BENIN SUSTAINABLE DEVELOPMENT REPORT 2022

Pilot Baseline Report

BÉNINRÉVÉLÉ

SUSTAINABLE DEVELOPMENT SOLUTIONS NETWORK
A GLOBAL INITIATIVE FOR THE UNITED NATIONS

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The opinions expressed in this report do not reflect the views of any organization, agency, or program of the United Nations or the Government of Benin. It was prepared by a team of independent experts from the SDSN Secretariat and is based on the methodology of the Sustainable Development Report published by SDSN since 2016.

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An online interactive dashboard and all the data used in this report are available at: www.sdgindex.org

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Contents

Figures

Tables

Boxes

Acronyms and Abbreviations

AGVSAN Global Analysis of Vulnerability, Food Security and Nutrition
Analyse Globale de la Vulnérabilité, de la Sécurité Alimentaire et de la Nutrition

ANAEPMR National Agency for Drinking Water Supply in Rural Areas
Agence Nationale d'Approvisionnement en Eau Potable en Milieu Rural

ANPS National Agency for Social Protection
Agence Nationale de Protection Sociale

ARCH Human Capital Strengthening Insurance Program
Programme d'Assurance pour le Renforcement du Capital Humain

ASECNA Agency for the Safety of Air Navigation
Agence pour la Sécurité de la Navigation Aérienne

BCEAO Central Bank of West African States
Banque Centrale des Etats de l'Afrique de l'Ouest

BGE General Budget of the State
Budget Général de l'Etat

CDA-ODD Ten-Year Framework for Action to Accelerate the Implementation of the SDGs
Cadre Décennal d'Action pour les ODD

CNO National Orientation Committee
Comité National d'Orientation

CNS National Statistics Council
Conseil National de la Statistique

CSPSE-CDA Technical Steering, Monitoring, and Evaluation Sectoral Committees
Comités Sectoriels de Pilotage et de Suivi & Evaluation du CDA-ODD

CTPSE Technical Steering, Monitoring, and Evaluation Committee
Comité Technique de Pilotage et de Suivi et Evaluation

DGCS-ODD Directorate-General for Coordination and Monitoring of the SDGs
Direction Générale de la Coordination et du Suivi des ODD

DPAF Directorates of Programming, Administration and Finance
Direction de la Programmation, de l'Administration et des Finances

DPBEP Multi-Year Budgetary and Economic Programming Document
Document de Programmation Budgétaire et Économique Pluriannuel

DPP Programming and Forecasting Directorate
Direction de la Programmation et de la Prospective

DPPD Multi-Year Expenditure Planning Document
Document de Programmation Pluriannuel des Dépenses

ECOWAS Economic Community of West African States
Communauté Economique des Etats de l'Afrique de l'Ouest

FCFA African Financial Community Francs
Francs de la Communauté Financière Africaine

GRED Group for Research and Studies on Sustainable Development
Groupe de Recherche et d'Etudes sur le Développement Durable

HLPF United Nations High Level Political Forum
Forum Politique de Haut Niveau des Nations Unies

IMF International Monetary Fund
Fonds Monétaire International

INStaD National Institute of Statistics and Demography (formerly INSAE)
Institut National de la Statistique et de la Démographie (anciennement INSAE)

LOLF Organic Law on Finance Laws
Loi Organique relative aux Lois de Finances

MDC Ministry of Development and Coordination of Government Action (formerly Ministry of Planning Development - MPD)
Ministère du Développement et de la Coordination de l'action gouvernementale (anciennement Ministère du Plan et du Développement – MPD)

MEF Ministry of Economy and Finance
Ministère de l'Economie et des Finances

MEMP Ministry of Pre-school and Primary Education
Ministère des Enseignements Maternel et Primaire

MeSODD Measuring the awareness of the SDGs
Mesure de la sensibilité des ODD

MESTFP	Ministry of Secondary and Technical Education and Vocational Training *Ministère des Enseignements secondaire, Technique et de la formation professionnelle*
MICS	Multiple Indicator Cluster Surveys *Enquête par Grappes à Indicateurs Multiples*
MPD	Ministry of Planning and Development *Ministère du Plan et du Développement*
OECD	Organization for Economic Co-operation and Development *Organisation de coopération et de développement économique*
PAG	Governmental Action Program *Programme d'action du Gouvernement*
PC2D	Growth Program for Sustainable Development *Programme de Croissance pour le Développement Durable*
PCSS-ODD	Joint Statistical Support Project for Monitoring the 2030 Agenda *Projet Conjoint d'appui à la Statistique pour le Suivi de l'Agenda 2030*
PND	National Development Plan *Plan National de Développement*
PONADER	National Policy for the Development of Renewable Energies *Politique Nationale de Développement des Energies Renouvelables*
PTA	Annual Work Plan *Plan de Travail Annuel*
RGE	General Business Census *Recensement Général des Entreprises*
RGPH	General Census of Population and Housing *Recensement Général de la Population et de l'Habitat*
RNIE 2	National Interstate Highway 2 (Cotonou-Allada-Bohicon-Dassa) *Route Nationale Inter-Etats 2 (Cotonou-Allada-Bohicon-Dassa)*
SDR	Sustainable Development Report *Rapport mondial sur le développement durable*
SGSI	Information Systems Management Services *Service de Gestion des Systèmes d'Informations*
SI-ODD	SDG indexes monitoring *Suivi des indices ODD*
SIG-ODD	Integrated Management System for Sustainable Development Goals *Système Intégré de Gestion des Objectifs de Développement Durable*
SNDS-3	National Strategy for the Development of Third Generation Statistics *Stratégie Nationale de Développement de la Statistique de troisième génération*
SSN	National Statistics System *Système Statistique National*
SWEDD	Sahel Women's Empowerment and Demographic Dividend Project *Programme d'autonomisation des femmes et du dividende démographique au Sahel*
UNDESA	United Nations Department of Economic and Social Affairs *Département des affaires économiques et sociales des Nations Unies*
UNDP	United Nations Development Programme *Programme des Nations Unies pour le Développement*
UNESCO	United Nations Educational, Scientific and Cultural Organization *Organisation des Nations unies pour l'éducation, la science et la culture*
UNFPA	United Nations Population Fund *Fonds des Nations unies pour la population*
UNICEF	United Nations Children's Fund *Fonds des Nations unies pour l'enfance*
WAEMU	West African Economic and Monetary Union *Union Economique et Monétaire Ouest-Africaine*
WHO	World Health Organization *Organisation Mondiale de la Santé*

Executive Summary

At the halfway point, and aware of the remaining challenges to achieve the Sustainable Development Goals (SDGs), the Government of Benin asked the UN Sustainable Development Solutions Network (SDSN) to support it in the monitoring and evaluation of the 2030 Agenda. This initial report presents an evaluation of Benin's current performance and trends on the SDGs, as well as an analysis of its policies to achieve them through SDSN's "Six Transformations" framework (Sachs et al, 2019). This report serves as a baseline following the first issue of the SDG Eurobond by the Government of Benin in July 2021, which demonstrates their strong commitment to accelerate the implementation of the 2030 Agenda.

The key findings of this initial baseline report are the following:

- Benin is halfway to achieving the SDGs with a score of 50.7 out of 100 across all 17 SDGs.
- Benin stands out from the rest of the Economic Community of West African States (ECOWAS) with progress on SDGs 2 (Zero hunger), 8 (Decent work and economic growth), 9 (Industry, Innovation and Infrastructure) and 14 (Life below Water) since 2015, for which the majority of countries in the sub-region are stagnating or even regressing.
- Compared to higher income countries, Benin performs relatively well on SDGs 12 (Responsible Consumption and Production) and 13 (Climate Action).
- There are persistent challenges to achieving the majority of the SDGs in the region. In particular, the trends for SDGs 4 (Quality Education), 10 (Reduced Inequalities) and 11 (Sustainable Cities and Communities) must be monitored and reversed.
- At the subnational level, the "leave no one behind" index covers the following four dimensions: inequalities in access to public services, extreme poverty and material deprivation, gender inequalities, and inequalities of income and wealth. The index reveals disparities between the regions of Benin.

The data used in these analyses come from international sources to facilitate comparisons with other ECOWAS countries, as well as from national sources for the subnational index. However, as in other developing countries, missing data and delays in statistical production do not allow timely and accurate measurement of the progress and efforts made by Benin. Therefore, our analysis of the government's efforts, in terms of public policies and investment, provides additional information to assess Benin's performance.

The 2022 Sustainable Development Report ranks Benin among the countries with "strong commitment" to the SDGs according to our global survey of government efforts. The analysis of the Government's Action Program (PAG 2021–2026) through the framework of the Six Transformations shows that the PAG coherently targets Benin's challenges in achieving the SDGs. The intensification of the government's efforts, such as the insurance program for the reinforcement of human capital (ARCH) and its program to ensure universal access to drinking water in rural areas, will make it possible to accelerate the achievement of several SDGs and to "leave no one behind", including in the most disadvantaged regions of the country.

Similarly, the analysis of the institutional framework for the implementation of the 2030 Agenda in Benin has revealed the strong institutional capacities for the achievement of the SDGs. Since 2016, Benin has appropriated the SDGs to domesticate the goals and adopt a coherent development strategy. The country has a cross-cutting institutional apparatus and strong political will that could enable it to achieve significant results in the years to come.

Furthermore, achieving the SDGs requires large-scale public and private investments. Benin must be supported in its resource mobilization to achieve the 2030 Agenda. The issuance of the SDG Eurobond by the Government of Benin in July 2021 constitutes an important turning point in the commitment and means mobilized for the implementation of the 2030 Agenda.

Introduction

The Sustainable Development Goals (SDGs) are a set of 17 internationally agreed upon goals adopted by all United Nations member countries in 2015, to be achieved by 2030. This ambitious set aims to end poverty, protect the planet, and ensure equality and prosperity for all (United Nations, 2015).

In July 2021, to further its efforts to implement the SDGs since 2016 (Part 3.1), the Government of Benin carried out its first "Eurobond" issue exclusively dedicated to financing projects with high impact on achieving the SDGs (Part 3.3, Box 5). It is within this framework that the Government of the Republic of Benin called upon the United Nations Sustainable Development Solutions Network (SDSN), recognized for its independent expertise, to assist in the monitoring and evaluation of the progress and efforts made by the country.

This Sustainable Development Report, which includes Benin's SDG Index and Dashboards, is one of the tools deployed by SDSN to support Benin in its efforts to achieve the SDGs. Indeed, the Benin SDG Index and Dashboards, and more broadly the Sustainable Development Report series (*Sustainable Development Report, SDR*[1]), have three goals:

- Provide a tool to track countries' performance and progress on the SDGs, using the best available indicators.
- Identify key data gaps, and areas for research.
- Promote integrated solutions by tracking and discussing commitments, strategies, and implementation mechanisms to achieve the SDGs.

1. www.sdgindex.org

This edition is intended to be a *baseline* report that defines Benin's starting point in its new commitment to implement the 2030 Agenda. The first part of the report provides a statistical analysis in two steps. The first section discusses Benin's SDG Index and Dashboards in international comparison to other member states of the Economic Community of West African States (ECOWAS). In the second section, the analysis focuses on the dimensions of "leave no one behind" at the level of Benin's twelve departments and using national data.

The second part of the report analyzes the Benin's Government Action Program (PAG, 2021-2026) in the context of the Six Transformations of the SDGs developed by SDSN. The third part deepens the policy analysis, addressing the Government's efforts to implement the SDGs in Benin.

Part 1
Benin Sustainable Development Index

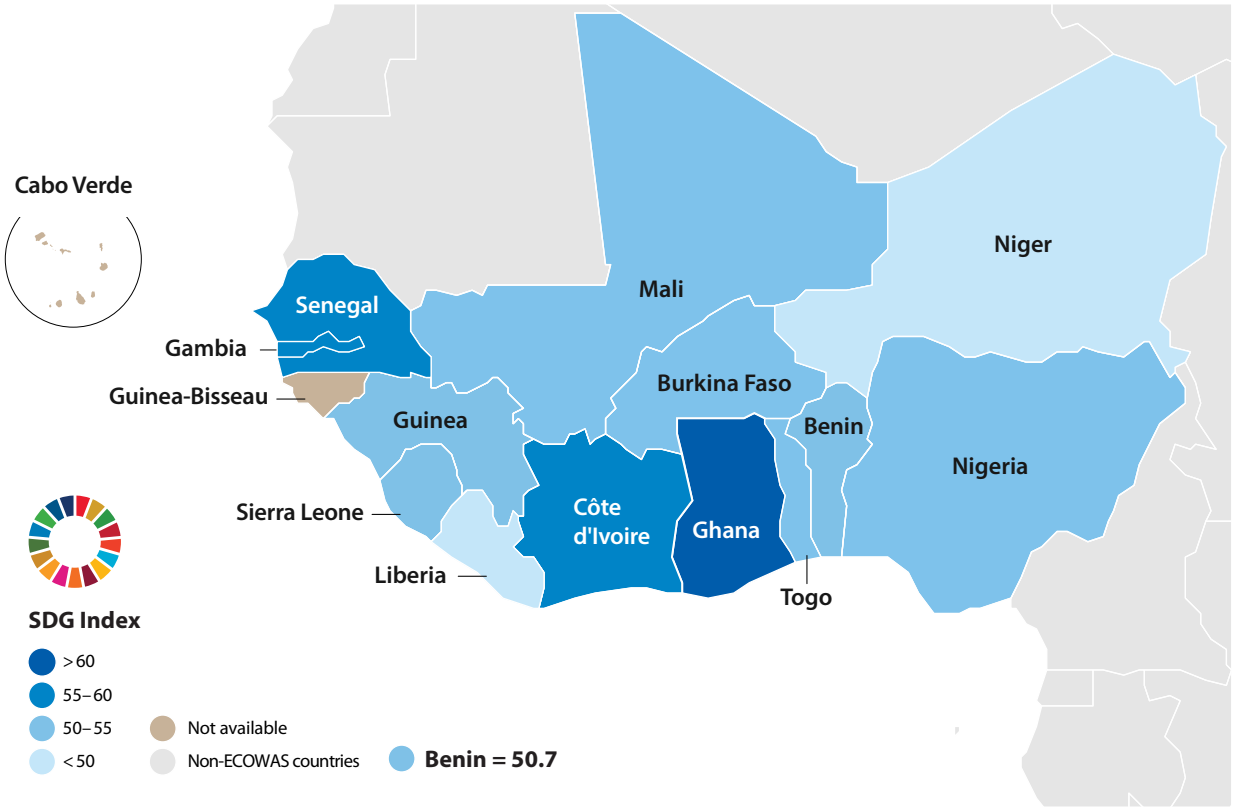
1.1. The SDG Index in Benin

The index and dashboards are based on a set of international indicators for which data is available for Benin and other ECOWAS countries. Benin is compared to its neighbors in order to contextualize its performance and trends in achieving the SDGs. In order to ensure the relevance of the analysis, indicators from the global SDG Index that were not a useful measure for Benin or had insufficient coverage were omitted. Likewise, a few additional indicators were included to reflect priorities specific to Benin and West Africa. Thus, the results of this report are not comparable to the findings of the Sustainable Development Report (SDR) or the Africa report.

Benin scored 50.7 out of 100 for the entire set of 17 SDGs. Like Benin, most ECOWAS countries are close to the regional average (54.3 out of 100) and are halfway to achieving the SDGs, but the overall scores hide the disparities in performance across the 17 SDGs. Details of performance by goal and indicator are available in the detailed profiles in the Annex (page 59).

Figure 1

Benin and ECOWAS Member States SDG Index



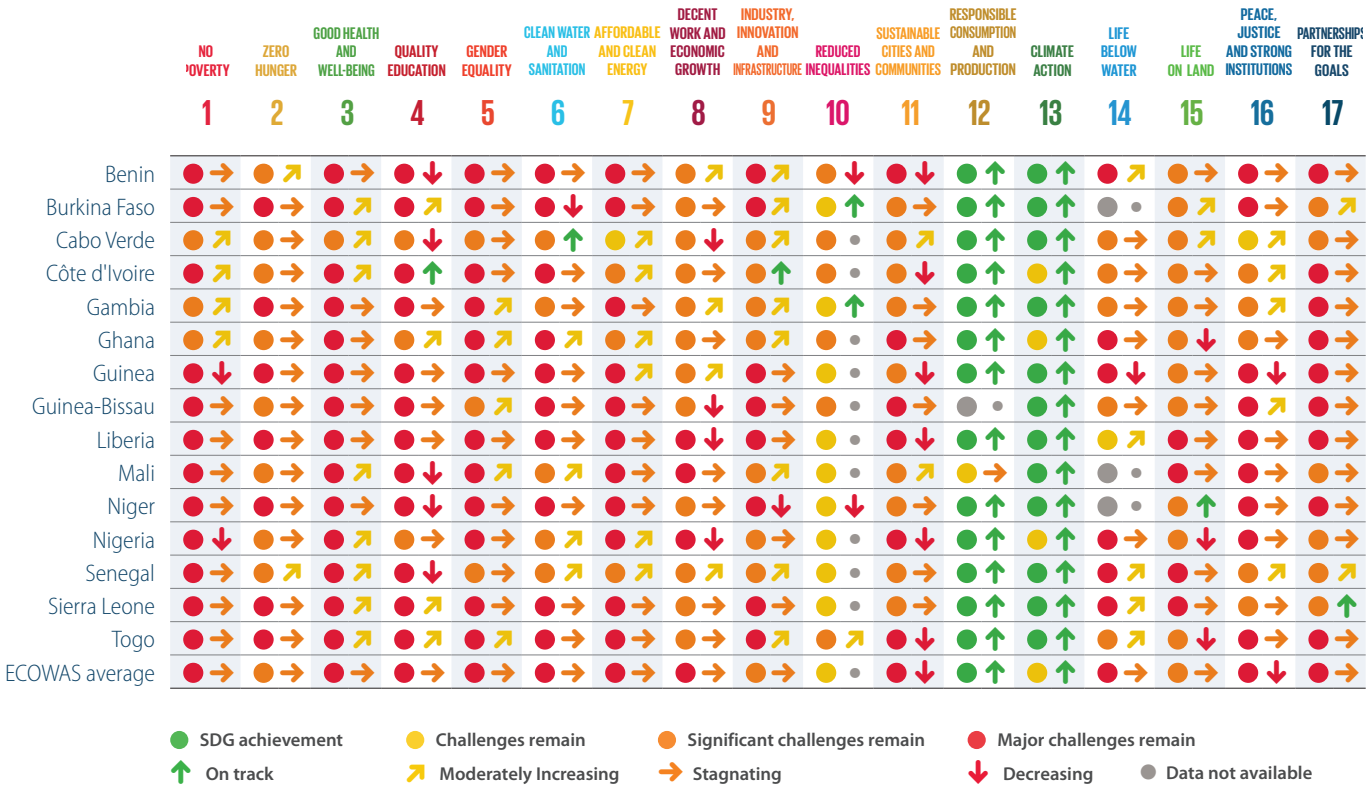
1.2. SDG Dashboard: Achievements, main challenges, and priorities

The SDG Dashboard summarizes each country's performance on the 17 goals. While the SDG Index score is based on all indicators for each goal, the dashboard is based only on the two indicators for each goal on which the country is performing the worst. This "tough" scoring approach emphasizes the need to implement all dimensions of the SDGs because good performance on one indicator cannot compensate for poor performance on another. A detailed explanation of this methodology can be found in Annex A.3.

