronounced than for the highest one. Accordingly, in 2018, roughly 1.5 million Senegalese (9.3 per cent of the population) were living in extreme poverty (i.e. below \$2.15 per day), 5.8 million earned below \$3.65 per day (37.4 per cent of the population) and 11.6 million people earned below \$6.85 per day (74.3 per cent of the population). Data also suggest that rapid growth (especially between 2011 and 2018) was accompanied by a remarkable increase in median income and a corresponding decline in the poverty

gap. Indeed, according to the 2018 survey, the poverty gap for the \$2.15 per day poverty line was 0.017, implying that a theoretical redistribution of roughly 2 per cent of income would be sufficient to lift everyone above the extreme poverty line.

Although the above data show a trend of improved well-being and declining poverty rates, inequality appears to have remained a persistent feature of the Senegalese economy. Despite rapid economic dynamism, the Gini coefficient decreased only marginally between 2001 and 2018, dropping from 0.41 to 0.38.²¹ Similarly, over the same period the Palma ratio went from 2.0 to 1.7.²² Looking at the 2018 survey (i.e. the latest available), figure 22 shows the distribution of income by population deciles. The poorest decile of the population accrued some 2.9 per cent of the income, while the richest decile accrued 30 per cent of the total (twice as much as the second-richest decile of the population).

In the same vein, the available evidence points to strong spatial inequalities, notably between urban and rural areas. According to the United Nations' 2023 Common Country Assessment, more than half of the rural population is below the national poverty line (53.6 per cent), while the headcount ratio is 9.7 per cent in Dakar and 29.9 per cent in other urban areas (United Nations, 2023). Similarly, rural households lag behind urban ones in terms of access to basic services such as improved water and sanitation services.

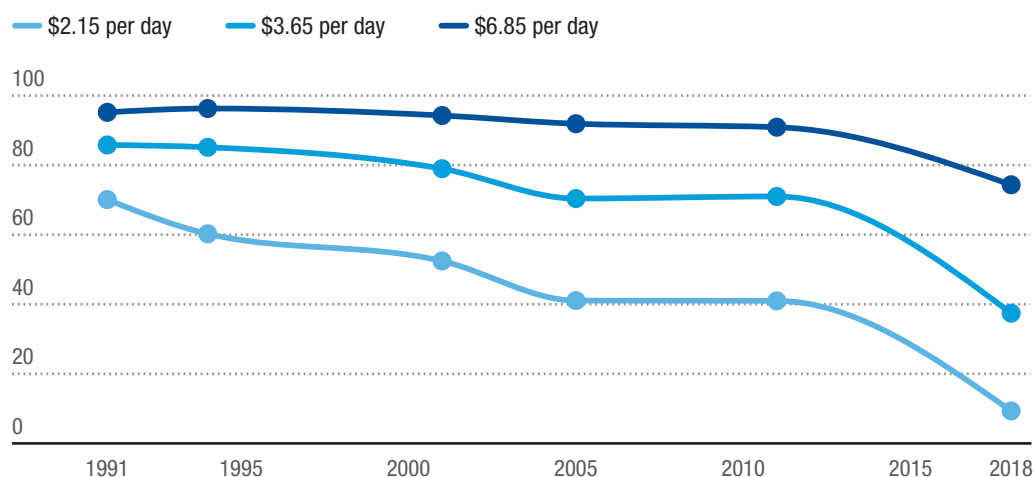
Though extremely useful, the 2018 national household survey is by now very likely to underestimate the incidence of poverty in Senegal, since it does not consider the significant impact of the COVID-19 pandemic and its legacy of deprivation. Rapid surveys based on computer-assisted telephone Interviews, for instance, showed that 85 per cent of the respondents

²¹ The Gini coefficient ranges from zero to 100. A coefficient of zero represents the scenario of complete equality, in which everyone's consumption is identical. A Gini coefficient of 100 represents the scenario of complete inequality, in which one person consumes everything.

²² The Palma ratio is defined as the ratio between the share of income/consumption received by the richest 10 per cent of the population divided by the share of all income received by the poorest 40 per cent.

Figure 21**Poverty headcount ratio in Senegal according to different international poverty lines, 1991–2018**

(Percentage)

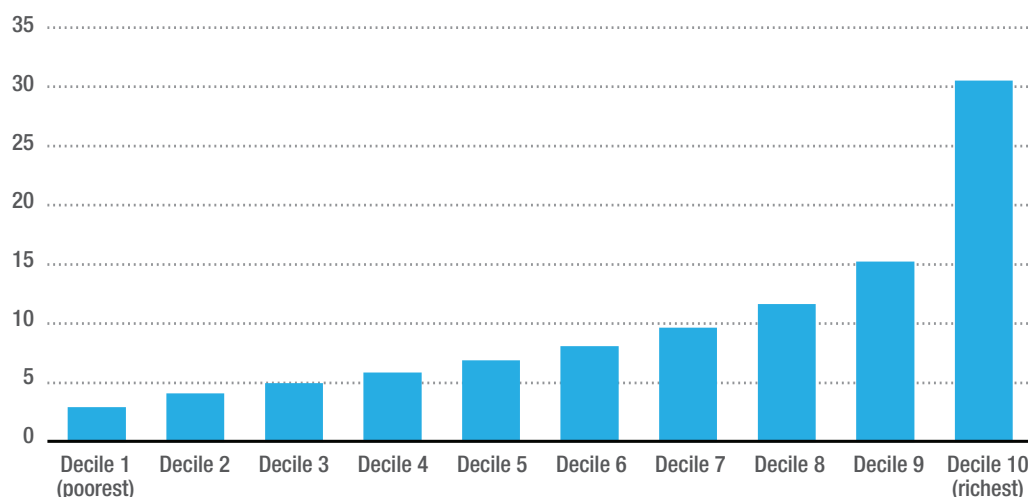


Source: UNCTAD secretariat calculations based on data from the World Bank's Poverty and Inequality Platform.

Note: The figure reflects the fact that, due to changes in household surveys' methodologies, only 2005 and 2011 survey data are fully comparable. The three international poverty lines are defined by the World Banks as follows: \$2.15 (extreme), \$3.65 (lower-middle income) and \$6.85 (upper-middle income) per day, respectively, all measured at 2017 Purchasing power parity.

Figure 22**Senegal: Income share by population decile, 2018**

(Percentage)



Source: UNCTAD secretariat calculations based on data from the World Bank's Poverty and Inequality Platform.

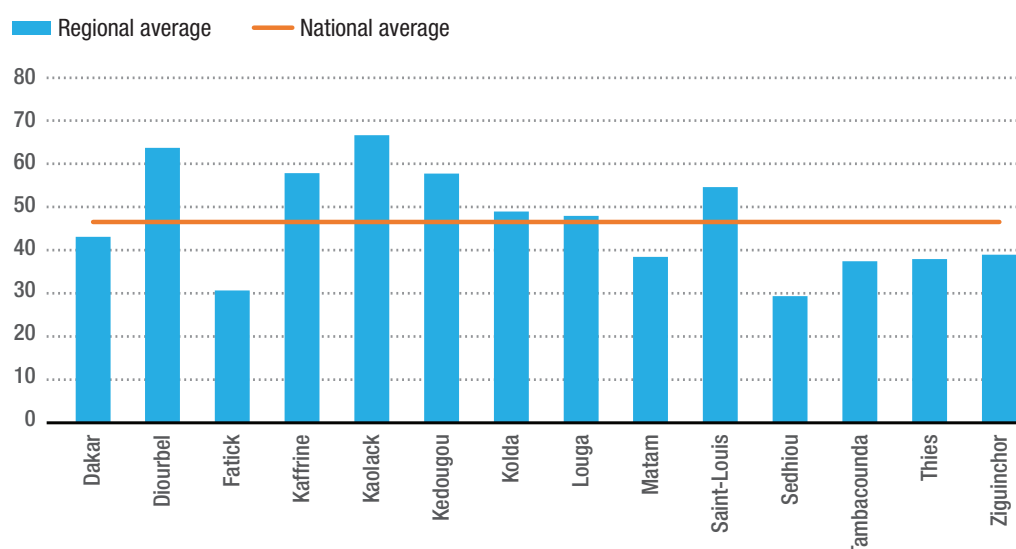
suffered a loss of income, with a relatively similar incidence between rural and urban areas, as well as between women and men (UNWOMEN, et al. 2020; UNICEF, 2021). The shock also affected household consumption patterns, with 68 per cent of households declaring that they had readjusted their usual expenditures to a tighter budget constraint. Examples of coping strategies typically include reducing

the quality of food or the size of meals, postponing or cancelling purchases of clothing and toys, but also resorting to borrowing or taking up additional small jobs.

Face-to-face survey interviews conducted by Afrobarometer between December 2020 and January 2021 with a representative sample of 1,200 Senegalese households confirm that, even though the number

**Figure 23**

Senegal: Per cent share of respondents reporting a loss of income due to COVID-19, by region



Source: UNCTAD secretariat calculations, based on data from round 8 of the Afrobarometer survey.

of COVID-19 cases was relatively circumscribed (thanks partly to the efforts and information campaigns by the government), the socioeconomic impact of the pandemic was much more severe than the public health impact.²³ Nationwide, 46 per cent of respondents declared that they lost some income due to the pandemic, with almost equal percentages in urban and rural areas but large variability across regions. The share of respondents reporting a loss of income due to COVID-19 in the Kaolack and Diourbel regions was nearly twice as high as in the Fatick and Sedhiou regions (figure 23). Moreover, the economic fallout from the pandemic appears to have hit poorer categories disproportionately. Close to 60 per cent of small traders and unskilled workers reported having suffered a decline in income, but this percentage was less than 30 per cent among white-collar workers and 15 per cent among those employed in security (policy, army, private security).

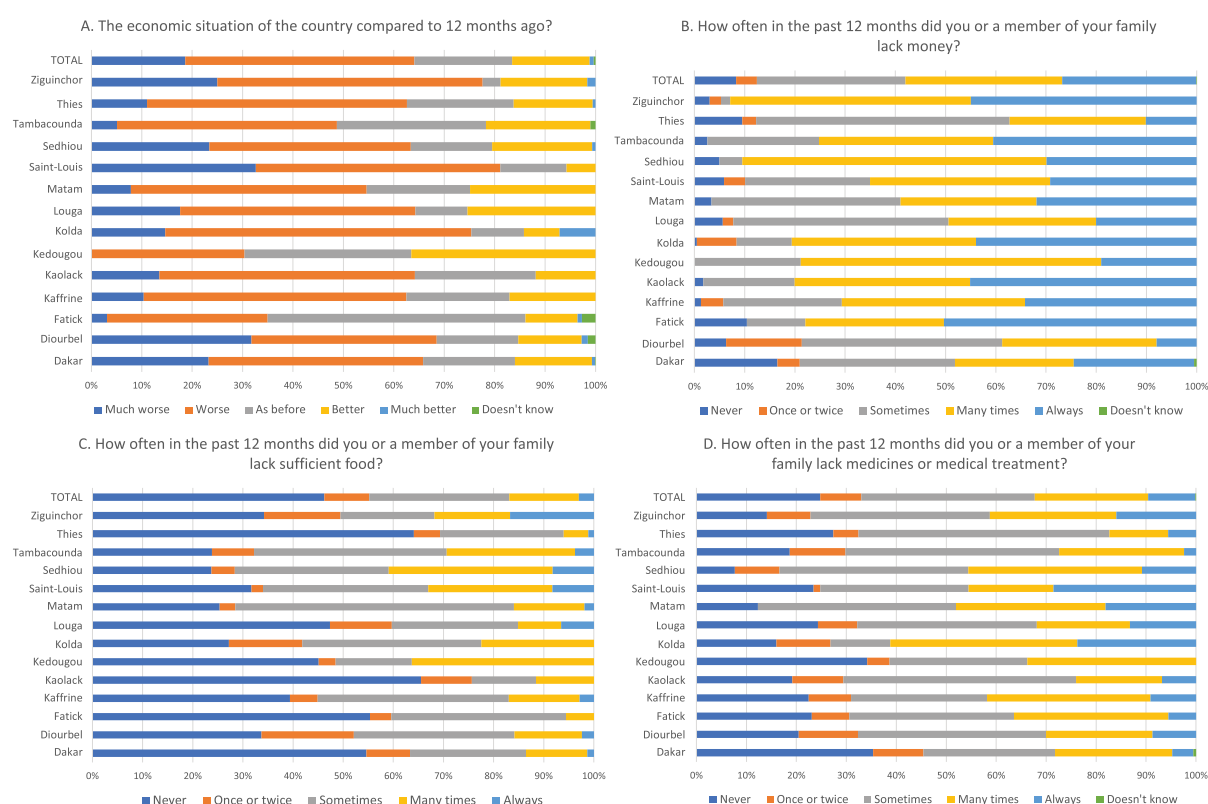
More broadly, nearly half of the respondents reported that the state of the economy was “very bad” (19 per cent) or “bad” (27

per cent), while another 13 per cent replied “neither bad nor good.” Moreover, at the national level roughly two-thirds of the interviewees felt that the economic situation had worsened compared to a year before, with peaks of nearly 80 per cent in Saint Louis and Ziguinchor (figure 24, panel A). Afrobarometer’s micro-level data also show that the economic slowdown triggered by the pandemic was accompanied by a deterioration in material well-being, from monetary poverty to food insecurity and beyond, challenging access to medicines and medical treatment. At the national level, when asked about how often they (or their family members) had experienced lack of money in the last 12 months, 27 per cent of interviewees reported “always,” another 31 per cent replied “many times” and 29 per cent answered “sometimes” (figure 24, panel B). Dakar, Thies and Diourbel were the only regions where the reported incidence of frequent or permanent lack of money (i.e. “many times” and “always”) was below 50 per cent. At the other end of the spectrum, in

²³ The Afrobarometer survey (round 8) uses a clustered, stratified, multi-stage, area probability design to generate a sample that is a representative cross-section of all citizens of voting age. Throughout the discussion, sample weights have been used when computing the incidence of the different replies so as to generate a representative picture.

**Figure 24**

Senegal: Key micro-level data on the impact of the COVID-19 crisis, total and by region, 2022
(Percentage)



Source: UNCTAD secretariat calculations based on round 8 of the Afrobarometer survey.

the regions of Sedhiou and Ziguinchor more than 90 per cent of respondents reported frequent or permanent lack of money.

Survey responses suggest that access to sufficient food and medicines was somewhat less affected than monetary income, but the crisis still took a heavy toll in these dimensions. Nationwide, 3 per cent and 14 per cent of respondents reported lacking access to sufficient food “always” or “many times,” respectively. However, these figures were much higher in the Kedougou, Sedhiou and Ziguinchor regions, where one in three respondents experienced hunger (figure 24, panel C). Moreover, as many as 28 per cent of interviewees nationwide reported experiencing food shortages “sometimes.” At the national level, 9 per cent and 23 per cent of households reported a lack of access to medicines or medical treatment “always” or “many

times,” respectively, with another 35 per cent responding “sometimes” (figure 24 panel D). Again, the survey suggests wide disparities across regions, with more than half of the respondents from Kolda reporting severe lack of access to medicines or medical treatment, while in Thies this share was less than 20 per cent.