In Benin, there remain significant challenges to the achievement of many of the SDGs. With some exceptions, the situation is quite similar in the rest of the subregion. Like most ECOWAS countries, Benin is on track to achieve SDG 12 (Responsible Consumption and Production) and SDG 13 (Combating Climate Change). It should be noted that Côte d'Ivoire, Ghana, and Nigeria are the only countries in the subregion for which challenges remain for the attainment of SDG 13 for climate action

Figure 2

2022 SDG Dashboards for the Economic Community of West African States (ECOWAS)



Source: Authors' analysis

The trends' analysis allows for a better appreciation of the efforts made by Benin since the adoption of the 2030 Agenda. Benin, together with Senegal, is doing better than the rest of ECOWAS in terms of progress on SDG 2 (Zero Hunger). While several countries in the subregion are stagnating or even regressing in terms of progress towards the achievement of this SDG, Benin is making progress. This is also the case for SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation, and Infrastructure) and SDG 14 (Life Below Water).

Nevertheless, the declining trend in SDG 4 (Quality Education), observed in Benin, Cape Verde, Mali, Niger, and Senegal must be reversed. Among the few countries for which data allow us to observe trends in SDG 10 (Reduced Inequalities), Benin and Niger show a decreasing trend. Benin and several ECOWAS countries also need to reverse the declining trend for SDG 11 (Sustainable Cities and Communities). With regard to SDG 12 (Responsible Consumption and Production) and SDG 13 (Combating Climate Change), Benin must ensure that it remains on track to achieve them by 2030. Finally, the other SDGs have stagnant trends in Benin, as in most ECOWAS countries; thus, efforts must be intensified to improve them, especially the SDGs for which major challenges remain: SDG 1 (No Poverty), SDG 3 (Good Health and Well-Being), SDG 5 (Gender Equality), SDG 6 (Clean Water and Sanitation), SDG 7 (Affordable and Clean Energy), SDG 16 (Peace, Justice, and Strong Institutions), and SDG 17 (Partnership for Achieving the Goals).

Analysis of the SDG Index and Dashboards provides insight into Benin's starting point in terms of achieving the 2030 Agenda. On the other hand, it is important to note that these purely statistical tools do not allow us to take the full measure of Benin's efforts. Indeed, some data are not recent enough to reflect the current situation of a country, as there may be a delay of 3 to 4 years in national and international statistics. Also, development policies require several years before their results are visible.

1.3. Leave no one behind

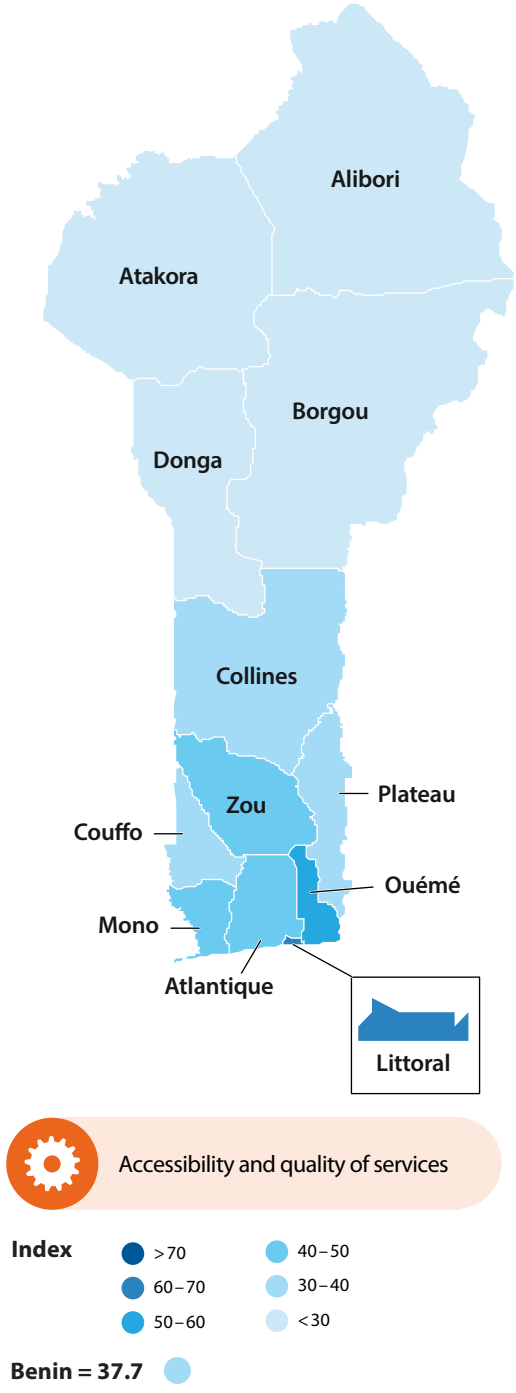
The fundamental principle of the 2030 Agenda is to "leave no one behind". This principle urges countries to achieve the SDGs for all population groups. For this report, indexes based on thirty-six indicators were calculated at the level of Benin's twelve departments using national data. These indexes cover four dimensions of disparity: inequalities in access to public services (14 indicators), extreme poverty and material deprivation (7 indicators), gender inequalities (12 indicators), and income and wealth inequalities (3 indicators). Thus, these indexes allow for an analysis of the performance of the departments in achieving the leave no one behind principle.

This analysis complements the analysis of the SDG Indexes and Dashboards comparing Benin and ECOWAS (Part 1). Again, it is important to note that these results do not allow for an appreciation of the full extent of Benin's efforts. Most of the national data are not recent enough to reflect the current situation in the departments. Also, the development policies put in place by the Government and local governments (departments and municipalities) require several years before their results are visible.

All the indicators and national data used were provided by Benin's National Institute of Statistics and Demography (INStaD). The most recent data were used to produce the indexes. The methodology, indicators and data sources used are detailed in Annex A.3 of the report.

Figure 3

Accessibility and Quality of Services Index



Source: Authors' calculations based on data from the INStaD.

Accessibility and quality of services

The dimension of inequality of access to public services takes into account issues of accessibility and quality of health and education services, as well as access to drinking water, electricity, Internet, and civil registry.

Significant disparities remain between Benin's twelve departments in terms of accessibility and quality of public services. The Littoral department is the best endowed with a score of 65.9, far ahead of Ouémé, which occupies the second place with a score of 51.5. Alibori is the least well-endowed department with a score of only 20 out of 100.

The gap in terms of access and quality of health services is illustrated by the proportion of births assisted by qualified health personnel. Indeed, in 2018, only 61% of deliveries were assisted by skilled health personnel in Borgou, compared to 99.2% of deliveries in the Littoral zone.

In terms of access to education, the department of Alibori shows a net enrollment rate of 41.2% in primary school in 2019. In comparison, the rate is 75.4% in the Littoral zone and 83.2% in the Mono area. In 2021, with a net enrollment rate in secondary school of only 13.4% in Alibori, the gap is even greater with the best performing departments. Ouémé has the highest net rate of secondary schooling in the country at 60.6%.

As for access to drinking water, a current national priority (see Box 2, page 24), only 36.8% of the population had access in Donga in 2019. In comparison, the Littoral department is far ahead, with 97.8% of its population having access to drinking water. The situation is similar for access to electricity. In 2019, the Littoral zone recorded nearly 87.1% access to electricity, ahead of Ouémé (55.4% of the population) and the Mono area which are far behind with only 28.3% of its population having access to electricity.

Finally, the disparities are least pronounced in terms of access to civil registry. Only Borgou faces significant challenges, with only 65.3% of children under 5 years old registered with the civil registry in 2018. For the other departments of Benin, the figures range from 81% in Atakora to 96% in Zou.

Extreme poverty and material deprivation

The Extreme Poverty and Material Deprivation Index covers extreme and non-extreme poverty, food insecurity and malnutrition, and access to financial services.

As with the Accessibility and Quality of Services Index, the Littoral department has the highest score in the country (73.1 out of 100) in terms of poverty and material deprivation.

Poverty and material deprivation are measured by the poverty rate at the $1.90 per day threshold (SDG target 1.1). In 2019, the Littoral zone was on track to eliminate extreme poverty, with only 1.5% of its population living on less than $1.90 per day. Ouémé also had an extreme poverty rate of only 3.9% of its population. Departments such as Borgou and Atakora had high poverty rates, with 34.6% and 33.3% of their populations living below the extreme poverty line, respectively. The national poverty line completes the picture. In Ouémé and the Littoral zone respectively, 18.3% and 18.9% of the population live below the national poverty line, while the rate is 60.5% in Atakora.

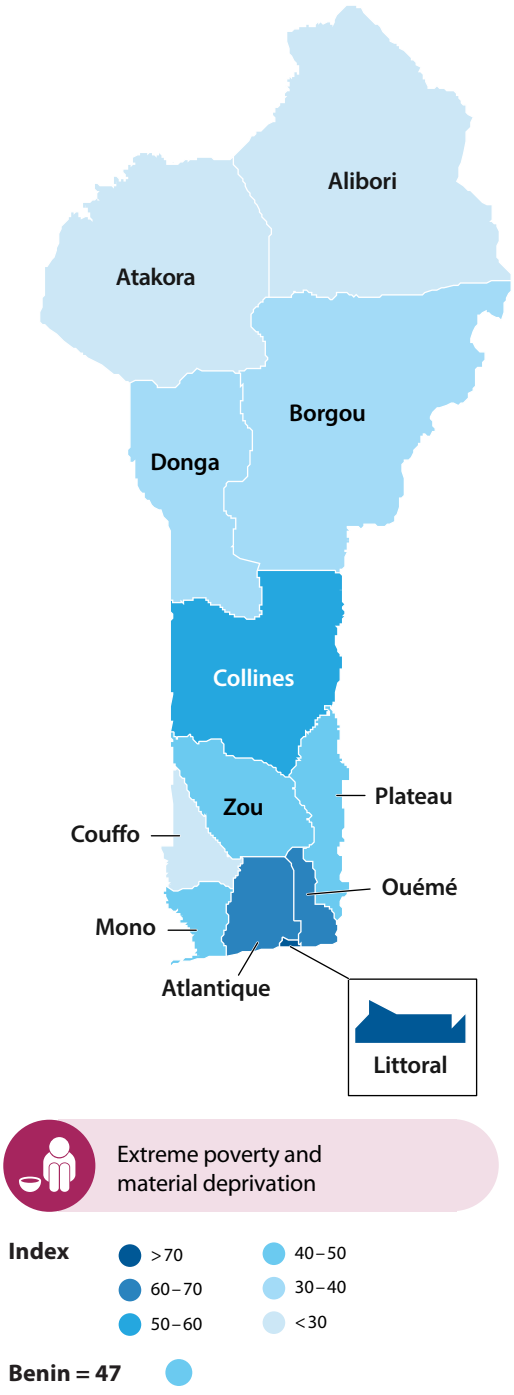
Benin-wide, the proportion of the population living in slums, informal settlements, or inadequate housing (SDG target 11.1) is very low. In 2018, apart from Alibori, where 7.6% of the population lives in inadequate housing, the figures were zero in the Atlantic, Borgou and the Littoral departments, and less than 2% or very close to zero in the other departments.

Performance is mixed in terms of the fight against stunting and malnutrition (SDG target 2.2). In terms of the prevalence of malnutrition (wasting and overweight), the target is on track to be reached by 2030. This is not the case for the prevalence of stunting, for which there are significant differences between departments, particularly between Littoral, where stunting affected 19.1% of the population in 2018, compared to 38% in Couffo, occupying the last place among the departments.

Finally, the rate of banking services usage is low in Benin, with only 29.6% of the population over the age of 15

Figure 4

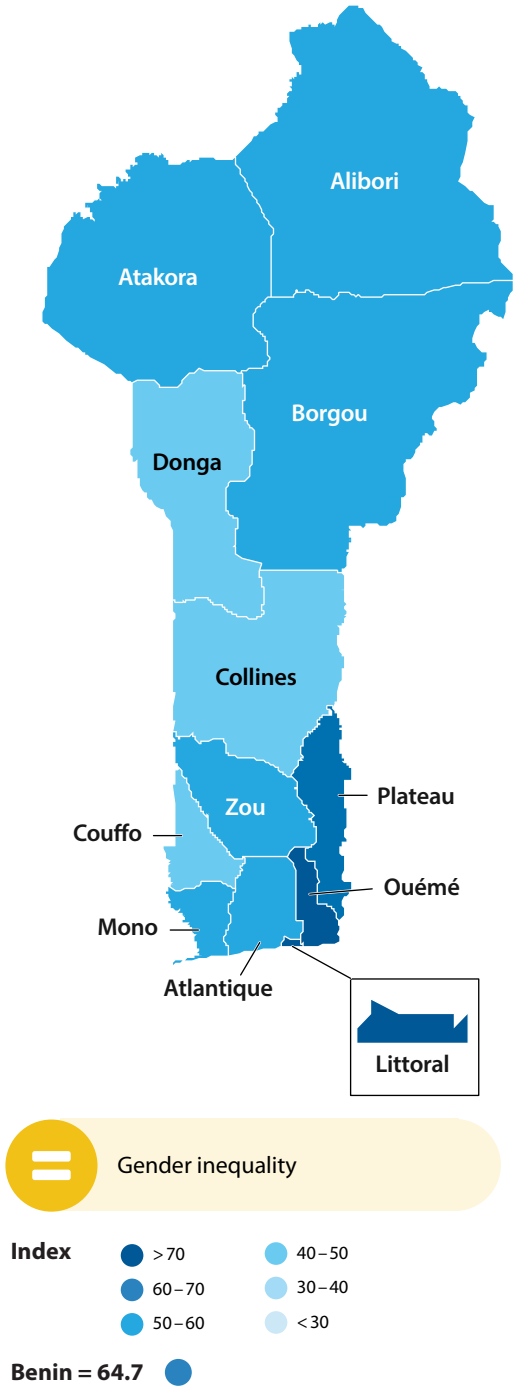
Extreme Poverty and Material Deprivation Index



Source: Authors' calculations based on data from the INStaD.

Figure 5

Gender Inequality Index



Source: Authors' calculations based on data from the INStaD.

having a bank account in 2019. Littoral is the department with the highest access to financial services. 55.8% of the population over the age of 15 had a bank account in Littoral, and only 8.4% in Atakora, which had the lowest rate in 2019.

Gender inequality

The gender dimension takes into account aspects of access to sexual and reproductive health, socio-economic inequalities (education, employment, and poverty), and unequal Internet access. More broadly, this dimension takes into account issues of women's status in society.

The gender inequality dimension is the one where there is the least disparity between Benin's departments. Ouémé is the department where gender inequalities are least pronounced, with a score of 76.7 out of 100. After Littoral, which comes in second place with a score of 73 out of 100, the gap between departments widens. Atlantic, in third place, scores 58.1.

Efforts to empower and improve the status of women must continue, particularly in Atakora and Borgou, where 35.1% and 32.2% of women aged 20 to 24, respectively, were married or in a union before the age of 18 in 2019 (SDG target 5.3). In comparison, in Littoral only 5.8% of women aged 20 to 24 were married or in a union before the age of 18. Also, all departments have a low proportion of use of modern family planning methods, and disparities remain between departments. In 2018, 19.2% of women of childbearing age used modern planning methods in the Littoral department, compared to Couffo, which is the department with the lowest percentage of use on this indicator with only 4.5%.

Gender inequalities are much less pronounced at the school level. Girls have a higher net primary school enrollment rate than boys in Alibori, Borgou, Zou, and Litttoral. The worst performing department on this indicator is Plateau, where the net primary school enrollment rate for girls is about 89% of the boys' rate in 2019. Nevertheless, performance is lower in terms of gender equality in secondary education. Challenges

remain in Couffo, Donga, and Collines, where the net enrollment rate for girls in secondary school is less than 80% of the rate for boys in 2021. Mono, Ouémé, Atlantique and Borgou have fewer challenges than the rest of Benin's departments.

Women participate as much as men in the workforce in the vast majority of Benin's departments. It is in terms of poverty that the performance of the departments is mixed. In 2019, the proportion of women below the extreme poverty line of $US 1.90 was twice as high as that of men in the Atlantic and Collines departments. Conversely, this proportion was about half as high in the department of Borgou, and lower in several other departments, for example only 60.6% of men in Donga and 93.7% in Zou.

The proportion of men and women aged 15-49 using the Internet is the indicator for which the gender parity index is most unequal. In Littoral, only 43.8% of women used the Internet compared to men in 2018. In Couffo, this parity index is even more unequal, with women's Internet use only 10.7% of men's.