Overall, by 2022 the World Bank estimates that the incidence of poverty in Senegal at the \$2.15, \$3.65, and \$6.85 international poverty lines (all measured in 2017 PPP) was 9.1 per cent, 36.9 per cent and 73.3 per cent, respectively. Those levels are basically the same as in 2018. However, these estimates should be taken with caution, since the possibility of lingering economic scarring cannot be discounted, with people sliding from transient poverty to persistent poverty because of the series of temporary shocks.



3.

The 5 Ps and the least developed country criteria: Progress but lingering vulnerabilities

Having outlined the broader transformational context in which graduation from the LDC category will take place, this section more specifically assesses Senegal's performance under the 5 Ps of sustainable development: people, planet, prosperity, peace and partnership. As the guiding principles of sustainable development, the 5 Ps aim is to ensure human well-being, economic development and environmental protection, and to address certain aspects such as peace and the rule of law and governance in the context of a partnership approach to implementing the 2030 Agenda for Sustainable Development (United Nations, 2015a). The discussion of the first 3 Ps — prosperity, people and planet — can be linked to the appraisal of Senegal's performance against the criteria for LDC graduation (and inclusion): per capita income criterion, the Human Assets Index (HAI) and the Economic and Environmental Vulnerability Index (EVI). The two remaining Ps, peace and

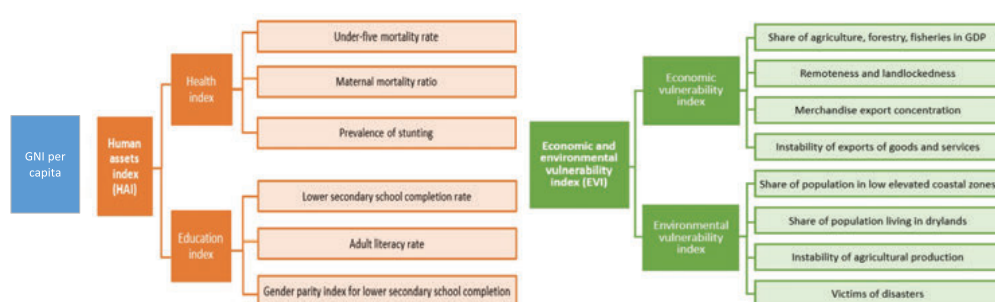
partnership, will instead be approached by looking at a broader set of indicators.

It is worth specifying that a detailed discussion of the mechanics of graduation and of the methodology to compute the criteria is beyond the scope of this report; interested readers can refer to UNCTAD (2016) and CDP and UNDESA (2021).

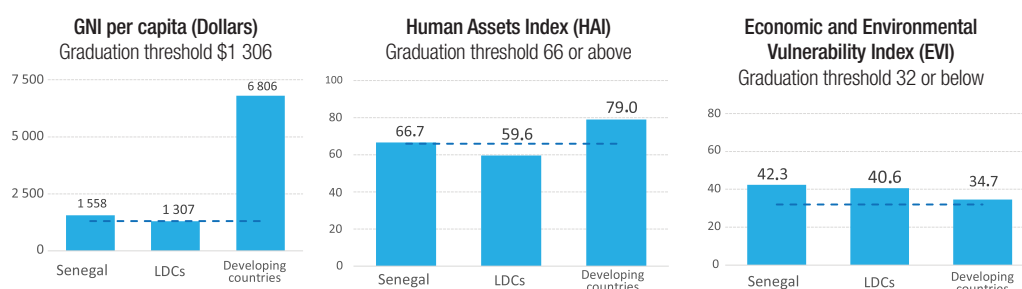
The structure of the LDC criteria currently applicable was defined in the 2024 Triennial Review conducted by the CDP and is summarized in figure 25. According to this definition of the criteria, in 2024 Senegal met the graduation criteria for the second time by exceeding the income threshold for graduation (its per capita GNI being \$1,558 compared to a threshold of \$1,306 or above) and by meeting — albeit narrowly — the HAI threshold, with Senegal's HAI score of 66.7 comparing to a threshold of 66 or above. However, the country's EVI score of 42.3 was considerably above the graduation threshold of 32 or below, which that Senegal has not met this specific criterion (figure 26).

Figure 25

Current structure of the criteria for identification and graduation of least developed countries



Source: UNCTAD secretariat adapted from the UNDESA, LDC Identification Criteria and Indicators, available at <https://www.un.org/development/desa/dpad/least-developed-country-category/lcd-criteria.html> (accessed 26 June 2024).

**Figure 26****Senegal's performance against the graduation criteria as per the 2024 Triennial Review**

Source: : UNCTAD secretariat calculations based on data from tUNDESA, “The LDC Category after the 2024 Triennial Review,” available at <https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/LDC-category-2024.pdf>.

Note: The dashed lines in each panel reflect the corresponding graduation threshold.

3.1 Prosperity

Many of the issues that could be discussed under the rubric of prosperity have been addressed in earlier sections of this document, so the discussion in this section focuses on trends in GNI per capita — which is the specific indicator underlying the first criteria for LDC graduation — complemented by some considerations on access to basic infrastructural services. Even though these latter dimensions are not explicitly considered in the LDC criteria, they nonetheless speak to the inclusiveness of prosperity and to the patterns of multidimensional deprivation that sustainable development is ultimately expected to redress.

Over the last two decades Senegal has made strides in terms of improving the average prosperity of its people, as discussed earlier. By and large, the upward trend that emerged in relation to GDP per capita is replicated in the case of GNI per capita. Between 1970 and 2022, Senegal's GNI per capita increased from \$320 to \$1,640, growing at an average annual rate of 2.36 per cent (compared to a GDP per capita growth rate of 2.7 per cent). In real terms — that is, measuring GNI per capita in constant 2015 dollars instead of using the Atlas method of conversion — the expansion of GNI per capita corresponds to an increase of 0.43 per cent per year.

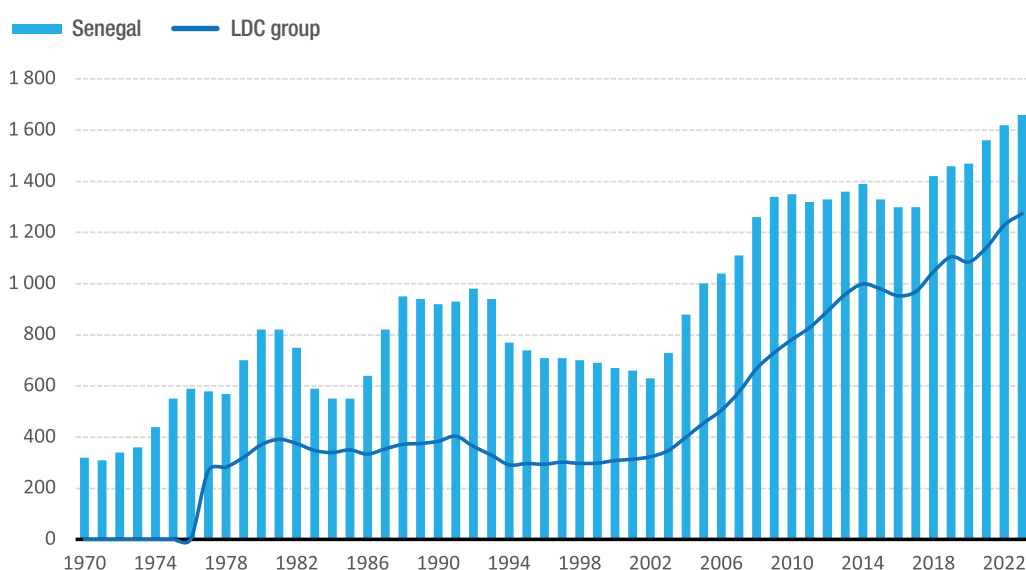
As shown in figure 27, Senegal's long-term trend reflects three distinct phases. In the 1970s and early 1980, Senegal's GNI per capita expanded at a relatively fast pace, but this progress came to an abrupt halt with the debt crises of the early 1980s. From then until 2002 GNI per capita experienced some ups and downs, but by the end of the 20th century it was at around the same level as in the early 1980s (roughly \$600 per person). The inflection point took place with the new millennium, when GNI per capita doubled in less than a decade, later progressing more slowly since the aftermath of the 2008–2009 global financial crisis.

As shown in figure 27, this trend broadly resembles that of GNI per capita for the whole LDC group. Although Senegal's GNI per capita has grown at a slightly slower speed than that of the LDC group, its level consistently remained well above that group, exceeding it by some 35 per cent over the last decade. However, though the rebound from the pandemic was relatively strong, it remains to be seen whether the buoyant prospects underpinned by the boost in fossil fuel production will materialize.

Though monetary income is an important driver of sustainable development outcomes, the earlier evidence of persistent inequality and regional disparities suggests that it is important to go beyond an average assessment of GNI and also investigate potential pockets

**Figure 27****Gross national income per capita (Atlas conversion method), 1970–2022**

(Current dollars)



Source: UNCTAD secretariat calculations based on data from the World Bank's World Development Indicators database.

of multidimensional deprivation.²⁴ In this respect, to complement the assessment based on GNI per capita, it is instructive to look at the share of the population having access to basic infrastructure services.

Figure 28 provides a useful summary in this respect, looking at the share of the population with access to (i) clean fuels and technology for cooking, (ii) electricity, (iii) basic drinking water services, and (iv) at least basic sanitation services. The figure reports average values for 2000, 2010 and 2020, while error bars are used to underscore the differential access in rural and urban areas, with the rural population having more challenging access to the corresponding basic services.

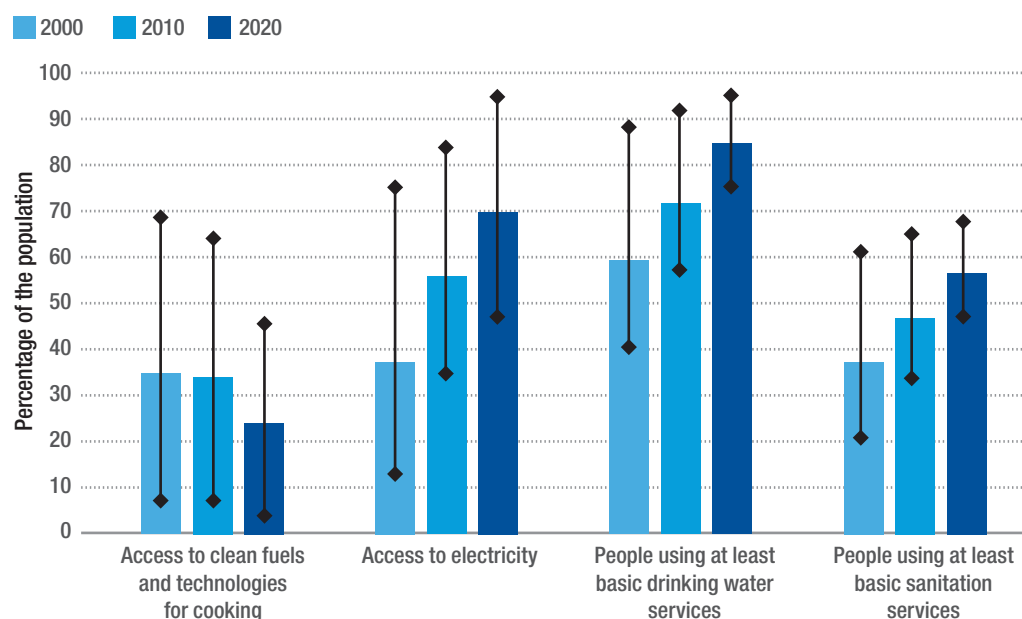
Figure 28 highlights Senegal's significant progress in extending access to basic infrastructure services, with the notable exception of clean fuels and cooking technologies. Access to electricity almost doubled between 2000 and 2020, rising from 38 to 70 per cent of the population.

Access to basic drinking water services improved from 60 to 85 per cent of the population over the same period, while access to basic sanitation services increased from 38 to 57 per cent. However, though progress in providing infrastructure stands out clearly in both urban and rural areas (again, with the exception of clean cooking technologies), figure 28 nonetheless underscores the persistence of rural-urban disparities. Only 47 per cent of rural dwellers, for instance, had access to electricity in 2020, compared to 95 per cent in urban areas. In the same vein, only 75 per cent of the rural population had at least basic drinking water services compared to 95 per cent of the urban population. The corresponding percentages for basic sanitation services were, respectively, 46 per cent and 68 per cent. These figures are broadly in line with those cited in Senegal's Common Country Assessment 2023, and based on the UNICEF-WHO Joint Monitoring Programme 2021 (United Nations, 2023).

²⁴ According to 2019 data, the nationwide population living in multidimensional poverty was estimated at 50.8 per cent, with large spatial variations. The incidence of multidimensional poverty ranged from 18.3 per cent in the region of Dakar to 85.7 per cent in Kafrine (OPHI, 2022).



Figure 28
Senegal: Percentage of the population with access to basic infrastructure services, 2000, 2010 and 2020



Source: UNCTAD secretariat calculations based on data from the World Bank's World Development Indicators database.

Note: Error bars are used to underscore the differential access in rural and urban areas, with the rural population having less access to the corresponding basic services..

The overall message of this assessment underscores Senegal's undeniable progress with regard to prosperity. Figures for 2021 confirm that the country's macroeconomic fundamentals have remained sound despite the lingering effects of the COVID-19 pandemic. However, the delicate global context of 2022 and 2023 stress tested Senegal's macroeconomic resilience and slowed its economic growth. Continued dynamism and renewed efforts to boost infrastructure provision are clearly needed if the country is to address multidimensional deprivations. Sustaining investment in climate-resilient infrastructure is even more urgent to advance the climate adaptation agenda and enhance resilience vis-à-vis the multifaceted impact of climate change.

3.2 People

People are at the centre of the 2030 Agenda for Sustainable Development (as well as of the capabilities approach underpinning the HDI), so it is unsurprising that one of the LDC criteria, the HAI, refers directly to issues such as health and education.

While section 2.3 discussed some of key dimensions of Senegal's socioeconomic situation, this section focuses on the specific social development indicators synthesized in the HAI. In relation to health, these include the prevalence of stunting, the child (under age 5) mortality rate, and the maternal mortality ratio. For education, the indicators include the gross secondary school enrolment ratio, the adult literacy rate, and the Gender Parity Index (GPI) for gross secondary school enrolment.

Again, a word of caution is warranted from the outset in relation to the rest of this section: due to the lack of recent data, the discussion does not reflect the plausible deterioration triggered by the COVID-19 pandemic or the cost-of-living crisis. An additional reason for concern was alluded to earlier: the shocks suffered by vulnerable households in the last couple of years have likely triggered some adverse coping strategies, such as taking children out of school, or reducing food and health expenditures. While these behaviors could be only

temporary, the downside risk is that they may instead have lingering consequences, leading to permanent deterioration of health and education outcomes.

3.2.1 Health outcomes

Senegal has reaffirmed its commitment to making health a priority sector whereby all households benefit from universal access to quality services. Implementation of the 2009–2018 and 2019–2028 National Health Development Plans have supported the country's significant progress, as evidenced by the relatively high score for the health-related index of the HAI, among other indicators. Notable improvements include the significant drop in malaria cases and the continued decline in HIV prevalence in the general population (with a prevalence rate of 0.5 per 1,000 population in 2020); the drop in maternal, infant, infant-juvenile and neonatal mortality; and the improvement of child immunization programmes with the introduction of new vaccines. Added to this is the eradication of the wild poliovirus since 2004 and the absence of measles-related deaths since 2014. Thus, various interventions were implemented to improve maternal and child health, increase universal health coverage, and strengthen community

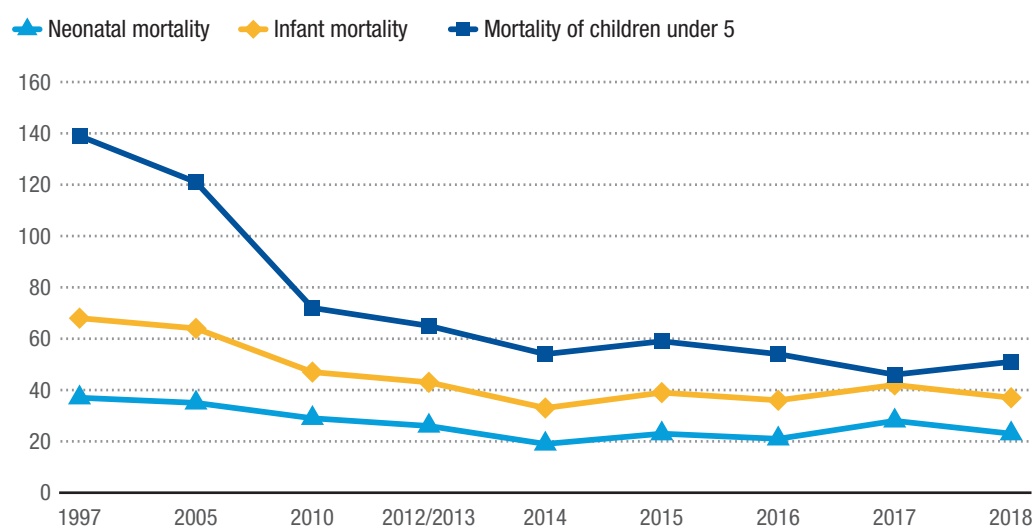
nutrition activities in rural areas and health centres. It is worth mentioning, however, that the COVID-19 pandemic is very likely to have led to a serious deterioration across health outcomes because of the additional pressure it put on the health system and the ability to maintain key services. This potential worsening is not yet captured by available statistics but may well be important. With this premise, the key indicators underpinning the evolution of the HAI further discussed in this section are child mortality, maternal mortality and prevalence of stunting.

Children (under age 5) mortality rate

According to the official data considered for the 2024 Triennial Review, the under 5 mortality rate in Senegal stood at 37 children per 1,000 population in 2020, compared to a median value of 51.9 across LDCs. Over the past decade there has been a significant decline in the mortality of children under 5 in Senegal, from 72 per cent in 2010 to 54 per cent in 2014 and 51 per cent in 2018 (figure 29). Furthermore, infant mortality rates fell by 10 points over the same period, from 47 to 37 per cent (DGPPE, 2019). The same is true for neonatal mortality, but with a less pronounced drop (29 per cent in 2010 to 23 per cent in 2018). The main causes

Figure 29

Senegal: Number of deaths per 1,000 live births over the five-year period prior to the Demographic and Health Survey, 1997–2018



Source: UNCTAD secretariat calculations based on data from DGPPE (2019).

of infant and child mortality are neonatal conditions (e.g. prematurity, asphyxia, septicemia, congenital anomalies), which are responsible for 37 per cent of deaths of children under 5, followed by malaria (14 per cent), pneumonia (12 per cent), diarrhea (8 per cent), injuries (4 per cent), HIV (2 per cent) and all other causes (23 per cent). Malnutrition is associated with a third of deaths of children under 5. The prevalence of acute and chronic malnutrition in 2017 was 9 per cent and 17 per cent, respectively. Anemia has a high prevalence: 71 per cent of children under 5 are affected, including 3 per cent in severe form (DGPPE, 2019).

This general health improvement is due to the progress made in the fight against child malnutrition and in child vaccination rates between 2010 and 2018. The proportion of fully vaccinated children increased from 76 per cent in 2015 to 84 per cent in 2018 (DGPPE, 2019). This result was due to the increase in resources allocated for the purchase of new vaccines, and the promotion of local vaccination campaigns.

Maternal mortality

The maternal mortality rate in Senegal reached 260.9 per 100,000 live births against a median value across LDCs of 284.1, according to the international data considered for the 2024 Triennial Review. Health care services during pregnancy, childbirth and after childbirth are important for the survival and wellbeing of mother and child. To ensure a sustainable improvement of maternal and neonatal health, various strategies have been implemented in accordance with the guidelines of the National Health Development Plan. Figure 30 presents trends in maternal mortality in Senegal between 1997 and 2017, as reported by national sources.

The results show a sharp drop in the maternal mortality rate from 392 deaths per 100,000 live births in 2010 to 315 deaths in 2015 and 236 deaths in 2017.²⁵

One important reason for the trend is that the proportion of births attended by a skilled health provider increased by 23 percentage points within six years, from 51 in 2012 to 74 in 2018. In addition, according to Senegal's Enquête Démographique et de Santé Continue (EDS-C), more than 80 per cent of births take place in a health facility (figure 31). Ultimately, there are two main causes of maternal mortality: (i) direct causes such as hemorrhages, hypertensive diseases, dystocia, sepsis, unsafe abortions and other direct causes; and (ii) indirect causes such as anemia, malaria and HIV/AIDS. Finally, this trend conceals large disparities between urban and rural populations, and across regions.

Changes in maternal mortality ratio in Senegal should be interpreted considering the Synthetic Fertility Index and the prevalence of contraception.²⁶ Senegal's Synthetic Fertility Index score declined from 5.7 children per woman in 1997 to 4.6 children per woman in 2017, while its contraceptive prevalence rate increased from 12 per cent in 2011 to 25.4 per cent in 2018 (Ministère de la Santé, 2018), thanks to the increased number of itinerant midwives, the strengthening of the capacity of health service providers, and the provision of better equipped health structures.

Prevalence of stunting

Stunting is defined as a low height-for-age z-score, typically lower than or equal to two standard deviations of the World Health Organization (WHO) child growth standards median.²⁷ Despite the devastating effects of

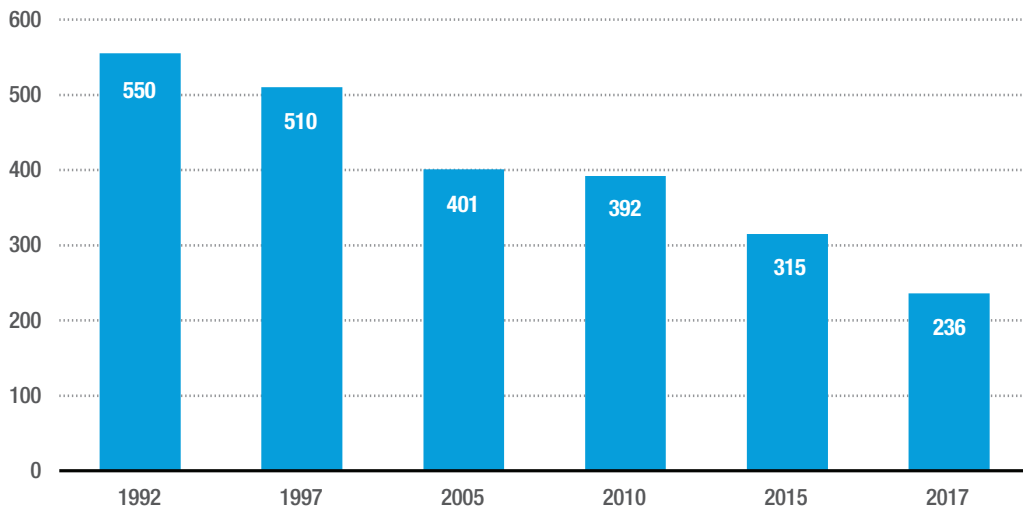
²⁵ Despite the encouraging results, Senegal failed to reach either Millennium Development Goal 5 target of 122 deaths per 100,000 live births in 2015 or its own national target of 200 deaths per 100,000 live births.

²⁶ The Synthetic Fertility Index expresses the number of children a hypothetical mother would have at the end of her fertile life, if during this time her behavior corresponded, at each age, to that captured by the prevailing age-specific fertility rates.

²⁷ The World Health Organization's Nutrition Landscape Information System, available at <https://apps.who.int/nutrition/landscape/help.aspx?menu=0&helpid=391&lang=EN> (accessed 16 September 2022).

Figure 30**Senegal: Maternal mortality rates, 1992–2017**

(Deaths per 100,000 live births)

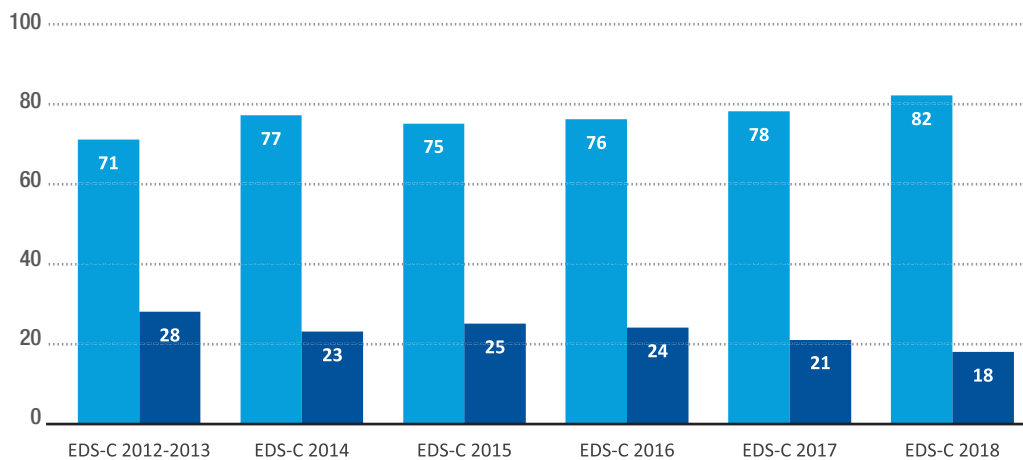


Source: UNCTAD secretariat calculations based on data from the 2018 Demographic and Health Survey.

Figure 31**Senegal: Birth location**

(Percentage)

■ Health facility ■ Home



Source: UNCTAD secretariat calculations based on data from the Agence Nationale de la Statistique et de la Démographie.

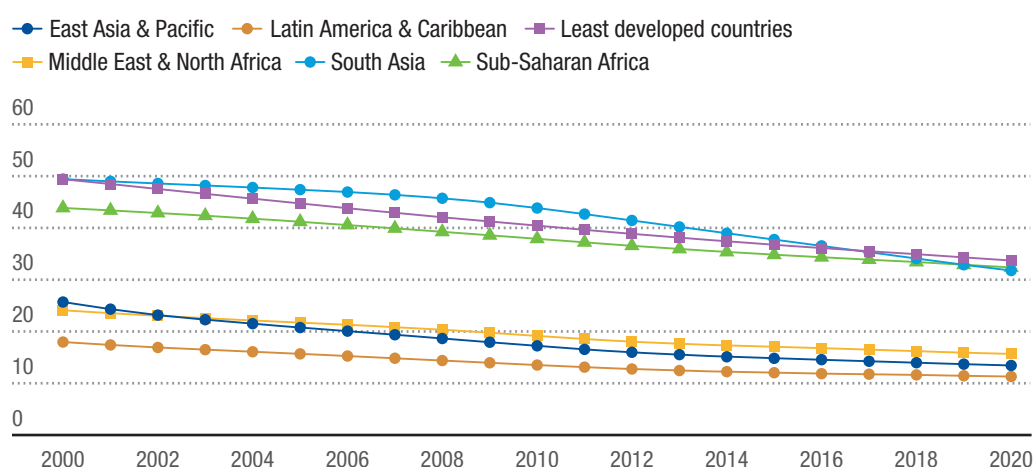
stunting in adulthood, it remains prevalent worldwide and has remained persistently high in sub-Saharan Africa. Globally, positive strides have been made to address stunting, as reflected in the continued decline from 1990 to 2020 across regions shown in figure 32. Sub-Saharan Africa has consistently had the second-highest level of stunting after Asia, but unlike Asia, the rate of decline has been slow. In 2020, globally, 22 per cent of children under 5 (149.2 million children) were stunted, and

32.3 per cent of them (52.2 million children) lived in sub-Saharan Africa. In Western Africa, the prevalence of stunting affected 39.9 per cent of children under 5, equivalent to 20.2 million (UNICEF et al., 2021).

Similarly, the prevalence of stunting in Senegal has been declining and stood at 17.2 in 2020 (figure 33) — equivalent to 449,800 children, or 0.3 per cent of the corresponding global figure. Senegal's 2020 figure reflects a 2.6 percentage point



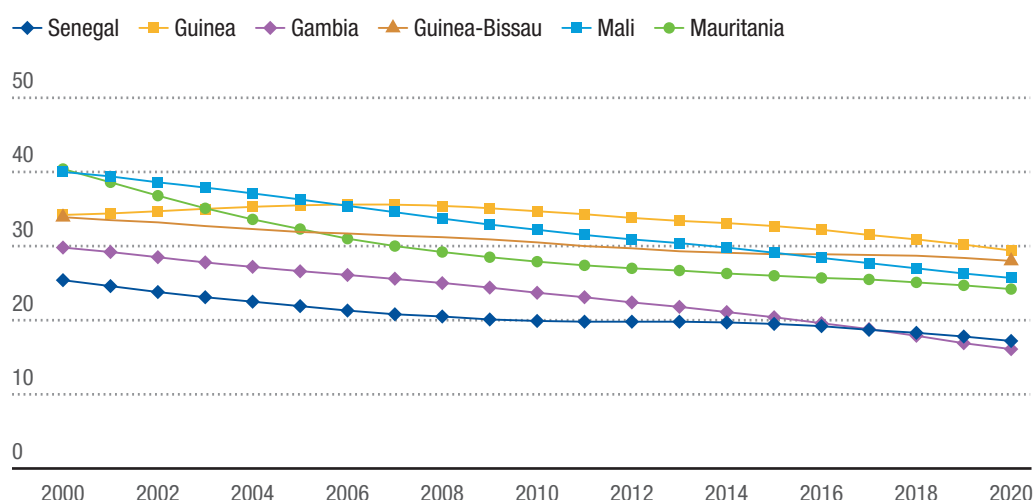
Figure 32
Global and regional trends in the prevalence of stunting, 2000–2020
(Percentage)



Source: UNCTAD secretariat calculations based on data from the World Bank's World Development Indicators database.