Income and wealth inequality

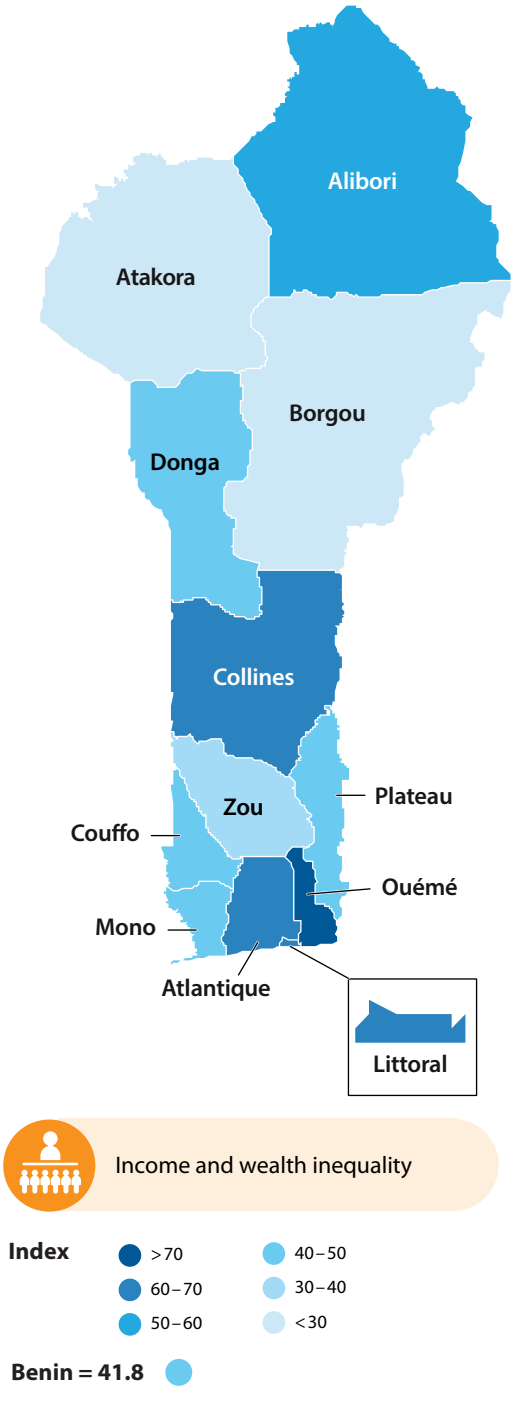
Income and wealth inequality at the sub-national level is measured using the Gini coefficient. In order to provide a more refined analysis of income and wealth inequality, the index takes into account the proportion of people living on less than half of the median income (SDG indicator 10.2.1), and the proportion of people living on more than 50% less than the median income.

Income inequality is the dimension of the leave no one behind index with the most pronounced difference between the best performing department and the one with the lowest score. Ouémé is the department with the lowest income inequality, with a score of 80.2 out of 100, while Borgou is the lowest performing, with a score of 16.5 out of 100.

For the proportion of people living on less than half the median income, Borgou has the highest proportion, representing 23.2% of the population in 2019,

Figure 6

Income and wealth inequality



Source: Authors' calculations based on data from the INStaD.

compared to Littoral and Ouémé, which had a very low proportion of their population in this situation of poverty (1.08% and 1.71%, respectively), and which were the only departments whose performance will enable the achievement of target 10.2[2].

With regard to the proportion of people living with an income more than 50% below the average income, Atakora is the worst performing department with 67.9% of the population in this situation in 2019. Only the Littoral department has a low proportion of people living in this situation with 6.2% of the population. On the other hand, this same department is the most unequal in the country, with a Gini index of 0.382 out of 1, and the only department that faces major challenges in reducing these inequalities.

Together, these four indexes allow for an analysis of the performance of Benin's departments in achieving the leave no one behind principle. The results highlight the disparities between the north and the south, and higher inequalities within northern departments. Regarding gender inequality, there is less of a north/south disparity than in the other dimensions considered.

In recognition of the importance of leaving no one behind, the Government of Benin has established the special SDG funding initiative "Leave no one behind" (Republic of Benin, 2019). The initiatives targeted by Benin in this framework concern the implementation of a number of projects selected by sector ministries that were a priority in the Government Action Program (PAG I, 2016-2021). The initiative covers eight sectors corresponding to social protection (SDG 1), hunger and agriculture (SDG 2), health (SDG 3), education (SDG 4), energy (SDG 7), infrastructure (SDG 9), sustainable cities and communities (SDG 11), and life on earth (SDG 15). These are the sectors that affect the most vulnerable and poor. Government policies and programs are detailed in the next section of the report.

2. SDG Target 10.2: By 2030, empower all people and promote their social, economic, and political integration, regardless of age, gender, disability, race, ethnicity, origin, religion or economic or other status.

Part 2
Six Transformations to prioritize interventions

2.1. Six Transformations framework

The 17 SDGs and their 169 targets describe the goals to be achieved by 2030. However, they do not specify how governments should organize themselves to achieve them. Drawing on the work of Sachs et al. (2019), this report proposes Six Transformations to help define an operational strategy for the SDGs in Benin. In order to design effective strategies to achieve the SDGs, governments and other stakeholders need to determine how to organize interventions —such as improved policies, public and private investments, and regulations— and how to deploy them for the SDGs. Given the interconnected nature of the framework and the links between goals and targets, it is not recommended to adopt 17 strategies to achieve the SDGs. The concept of 6 SDG transformations can help frame an operational and easily communicated narrative.

The core of the Six Transformations is to recognize that the 17 SDGs can be achieved through "Six Major Transformations" focused on: (1) education and skills, (2) health and well-being, (3) clean energy and industry, (4) sustainable land use, (5) sustainable cities, and (6) digital technologies (Figure 7).

The Six Transformations are underpinned by two fundamental principles. Each transformation must be designed, implemented, and monitored to "leave no one behind," a principle that aims to enhance justice, equity, and social inclusion. This principle applies in particular to public services such as health and education,

Figure 7
The Six SDG Transformations

Source: Sachs et al., 2019.

1. Education, Gender, and Inequality

The first transformation covers investments in education (early childhood development, primary and secondary education, vocational training and higher education), social protection systems and labor standards, and R&D.
It directly targets SDGs 1, 2, 4, 5, 8, 9, and 10, and reinforces other SDG outcomes.

2. Health, Wellbeing, and Demography

This transformation includes interventions to ensure Universal Health Coverage (UHC), promote healthy behaviors, and addresses social determinants of health and wellbeing.
It directly targets SDGs 2, 3, and 5 with strong synergies into many other goals.

3. Energy Decarbonization and Sustainable Industry

This transformation groups investments in energy access; the decarbonization of power, transport, buildings, and industry; and curbing industrial pollution.
It directly targets SDGs 3, 6, 7, 9, 11-15, and reinforces several other goals.

4. Sustainable Food, Land, Water and Oceans

Interventions to make food and other agricultural or forestry production systems more productive and resilient to climate change must be coordinated with efforts to conserve and restore biodiversity and to promote healthy diets while significantly reducing food loss and waste. Important trade-offs exist between these interventions.
This broad transformation directly promotes SDGs 2, 3, 6, and 12-15 and reinforces many other SDGs.

5. Sustainable Cities and Communities

Cities and other communities require integrated investments in infrastructure, urban services, and resilience to climate change.
These interventions target of course SDG 11 and they also contribute directly to goals 6, 9. Indirectly virtually all SDGs are supported by this transformation.

6. Harnessing the Digital Revolution for Sustainable Development

If managed well, digital technologies, such as artificial intelligence and modern communication technologies can make major contributions towards virtually all SDGs.

infrastructure services (transportation, water, sanitation, energy), and the use of environmental resources.

The second principle is to ensure "circularity and decoupling". In other words, achieving the SDGs requires a change in consumption and production patterns to decouple environmental resource use and pollution from growth and human well-being. Each transformation must be designed, implemented and monitored to reduce the ecological footprint by promoting circularity of flows, reuse, recycling, more sustainable materials, and more efficient use of natural resources. Good governance and the absence of conflict are essential conditions for achieving the Six Transformations.

The concept of transformation for the SDGs can help frame a narrative that is operational and easy to communicate. By bringing together key synergies as well as trade-offs, the transformations provide an action plan for ministries, businesses, and civil society to achieve the SDGs.

2.2. Six Transformations for the SDGs in Benin

The Six Transformations framework will be used to analyze the Government Action Program (PAG) and its matrix of interventions, which is composed of goals (or pillars), which are divided into strategic axes that are themselves broken down into actions for which the Government is carrying out reforms and projects to achieve them. The continuity between the Government Action Program 2016-2021 and the one for the period 2021-2026 is noteworthy. Indeed, the pillars and strategic axes are the same; only the actions have evolved, by redefining what could be a reform or a project, into a government action. This is the case, for example, of access to drinking water or technical and vocational education and training, which have been upgraded to actions in the matrix of government actions.

The analysis of the linkage of the PAG I (2016-2021) to the priority SDG targets identified by Benin showed that the priority projects and flagship projects of the PAG I address 90% and 65% of the priority targets, respectively. As for the PAG I reforms, they address 64% of the SDG priority targets (Republic of Benin and UNDP, 2018).

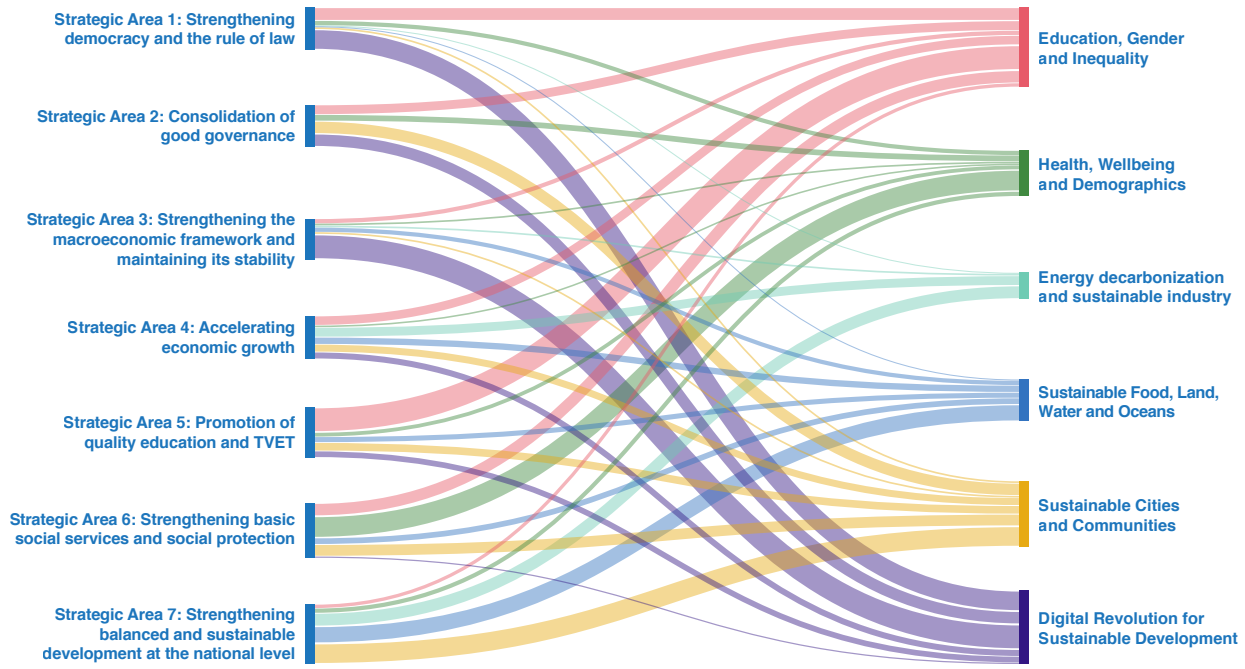
Thus, this analysis will focus only on the Government Action Program 2021-2026 and is not exhaustive of all the projects and reforms carried out by the ministries and other territorial and local authorities. The mapping exercise between the PAG and the Six Transformations was done at the level of the "actions" of the Government's intervention matrix (Figure 8). Therefore, the analysis does not claim to list all the projects and reforms planned by the Government[3], but only to show the efforts and progress made, as well as to identify the priorities for the further implementation of the 2030 Agenda in Benin.

The indicators presented in the SDG Index and Dashboards (Part 1) for Benin and ECOWAS countries have been reorganized around the SDGs' Six Transformations (Figure 9). In general, Benin scores very close to the ECOWAS average in the different transformations. The dimensions for which the gap between Benin and ECOWAS is smallest are: Transformation 2 "Health, Well-being, and Demography", Transformation 5 "Sustainable Cities and Communities", and Transformation 6 "Digital Revolution for Sustainable Development". It is noteworthy that Benin scores slightly higher than the sub-regional average for Transformation 2. For Transformation 1 "Education, Gender, and Inequality", Transformation 3 "Energy Decarbonization and Sustainable Industry" and Transformation 4 "Sustainable Food, Land, Water, and Oceans", Benin is below the ECOWAS average, with a larger gap than for the other transformations.

3. The document to which we had access is a presentation summarizing the Government's action. We cannot conclude from this document whether certain priorities, particularly at the project level, have been addressed by the PAG 2021-2026.

Figure 8

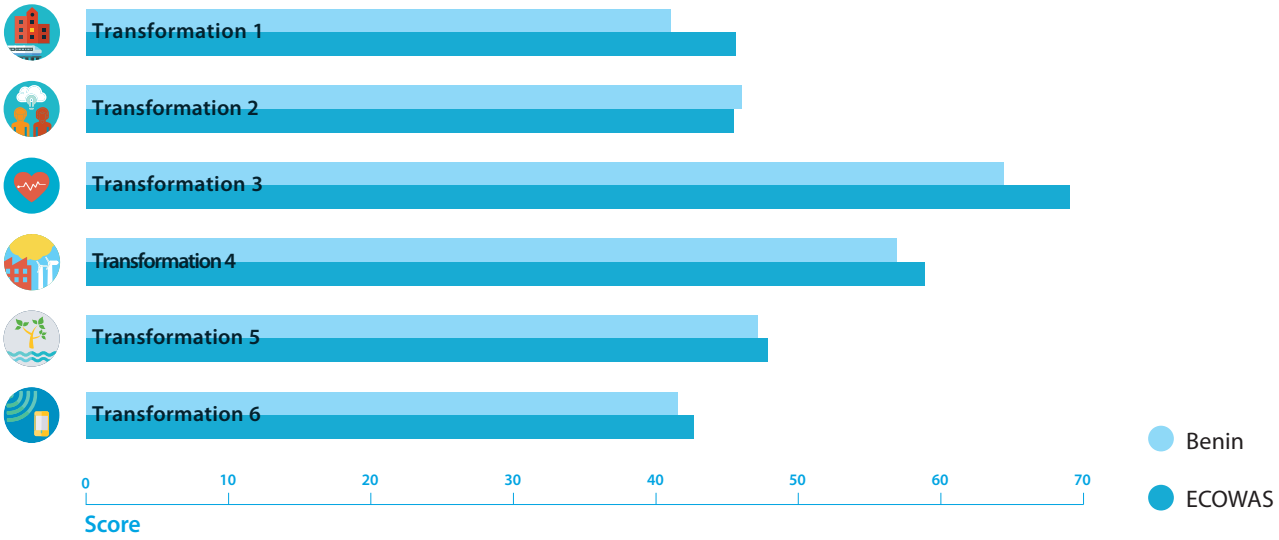
Six Transformations for the SDGs and the Benin Government Action Program



Source: Authors analysis.

Figure 9

Progress on the Six Transformations, score from 0 (worst) to 100 (best)



Source: Authors calculations
Note: See Table A.1 in the annex for details of the indicators used.

Transformation 1. Education, Gender, and Inequality

The first transformation aims at improving human capital, through investments in education and Research and Development. Developing human capital also means ensuring universal access to social protection systems and improving labor standards. This transformation is also based on the principle of gender equality and the reduction of socio-economic inequalities.

The development of human capital relies on a transformation of Benin's education system to ensure universal access to quality education, corresponding to the needs of the labor market. Indeed, the average number of years of schooling, which is 3.8 in Benin, is lower than that of ECOWAS, which was about 4.2 years in 2019 (Figure 10); and despite the progress made since 2015, Benin has not yet reduced the gap. Also, the drop in the lower secondary completion rate from 45% in 2015 to 33% and 2020 (UNESCO, 2021) underscores the need to focus on continuing education and fighting school leavers.

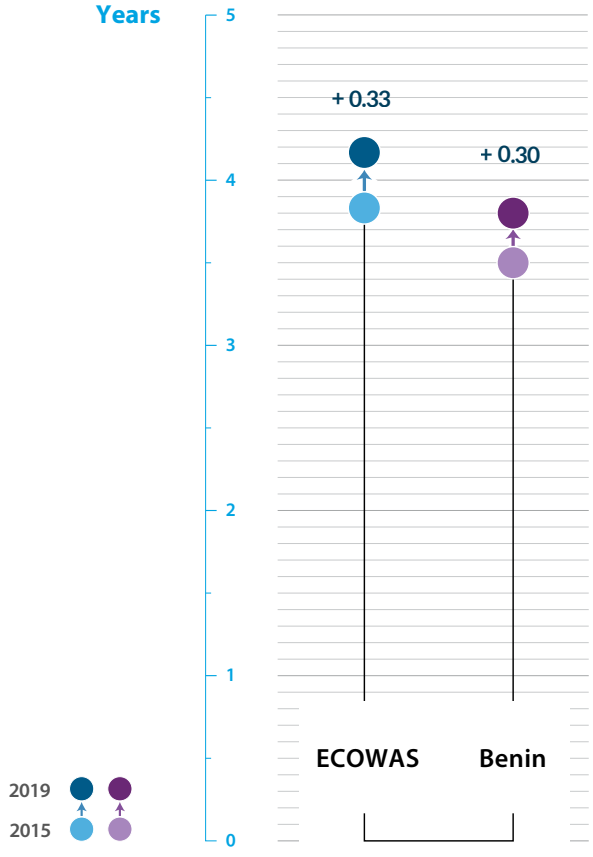
The effective implementation of the Government Action Program (PAG, 2021-2026) will help improve these indicators. Indeed, the Government plans to restructure the education system from primary to higher education, promote adults' literacy and education, and develop technical and vocational education and training. The drafting of a law on the financing of school canteens in primary education illustrates the Government's desire to "leave no one behind" in the improvement of human capital. Furthermore, the Government's plan to create the International City of Innovation and Knowledge also takes into account the importance of developing research and development (R&D) in Benin.