Figure 33
Stunting trends in Senegal and neighbouring countries, 2000–2020
(Percentage)



Source: UNCTAD secretariat calculations based on data from World Bank's World Development Indicators database.

decrease in stunting from 2012 (UNICEF et al., 2021). In comparison with neighbouring countries, Senegal's prevalence has been lowest over the years except for 2000, when Gambia had the lowest stunting level. In this regard, the level of stunting in Senegal is categorized as medium, which has a threshold of between the 10 and 20 per cent level. However, the effects of COVID-19 pandemic are likely to reverse the downward trend and exacerbate prevalence. This is likely to compromise the achievement of the SDG target to

reduce the number of stunted children by 40 and 50 per cent by 2025 and 2030, respectively, with the ultimate objective of eliminating childhood malnutrition.

Despite these positive outcomes, the health sector continues to face a problem of coverage in terms of health infrastructure and qualified personnel. In fact, according to the WHO, Senegal is far from meeting the standards established in this area. In addition, coverage indicators show an unequal distribution of the health care



Table 5
Senegal: Gross and net enrolment by gender and education level, 2018/2019

	Primary				Secondary			
	Male	Female	Total	Gender Parity Index	Male	Female	Total	Gender Parity Index
Gross enrolment								
Urban	96.1	107.4	101.7	1.12	63.0	65.1	64.1	1.03
Rural	59.3	66.9	63.1	1.13	29.2	28.6	28.9	0.98
Total	73.8	82.5	78.2	1.12	44.6	45.6	46.5	1.02
Net Enrolment								
Urban	67.4	72.7	70.1	1.08	41.3	45.1	43.4	1.09
Rural	38.7	45.5	42.1	1.18	20.9	22.0	21.4	1.05
Total	50.1	55.9	53.0	1.12	30.2	33.3	31.8	1.10

Source: UNCTAD secretariat calculations based on data from the 2018/2019 Enquête Harmonisée sur le Conditions de Vie des Ménages carried out by the Agence Nationale de la Statistique et de la Démographie.

offered in the country, to the detriment of rural areas. The same applies to the availability and quality of technical platforms. Added to this is the lack of maintenance of infrastructure and equipment to ensure the sustainability of investments. Finally, it is worth stressing that, lacking more up-to-date evidence, it remains to be seen how the health system has responded to the additional pressures triggered by the COVID-19 pandemic, and how it will adjust to future challenges.

3.2.2 Education outcomes

Gross secondary school completion rate and the Gender Parity Index

In Senegal, Law 2004-37 (of 15 December 2004) mandated compulsory schooling for all children ages 6 to 16, which has led to an increase in enrolment. The effect is particularly pronounced in gross enrolment. In 2018/2019, primary school enrolment was estimated at 78.2 per cent nationally, but it varied by socioeconomic factors such as location, gender and well-being (table 5). Enrolment is higher among girls at 82.5

per cent than among boys at 73.8 per cent, an 8.7 percentage point difference. Female enrolment is higher than that for males regardless of location — in both urban and rural areas — leading to a GPI score in favour of girls, at 1.12 in urban areas and 1.13 in rural areas. Overall, however, the urban/rural divide remains substantial, with enrolment in rural areas trailing urban areas by 36.8 percentage points.

As expected, the gross enrolment level is substantially higher than net enrolment.²⁸ As seen in table 5, net enrolment data indicate that a little more than half (53 per cent) of children of primary school age attended this level of education. This rate is considerably higher in urban areas (70.1 per cent) than in rural areas (42.1 per cent). The analysis by sex reveals that the proportion of girls ages 6 to 16 attending primary school (55.9 per cent) is relatively higher than that of boys (50.1 per cent), which implies a gender parity of 1.12 in favour of girls. This situation is observed both in urban areas (72.7 per cent for girls versus 67.4 per cent for boys) and in rural areas (55.9 per cent for girls versus per cent 50.1 for boys).

²⁸ The gross enrolment rate is the ratio between all students enrolled in a given education level, regardless of age, and the population of the age officially corresponding to that education level. Conversely, the net enrolment rate is the ratio between all students in the theoretical age group for a given level of education enrolled in that level, and the total population in that age group.

As for secondary education, a similar pattern in enrolment is observed across the socioeconomic characteristics considered above. The gross enrolment level is twice as high in urban areas (64.1 per cent) than in rural ones (28.9 per cent). The gender difference is minimal, with a GPI score in favour of girls in urban areas (1.03) but in favour of boys in rural areas (0.98). On the other hand, net enrolment in secondary school shows that less than a third (31.8 per cent) of the school-age population attends school at this level. The rate in urban areas (43.4 per cent) is more than double that in rural areas (21.4 per cent). Net enrolment by location also varies according to sex. In fact, the proportions of girls from urban areas (45.1 per cent) and rural areas (22 per cent) enrolled in secondary school are slightly higher than those of boys (41.3 and 20.9 per cent, respectively). The GPI scores are in favor of girls in both rural (1.05) and urban (1.09) areas. Relatively large enrolment rates do not translate, however, into high educational attainment. The completion rate in secondary education (level 1) was only 36.6 per cent in 2019 and 2020.

Despite the increase in public expenditures for education and the improvements in primary and secondary enrolment rates, the quality of the Senegalese education system remains somewhat deficient. Even before the pandemic, for instance, the results of the PASEC 2019 (an assessment of education system quality in francophone sub-Saharan Africa) show that nearly 59 per cent of Senegalese children at the end of primary school were “learning deprived,” i.e. their reading was below the minimum proficiency level as defined by the Global Alliance to Monitor Learning in the context of SDG 4.1.1b (monitoring for reading). Adding in the fact that some children were out of school resulted in 68.7 per cent of children overall being in a situation of “learning poverty” (United Nations, 2023). Moreover, the pandemic has presumably caused an increase in learning poverty and exacerbated inequalities in education. In the same vein, the modernization of

daaras (traditional Quranic schools) and their integration with the formal education system remains unfinished business. Taken together, all of these factors contribute to ample disparities in access to education.

Overall, these results are also rather weak in comparison with other African countries, especially considering that the government of Senegal spends some 5.5 per cent of GDP on education, more than neighbouring countries such as Côte d’Ivoire (3.4 per cent), Niger (3.8 per cent) and Togo (4 per cent). Fundamentally, the poor performance of the Senegalese education system is linked to several factors, including (i) lack of mastery of fundamental skills in reading and mathematics on the part of the students; (ii) poor quality of the teaching and learning environment; and (iii) high rates of repetition and dropping out.

Adult literacy rate

Senegal's low level of human capital is exacerbated by a low literacy rate, which averaged 51.8 per cent in 2018/2019 and has stagnated since the previous survey in 2011. The rate is even lower depending on location, gender or income (table 6). Literacy rates are higher in urban areas (65.1 per cent) than in rural areas (37.3 per cent), and the gender variation is substantial, with a GPI score of 0.76 that is in favour of men. Overall, men have a higher literacy rate (63.1 per cent) than women (43 per cent). This gender disparity is replicated in both urban areas (75 per cent versus 49.6 per cent) and rural areas (57 per cent versus 28.2 per cent). The literacy rate also varies widely across the income distribution. While only a third of persons in the poorest quintile are literate, the rate is higher for those in the top quintile. Gender disparity persists by income, with the GPI in favour of men and exacerbated for lower quintiles. Spatial inequalities are equally visible, with Dakar having the highest literacy rate (72 per cent) and Matam (24 per cent), Louga (32 per cent) and Tambacounda (34 per cent) the regions where illiteracy is most pervasive (United Nations, 2023).

High levels of enrolment and completion, particularly at the primary school level, are key school outcomes considered in identifying improvement in the level of literacy. In Senegal, the structure of the education system, characterized as unsuitable to the needs of its students,

as well as cultural and religious demands, have been blamed for low enrolment rates. Primary schooling completion rates are highly dependent on both grade repetition levels and dropout rates, among other factors. Figure 34 presents statistics on these key school indicators for the

Table 6

Senegal: Literacy rate by gender, location and income, 2018–2019

(Percentage)

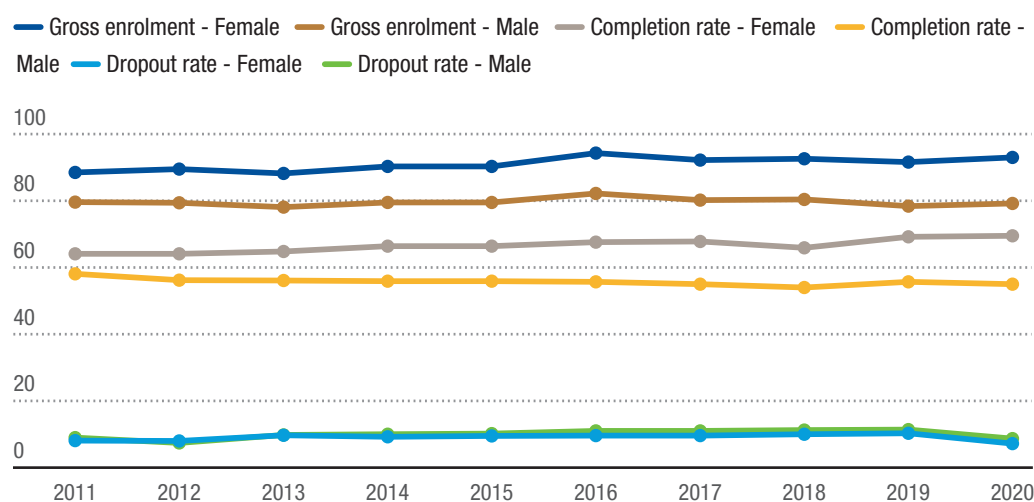
	Male	Female	Total
Location			
Urban	75.0	57.0	65.1
Rural	49.6	28.2	37.3
Income (wealth quantile)			
Poorer	43.4	24.5	32.5
Q2	50.9	31.1	39.7
Q3	61.3	40.7	49.6
Q4	69.7	45.5	56.6
Richest	80.8	64.8	72.0
Total	63.1	40.0	51.8

Source: UNCTAD secretariat calculations based on data from the 2018/2019 Enquête Harmonisée sur le Conditions de Vie des Ménages carried out by the Agence Nationale de la Statistique et de la Démographie.

Figure 34

Senegal: Key primary school indicators: Gross enrolment, completion and dropout rates, 2011–2020

(Percentage)



Source: UNCTAD secretariat calculations based on data from the Direction de La Planification et de La Réforme de l'Éducation.

2011–2020 period. The figure shows that neither enrolment nor completion rates have meaningfully improved over the past decade. This is not surprising given the likely critical role that the low dropout rate plays in primary school completion.

Vocational and technical training is one way to ensure that students who drop out have opportunities to gain skills that would make them productive citizens. Training from vocational and technical colleges, which is also an option for graduates of different levels of schooling, is well suited to meet the needs of the labour market and offer provide opportunities for apprenticeships, which often lead to job placements. Given this potential, Senegal launched the Vocational Training Project for Employment and Competitiveness (Programme de Formation Professionnelle pour l'Emploi et la compétitivité) in 2015. The government has continued to increase funds allocated to vocational training and technical education from less than FCFA 20 billion (approximately \$39.2 million) in 2012 to FCFA 38.4 billion (approximately \$69.1 billion) in 2018 (DGPPE, 2019). By 2018, the rate of enrolment in vocational and technical training was growing at the rate of 21 per cent, reaching 600 per 100,000 population (up from 402 per 100,000 in 2013). Interestingly, the gender dynamic in vocational and technical training is such that women make up 57 per cent of the students, an outcome potentially driven by affirmative action in admission and access to funding (DGPPE, 2019).

3.3 Planet

As was shown in figure 26, among the LDCs examined by the Committee for Development Policy in the 2024 Triennial Review, Senegal did not meet the threshold for LDC graduation under the third LDC criteria, namely the EVI. This was mainly due to Senegal's persistently high environmental

vulnerability. Accordingly, this section discusses indicators related to the EVI.

3.3.1 Economic vulnerability

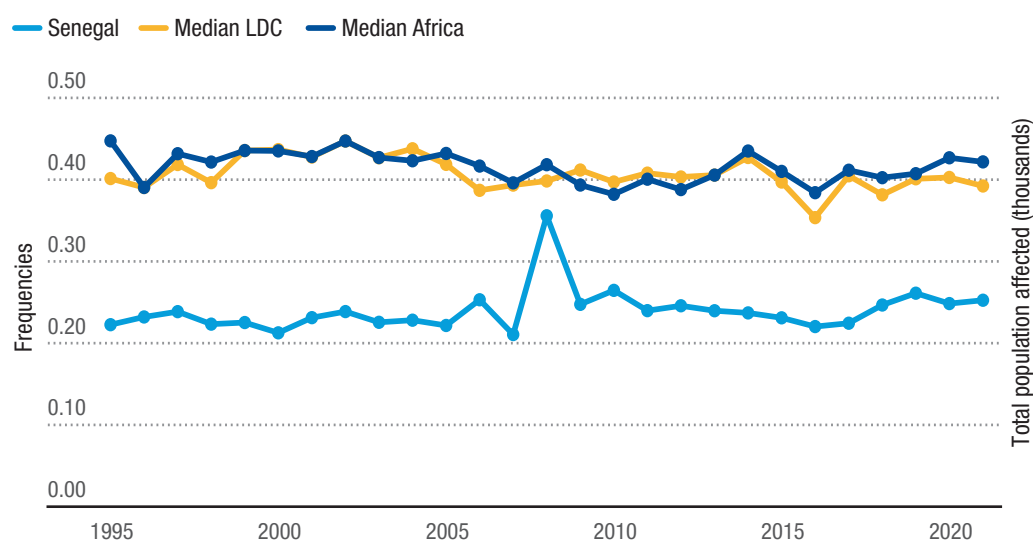
Senegal's economic vulnerability is brought to the fore by the sluggishness of structural change, the significant weight of its primary sector, and the ongoing tertiarization of its economy. The share of agriculture, forestry and fisheries in GDP remained basically unchanged in the two-decade period between 2002 and 2021, declining marginally from 18 per cent in 2002 to 16.6 per cent in 2021. According to official data considered for the 2024 Triennial Review, Senegal's share of agriculture, forestry and fisheries in GDP is 17.8 per cent, compared to 24.3 per cent for the median LDC. This consistent share suggests that there has been a lack of structural change in Senegal, in that the manufacturing and services sectors have not grown fast enough to cause a decline of the share of the primary sector.

Regarding the second indicator of economic vulnerability, remoteness and landlockness, Senegal's Remoteness Index score according to the official data considered for the 2024 Triennial Review is 45.5, compared to an LDC median of 55.1.²⁹ That score is lower than comparable non-landlocked countries such as Côte d'Ivoire (50.0), Ghana (48.9) and Kenya (55.8). Senegal is indeed a coastal nation located in the far west of Africa. It benefits from a strategic geographical location thanks to its proximity to the European and American continents and its borders with five countries on the African continent (Mauritania, Mali, Gambia, Guinea Bissau, Guinea). It also benefits from having one of the largest ports in West Africa, and recently a new modern international airport, which facilitate transit and trade to and from the country. The costs of exporting and importing are therefore considerably lower than in other coastal countries in the region and other LDCs. However, Senegal

²⁹ Remoteness is defined as the trade-weighted average of the distance from world markets, and the corresponding index ranges from 0 to 100.



Figure 35
Export Concentration Index, 1995–2020



Source: UNCTAD secretariat calculations based on data from the UNCTADStat database.

still needs to make significant progress to achieve the average international competitiveness of developing countries in general (Briceño-Garmendia et al., 2011).

Senegal's score on the Export Concentration Index has a 26-year (1995 to 2021) mean value of 0.24.³⁰ This score has remained rather constant during this period, rising from 0.22 in 1995 to 0.36 in 2008, and subsequently decreasing to 0.25 (figure 35). Over the years, Senegal's score on this index has been consistently lower than that of the median LDC and the median African country. This underscores the wide range of products that Senegal exports, and the fact that the country depends on no single product or narrow group of products for its exports, unlike the median LDC or African country.

On the Export Instability Index, the variability of Senegal's exports (5.2) is considerably lower than that of other LDCs (24.5) and other resource-rich comparator countries. The index ranges between

0 and 100 and measures the variability of the value of exports around its trend, calculated over a 20-year period, with higher values denoting greater volatility around the trend. Senegal's composition of exports largely explains its trend on this index because the country's lack of large resource endowment makes its exports less subject to the sharp variations that characterize primary commodity prices.³¹

3.3.2 Environmental vulnerability

Senegal has a Sudano-Sahelian climate characterized by alternating dry (November to May) and rainy (June to October) seasons. Average annual rainfall ranges from 1,200 mm in the south to 300 mm in the north of the country, with wide variations from year to year. As in many other parts of the world, climate change, evidenced by the increase in average air and ocean temperatures and the rise in average sea levels, has become a reality in Senegal. Current trends show a rise in minimum

³⁰ The Export Concentration Index – a Herfindahl-Hirschmann index – is a measure of the degree of product concentration. The index is normalized between 0 and 1, with higher values denoting greater concentration, that is, a large share of the country's exports accounted for by a small number of products.

³¹ The fairly diversified nature of Senegal's exports and the stability of corresponding revenues are unlikely to change dramatically with the forthcoming start of production of fossil fuels, as related reserves are relatively small.

temperature values ranging from 0.58°C in Dakar (to the west) to around 1.88°C in Ziguinchor (in the south) between 1961 and 2010 (Ministère de l'Environnement et du Développement Durable, 2018). By 2035, all climate simulations predict an increase in average temperature ranging from 0.5°C (in the centre-west) to 1.7°C, with the northeast, centre-east and extreme southeast recording the maximum temperatures. Like many other LDCs, Senegal hence finds itself at the forefront of the climate crisis, heavily exposed to the adverse effects of climate change, while having only a negligible responsibility for destabilizing the world's climate system. Indeed, in 2019 Senegal's greenhouse gas emissions were estimated at roughly 0.7 tons of CO₂ per capita, compared to a world average of 4.4 tons and an average of 9.8 tons for high-income countries.

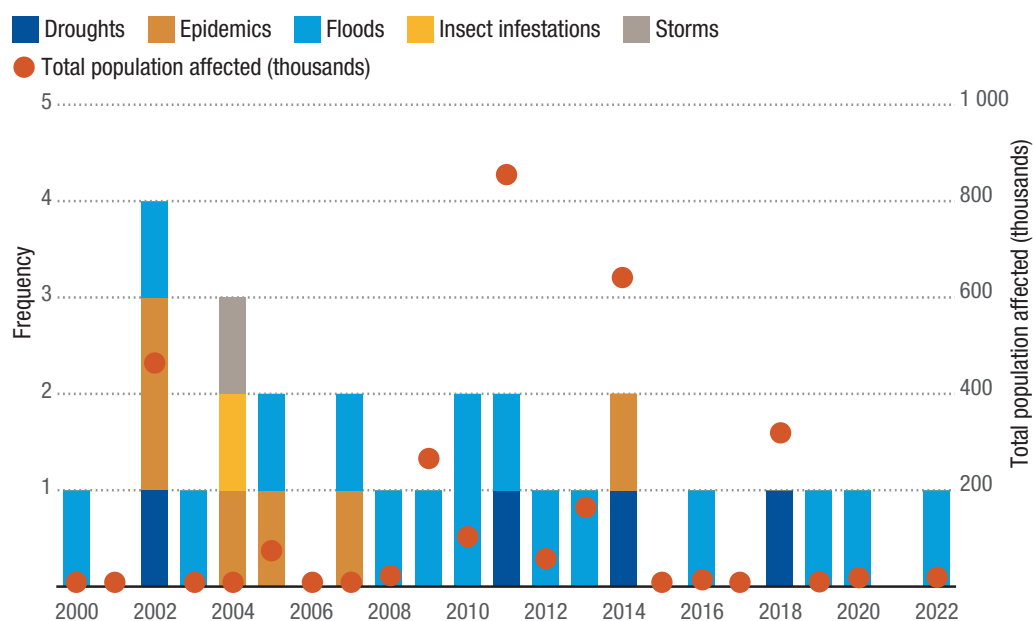
Looking ahead, climate change is expected to have severe, interconnected and often irreversible effects on key ecosystems, with wide-ranging implications for the (often vulnerable) segments of the population that rely on natural resources for their livelihood (UNCTAD, 2022a). For example, it has already altered the range and migration patterns of species of fish, with adverse effects on fisheries, a key sector for the Senegalese economy. The threat of climate change is compounded by the prevalence of overfishing (including illegal unreported and unregulated fishing), all of which is having a particularly detrimental impact on small-scale artisanal fisheries. In the same vein, climate change is expected to exacerbate other environmental challenges such as desertification and land degradation, which affect roughly two-thirds of Senegal's arable land (United Nations, 2023). Again, climate change has been increasing the variability of rainfall, altering the frequency of rainy days and the duration of the rainy season. It is predicted that average rainfall will trend downward on average over most of the country, and especially in the north-

west, while the south-west will experience more extreme rains (IPCC, 2015). Overall, models predict an increased incidence of extreme climatic events such as heat waves, droughts, floods, the rise in sea level, and the resurgence of coastal erosion on the coastal strip. Sea-level changes and increased intensity of storm surges are known to lead to coastal erosion, which poses a major threat to Senegal's population and economy. Sea-level rise is exacerbated by the country's geology (including sediment deficits, natural instability of slopes, and surface runoff), and threatens 74 per cent of households living in coastal areas.³²

Natural hazards are among the major disaster risks facing Senegal. The exceptional Sahelian drought that occurred in the 1970s highlighted the potential impact of long-term climate variability on livelihoods and food security. The last few decades have revealed the great vulnerability of agricultural sectors in Sahelian countries to the consequences of droughts, including reduced yields, inflation of food prices in urban areas, and declining income of the poor in rural areas, thus pushing rural populations to the cities. Since 2000, Senegal has experienced four major droughts, each of which has affected between 284,000 and 850,000 people, as well as other natural hazards that directly and indirectly affected the agricultural sector, such as floods or infestations (figure 36).

The increased frequency of heat waves is another consequence of climate change in the Sahel regions, including Senegal. In the Sahel, heat waves are closely associated with high evapotranspiration, which, combined with a rainfall deficit, is likely to negatively affect water resources. Therefore, sectors dependent on the availability of water resources (agriculture, livestock, fisheries, ecosystems, etc.) will also be strongly affected. Furthermore, from an economic perspective, heat waves affect both human productivity (Heal and

³² World Bank, Knowledge Portal Key Vulnerabilities, Senegal. Available at <https://climateknowledgeportal.worldbank.org/country/senegal/vulnerability> (accessed 7 July 2022).

**Figure 36****Senegal: Frequency of natural hazards and number of people affected, 2000–2022**

Source: UNCTAD secretariat calculations, based on data from the Emergency Events Database (EM-DAT).

Park, 2013) and agricultural productivity (Schlenker and Roberts, 2009).

Flooding, which constitutes a major economic, social, health and environmental constraint, is also predicted to increase in frequency. For many years, floods during the rainy season have been recurrent in the suburbs of Dakar and other large cities. Floods in the country are the result of river overflows (particularly in the Gambia and Senegal rivers due to heavy rains) — a combination of heavy rains and insufficient drainage infrastructure (in Kaolack and Dakar especially) — and storm surges leading to salt-water intrusion into agricultural lands (particularly in the Saloum Delta). Both urban and rural areas have been vulnerable to floods, but most at risk are the areas in and around Dakar, Saint Louis, Matam, Kaolack, Thiès, Diourbel, Kolda, Kaffrine and Tambacounda. Since 1983, Senegal has experienced no less than 21 flood events that affected a total of more than 1.2 million people. The 2009 flood, one of the worst in recent memory, caused damage estimated at \$104 million, mainly in Dakar, with the recovery/rehabilitation costs estimated at \$204 million (Ministère

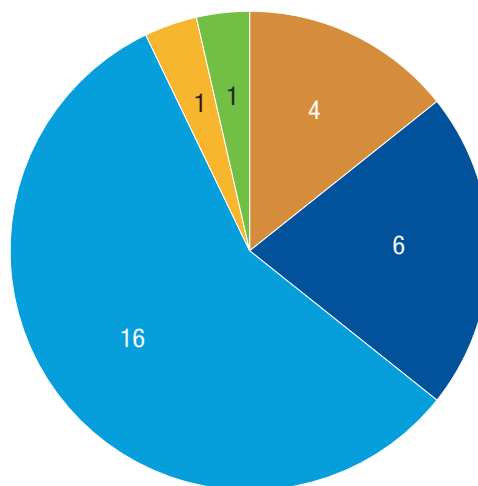
de l'Environnement et du Développement Durable, 2018). In 2012, floods affected 287,384 people, caused 26 deaths and destroyed 6,524 houses and damaged another 4,884 (Ministère de l'Environnement et du Développement Durable, 2018). That disaster marked a turning point in Senegal's sustainable flood risk management policy, prompting the government to adopt the Ten-Year Flood Risk Management Programme (Programme décennal de Gestion des Inondations) with a budget of more than FCFA 700 billion (approximately \$1.4 billion). In addition to the losses and damage caused, floods have health implications. In general, the vulnerability of health to climatic hazards is greater in poor communities.

Economic and Environmental Vulnerability Index

In the framework of LDC graduation, the EVI combines four key risk factors. The first pertains to the high share of the population living in areas of low elevation. These populations are susceptible to rising sea levels that erode coastlines and submerge low-lying land masses. In 2020, as much as 7 per cent of the

**Figure 37****Senegal: Number of natural hazard events, by type, 2000–2023**

■ Droughts
 ■ Epidemics
 ■ Floods
 ■ Insect infestations
 ■ Storms



Source: UNCTAD secretariat calculations based on data from the Emergency Events Database (EM-DAT).

Senegalese population (corresponding to over 1.4 million people) was living in low-elevation coastal areas, compared with 6 per cent in LDCs overall. The proportion of people residing in low-lying zones in Senegal has remained stable since 2002.

The second environmental vulnerability relates to the share of the population living in drylands. These populations have limited opportunity to earn a livelihood and are particularly vulnerable to droughts that exacerbate an already precarious situation. In Senegal, roughly 91 per cent of the population lives in drylands, compared with only 33 per cent on average in LDCs.

According to data from the Emergency Events Database (EM-DAT), Senegal was affected by 28 disasters from 2000 to 2022. Floods have been the most frequent disasters (16 events), followed by epidemics (6) and droughts (4) (figure 37). While floods occur more frequently than droughts, the latter have more severe and long-lasting consequences and tend to affect many more people per event (UNCTAD, 2022a). Droughts in Senegal are concentrated mostly in the arid and semi-arid Sahelian regions in the northern and centre portions of the country. Between 1977 and 2002, six major drought events affected the country.

The long-term trend in the number of victims of disasters suggests progressively increasing vulnerability, which is expected to worsen because climate change is likely to increase the frequency and intensity of natural disasters (UNCTAD, 2022a).

The final indicator considered in computing the EVI is the instability of agricultural production. Agricultural production in Senegal is rainfall-dependent and therefore highly vulnerable to weather conditions and, in particular, to droughts and rainfall levels, which can vary considerably from year to year. Risks to agricultural production can seriously slow economic growth and increase the level of poverty in rural areas, since agriculture accounts for a significant share of GDP.

Senegal has had a much greater instability score (64.9 out of 100) than the LDC average (26.9). This reflects the unusually high volatility of Senegal's agricultural production — one of the highest levels of volatility in sub-Saharan Africa (Hathie et al., 2017). In fact, production and food supply are erratic in Senegal due to dependence on rain-fed agriculture, unfavourable climatic conditions, and little availability of water, with less than 4 per cent of arable land equipped for irrigation. Added to lack

of storage infrastructure and transport problems, these factors constitute binding constraints to the stability of the food supply.

Senegal also falls far below the sub-Saharan African average for both cereal yields and agricultural value added per worker (Hathie et al., 2017). The average cereal yield in Senegal (1,157 kg/ha) is lower than the sub-Saharan Africa average (1,355 kg/ha) and less than half of the developing country average (2,432 kg/ha). Similarly, in terms of agricultural value added per worker, Senegal is 10th within West Africa and 22nd in sub-Saharan Africa. Therefore, any adverse shocks are likely to cause production to plummet.

The effects induced by the main climatic trends in Senegal in recent decades rarely manifest themselves in isolation. The impact on a given sector can also be felt in other sectors. Thus, the decline in rainfall and the increase in temperature have generally led to a deficit in the availability of water resources and have negatively affected the productive sectors as well as the ecosystem. Agriculture, livestock and fishing — key sectors of the national economy whose exploitation is essentially based on the use of ecosystem services — are particularly vulnerable.