Gender equality is a major challenge in terms of education, sexual and reproductive health, and women's representation in public, political and economic decision-making positions. Education reflects Benin's challenges to promote gender equality. In 2019, the average number of years of education for women was only 43.6% of that for men, while it was 60.6% on average in ECOWAS countries (UNESCO, 2020).

Gender equality issues are taken into account in the projects planned by the PAG. Thus, there is the "Program for the modernization of public social protection and gender promotion spaces" and the "Sahel Women's Empowerment and Demographic Dividend project (SWEDD)", in which Benin is participating. One example is the SWEDD intervention targeting 30,000 girls from poor families enrolled in schools, who will receive conditional cash transfers and support in the form of school kits. This program is also part of the second transformation in terms of access to quality reproductive, child, and maternal health services.

Figure 10

Average years of schooling



Source: Authors' calculations based on data from UNESCO (2020).

Finally, the Government's action to generalize the "Human Capital Strengthening Insurance Program" (ARCH) directly targets the reduction of socio-economic inequalities and the development of human capital. By targeting priority beneficiaries, the generalization of this program would constitute a great advance in the area of social protection in Benin (Box 1).

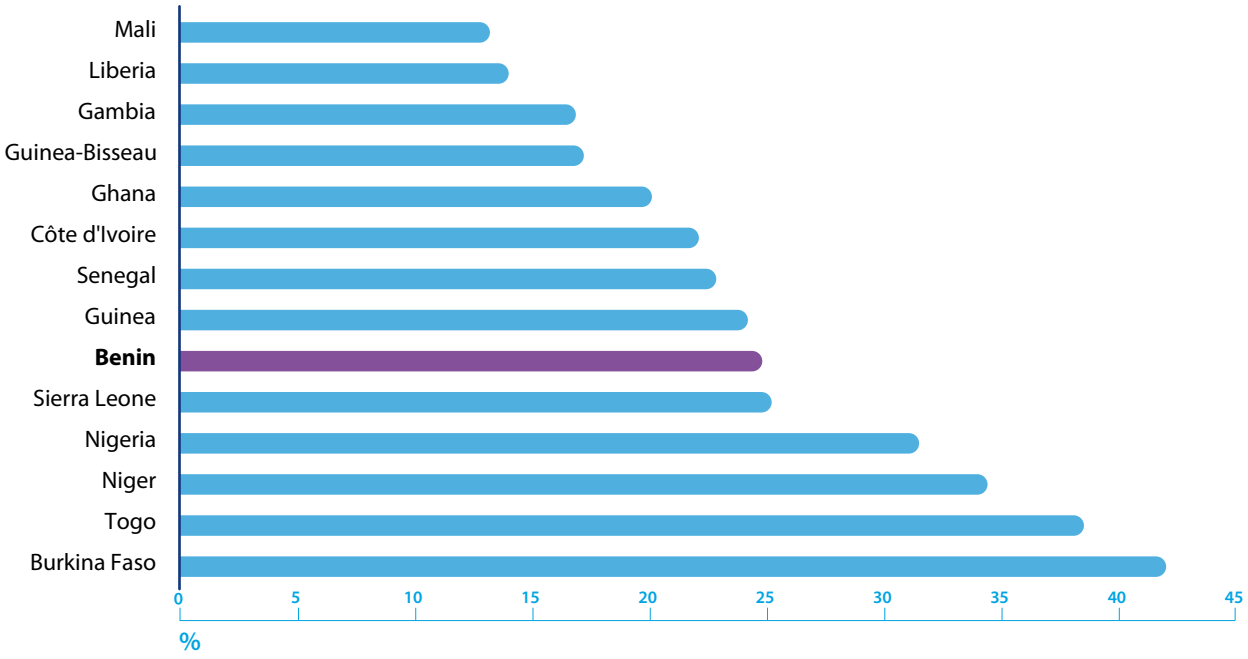
The Government must couple these efforts with measures to fight discrimination, modern slavery, and child labor. In 2019, about 24.8% of the population aged 5-14 was involved in child labor (Figure 11).

However, the PAG 2021-2026 action matrix to which we had access does not include measures to fight child labor. The Government of Benin must therefore ensure that this SDG 16 priority is included in its action program.

With regard to fundamental labor rights, Benin is among the best-endowed countries in the subregion. Intensifying measures to improve labor standards would enable the country to consolidate its performance in the transformation of human capital.

Figure 11

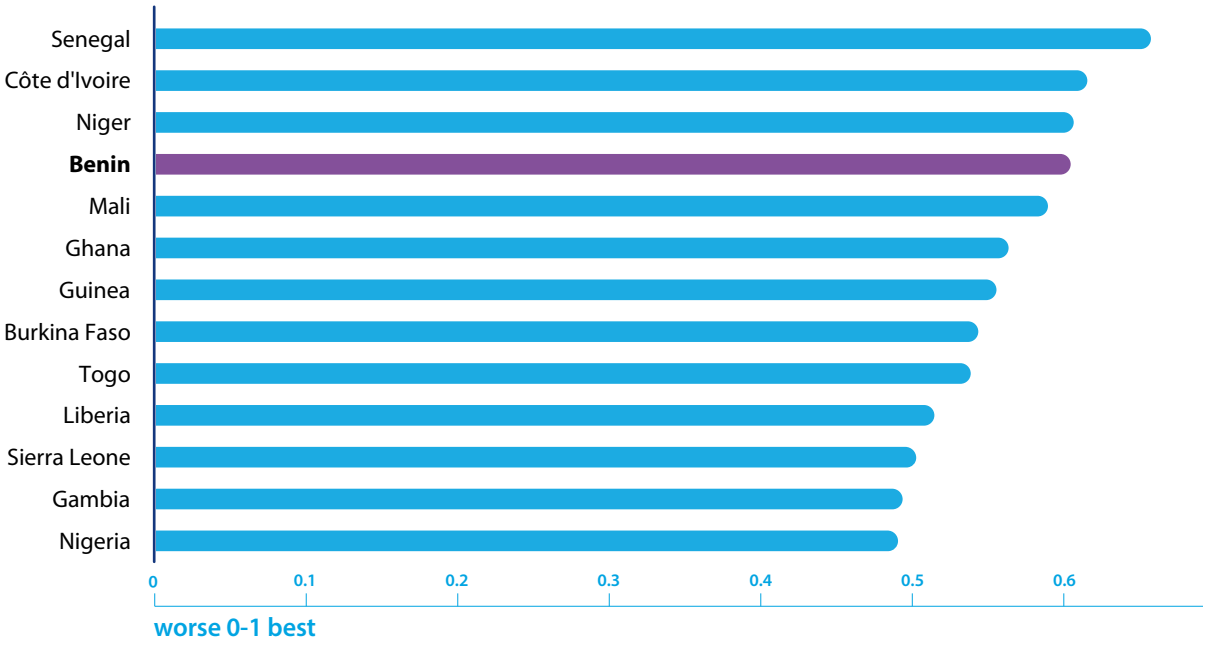
Child labor (% of population aged 5-14), 2019



Source: Authors' calculations based on data from UNICEF (2022).

Figure 12

Guarantee of fundamental labor rights (2020)



Source: Authors' calculations based on data from the World Justice Project (2020).

Box 1. Human Capital Strengthening Insurance Program (ARCH)

The Human Capital Strengthening Insurance Program (ARCH) is the main tool for implementing the social protection strategy in Benin.

It will provide access to one-stop health insurance, training, micro-credit, and pension insurance. ARCH is primarily intended for the poorest segments of the economy, especially those in the informal sector, as well as for those who are not working.

Health insurance is the main component, and the State provides full coverage for the extreme poor and partial coverage for the non-extreme poor. Law No. 2020-37 of February 3, 2021, which took effect in January 2022, makes health insurance compulsory for all persons residing in Benin. As a result, the State, private sector employers, and individual professionals are required to take out at least basic health insurance for their employees. The same will apply to all individuals in the informal sector who do not fall within the population category covered by the State.

Currently, the Human Capital Strengthening Insurance Program (ARCH) is in a pilot phase and its generalization is underway since January 2021. The National Agency for Social Protection (ANPS) oversees the program implementation. ARCH services will be offered throughout Benin through departmental and municipal branches.

Source: ARCH project sheet. Presidency of the Republic of Benin, April 2017.

Transformation 2. Health, Well-Being, and Demography

The second transformation aims to achieve universal health coverage and improve the social determining factors of health, including social norms and behaviors that promote well-being. Improving coverage of essential health services is a priority for Benin. Indeed, the Health Service Coverage Index produced by the World Health Organization, which takes into account reproductive, maternal, newborn, and child health, infectious diseases, non-communicable diseases, and capacity and access to services among the general population and the most disadvantaged, shows that Benin has a score of 38 out of 100 in 2019 (Figure 13). Despite the slight improvement between 2015 and 2019, the goal of achieving universal health coverage requires additional effort. The PAG, 2021-2026 makes strengthening the health system a strategic goal by 2026.

Furthermore, the mortality rate for children under five illustrates the situation of the health system. Since 2015, progress has been made in Benin, with a significant decrease in the under-five mortality rate of about 12% between 2015 and 2020, from 97.6 deaths per 1,000 live births in 2015 to 85.9 in 2020 (Figure 14). However, Benin remains among the ECOWAS countries with the highest under-five mortality rates, with 85.9 deaths per 1000 live births in 2020 (Figure 14).

The maternal mortality ratio decreased in Benin by about 8% between 2014 and 2017, from 432 deaths per 100,000 live births in 2014 to 397 in 2017 (Figure 15), the latest year of WHO data availability. Benin's rate remains relatively low at 397 deaths per 100,000 live births compared to the average of about 534.7 per 100,000 live births in the subregion in 2017 (Figure 15).

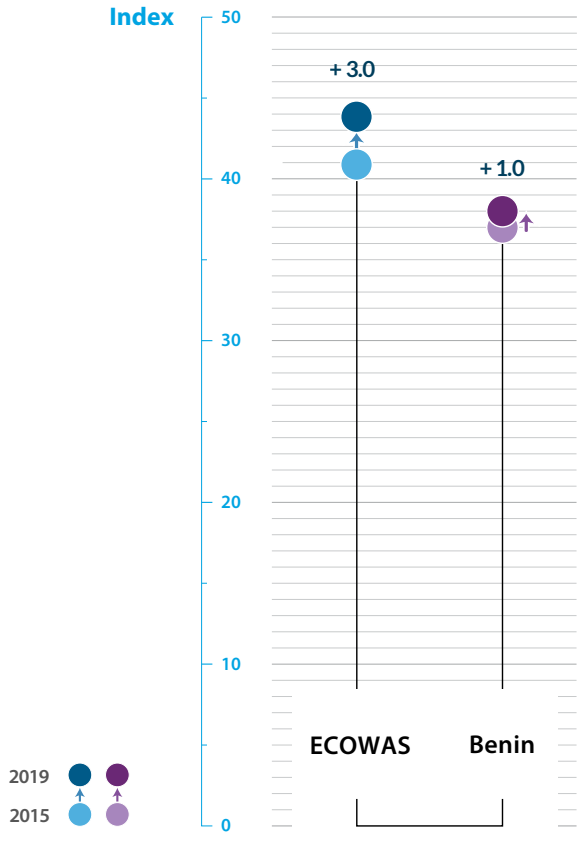
Benin needs to ensure a health system capable of responding to the pressure exerted by its demographics.

Nearly half of the population is under the age of 15, and Benin could reach more than 16 million people by 2030, according to the latest INStAD estimates. Furthermore, the demographic challenge raises the issue of family planning, which is both a reproductive health and gender equality issue (Transformation 1) and a sustainable development issue in general. In 2020, it is estimated that about 31.5% of women of reproductive age (15-49 years) had access to modern family planning methods in Benin, compared to an average of 46% of women in ECOWAS (UNDESA, 2022).

Benin prioritizes the health sector and addresses the need for access to quality reproductive, child, and maternal health services for women through, among other things, the SWEED project.

Figure 13

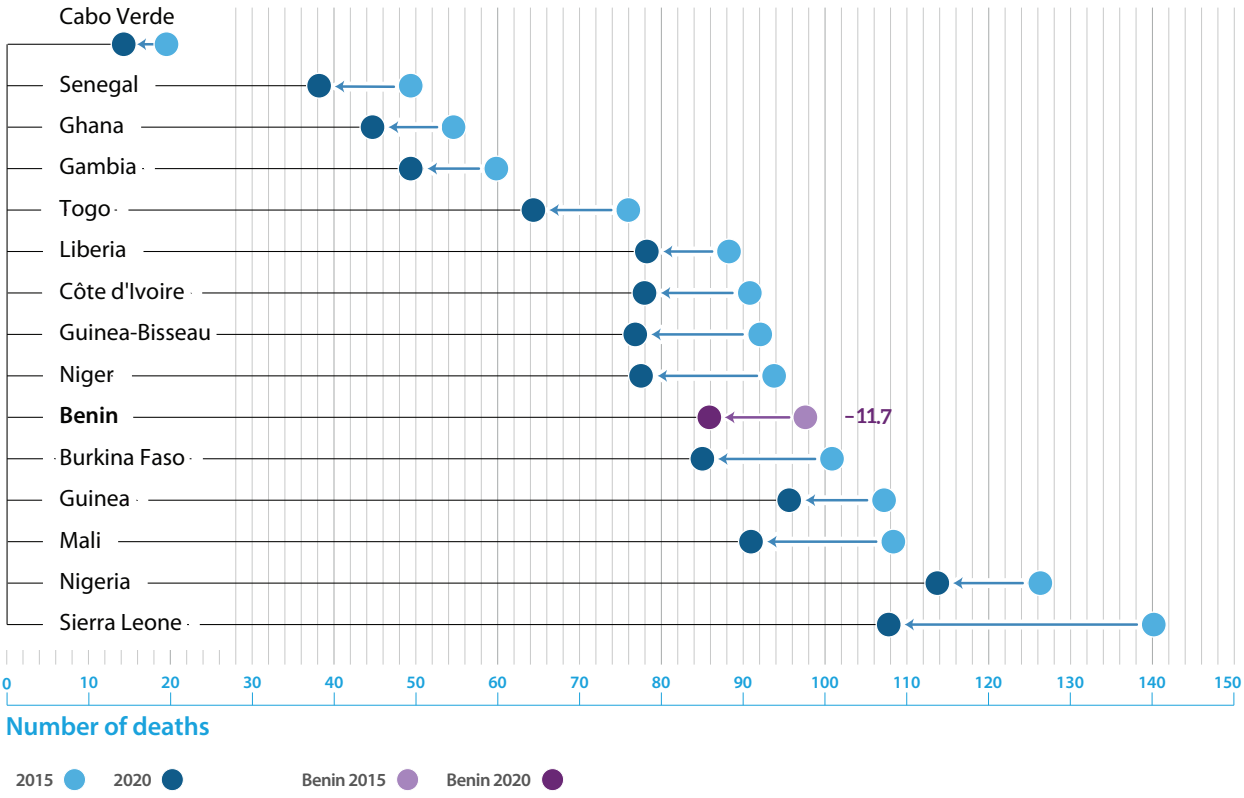
Universal Health Coverage (UHC), Service Coverage Index



Source: Authors' calculations based on data from WHO (2021).

Figure 14

Under-5 years old mortality rate per 1,000 live births



Source: Authors' calculations based on data from UNICEF (2021).

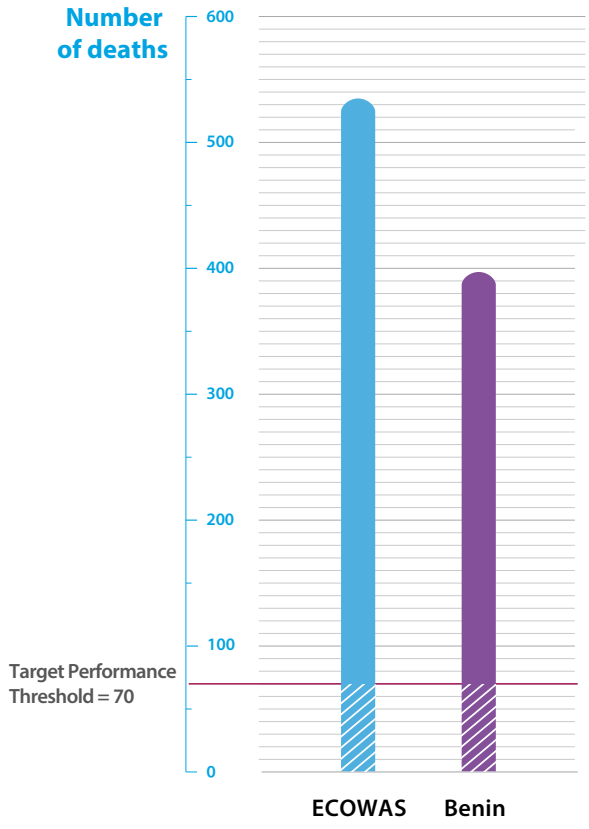
In order to meet health infrastructure needs, the PAG provides for the construction of hospitals, among other things. Nevertheless, the projects set out in the PAG seem to be concentrated in the Atlantic department, and the Government must continue its efforts by ensuring that the other departments are provided with health infrastructure so that no one is left behind. The Government is also planning to acquire 200 ambulances and to develop a health transport plan that includes SAMU.

Moreover, the strategic axis of the PAG aimed at promoting the practice of sports makes it possible to respond in part to the social and health welfare needs of the population. Among the reforms and projects aimed at improving well-being, the Government has planned to introduce a law on the financing of sports, to generalize sports classes, and to build and rehabilitate sports infrastructures. This intervention of the Government would allow, among other things, to fight against non-transmissible diseases, which are the main cause of death among the population aged over 30.

However, although included among the SDG targets prioritized by Benin, the PAG 2021-2026 does not address behavioral risk factors, such as smoking, alcoholism, poor nutrition, or unsafe sexual practices that risk the spread of sexually transmitted diseases, for which resources must be devoted, particularly for activities of public awareness raising and prevention.