3.4 Peace

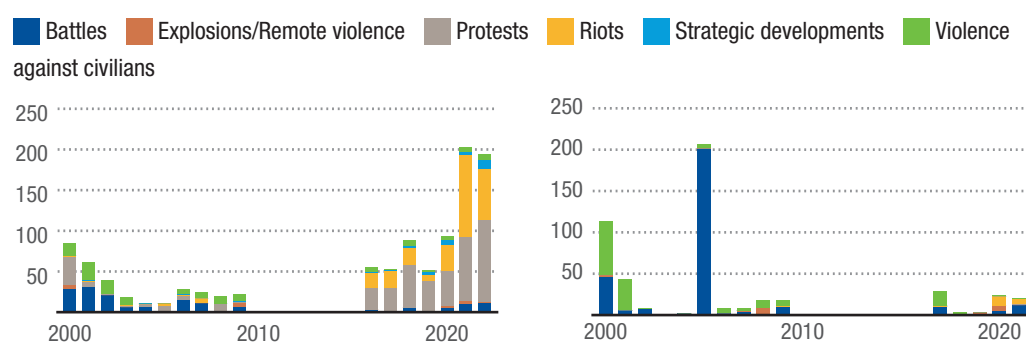
Sustainable economic and social development is only possible in an

environment of peace, stability and security. Senegal is a diverse country and a multi-ethnic society composed predominantly of Wolof, representing 37 per cent of the population, Pular (26 per cent), and Serer (17 per cent). In a region characterized by political instability, Senegal has remained relatively stable since independence, with steady formal institutions and peaceful democratic transitions. Since independence, the country has experienced neither military coup d'états nor ethnic conflicts. Despite being a relatively stable democracy, however, Senegal is not immune from occasional periods of social and political instability, as shown by the long-standing rebellion of the Mouvement des forces démocratiques de Casamance (MFDC) and riots during election years

Figure 38 reports the number of critical events and related fatalities in Senegal during the 2000–2022 period, distinguishing by type of incident. The data reveal that the number of critical events has been on the rise in the last few years, notably in relation to protests and riots. As in other parts of the world, this suggests that the COVID-19 pandemic and the cost-of-living crisis have exacerbated social tensions. On the other hand, the data suggest that the number of casualties has remained relatively low (13 per year, on average, since 2019).

Like other countries of the Sahel and West Africa, Senegal is exposed to the threat of terrorism. Islamist terrorist groups continue to pose a threat of destabilization. The

Figure 38
Senegal: Number of critical events and related number of fatalities per year, by type of incident, 2000–2022



Source: UNCTAD secretariat calculations based on data from the Armed Conflict Location and Event Data.

attacks perpetrated in Mali, Mauritania and Burkina Faso over the last decade have notably intensified geopolitical risks in the entire Sahel region and in Senegal in particular, with 2019 the deadliest year for the region according to the United Nations Office for West Africa and the Sahel. These activities can jeopardize the trust of populations and investors and undermine public policies. To deal with this risk, it is necessary to strengthen defense and security forces by investing in equipment and human resources, improve intelligence systems, and strengthen military and security cooperation among the countries of the subregion and those engaged in the fight against terrorism.

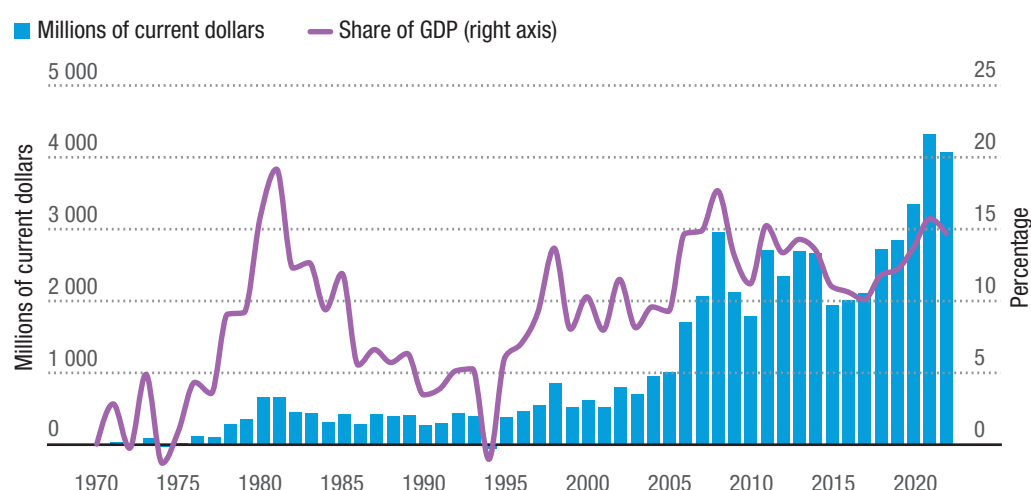
3.5 Partnership

Although the Monterrey Consensus stated that “each country has primary responsibility for its own economic and social development” (United Nations, 2015b: 9), the global partnership for sustainable development is essential to Agenda 2030 and as such is enshrined in SDG 17. The global partnership

and international cooperation. Whatever the sphere of action, the global partnership for sustainable development is especially critical for LDCs, given their specificities and heightened development needs. Having already addressed trade and investment issues in other parts of this vulnerability profile, this section focuses on external financing and international cooperation.

Like most LDCs, Senegal has traditionally relied on foreign savings to finance its capital accumulation process. The resource gap, which is defined as the difference between domestic savings and gross fixed capital formation, climbed from less than \$1 billion per year in the early 2000s to \$2.5 billion prior to the COVID-19 pandemic, then surpassed \$4 billion in the two years after the pandemic (figure 39). Relative to GDP, the resource gap hovered around 12 per cent of GDP between 2000 and 2017, then rose steadily between 2017 and 2021 and stood at 15 per cent of GDP in 2022. While the existence of a wide resource gap is common across LDCs, ultimately reflecting weakness in productive capacity, its structural nature represents a source of vulnerability, particularly in a

Figure 39
Senegal's resource gap, 1970–2022



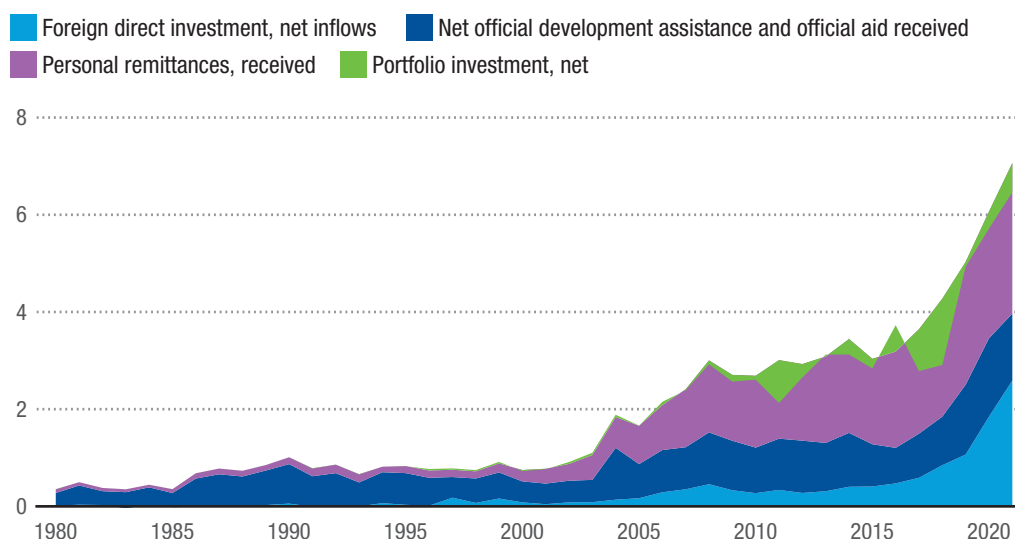
Source: UNCTAD secretariat calculations based on data from the UNCTADstat database.

pertains to many interrelated domains, ranging from international trade and investment flows to technology transfer

complex global economic context, and calls for strengthening efforts to enhance domestic resource mobilization.

**Figure 40****Senegal: Main inflows of external finance, by type, 1980–2021**

(Billions of current dollars)



Source: UNCTAD secretariat calculations based on the World Bank's World Development Indicators database.

The particular circumstance of Senegal involves the composition of its external financial inflows that contribute to closing the resource gap (figure 40). There has been a remarkable increase in remittances, especially since 2014, which have consistently represented the largest component of these flows.³³ In 2021, remittance inflows totaled \$3.1 billion (11 per cent of GDP), most of which was channeled towards consumption, and to a lesser extent building human capital.

Official development assistance (ODA) has traditionally represented the second-largest source of external finance, pointing to the importance of aid flows and international cooperation for Senegal. Since 2015, however, the weight of foreign direct investment (FDI) has also increased, to the point that in 2021 it represented the second-largest source of external finance, at \$2.5 billion, or 9 per cent of GDP, and over 25 per cent of gross fixed capital formation. This compares to \$1.5 billion of ODA flows. Portfolio

investments, conversely, have played a subdued role, with highly volatile flows.

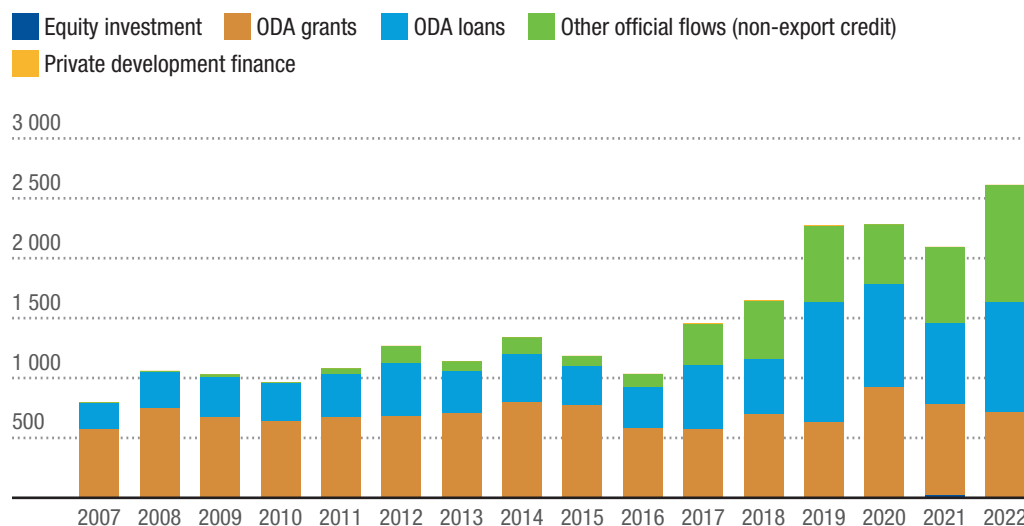
The rising prominence of FDI is a welcome sign of investor confidence, but it should not trigger a complacent approach that relies on natural resources and extractive sectors. Rather, investment promotion should target market-seeking and efficiency-seeking FDI, as the forthcoming implementation of the AfCFTA could open new opportunities for regional value addition. In this context, Senegal, like a growing number of developing countries, is establishing several special economic zones (SEZs) as a key measure to mobilize FDI.³⁴ However, while SEZs are becoming increasingly popular, their success is not guaranteed, and much of their development impact depends on the emergence of productive linkages and knowledge spillovers to the broader domestic economy (Oqubay and Lin, 2020; UNCTAD, 2021c). This calls for strong consistency between the value proposition of SEZs and the country's transformation and trade policy

³³ Migration-related issues are critical for Senegal not only because of the relative size of its remittance flows and diaspora community, but also because of the complexity caused by the fact that Senegal is simultaneously a country of origin, transit and destination of migrants.

³⁴ For instance, Bangladesh (one of the LDCs currently in the process of graduation) is implementing its 2015 plan to set up 100 SEZs by 2030.

**Figure 41**
Trends in overseas development assistance, other official flows and private development finance to Senegal, 2007–2022

(Millions of dollars)



Source: UNCTAD secretariat calculations based on the World Bank's World Development Indicators database.

strategy, as well as a cogent analysis of the expected costs (investments and forgone public revenues) and benefits (employment creation, export revenues, knowledge and productivity spillovers). Equally important, success of SEZs will hinge upon effective implementation and strong performance, which in turn require the capacity to provide key services to investors, ensure the availability of the required human resources and close coordination among stakeholders, and monitor impact, including in terms of environmental sustainability and climate-change resilience (Oqubay and Lin, 2020).

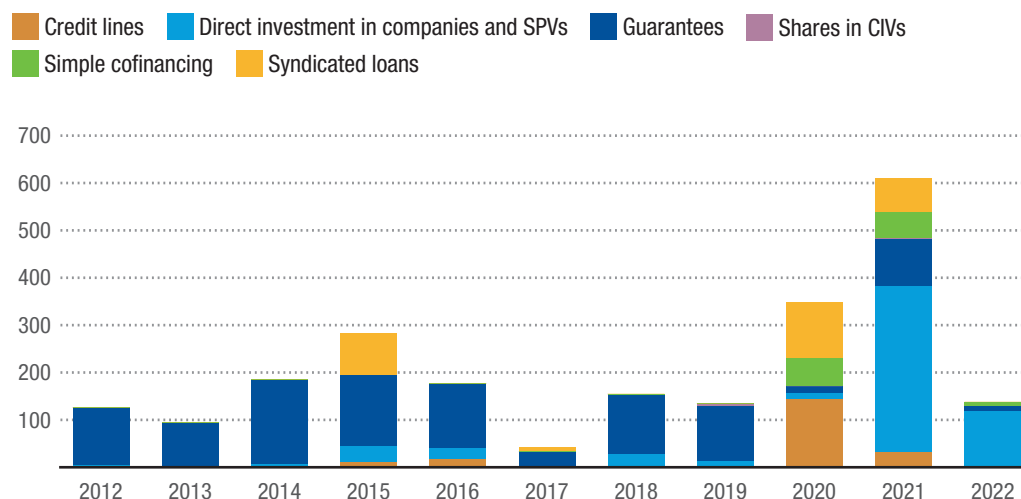
Moving to ODA and other official flows, data from the Organization for Economic Cooperation and Development (OECD) confirm that related flows to Senegal increased by 2.7 times in real terms between 2010 and 2022, with a significant acceleration in the second half of the period, the COVID-19 shock notwithstanding (figure 41). Since 2019, more than \$2 billion per year has been disbursed to Senegal, summing together ODA and other official flows. However, the increase in cooperation flows can be mainly traced to the expansion of ODA loans and other official flows, underpinning a gradual decline

in the degree of concessionality. Meanwhile, equity investment (which also corresponds to ODA) and private development finance (i.e. philanthropy) play a marginal role. As documented in UNCTAD (2019), the growing weight of ODA loans and to a lesser extent other official flows is a relatively long-term trend that was common across most LDCs well before COVID-19. Yet, concerns about declining concessionality take on increased importance at present as monetary tightening in key financial centers raises international interest rates and puts pressure on exchange rates.

An interesting development is the growing attention of development partners to mobilizing resources for development from the private sector through instruments such as syndicated loans, cofinancing, collective investment vehicles, guarantees, direct investments and credit lines. As argued elsewhere (UNCTAD, 2019, 2020a), for reasons related to the scale of investment, risk perceptions, the complexity of related instruments, and weakness of the domestic private and financial sectors, the mobilization of private finance has to date played a marginal (though growing) role in most LDCs. OECD data reveal

**Figure 42****Senegal: Amounts mobilized from the private sector for development, by leveraging mechanism, 2012–2022**

(Millions of dollars)



Source: UNCTAD secretariat calculations based on data from the OECD's Creditor Reporting System.

Note: CIV: collective investment vehicles; SPV: special-purpose vehicles.

that in Senegal, mobilization of private investment for development has averaged some \$209 million per year (figure 42) in the period 2012–2022, a far lower amount than traditional ODA. Most of the mobilization took place through de-risking and the provision of guarantees, although in 2020 there was a remarkable shift towards lines of credit and syndicated loans. Moreover, blended finance almost exclusively targeted productive sectors and infrastructure (mainly energy and transport), while the water and sanitation, health and education sectors remained largely underfinanced, confirming the lower appeal of these sectors to private investors.

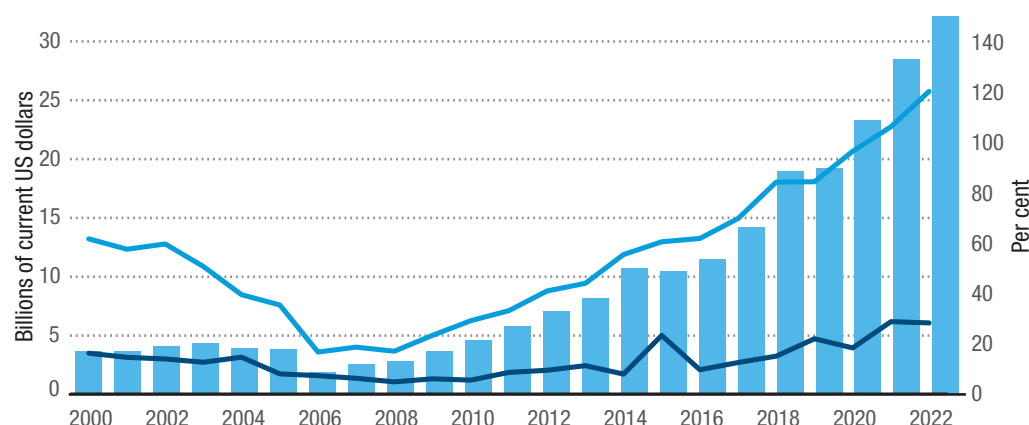
Concerns about the scale of financial assistance and related modalities apply similarly to the sphere of climate finance, as seen in the context of the Just Energy Transition Partnership (JETP) that Senegal is currently negotiating with the Group of Seven (G7). With the expected start of production of oil and natural gas in Senegal in 2024, the JETP is regarded as a key initiative to accelerate the country's transition to renewable energy sources and a low-carbon economy. Yet, significant investments are needed to combine accelerated progress towards universal

energy access, enhanced energy security, and lower carbon intensity of the energy sector. Moreover, expectations are also high in terms of macroeconomic improvements and budgetary outcomes resulting from the exploitation of fossil fuel reserves. In this context, it will be critical to ensure that the JETP is aligned with national and sectoral strategies, and that it is genuinely country-owned. It is also important that it provide an adequate and sufficiently generous financing framework to jointly address development needs, environmental ambitions and debt sustainability concerns.

The above discussion on external finance essentially points to the role of debt-creating financial instruments as a means to finance capital accumulation in Senegal, especially in more recent years. As of September 2024, Senegal continued to be classified as being at moderate risk of debt distress under the Debt Sustainability Analysis conducted by the International Monetary Fund (IMF) and World Bank, but long-term evidence confirms the country's rising level of external indebtedness (figure 43). After the debt relief of 2006 under the Highly Indebted Poor Countries Initiative and the Multilateral Debt Relief Initiative, Senegal's debt stock predictably started to trend upward, with

**Figure 43****Key indicators of Senegal's external indebtedness, 2000–2022**

- Total external debt stocks (billions of current dollars)
- External debt stocks (per cent of GNI)
- Total debt service (per cent of exports of goods, services and primary income)

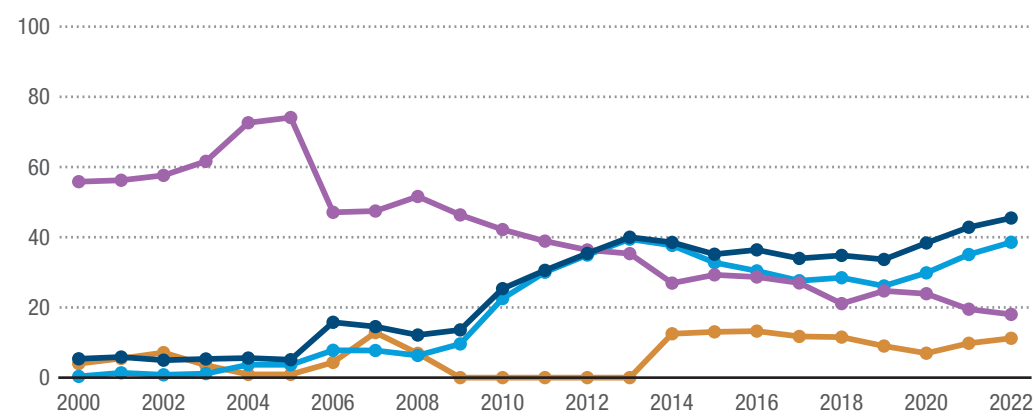


Source: UNCTAD secretariat calculations based on data from the IMF's International Debt Statistics.

**Figure 44****Senegal: Selected components of the external debt stock as a proportion of the total, 2000–2022**

(Percentage)

- Long-term private external debt
- Short-term external debt
- External debt with variable rate
- External concessional debt



Source: UNCTAD secretariat calculations based on data from the IMF's International Debt Statistics.

a visible acceleration since 2016 — both in absolute value and as a share of GNI — as debt instruments were used to mainly finance infrastructural investments. In 2020, the situation was further exacerbated by the COVID-19 pandemic. As a result, the debt stock reached 120 per cent of GNI in 2022 while external debt service remained at 28 per cent of exports of goods, services and primary income.

While these trends are not intrinsically worrying, especially in light of the country's macroeconomic fundamentals, they do warrant some caution, especially given the current global situation and the rise in international interest rates. Over time, the composition of Senegal's external debt has shifted towards more costly and riskier instruments (figure 44). The weight of concessional debt, for instance,

has declined substantially and currently represents not more than 18 per cent of the total, while the proportion of debt with a variable rate has moved in the opposite direction, reaching an estimated 45 per cent in 2022. Finally, short-term external debt only accounts for some 11 per cent of the total. Especially between 2009 and 2013, the rise in external indebtedness has been largely driven by private non-guaranteed debt. Public and publicly guaranteed debt today accounts for about 45 per cent of the total external debt stock (down from 85 per cent in 2006), even though the related debt stock doubled in absolute terms between 2016 and 2021. From the point of view of exchange risk, it is also worth noting that exposure to dollar-denominated debt has increased over time, with related instruments today accounting for half of the public and publicly guaranteed debt stock.

National data confirm that public indebtedness has increased hand-in-hand with the external debt: in 2022, public debt is estimated to have reached 66 per cent of GDP, up from 42 per cent in 2014. According to the Ministry of Finance, some 42 per cent of public debt is financed through concessional instruments, 27 per cent by Eurobonds, 13 per cent by domestic Treasury bonds (mainly at a fixed rate), 9

per cent by semi-concessional instruments, and the remaining 8 per cent by commercial debt (CNDP, 2020). Against this backdrop, Senegal's medium-term debt management strategy aims to strengthen the country's recourse to the domestic bond market, while stabilizing its exposure to external debt. This appears to be reasonable, considering the worsening international conditions, as well as the need to gradually strengthen the domestic financial market.

The composition of external and domestic financing sources has some bearing on the scope to mobilize resources for development purposes, as well as on related macroeconomic risks and expected volatility over time. If mobilizing remittances and other private domestic resources for long-term investment purposes remains a priority, it will be equally important — especially in the context of LDC graduation — to engage development partners to ensure that important levers of international cooperation and development financing will not be abruptly discontinued. It will also be fundamental to retain genuine ownership of the country's development strategies, channeling domestic and foreign private sector participation to strategic sectors that can deliver on the promise of sustainable development.



4.

Towards a policy agenda for graduation with momentum

As Senegalese authorities implement the SND 2025–2029, which is the five-year segment of the ANS, the country finds itself at a critical juncture. Having weathered the series of exogenous shocks of the last few years relatively well — from the COVID-19 pandemic to the cost-of-living crisis — the country now must re-embark on a path of sustained and inclusive growth. This will be critical to attenuate (and ultimately reabsorb) the lingering social costs of the crises, but it will also be fundamental to ensure sustainability of the type of socioeconomic dynamism that preceded the pandemic. The start of fossil fuel production bodes well for a sustained rebound. However, meeting the ambitious targets of the ANS calls for sustainable exploitation of natural resources under a strategy capable of fostering domestic value addition and economic diversification, instead of exacerbating commodity dependence and locking in carbon-intensive technologies for short-lived gains.

At the international level, the broader global environment is itself evolving rapidly, and this will inevitably affect how much flexibility Senegal's policymakers will have in pursuing their development strategy. Recent events have led to sharp changes in international markets, notably in terms of higher and more volatile commodity prices, as well as higher international interest rates. Amid heightened geopolitical tensions and more visible effects of climate change, the ongoing international discourse is also bringing renewed attention to the reliability of global value chains, the importance of energy security, and the need for climate change adaptation and mitigation.

Further changes to the international environment will depend directly on

Senegal's own progress towards graduating from the LDC category and adapting to the gradual loss of access to LDC-specific ISMs that will ensue. In 2024, Senegal met the LDC graduation criteria for the second time, exceeding the graduation threshold under the income and HAI criteria (albeit in the latter case by a narrow margin), but still far from meeting the graduation threshold under the EVI. The CDP's Triennial Review recommended the country for graduation with a transition period of five years. In this context, achieving a sustained and broad-based economic rebound will be critical to maintain the encouraging progress towards LDC graduation.

Regardless of Senegal's specific graduation timeline, this vulnerability profile and the related discussions present a valuable opportunity to effectively mainstream LDC graduation issues into the medium-term national planning process, starting with the SND 2025–2029. Importantly, this will entail using the available ISMs as efficiently and as long as possible, while at the same time adequately preparing for their progressive phase-out. This requires anticipating the likely evolution of key external conditions, undertaking the awareness-raising needed, and engaging partners to ensure a smooth transition. The experiences of other graduating and graduated LDCs can be extremely useful in this regard (box 5), providing the inspiration to design a roadmap for graduation with momentum and more effectively engage development partners.

Importantly, the ANS already provides a strategic and comprehensive policy framework with which the agenda for graduation with momentum can be aligned. Similarly, the ANS also provides a conducive

**Box 5****Selected experiences of graduated least developed countries**

The nature of the challenges and policy options related to least developed country (LDC) graduation depends on each country's structural characteristics. However, the experiences of other graduating and graduated LDCs can provide instructive insight to help design a roadmap for graduation with momentum (UNCTAD, 2016). This box outlines selected policy initiatives by graduated LDCs that could be relevant to Senegal.

Sectoral policies: Fisheries in the Maldives

Fisheries have traditionally played a fundamental role for the Maldives, representing over 90 per cent of merchandise exports and predominantly consisting of tuna. Over time, the tuna industry has evolved from small-scale fisheries into a commercial enterprise employing modern technology in terms of boats and gear, as well as contemporary approaches to trading in the global marketplace for tuna products (Jaleel and Smith, 2022). As the Maldives approached LDC graduation, which took place in 2011, it needed to strengthen the fisheries sector, not least in view of the expected erosion preferences the country faced. In this context, the government decided to focus its sectoral strategy on sustainability, thereby creating synergies with other blue economy industries, notably maritime tourism. The Maldives pursued the Marine Stewardship Council sustainability certification (obtained in 2012) and became a member of the Indian Ocean Tuna Commission. Certification required the improvement of monitoring and management practices, but the practices of fishermen and their vessels have not been significantly affected because fisheries were already based on largely sustainable practices and a licensing system was already in place (Hohne-Sparborth et al., 2015). Coupled with the predominant use of pole and line gear technology that produces a high quality of catch with minimal environmental impact, the certification enabled the Maldives to obtain premium prices for its tuna exports. This also created further incentive for processing and local value addition, allowing for the retention of key aspects of small-scale fishery characteristics in the gender-based division of labor, in which men go to sea and women play a key role in the shore industry. The strategic focus on sustainability continued long after graduation, as demonstrated by the Maldives Fisheries Act (which came into effect in September 2019) that promotes sustainable forms of fishing while imposing a complete ban on harmful methods such as fishing with trawl nets.

Mitigating the loss of preferential market access specific to least developed countries: Cabo Verde and the GSP+

One of the main concerns for graduating LDCs is retaining some degree of preference margin in key destination markets. In the case of Cabo Verde, which graduated from the LDC category in 2007, the European Union was by far its main trading partner. Through early engagement and negotiations with the European Union, Cabo Verde obtained a three-year extension of its eligibility under the Everything but Arms (EBA) initiative — currently the standard practice for beneficiaries of the initiative — followed by an additional two-year transition period until 1 January 2012. In late 2013, Cabo Verde became one of the first 10 countries to qualify for the European Union's enhanced Generalized System of Preferences plus (GSP+) trade regime, which is available to vulnerable countries that have ratified and implemented international conventions relating to human and labour rights, the environment and good governance (UNCTAD, 2016).

A reform of the European Union's Generalized System of Preferences was foreseen for the end of 2023 (EU Commission, 2021), but on 27 November 2023, the European Union's

Commission extended the current regulation until the end of 2027. Based on the latest draft version of the reform, the option to transition from the EBA regime to the GSP+ should remain available to Senegal, which has already ratified all the conventions required to be eligible for the GSP+ (EU Commission, 2021). While the transition from the EBA to the GSP+ regime would allow Senegal to retain some significant preference margins upon LDC graduation, it should be borne in mind that differences in the applicable rules of origin may also entail significant adjustment costs. This is particularly the case in the clothing and apparel sector, where the transition could imply a shift from a single transformation to double transformation to be eligible for preferential treatment in the European Union.