Figure 15

Maternal mortality rate per 100,000 live births (2017)



Note: The "target performance threshold" represents the optimal threshold (upper performance benchmark) defined for the index and dashboards.
Source: Authors' calculations based on data from WHO (2019).

Transformation 3. Energy Decarbonization and Sustainable Industry

The third transformation aims at ensuring access to clean energy and decarbonizing energy-intensive activities, such as power generation, transportation, and industry, as well as reducing air and water pollution.

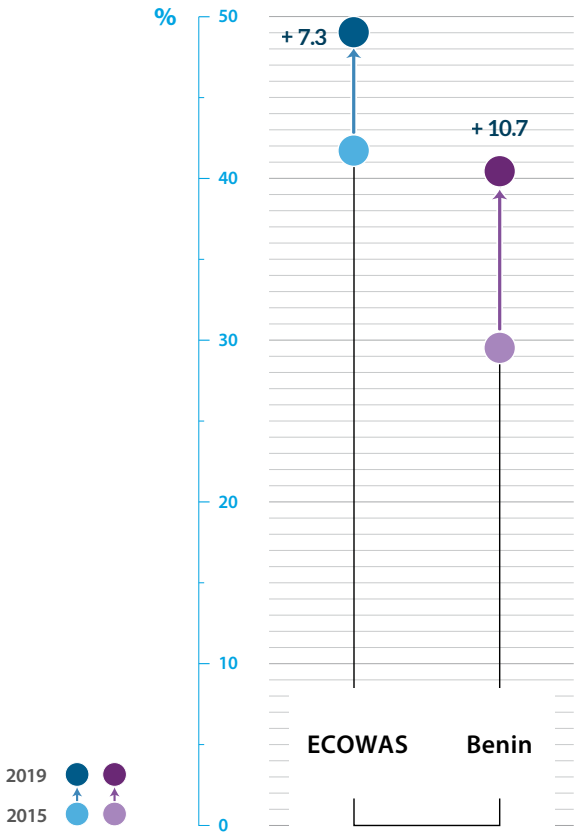
In Benin, the proportion of the population with access to electricity has risen sharply since 2015, from 29.6% to 40.3% in 2019, narrowing the gap with other ECOWAS countries (Figure 16). Also, Benin is among the countries with the most affordable electricity for consumers. In 2019, Benin scored 81 out of 100 compared to the ECOWAS average of 77.25 out of 100 (RISE report, 2019).

The Government of Benin plans to continue its efforts to make electricity accessible to the population and ensure energy autonomy. Thus, the PAG 2021-2026 provides for numerous electrification projects, such as the construction of a 143 MW thermal power plant in the Glo-Djigbé special economic zone, the construction of the 128 MW Dogo bis hydroelectric dam, or the rural electrification program (PERU).

Benin has the potential and the opportunity to plan for a zero-carbon energy mix and electrification by 2050 (CCSI, 2021). Since transport and households account for nearly 90% of total energy consumption (PONADER, 2020), this transformation must aim to improve their energy efficiency and accelerate the adoption of technologies that run on renewable energy. Indeed, although the share of renewable energy in the total primary energy supply is 54.6% in 2019 (OECD, 2022), it has been decreasing since 2000. Also, almost all of these renewable energies come from biomass (IEA, 2021b), despite a significant energy potential that could be diversified in favor of solar, wind, and hydro (PONADER, 2020).

Figure 16

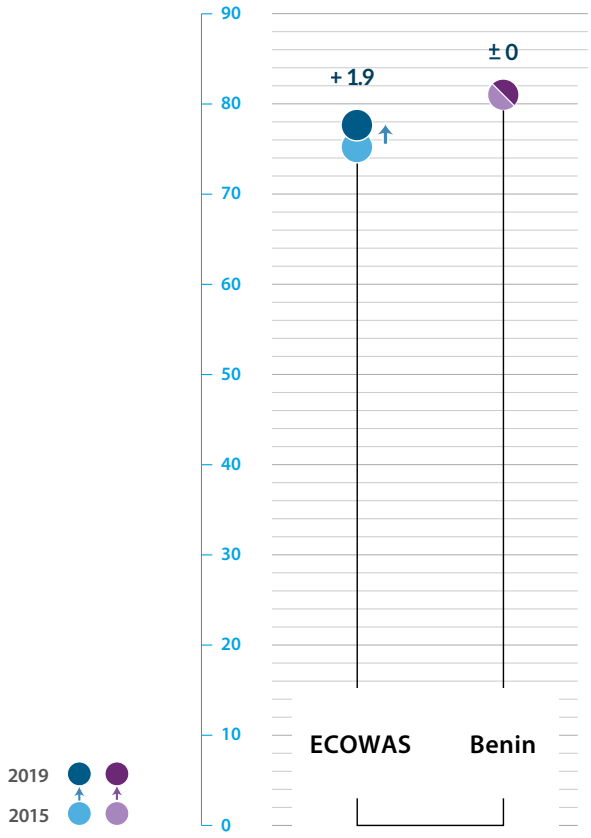
Population with access to electricity (%)



Source: Authors' calculations based on data from SE4All (2021).

Figure 17

Consumer affordability of electricity (scale 0 to 100)



Source: Authors' calculations based on data from the RISE report (2019).

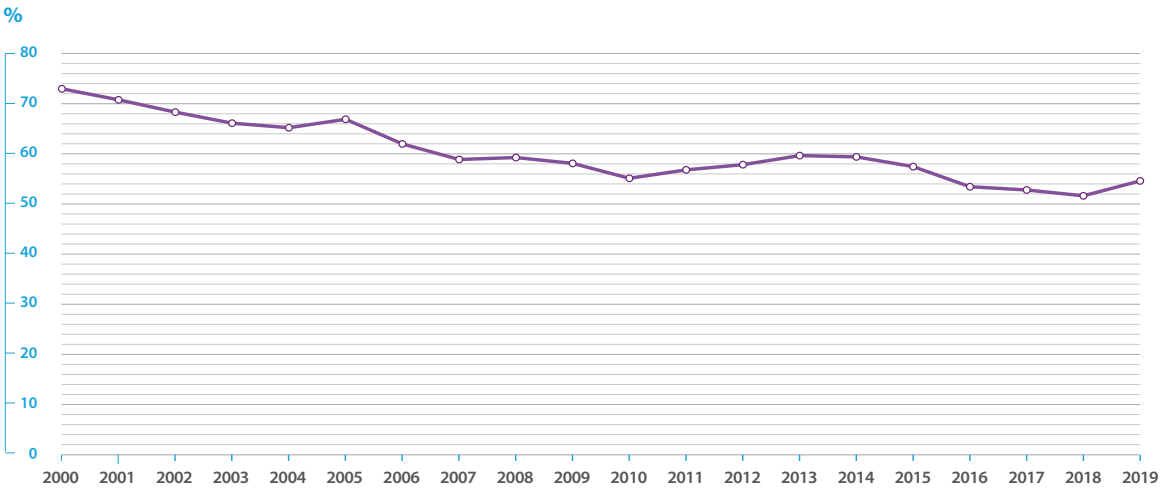
Electricity production is almost totally based on fossil fuels (Figure 20) and must be decarbonized. Indeed, it is the country in the subregion that emits the most CO_2 from fuel combustion for electricity and heating. In 2019, Benin emits 34 megatonness of CO_2 for every terawatt-hour of electricity generated. In comparison, ECOWAS countries emit an average of 5 megatonness of CO_2 in the same year (IEA, 2021b).

The Government is aware of these challenges and is committed to initiating the transformation of its energy mix, notably through the implementation of a national renewable energy development policy (PONADER 2020-2030).

As part of its action program, the Government is planning reforms, such as the establishment of a renewable energies financing instrument. The PAG also highlights projects such as the Dogo bis dam project and the construction of five solar power plants totaling 100 MWp. However, these projects do not directly target the development of "zero-emission" transportation.

Figure 18

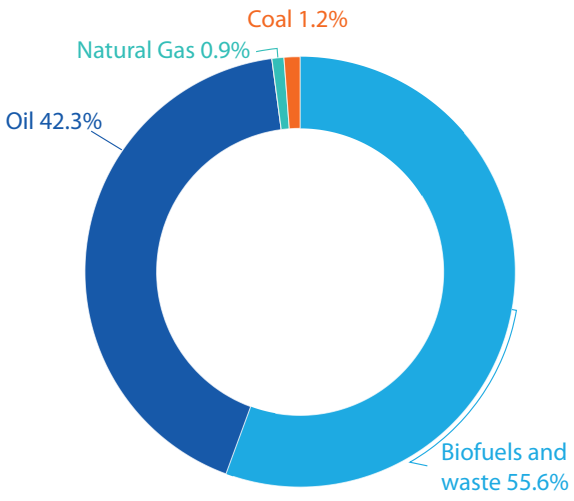
Share of renewable energies in total primary energy supply in Benin (%)



Source: Authors' calculations based on data from the OECD (2022).

Figure 19

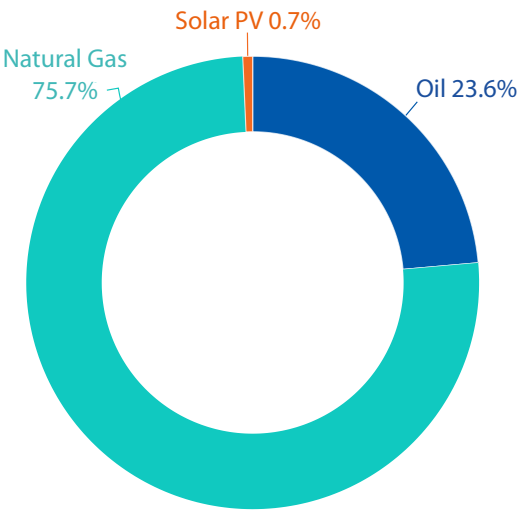
Benin's energy mix (2019)



Source: Authors' calculations based on data from IEA (2021b).

Figure 20

Electricity generation by energy source in Benin (2020)



Source: Authors' calculations based on data from IEA (2021a).

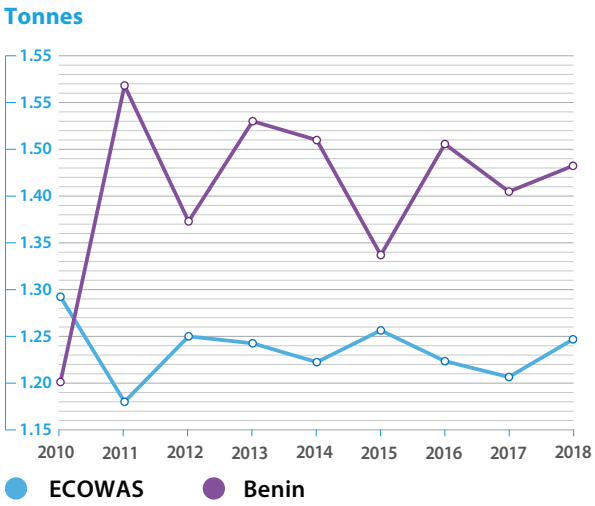
Transformation 4. Sustainable Food, Land, Water, and Oceans

The fourth transformation interventions aim at making food, agriculture, and forestry production systems more productive and resilient to climate change. These interventions must be coordinated with efforts to preserve and restore biodiversity and promote healthy diets, while significantly reducing food loss and waste.

Observation of cereal yields provides insight into the evolution of productivity in agrifood and forestry production systems. Benin's cereal yields are higher than the ECOWAS average between 2010 and 2018, the date of the latest available international data (Figure 21).

Figure 21

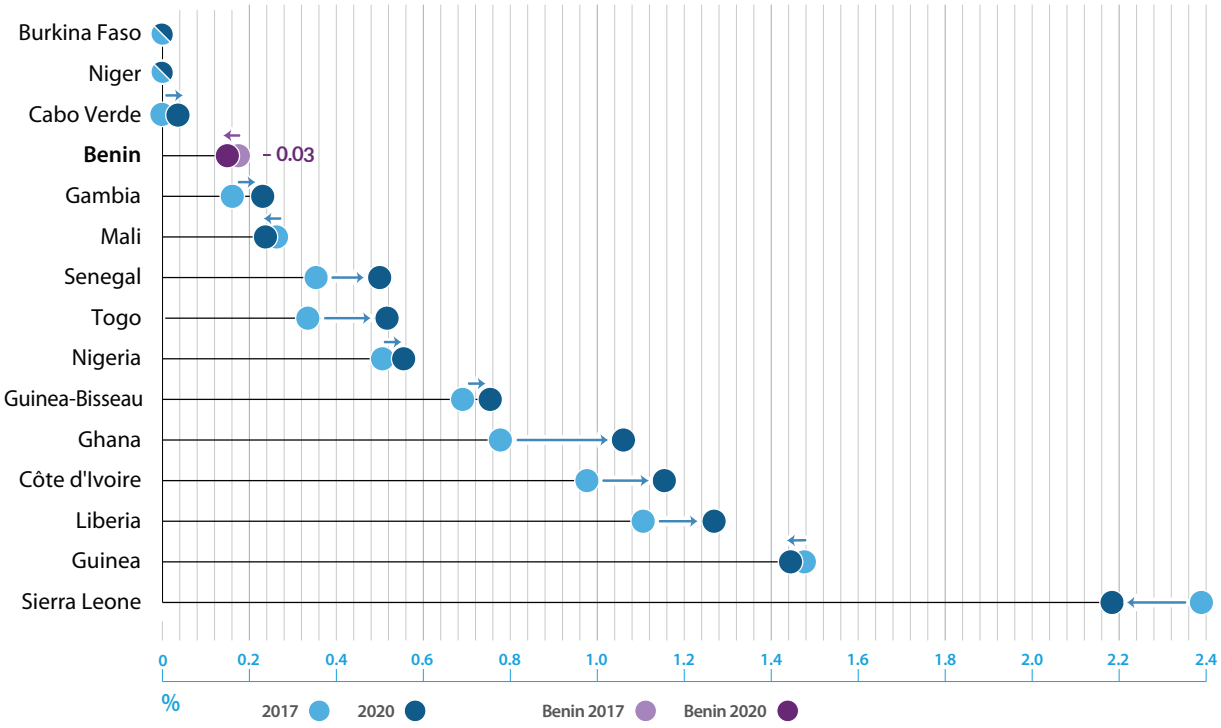
Cereal yield in Benin (tonnes per hectare of harvested land)



Source: Authors' calculations based on data from FAO (2021).

Figure 22

Permanent deforestation (% of forest area, 3-year average)



Source: Authors' calculations based on data from Curtis et al. (2018).

Figure 23

Maps of protected and unprotected areas in Benin (2022)

Source: BirdLife International (2022). World Database of Key Biodiversity Areas.
Notes: The Lake Nokoué site considered by KBA comprises the larger area "Lower Ouémé Valley, Porto-Novo Lagoon, Lake Nokoué" classified as a Ramsar site. It is the same for the sites of Lake Ahémé and the Aho Channel, also classified as Ramsar sites, and which are part of the same key area for biodiversity.
The Ouémé Basin site includes three contiguous forest reserves, namely the Classified Forests of Upper *Ouémé, Ouari-Maro, and Monts Kouffé.*

The PAG 2021-2026 plans to consolidate the performance of the agricultural sector. The reforms and projects planned by the Government include measures to facilitate access to seeds, inputs, and markets; the creation of an agency for the management of large farms and an office for the management of livestock farms; and the establishment of a national program for the development of agricultural mechanization. The Government's efforts to enhance the value of its agricultural sector are bearing fruit. For example, Benin's "Sugar Loaf" pineapple variety obtained "Protected Geographical Indication (PGI)" certification from the African Intellectual Property Organization (OAPI) in October 2020[4], which adds value to this crop and gives visibility to Benin's agricultural production.

The development of Benin's agrifood and forestry production systems must be accompanied by measures to preserve and restore biodiversity. Benin is among the countries with the lowest permanent deforestation in the subregion (Figure 22). The PAG seeks to strengthen environmental preservation and resilience to climate change. Among the environmental preservation projects at the national level, the Government wishes to set up a project for the sustainable management of classified forests. Lastly, the PAG includes the creation of an international research center for climate change resilient agriculture.

In addition, the Government must strengthen the protection of natural sites (aquatic and terrestrial) important for biodiversity. In the period 2015-2020, 66.6% of terrestrial sites important for biodiversity are protected; while there are no protected areas in marine and freshwater sites important for biodiversity. Thus, the Government should protect the sites of Lake Nokoué, Lake Ahémé and the Aho Channel, which have been classified under the Ramsar Convention[5] since the early 2000s but which do not yet benefit from effective protection (BirdLife International, 2022).

4. OAPI (2020) "Commerce international : Le Bénin a désormais un label de qualité"
5. Intergovernmental treaty that provides the framework for the conservation and wise use of wetlands and their resources. The convention was adopted in the city of Ramsar, Iran, in 1971 and entered into force in 1975 (Ramsar).

Transformation 5. Sustainable Cities and Communities

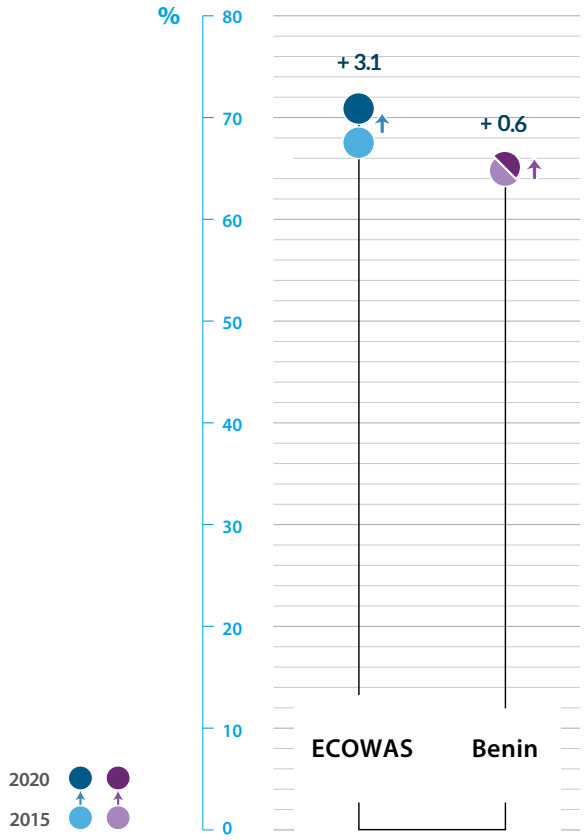
Cities and other communities need integrated investments in urban infrastructure and services, as well as in climate change resilience. This transformation focuses on ensuring access to water, sanitation, hygiene, and proper wastewater and waste disposal in urban and rural areas. In 2020, 65.4% of Benin's population will be using at least basic drinking water services, compared to 70.8% of the population on average in ECOWAS (Figure 24). The Government of Benin's stated goal is to provide universal access to drinking water. This is achieved in particular through the implementation of the Government's rural drinking water access program (Box 2), where the rate of access to drinking water was 41.4% in 2015 (PND 2018-2025) (Box 2). This ambitious commitment by the Government would enable Benin to increase the share of its population using basic drinking water services and catch up with ECOWAS.