Sustainable development finance: Post-graduation partnerships in Cabo Verde and Samoa

In the run-up to its LDC graduation in 2007, Cabo Verde signed a Special Partnership Agreement — a cooperation facilitation framework (unrelated to the Economic Partnership Agreement) that covers a broad set of issues ranging from stability and regional integration to development and poverty reduction. It also concluded a Mobility Agreement with five European Union members (France, Luxembourg, Netherlands, Portugal and Spain) allowing for temporary and circular migration by Cabo Verdeans. Finally, Cabo Verde also negotiated with multilateral agencies, including the World Bank and the African Development Bank, to ensure that it retained partial access to concessional financing (though at somewhat greater cost) as a “blend” country.

In the same vein, ahead of its 2014 graduation from the LDC category, Samoa approached the Australian authorities to negotiate a seasonal employment scheme fostering circular migration. In July 2012, the Seasonal Workers Programme was officially launched with the aim of meeting the needs of the Australian horticulture industry for recurrent labour, while also contributing to the economic development of Samoa through the contribution of its circular migrants. The countries participating to the Seasonal Workers Programme now include Fiji, Kiribati, Nauru, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu and Vanuatu.

could in fact be regarded as an external process offering a potential “policy anchor” to support SND 2025-2029 implementation, spur competitiveness, and prevent the entrenchment of rent-seeking. Though not an end in itself, LDC graduation could also be leveraged as a sort of validation of the country’s progress, contributing to forge a new narrative about the “emerging Senegal” and hence improving the country’s standing vis-à-vis potential investors.

Consistent with the structural vulnerabilities identified above, this vulnerability profile has identified four mutually supporting areas underpinning a policy agenda towards graduation with momentum:

1. Accelerating structural change and strengthening competitiveness

2. Investing in human capital for productive employment creation
3. Charting an inclusive low-carbon transition path
4. Mobilizing adequate resources for sustainable development.

4.1 Accelerating structural change and strengthening competitiveness

One of the key lessons of the “polycrisis” faced by Senegal is that the best avenue to achieve sustainable development and build endogenous resilience is to spur process transformation, underpinned by technological upgrading, knowledge

accumulation, and changes in the composition of output and employment towards progressively more sophisticated activities. This is generally referred to as “structural change.” Resilience ultimately requires adaptability, which in turn rests on firms having adequate managerial and technical productive capabilities, identifying potential opportunities, and understanding what adjustment is feasible to respond to market trends (UNCTAD, 2020a). Moreover, inclusive development outcomes largely hinge on the generation of productive employment and the concomitant increase in labour productivity, which in turns boosts resources available for investment purposes. Therefore, strengthening productive capabilities and shifting resources towards higher-productivity activities remain paramount objectives going forward. Implementation of the AfCFTA could prove particularly supportive in this regard for Senegal by unlocking new opportunities for trade and economic diversification.

Transforming the economy, reducing poverty and redressing spatial inequalities will inevitably hinge on boosting long-term investment, including by scaling up climate-resilient infrastructure to meet the demands of a viable, diversified economy. LDC graduation makes the imperative for transformation even more critical, since the gradual phasing out of ISMs will inevitably impinge on some of the drivers of national competitiveness and possibly require some adjustments in Senegal’s “development bargain” (Dercon, 2022). Deepening regional integration not just within West Africa but also through rapid implementation of the AfCFTA could prove important in this transition, allowing Senegal to tap into new continental markets where preferential access would not be conditioned on LDC status. In any case, firms – especially small and medium-sized enterprises (SMEs) – will need adequate support and preparation to be able to cope with the loss of LDC-specific preferential market access, or with changes to the broader Aid for Trade landscape upon graduation from the LDC category.

Accelerating the pace of structural transformation, notably through sustainable industrialization, can help Senegal reduce wide intersectoral productivity gaps, improve the relatively sluggish TFP dynamics, and tap into opportunities for intersectoral productive linkages. Earlier sections of this vulnerability profile highlighted the potential of the agro-processing industry, but a similar argument can be made for services, particularly the digital, fintech and business-related segments. Many of the related developmental opportunities are ultimately contingent on a vibrant industrial foundation as a key source of demand — as in the case of business services, logistics and distribution — or through synergies and complementarities with the design and production of goods embodying knowledge-intensive services (e.g. software development or installation and maintenance of machinery). Hence, ongoing efforts to foster domestic value addition, denser input-output linkages and export diversification need to be intensified to pave the way for graduation with momentum.

Accelerating and localizing structural transformation will be equally important to redress spatial inequalities not only between urban and rural areas, but also between Dakar and other intermediary cities. Enhancing intersectoral linkages can go a long way towards boosting domestic value addition and generating more economic opportunities for vulnerable groups. Moreover, unlocking rural non-farming activities and spurring manufacturing growth in intermediary cities could play an important role in easing pressure in the areas around Dakar.

This policy agenda will require regular dialogue between the public and private sectors, as well as the strategic engagement of other development partners, to ensure a smooth transition out of LDC status. It will also call for effective entrepreneurship policies catering to the distinct needs of all types of enterprises — start-ups, SMEs and incumbent large companies — buttressed with a strategic trade and industrial

policy framework designed to foster the progressive strengthening of productive capacity. Beyond horizontal policies (such as improving the business environment or broadening access to credit), well-designed and carefully implemented sectoral measures — such as support for agro-pôles or the pharmaceutical sector — are rightly part of the available policy options. In this respect, the flexibility afforded to LDCs through ISMs (including special and differential treatment) should be used to the extent possible even while preparing for them to be progressively phased out. This could be particularly relevant in relation to intellectual property rights, as the effective use of the flexibility granted to LDCs could play an important role in strengthening the local industrial base and appropriating technologies in knowledge-based sectors, as the experience of the pharmaceutical industry in Bangladesh has shown (OECD and UNCTAD 2023).

4.2 Investing in human capital for productive employment creation

Despite increased investment in education and steady improvements in enrolment rates, widespread learning poverty and sluggish progress in the quality of education continue to significantly hinder the Senegalese economy. Moreover, the prevailing high illiteracy rate among the adult population represents an important constraint to human capital accumulation, especially in rural areas. In addition, there are well-founded concerns that the disruptions caused by the COVID-19 pandemic may have lingering effects and widen inequalities. Against this backdrop, bold and renewed efforts to invest in human capital are vital.

With Senegal's labor force expected to increase by nearly 400,000 workers per year between 2022 and 2025, addressing skill shortages is critical to ensure that buoyant growth projections translate into faster productive employment creation, rather than more informality and vulnerable

employment. This calls for bold action to enhance the quality of formal education and scale up vocational training, apprenticeship schemes, dual training programmes and on-the-job upskilling initiatives. This needs to be done in close collaboration with the private sector to ensure that the curricula match market demand. A rapid and effective roll-out of related ongoing initiatives, including the establishment of departmental vocational training centers, could go a long way in this regard.

At the other end of the spectrum, it remains critical to strengthen the pockets of excellence in tertiary education, as technical specialized skills lie at the core of the science, technology and innovation ecosystem and have a key bearing on prospects for technology adoption, knowledge accumulation and labour productivity improvements. Furthermore, closer collaboration among the various stakeholders in the science, technology and innovation ecosystem will be important in the future to enhance knowledge flows and ensure closer partnerships among private actors, research and educational institutions, and government counterparts.

Though investing in human capital requires a comprehensive approach touching all disciplines, two fields of education in particular appear to warrant dedicated support in relation to a graduation-with-momentum agenda:

1. Science, technology, engineering and mathematics, which will be crucial to underpin a greater and more fructuous engagement with advanced technologies, notably those related to climate change adaptation and energy transition.
2. Digital skills to support the adoption of digital technologies, nurture digital businesses, and leverage digitalization for inclusive and sustainable development.

4.3 Charting an inclusive low-carbon transition path

Since the adoption of the Paris Agreement, evolving consumption patterns, regulatory frameworks, technological options, and investor appetite have started to affect comparative advantages, triggering a shift of productive resources from high-emission industries to lower-emission ones. Senegal's strategic positioning vis-à-vis this global trend will thus be crucial, considering its heightened exposure to the adverse effects of climate change, its development needs, and its natural resources. Senegal's environmental vulnerability underpins a heightened exposure to “physical risk,” and its varied natural resource endowments imply both elements of “transition risk” — that is, the risk of stranded assets and the risk of technological lock-in pertaining to the fossil fuel sector. On the other hand, Senegal has “green windows of opportunity,” such as those related to the exploitation of strategic minerals like titanium or zirconium or to its abundant renewable energy potential (UNCTAD, 2022a).³⁵

In this context, finding an appropriate balance between harnessing those green windows of opportunity and relying on more mature (and possibly more carbon-intensive) technologies will be critical for Senegal to achieve continued development progress. Equally important will be to ensure that the exploitation of natural resources — notably in the nascent fossil fuel sector — is geared towards boosting domestic value addition and supporting diversification of the economy, rather than reinforcing commodity dependence. The government's aims on how to use oil and gas revenues look promising, with plans to (i) boost public revenues and foreign exchange, (ii) strengthen energy supply and related security, and (iii) promote downstream processing and intersectoral linkages.

However, financing and implementation of these initiatives — especially in terms of monitoring sectoral performance, keeping rent-seeking in check, and maintaining stable macroeconomic fundamentals — will be key. Green industrial policies for low-carbon sectors (e.g. renewables or strategic minerals) will also play an important role in mobilizing key investments (including from public-private partnerships), fostering technology domestication, and supporting the accumulation of productive capabilities.

With a 30 per cent share of renewables in the energy mix, Senegal can reap significant benefits from embarking on a gradual transition to a low-carbon economy, and the government has shown its determination to do so. Nonetheless, the pace of such a transition should reflect the country's development needs and be cognizant of the fact that in 2019 greenhouse gas emissions were estimated at roughly 0.8 tons of CO₂ per capita, compared to a world average of 4.4 tons per capita and an average of 9.8 tons per capita in high-income countries. Moreover, the speed at which countries can pivot to a low-carbon economy depends on available skills and know-how, as well as on the availability of adequate financing and access to advanced low-carbon technologies (UNCTAD, 2022a). Hence, strengthening international support — starting with bold and generous terms for the JETP under negotiation with the G7 — remains imperative to facilitate Senegal's transition to a low-carbon economy, all the more so during the process of LDC graduation.

4.4 Mobilizing adequate resources for sustainable development

Accelerating the transformation of the Senegalese economy and gaining

³⁵ “Physical risk” refers to exposure to detrimental climate change and/or weather extremes that directly affect the real economy, damage property and disrupt trade. “Transition risk” stems from regulatory, technological, and demand-side changes that could sharply affect asset prices. Finally, “green windows of opportunity” are defined as favourable but time-bound conditions for latecomer development, arising from changes in institutions, markets or technologies associated with the green transformation (Lema et al., 2021).

momentum towards LDC graduation inevitably require relatively high investment-to-GDP ratios. Mobilizing commensurate resources for sustainable development spending will thus be critical to maintain stable macroeconomic fundamentals. Domestic resource mobilization is all the more important at the current juncture, since Senegal is already a “blend country” under the World Bank and African Development Bank classifications and thus faces hardened terms when accessing concessional loans. LDC graduation may also be accompanied by lower degrees of concessionality for other sources of development or climate finance.

On the public resource side, Senegal’s tax revenues hovered around 16-18 per cent of GDP for the most part of the past decade, with nearly two-thirds of the revenues accounted for by indirect taxes such as the value-added tax and other taxes on goods and services. Greater efforts will thus be needed to attain the 20 per cent target adopted by the WAEMU, in particular to boost the contribution of direct taxes such as personal income and corporate income taxes. In addition, greater use of digital technologies could improve the effectiveness of tax administration while simultaneously streamlining business procedures. This can be seen, for example, in the roll-out of ORBUS, Senegal’s single window, and the ongoing shift towards a paperless trade environment. In this respect, the experience of GAINDE 2000, the local company that created and operates ORBUS, could offer important lessons about public-private partnerships for the roll-out of digital technologies for public administration. Moreover, in times of scarce resources, it is important to continue improving the effectiveness of public expenditure.

Though public resources certainly play an important and often catalytic role, structural transformation will ultimately remain elusive without more effective mobilization of private investment, especially in key economic sectors. Further enhancing access to credit and financial services, especially for SMEs

and rural producers, could go a long way towards unlocking private investment. In particular, there appears to be scope for the banking sector to enhance outreach and engage more actively in loans to productive sectors, rather than investing in bonds and other financial assets. This would be a welcome development, since banks are better suited than microfinance institutions or tontines to cater to the needs of an expanding business sector comprised of SMEs, manufacturing companies, agricultural enterprises, and other growing businesses with relatively high and long-term investment needs. Needless to say, the expansion of bank credit to the private sector will need to take place under due vigilance and supervision in order to maintain financial stability and the credibility of the sector.

Maintaining momentum in the mobilization of FDI represents another relevant policy priority in relation to private investment. FDI inflows have increased remarkably over the last few years, COVID-19 notwithstanding, and this could prove extremely valuable in supporting Senegal’s transformation agenda, especially if foreign companies gradually deepen their productive linkages with the domestic economy, thereby generating knowledge and technological spillovers. With this in mind, it is important to continue to attract more FDI to priority SDG sectors, benefitting from the considerable buy-in by international partners. With the necessary awareness-raising, the LDC graduation process could also be leveraged for investment promotion purposes, contributing to improving the image of the country and its appeal to foreign investors.

Furthermore, tapping into innovative sources of long-term finance, from public-private partnerships to SDG-linked bonds and other similar instruments, may help diversify and broaden the pool of resources for sustainable development. Other options worth considering include actively engaging the Senegalese diaspora with a view to channeling more resources towards investment rather than consumption, as

has been done, for example, by India and Ethiopia through their diaspora bonds. In an increasingly complex and multifaceted development finance landscape, it will be critical to put in place a conducive institutional framework, in line with the Cadre National de Financement Intégré (INFF), and to strengthen capacity to negotiate innovative financial instruments, ensure alignment with national and sectoral development strategies, carry out due monitoring (particularly in the case of contingent liabilities for public coffers), and assess development impact.

In light of the above analysis, mainstreaming LDC graduation in implementation of the INFF will be an important step to anticipate any adverse impact and ensure continued support towards LDC graduation and beyond. This will also provide useful entry points for early engagement with key development partners to ensure a smooth transition out of the LDC category. Among other objectives, this vulnerability profile and the related roadmap towards graduation with momentum aim to contribute to these important outcomes, thereby supporting Senegal's transformation agenda.

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