Access to basic hygiene and sanitation is a priority of the Ministry of Water and Mines, but is not explicitly stated in the PAG. However, the National Development Plan (PND, 2018-2025) reports that access to these services is still limited. Despite progress from 14.7% in 2015 to about 17% in 2020 (Figure 25), the use of basic hygiene and sanitation services is still low, compared to the ECOWAS average of about 32.2% in 2020 (JMP, 2021). Targets and an action plan, similar to the commitment made for access to safe drinking water, would help achieve these goals.

In the context of improving the living environment, the PAG covers waste and wastewater management. For example, the Government has planned to modernize the management of solid household waste in the major cities, and to implement a national program for the integrated management of electronic waste. With respect to wastewater disposal, the PAG outlines a project to modernize the management of faecal sludge and wastewater, as well as stormwater drainage in Cotonou and some other cities.

Figure 24

Population using at least basic drinking water services (%), nationwide



Source: Authors' calculations based on data from the Joint Monitoring Programme (JMP). WHO and UNICEF (2021).

The fifth transformation also covers interventions to promote balanced and sustainable land use planning, as well as a living environment that promotes the well-being of the population. The proportion of the urban population living in slums has decreased from 61.5% in 2014 to 59.2% in 2018 (Figure 26). This progress made in a short period of time must be intensified so that the Government leaves no one behind and Benin can catch up with the sub-region.

Box 2. Status of the Government's Rural Water Supply Universal Access Program

The Government of Benin is giving an important place in its action program to the supply of drinking water in rural areas, with a view to ensuring universal access to drinking water by 2030. In 2017, the rate of service in rural areas was 42%. The access to drinking water services scheme involves: (i) the development of service infrastructure, and (ii) the sustainable management of rural water resources throughout the country.

Regarding the first component of infrastructure development, work will begin in 2022 to restore the existing Village Water Supply Systems (AEV) to proper working order and extend them. These investments will ensure the continuity of drinking water supply to the 3.5 million people served, i.e., nearly 27.8% of the national population. In addition, 239 drinking water supply systems have been opened in recent years, completing the existing ones to impact an additional 3.6 million people, or 28.6% of the population by the end of 2026. In addition, the country's first public faecal sludge treatment plant will soon be operational.

In terms of sustainable management, several initiatives were launched in 2022. The production, transport, and distribution of drinking water in rural areas have been taken over by specialized operators, encouraging the use of local skills. These operators will be responsible for providing a secure and sustainable supply to the inhabitants of Benin's rural areas, a population estimated at nearly 9 million people. Additionally, a single national solidarity tariff has been adopted, which is significantly lower than the tariffs charged in rural areas up to now. Also, the construction of a new National Reference Laboratory for the Quality Control of Health Products and Water was inaugurated.

Source: National Agency for Drinking Water Supply in Rural Areas (ANAEPMR).

In response to this challenge, the Government plans to implement the social and economic housing program, which provides for the construction of 20,000 homes.

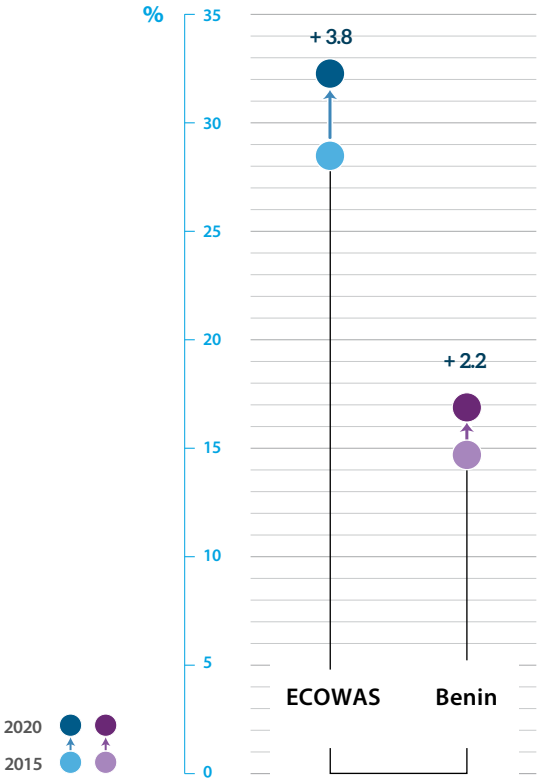
Finally, infrastructure and services for sustainable and efficient mobility are a priority. Mobility policies must be integrated into territorial planning and development, taking into account economic and demographic dynamics. In 2018, Benin's Logistics Performance Index is better than that of the region (Figure 27). As planned in the PAG, the Government must continue its efforts to reach the upper limit of the index. The road mobility infrastructure projects included in this phase of the PAG include the completion of 917 km of road projects, the reconstruction of the 207 km National Inter-State Road 2 (RNIE 2), and the construction of the Vèdoko interchange in Cotonou.

Particular attention must be paid to the long-term sustainability of transport and the reduction of the air pollution it generates. Like ECOWAS, air pollution has been increasing sharply in Benin since 2015. However, it should be noted that the concentration of particulate matter has been below the ECOWAS average since 2016 (Figure 28). The development of green spaces, such as the Grand Nokoué greening project, planned by the PAG, is an example of a solution to mitigate air pollution generated by urban activity, including transportation.

Public transport is a solution to urban mobility needs, which are met by the use of private vehicles (cars and motorcycles) that prevent fluid mobility and promote air pollution. Since transport development depends on the municipalities, the development of public transport (buses and trains) has not been foreseen by the PAG, so it would be necessary to look at the municipal development plans. On the other hand, the road development projects planned by the PAG would benefit from integrating public transport, pedestrian, and bicycle lanes to encourage soft mobility and improve the living environment of the inhabitants.

Figure 25

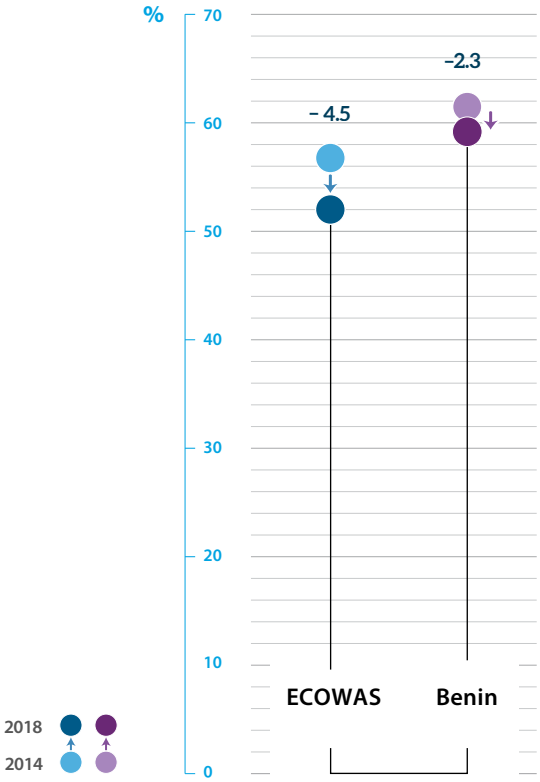
Population using at least basic sanitation services (%)



Source: Authors' calculations based on data (2021). IMP). WHO and UNICEF

Figure 26

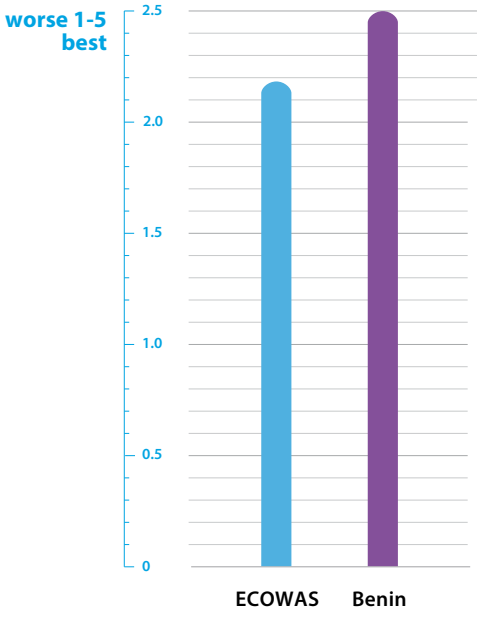
Proportion of urban population living in slums (%)



Source: Authors' calculations based on data from the UN-Habitat (2021).

Figure 27

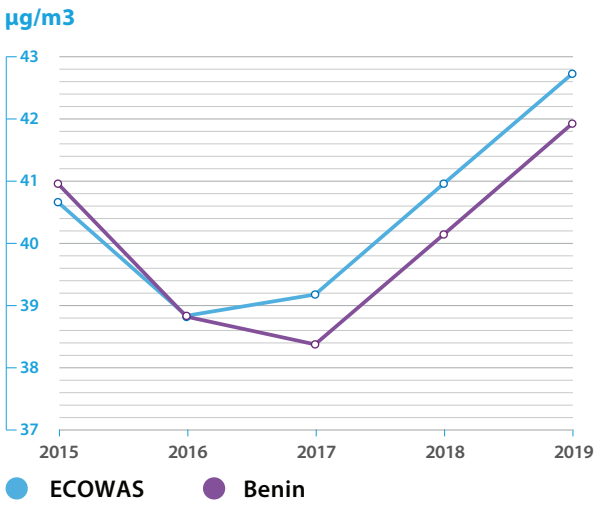
Logistics Performance Index: Quality of the infrastructure related to trade and transportation



Source: Authors' calculations based on data from the Logistics Performance Index (LPI). World Bank (2018).

Figure 28

Annual mean concentration of particulate matter of less than 2.5 microns in diameter (PM2.5) (µg/m^3)



Source: Authors' calculations based on data from the IHME (2020).

Transformation 6. Digital Revolution for Sustainable Development

The sixth SDG transformation requires a comprehensive set of physical infrastructure, digital systems, and regulations to leverage the benefits of the digital revolution for the SDGs and limit its potential risks. Digital technologies can increase productivity, reduce production costs, improve access to markets, and make public services more readily accessible.

In the Benin context, mobile broadband subscriptions increased by 392% over the 2015-2019 period, and Internet usage increased by 129% in five years (Figure 29). However, Benin remains below the Internet usage rate in the subregion, with 25.8% usage, compared to an ECOWAS average of 32.3% in 2020 (Figure 29). Benin is also among the ECOWAS countries with the lowest mobile broadband subscription rates, with 21.4 subscriptions per 100 inhabitants in 2019 (Figure 30). These findings reflect both the efforts and the needs to take greater advantage of the digital revolution.

The PAG makes digital transformation a strategic axis for the country's development. The Government's goal is to increase investment in digital infrastructure and services. To achieve this, the PAG plans to deploy high and very high-speed Internet throughout the country.

The digital transformation also applies to the public sectors, which must become modernized by digitizing their services. This transformation applies, among others, to civil status services, tax services, education, and health. Thus, the PAG aims to accelerate the modernization of public administration by pursuing the dematerialization of public services and the implementation of intelligent administration ("SMART GOUV"). Local authorities are also included in the PAG's digital transformation process.

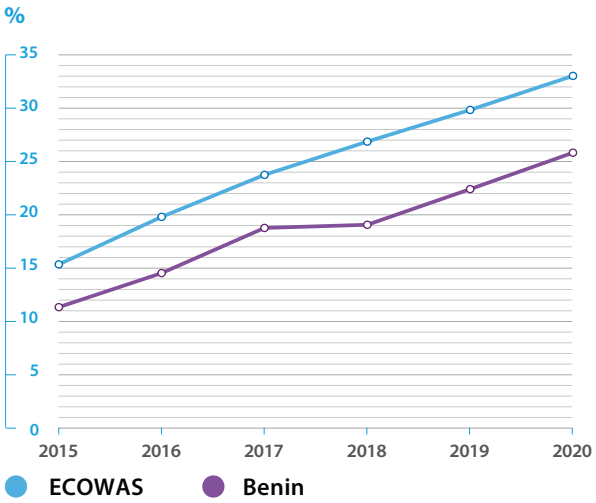
Moreover, the issue of data is an integral part of the sixth transformation, particularly in the context of mobilizing digital technologies to achieve the SDGs. Data are tools that the Government must mobilize to support the implementation of its action program. In Benin, progress is being made, and additional efforts are needed to improve the performance of the national statistical system (Part 3.2). In 2019, the country was among the worst performers in ECOWAS in terms of its national statistical system (Figure 31).

The digital revolution requires the population to acquire the necessary skills to use digital tools. Therefore, the development of digital skills must start as early as possible in the education system, so that the entire population has at least basic skills. In this context, we can highlight the "generalization of digital use through education and training" project, financed through SDG bonds.

Finally, the PAG takes into account the need for a digital transformation framework. Indeed, the digital revolution involves threats, such as identity theft, invasion of privacy, discrimination based on personal data, monopoly positions due to the control of big data, cyber-attacks, or the manipulation of social media. The project to create a digital observatory, planned by the PAG, will help mitigate these dangers. For the moment, computer security is ensured by the National Agency for Information Systems Security (ANSSI).

Figure 29

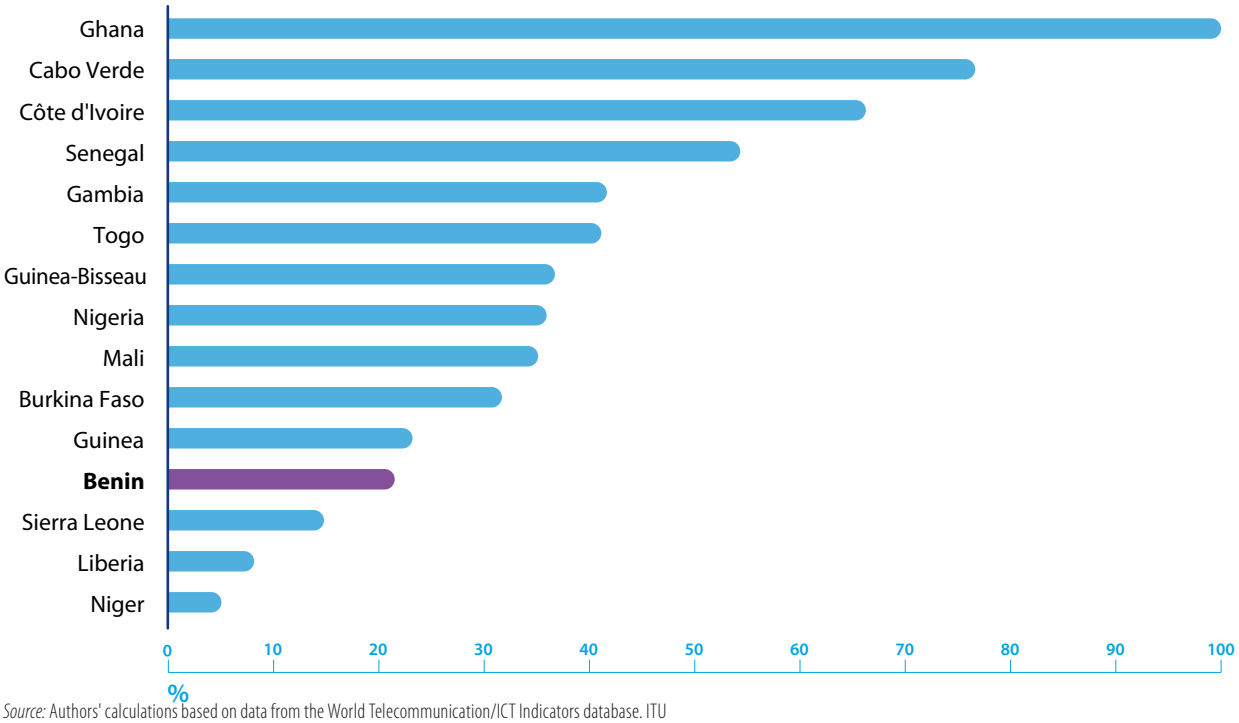
Population using the Internet (%)



Source: Authors' calculations based on data from the World Telecommunication/ICT Indicators database. ITU (2022).

Figure 30

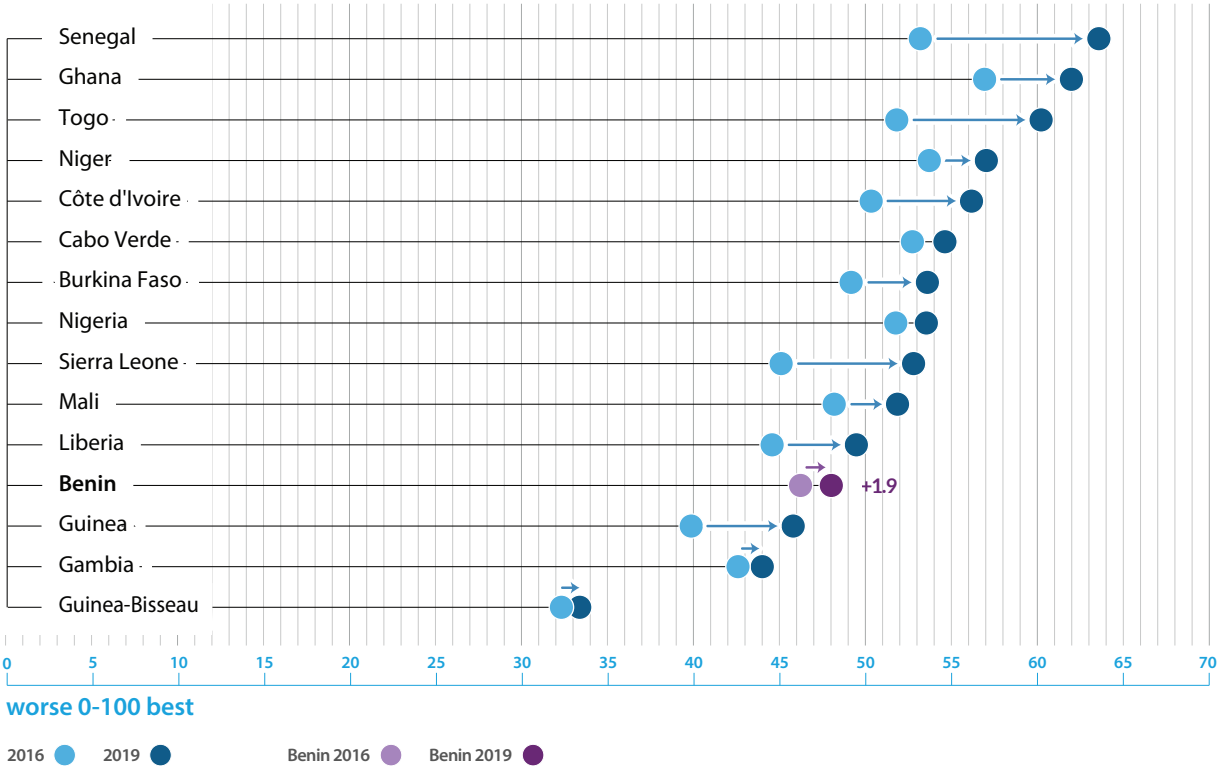
Mobile broadband subscriptions per 100 population (2019)



Source: Authors' calculations based on data from the World Telecommunication/ICT Indicators database. ITU (2022).

Figure 31

Statistical Performance Index



Source: Authors' calculations based on data from the Statistical Performance Indicators. World Bank (2022).

Part 3
Achieving the SDGs in Benin: Efforts and challenges[6]

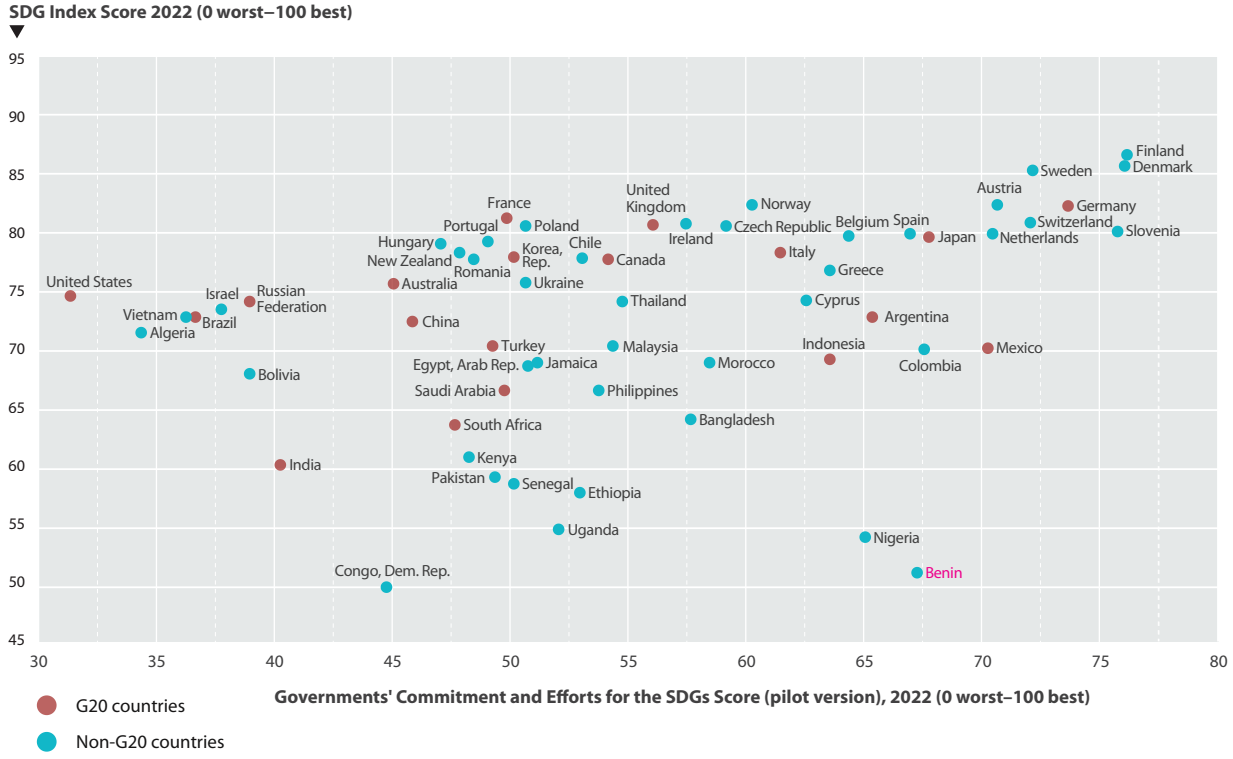
3.1. Government efforts to implement the 2030 Agenda and SDG transformations

Ambitious and robust national goals, strategies, and plans are critical to transforming the SDGs into an actionable agenda. Each year since 2018, the SDSN has mobilized its global network of experts to analyze Government efforts to achieve the SDGs. The information is collected through a survey that covers six broad categories of analysis: (1) high-level government statements, (2) action plans, (3) monitoring, (4) budget, (5) coordination for the implementation of the 2030 Agenda, and (6) consideration of the SDGs in the country's COVID-19 recovery plan. The SDSN also compiles measures to assess country efforts to align national ambitions and investments with the SDGs' Six Transformations.

The 2022 edition of the Sustainable Development Report, through its pilot analysis of "government commitment and efforts towards the SDGs, in relation to the SDG Index score," classifies Benin as a country with "*a strong political commitment*[7]." Benin has a low SDG Index score but high policy effort scores, which could help achieve SDG outcomes in the coming years.

Figure 32

Score of Government commitment and efforts towards the SDGs, compared to the SDG Index Score - Pilot Analysis



Source: Sustainable Development Report, 2022. Authors analysis. Details on the methodology and indicators used are available on the following website: www.sdgindex.org.
Note: Ukraine's score reflects the situation in January 2022.

6. This summary of the Government's efforts to achieve the SDGs is by definition very synthetic and is not intended to be as comprehensive as the various documents on which it is based (see bibliography for the complete list).
7. Countries with high political commitment are those whose commitment score and government efforts are between 65 and 80 out of 100 (see Figure 32).

Benin's commitment to the implementation of the 2030 Agenda

At the September 2016 United Nations General Assembly, President Patrice Talon affirmed that Benin is "capable of achieving the Sustainable Development Goals (SDGs), provided that it receives adequate support" (United Nations, 2016). This commitment was manifested, as early as December 2016, by Benin's registration for the United Nations High Level Political Forum (HLPF) in July 2017, in order to present its first Voluntary National Review (VNR). From then on, there began a process of ownership of the SDGs, which serves as a foundation for the implementation of the 2030 Agenda (Box 1). Since then, Benin has presented its progress to the HLPF in 2018, in 2020, and will do it again in July 2022.

Box 3. SDG ownership in Benin

President Patrice Talon's commitment to achieving the SDGs was manifested by the organization of a high-level seminar on the SDGs and the Paris Agreement on September 1, 2016. This seminar was an opportunity to adopt the SDG ownership and implementation agenda. The roadmap made permanent and transversal provision for information, education and communication (IEC) activities around the SDGs. More than fifty meetings have mobilized nearly five thousand participants, including civil society organizations, Beninese youth, the private sector and academics.

The fundamental elements of this SDG appropriation process were: i) the prioritization of SDG targets and their contextualization, which led to the selection of a set of 49 priority targets, excluding those relating to the means of implementation, and ii) the domestication of the indicators for these priority targets. This domestication work was continued and led to the establishment, with the support of the United Nations Development Programme (UNDP), of a working group made up of experts from the Directorate-General for Coordination and Monitoring of the SDGs (DGCS-ODD) and the National Institute for Statistics and Economic Analysis (INSAE, now INStaD). The goal is to improve the level of regular information on the indicators and to ensure effective monitoring of their progress.

Thus, the guidelines that led the formulation of the strategies of the National Development Plan (PND, 2018-2025) and its first short- and medium-term operationalization document, the Growth Program for Sustainable Development (PC2D), were built around the themes of the SDGs and the priority targets selected by Benin. Similarly, the new Government Action Program (PAG II, 2021-2026) was developed and adopted in December 2021 while capitalizing on the achievements of the previous Government Action Program (PAG I, 2016-2021) which was strongly anchored[8] on the SDG priority targets. In addition, the country has created a public policy development guide that facilitates the alignment of strategies and policies with the SDGs during their development process (MPD, 2020). Moreover, the Government has organized technical workshops to support the municipalities of Benin's 12 departments, with a view to building their capacity to integrate the SDGs into their development planning documents. A manual for the integration of the 2030 and 2063 Agendas in programmatic documents has been developed for this purpose.

Finally, in order to facilitate the process of ownership, integration, and monitoring-evaluation of the SDGs at the national and local levels, SDG focal points have been designated at the level of sectoral ministries and town halls in order to produce and transmit the data required for the preparation of SDG implementation monitoring reports in time.

Source: Directorate-General for Coordination and Monitoring of the SDGs (DGCS-ODD)

8. The linkage of the PAG I (2016-2021) to the priority SDG targets analysis results showed that the priority projects and flagship projects of the PAG I address 90% and 65% of the priority targets, respectively. As for the PAG I reforms, they address 64% of the SDG priority targets.

Benin has adopted new strategic frameworks and plans for the sustainable development of the country. The Government Action Program (PAG, 2016-2021 and PAG II, 2021-2026), the National Development Plan (PND, 2018-2025), and the Growth Program for Sustainable Development (PC2D, 2018-2021) are the main national frameworks for the realization of the sustainable development vision as expressed by the "Benin Alafia 2025" vision. The implementation of the SDGs in Benin requires the operationalization of these main planning documents, through the Multi-Year Budget and Economic Programming Document (DPBEP), which serves as the basis for budget preparation.

The sectoral plans produced by the ministries extend the overall planning that places the achievement of the SDGs at the center of public policies. Furthermore, the Ten-Year Framework for Action for the SDGs (CDA-ODD, 2020) report makes improving the integration of the SDGs into planning and budgeting documents a core goal.

Considering SDGs in budget planning

In its effort to implement the 2030 Agenda, the Government of Benin is carrying out its budget planning taking into account the SDGs. Indeed, the Organic Law on Finance Laws (LOLF)[9] requires all ministries to prepare multi-year budget documents (DPBEP and DPPD), which are the quantified expression of the ministries' sectoral development strategies.

An analysis of the sensitivity of the State budget to the SDGs was conducted in 2018. Based on the 2018-2020 Multi-Year Public Expenditure Programming Documents (DPPDs), as well as the 2017 and 2018 program budgets, it makes it possible, in particular, to measure the share of the national budget actually allocated to achieving the SDGs. The study highlights a high allocation of the ministries' general budget to the SDGs, and a disparity in the distribution of these resources among the seventeen SDGs. However, this analysis no longer reflects the current context. A more detailed study is currently underway and should make it possible to determine the sensitivity of budgets to the SDGs.

As a continuation of this analysis of budget sensitivity to the SDGs, the DGCS-ODD has been conducting annual sensitivity analyses of the ministries' Annual Work Plans (PTA)[10] with regard to the SDGs since 2018. These reports make it possible to inform about the contribution of each ministry to the achievement of the SDGs. The analyses show an evolution of the ministries' contribution to the implementation of the 2030 Agenda. The responsiveness of the ministries' PTA to the SDGs was said to be "perfectible" in 2018 and became "satisfactory" in 2021.

The institutional mechanism for the implementation, coordination, and monitoring-evaluation of the SDGs

The Government of Benin has set up an institutional framework to coordinate the implementation and monitoring-evaluation of the SDGs. At its head, the National Orientation Committee (CNO) ensures the coherence of sustainable development policies at the national level. It coordinates the implementation of the SDGs and the mobilization of the resources needed to achieve them. The Committee is chaired by the Minister of State in charge of Development and Coordination of Government Action, who reports to the Head of State in the Council of Ministers. He is assisted in this function by a Vice-Chairman, the Minister of State for the Economy and Finance.

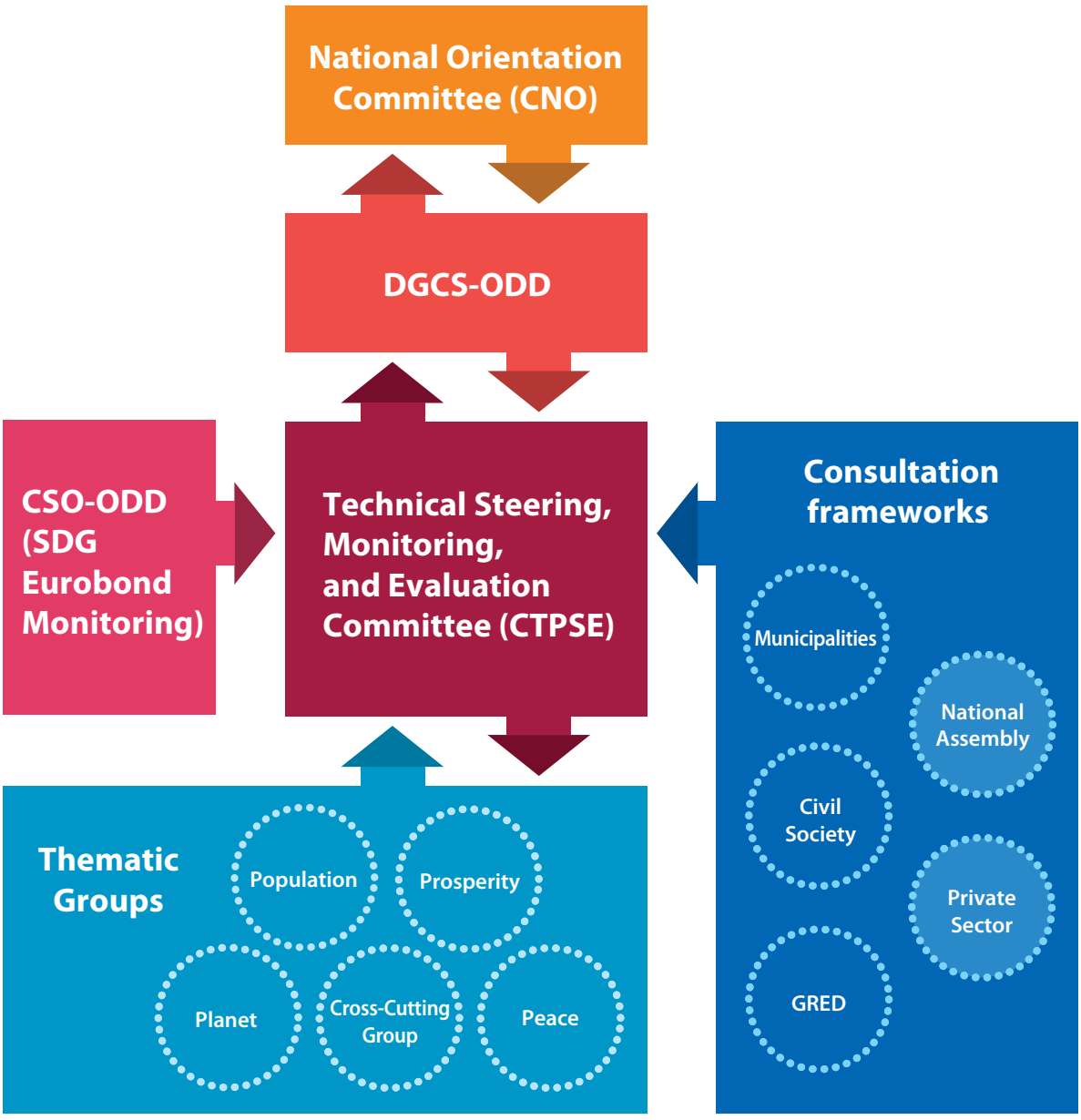
The role of the Technical Steering, Monitoring, and Evaluation Committee (CTPSE) is to coordinate and monitor the implementation of the SDGs by operationalizing the recommendations of the National Orientation Committee.

9. Organic Law on Finance Laws (LOLF) n°2013-14 of 27 September 2013.

10. The ministries' Annual Work Plans (PTA) operationalize the Multi-Year Public Expenditure Programming Documents (DPPD) as well as the sectoral plans.

Figure 33

Flow chart of the institutional mechanism



Source: Authors and DGCS-ODD.
Notes: The private sector and National Assembly consultation frameworks have not yet been formally established.
The cross-cutting thematic group deals with data, finance, communication, financing through SDG bonds, etc.

The CTPSE is composed of representatives of the intersectoral technical committees (or technical thematic groups) led by the focal points of the various institutional actors[11] for the achievement of the SDGs in Benin, and representatives of the joint consultation bodies. The inter-ministerial technical committees (or thematic technical groups) are organized according to the SDG pillars: Population, Prosperity, Planet, Peace; as well as the cross-cutting thematic group (data, communication, finance etc.).

The joint consultation frameworks serve as platforms for exchange and coordination of actions between the representatives of the Government and the actors of sustainable development in Benin. Thus, there are forums between the the Government and development partners, civil society organizations, and municipalities, respectively. The joint consultation frameworks of the National Assembly and the private sector are in the process of being set up and therefore not yet operational The National Assembly's consultative body can be an asset in Benin's commitment to the SDGs, as it will ensure that the national budget includes lines dedicated to their implementation.

Among the joint consultation bodies, there is also the Group for Research and Studies on Sustainable Development (GRED) which aims to strengthen research and scientific innovation for sustainable development. This scientific melting pot composed of teacher-researchers was created thanks to the General Directorate of Coordination and Monitoring of the Sustainable Development Goals (DGCS-ODD) in collaboration with the Beninese Center for Scientific Research and Innovation (CBRSI), the Center for Partnership and Expertise for Sustainable Development (CePED) with the financial support of the United Nations Development Program (UNDP). It aims at strengthening research and scientific innovation for development.

In addition, the sectoral ministries and autonomous agencies are also involved in the implementation of projects planned by the PAG. In addition, the Planning, Administration, and Finance Directorate (DPAF)[12] of the ministries is responsible for ensuring that the SDGs are taken into account in budget planning, and for chairing the Sectoral Steering, Monitoring, and Evaluation Committees of the CDA-SDG (CSPSE-CDA). These committees monitor performance at the sectoral level before submitting their work to the SDG Technical Steering, Monitoring, and Evaluation Committee (CTPSE). This mechanism allows for a better understanding of how the SDGs are taken into account in ministerial programs.

The DGCS-ODD plays a leading role in the harmonization and coordination of the institutional mechanism that frames the implementation of the SDGs in Benin. Its role is to ensure the Secretariat of the National Orientation Committee (CNO), and to chair the Technical Steering, Monitoring, and Evaluation Committee (CTPSE). The DGCS-ODD is also responsible for the secretariats of the various technical committees.

In addition, the SDG Bond Monitoring Unit (CSO-ODD) was created within the Ministry of Economy and Finance to monitor the commitments made to investors in the context of Benin's SDG issues. The unit is involved in monitoring the implementation of the recommendations resulting from the various works planned in the framework of the bond issue (see Box 5).

11. The Planning, Administration, and Finance Directorates (DPAF), the National Institute of Statistics and Demography (INStaD), the Directorate-General of Development Policies (DGPD), the Directorate-General for Financing for Development (DGFD), the Directorate-General for Evaluation and Observatory of Social Change (DGEOCS), the Center for Partnership and Expertise for Sustainable Development (CePED), the Directorate-General of Economy (DGE), the SDG Bond Monitoring Unit (CSO-ODD), the General Directorate of Budget (DGB), the Economic and Financial Programs Monitoring Unit (CSPEF), the SDG Coordination and Monitoring General Directorate (DGCS-ODD), the Analysis and Investigation Office (BAI) at the Presidency of the Republic, the Directorate of Territorial Communities (DCT), the National Agency for Land Management (ANAT), and the Technical and Financial Partners (TFPs), including the United Nations agencies.

12. Replacing the Programming and Forecasting Departments (DPP).

3.2. Data for the SDGs

Reliable, relevant, and timely information is essential for identifying priorities, mobilizing resources, measuring results, and ensuring transparency for the implementation of the 2030 Agenda. Intensifying efforts are needed to collect and systematize information for the SDGs.

Contextualizing SDG indicators in Benin

The prioritization of the SDGs in Benin began with the identification of 49 priority targets that were then associated with 80 international indicators (MPD and UNICEF, 2020). Subsequently, with the support of the United Nations Development Programme (UNDP), a working group composed of experts from the DGCS-ODD and the National Institute of Statistics and Demography (INStaD), carried out an inventory of indicators and metadata production for priority targets (Republic of Benin, 2020).

After contextualizing the international indicators, 164 indicators were selected, out of which 126 are available, 8 can be calculated through additional efforts without modifying the current statistical system, and 30 cannot be calculated, according to the latest results of the working group. Not only do more data need to be available, but the use of digital technologies needs to be encouraged to contribute to better decision and policy making.

Statistical monitoring of the SDGs

The work on SDG harnessing has informed the baseline situations and targets for the years 2020, 2025, and 2030. This work serves as a basis for the DGCS-ODD to produce the "SDG Indicators Report" (MPD and UNICEF, 2020), which has been producing an SDG Index since 2019. The methodology adopted in said report is different from that used by SDSN.

The calculation of SDG indexes requires the definition of performance thresholds. The results obtained depend on the target value to be reached and the 'worst value' that have been defined as the upper and lower limits for the performance measurement scale of any given indicator.

SDSN defines the "real" performance thresholds based on a decision tree for determining the target value to be achieved (see Methodological Annex A.3). In the "Benin SDG Indicators Report", the target value defined as the national goal is calculated either from the rate of change of the indicator in the past before the adoption of the SDGs[13], or from the average scenario forecast by the sector ministries, in the context of the implementation of the government's development policies[14]. Finally, when these targets have not been defined, the targets retained in the "Africa SDG Index and Dashboards Report[15]" are used to define the target values. The lower threshold is obtained from the smallest of the historical values, with the year 2000 as reference (MPD and UNICEF, 2020).

This approach carries the risk of over- or underestimating Benin's performance. The performance thresholds set by Benin depend on ambition and political will, which, while strong, are subject to variation depending on the political context over the long term. Also, when considering the pace of change in the past, if progress on observed indicators is low before 2015, the targets may mechanically be easier to achieve.

Differences also exist in the choice of indicators and in the aggregation of indicators and indexes. The indexes calculated in the "SDG Indicators Report" take into account all SDG indicators produced by Benin's statistical system and are based on the calculation of a geometric mean.

This choice is the result of a study[16] that led to the selection of an appropriate methodology for calculating the SDG

13. As foreseen by the report on the domestication of indicators of SDG priority targets in Benin ("Rapport de domestication des indicateurs des cibles prioritaires ODD au Bénin") (MPD, 2017).
14. The method for calculating target values based on the average scenarios planned by sector ministries, defined following workshops, was not detailed and documented.
15. Produced by SDSN and the Africa Sustainable Development Goals Center in 2018, 2019, and 2020.
16. Study on the design of performance measurement indexes for sustainable development goals ("Conception des indices de mesure de performances des objectifs de développement durable") (MPD, 2018b).

Box 4. The role of digital technology in monitoring the SDGs in Benin

The main advantages of digitization are the automation of basic information collected from decentralized administrations and data providers, the harmonization of data processing according to previously validated standards, and the timely provision of information to platforms for the dissemination of calculated statistical indicators, including those of the SDGs.

For an effective implementation of the 2030 Agenda, several tools are deployed for both the integration and the monitoring-evaluation of the 2030 Agendas in the programmatic documents. These include: the Integrated Planning and Reporting Toolkit (IPRT); the African Union's SDG and Agenda 2063 Monitoring and Reporting System (MRS); and the data collection forms (at national and local levels). Also, in order to share the functionalities of the different digital monitoring tools for the implementation of the SDGs in Benin, the DGCS-ODD has initiated the SIG-ODD platform, which aims at centralizing and disseminating all the information available for monitoring the SDGs. In its current format, the platform distinguishes two applications: i) "MeSODD" is an application intended for the analysis of the sensitivity of the ministries' PTAs to the priority targets of the SDGs and ii) "SIODD" allows the calculation of the SDG performance indexes, the monitoring of the evolution of the SDG indicators, and the monitoring of the priority actions of the SDG costing.

In this momentum, actions are underway at the level of the DGCS-ODD for the implementation of a digital platform for the elaboration of voluntary local reviews which, on the one hand, constitute a crucible to facilitate the exchange of experiences between local actors; and, on the other hand, are essential to promote inclusive processes that allow for a better coordination in terms of data collection and resource mobilization to address local issues and priorities.

INStaD is also part of the initiative through Open DATA, whose main goal is to make data from the National Statistical System (SSN) available to the public, in particular the SDG monitoring indicators. In accordance with the commitments made in this framework, INStaD has put online information from several sources ranging from administrative data to survey and census data. It is also worth noting that since 2018, INStaD has been successfully piloting the use of the data collection application design and deployment tool, Survey Solutions. The advantage of this new collection approach is that it ensures the quality of the data collected and its processing in a relatively short time. Although some managers in the national statistical system are trained in the system, capacity building sessions are organized.

On the other hand, INStaD is firmly committed to putting in place methodological manuals for sectoral statistical services to ensure compliance with international standards and quality in the compilation and production of statistical data, particularly those used to calculate SDG indicators.

Source: National Institute of Statistics and Demography (INStaD) and Directorate-General for Coordination and Monitoring of the SDGs (DGCS-ODD).

indexes in Benin[17]. As for the SDG Indexes and Dashboards produced by SDSN, they are calculated from the indicators produced by international organizations, NGOs, and scientific literature, which are aggregated by an arithmetic mean to obtain the SDG Indexes and Dashboards.

Limitations of the National Statistical System and efforts to improve SDG monitoring

Benin's statistical system is governed by national legislation[18] and the African Charter on Statistics[19]. The INStaD is the technical authority in the National Statistical System. It performs national censuses and surveys

17. According to this report, while the arithmetic mean is easier to interpret, the geometric mean has the advantage of reflecting an assumed "penalty" when an indicator score remains low, highlighting the fact that being strong on another indicator does not completely compensate for that low value, a concept known in economics as "limited substitutability".

18. Law n°99-014 of April 12, 2000.

19. Adopted in 2009 by the African Union and entered into force in 2015, it was ratified by Benin in 2014 and is part of the national statistical legislative framework.

and provides technical support to actors in the statistical system. INStaD collects, centralizes, and disseminates the data produced by the National Statistical System. The Information Systems Management Services (SGSI) within each ministry have a legal mandate to produce and disseminate official statistics for their sectors.

Unfortunately, the current capacity of the National Statistical System does not allow for regular monitoring of the SDGs and the various development programs. The assessment of the National Statistical System proposed in the report presenting the National Strategy for the Development of Statistics (SNDS-3) highlights the challenges it faces. The legal and institutional framework of the statistical system did not meet current international statistical production standards. The quantitative and qualitative inadequacy of human, material, and financial resources is also an obstacle to the development of the system, which is exacerbated by insufficient coordination between the producers and users of the National Statistical System. Efforts to disseminate the data and information produced need to be intensified. Finally, the National Statistical System, which is in the process of being digitized (Box 2), suffers from the poor integration of information and communication technologies (ICT), such as interconnected databases and geo-localized information systems (GIS).

Efforts are being made to improve the monitoring of the SDGs, and more broadly the National Statistical System. As part of the SSN Restructuring Program, the previous Statistical Law[20] was revised to strengthen the legal framework. The new legislation[21] incorporates the rules and standards of the African Charter on Statistics and makes it possible to regulate the roles and interventions of the various actors in the system, to improve and intensify statistical production, and to promote their use (MEF, 2022). Following the conclusions of the SNDS-3, Benin is beginning to strengthen its statistical capacity (MEF, 2022).

The Joint Statistical Support Project for Monitoring the 2030 Agenda (DGCS-ODD) supports the SNDS-3. The purpose of the DGCS-ODD is to strengthen the capacity of the National Statistical System to produce the statistics needed to monitor SDG indicators. As the DGCS-ODD has just been implemented since 2020, shortcomings persist, and its impact on Benin's statistical system remains to be determined.

3.3. Financing the SDGs: Domestic resource mobilization and sustainable finance

Achieving the SDGs requires large-scale public and private investment. Despite progress, the global financing gap to achieve the 2030 Agenda remains significant. Even before the COVID-19 pandemic, developing countries faced challenges in mobilizing resources to finance SDG implementation. In 2019, the IMF, in a report co-produced with SDSN, estimated that the financing need for low- and lower-middle-income developing countries was approximately $US 300-500 billion per year (Gaspar et al., 2019)[22]. Now, the economic and social setbacks caused by COVID-19 are exacerbating the SDG financing gap. The IMF estimates that additional spending needs are now about 21% higher than estimated in 2019, (Benedek et al., 2021).

The issue of resource mobilization must be a central priority for achieving the 2030 Agenda. The SDGs costing evaluation in Benin, done with the IMF[23] in 2018, estimates additional expenditures of about 21% of GDP in 2030 for the health, education, roads, water and sanitation, and electrification sectors. According to the estimate made in 2018 by Benin in partnership with the UNDP, for the five sectors considered by the IMF, the amount would be more like 19% of GDP. At the scale of the 49 SDG

20. Law n°99-014 of April 12, 2000.

21. Law n°2022-07 of June 2, 2022, which revokes the previous law.

22. The estimate by Gaspar et al, (2019) only considers the health, education, roads, water and sanitation, and electrification sectors for 49 countries. By accounting for the other sectors, the estimated financing gap would be larger.

23. FMI, 2018; Prady et Sy, 2019

Box 5. Presentation of the "Benin SDG bond framework"

Benin's first international bond issuance dedicated to financing projects contributing to the achievement of the SDGs took place on July 15, 2021, for an amount of 500 million euros with a maturity of 12.5 years. This was the first sovereign bond of its kind in Africa, demonstrating the country's strong commitment to accelerating the implementation of the 2030 Agenda and to integrating the SDGs at the heart of all its actions and policies. Benin is thus offering a high-impact investment product aimed at meeting the expectations of its population in terms of quality of life.

The SDG bond issuance framework designed for this purpose is aligned with the latest version of the International Capital Market Association (ICMA) sustainable bond guidelines. This alignment has been externally assessed by Moody's VE, which attests to its compliance with best market practices in sustainable finance, giving Benin its highest score.

The issuance framework was designed to incorporate features essential to achieving the 2030 Agenda:

- Multi-stakeholder governance;
- An analysis of national situations and priorities and associated financing needs;
- Prioritization of the most "enabling" and urgent targets;
- Long-term planning and improved public policies;
- Attention to vulnerable populations, as well as positive and negative aspects and interdependence effects.

The funds raised through Benin's SDG bonds are intended to finance Government expenditures and projects that contribute generally to the four goals of the National Development Plan, namely: (i) developing a healthy, competent, and competitive human capital; (ii) sustainably increasing the competitiveness of Benin's economy; (iii) ensuring the sustainable management of the living environment, the environment and the emergence of regional development poles; and (iv) consolidating the rule of law and good governance. A total of twelve categories of eligible expenditures have been selected, each accompanied by a rationale clarifying the context of intervention and explaining the criteria used. The target populations are defined in a way that is adapted to the Beninese context.

In addition, the country has put in place a governance framework to oversee and evaluate the process of selecting the main development targets, as well as to monitor project implementation. The selection of expenditures is structured around four pillars (People, Prosperity, Planet, and Partnerships) with thematic and sectoral exclusions regarding fossil fuels, weapons, deforestation, gambling and alcohol or projects causing displacement or affecting indigenous peoples.

An SDG Bond Steering Committee, chaired by the Minister of Economy and Finance, is responsible for allocating funds and monitoring expenditures. The list of eligible projects is updated regularly to take into account expenditures that were initially included but may lose their eligibility during the implementation and therefore need to be replaced.

The analyses published by the SDSN will feed into the work of the above-mentioned steering committee, in particular in order to allocate the funds raised in the context of new bond issues. This feedback loop will help prioritize the categories of spending documented as most urgent and with high transformative potential.

Finally, allocation and impact reports will be published annually around the anniversary date of the transaction, until the bond matures. The allocation report will reflect the prioritization and selection of eligible expenditures made during the year. The impact report will highlight Benin's progress towards priority SDG targets and will also report on the social and environmental benefits generated or induced by SDG expenditures. The information published in these impact reports will include the amounts allocated, their share of the total allocation, the number of projects and programs financed, the main SDG targets impacted, the final benefits, and achievement indicators. The allocation report will be subject to an annual external audit by an independent firm.

Source: Benin Ministry of Economy and Finance

targets prioritized by Benin, the costs for achieving the SDGs amount to more than $US 74.5 billion (Republic of Benin and UNDP, 2018). The country must therefore mobilize the equivalent of $US 5.7 billion on average per year, or 60.8% of its GDP in 2017. With domestic fiscal resources of about $US 1.66 billion per year, or 18% of GDP in 2017, Benin must rely on additional sources of financing (Republic of Benin and UNDP, 2018).

Measures to meet financing challenges

In addition to development assistance, countries can leverage financing through domestic reforms and international cooperation. At the domestic level, public sector reforms, such as increased tax revenues, better management of public assets and expenditures, and policies that create an enabling environment for domestic private sector development and attract foreign actors, are one way to address part of the resource gap (MPD and UNDP, 2020; Benedek et al., 2021).

At the international level, we can identify four major solutions. The first is to improve international monetary liquidity, notably through special drawing rights, thus facilitating access to international capital markets. The second solution would be to intensify cooperation in the fight against tax base erosion, thereby increasing domestic revenues. The third is to increase financial intermediation by multilateral development banks, which can lend at lower interest rates than in the financial markets. Finally, debt relief and restructuring could contribute to the financing of the SDGs, especially given the socio-economic effects of COVID-19 (Sachs et al., 2021). The technical agreement concluded in April 2022 between the International Monetary Fund (IMF) and Benin is part of this international cooperation framework. The Beninese authorities have obtained exceptional access to 484,058 million special drawing rights, equivalent to more than $US 700 million, for a period of 42 months, under the Extended Credit Facility (ECF) and the Extended Fund Facility (EFF). This financing program will be used, among other things, to support the PAG 2021-2026, meet urgent financing needs, and maintain the country's macroeconomic stability in the context of the global crisis (COVID-19 and the war in Ukraine) (IMF, 2022).

In addition to public funding and support mechanisms from international organizations, Benin has been able to mobilize private sources of funding. Indeed, the recent issuance of SDG bonds represents an additional channel of resources to achieve the SDGs (Box 3). This issuance of bonds earned Benin the award for the 2022 "Deal of the Year" in the category "Sustainable Finance - Africa" from *The Banker* magazine of the Financial Times press group. Currently, Benin's SDG Eurobond is almost three times oversubscribed (MEF, 2022).

Annex
Methodology and Data Tables

A.1 Interpreting the SDG Index and Dashboards results

This Sustainable Development Report is a pilot baseline report that describes Benin's progress toward the SDGs and indicates areas that require more rapid progress. The overall SDG index score and the scores for individual SDGs can be interpreted as a percentage of optimal performance. The difference between any score and the maximum value of 100 is therefore the distance in percentage points that a country must overcome to reach optimum SDG performance. The same indicators are used for all countries in the Economic Community of West African States (ECOWAS), in order to generate comparable SDG indices and dashboards.

The SDG Dashboards provide a visual representation of each country's performance on the 17 SDGs. The "traffic light" color scheme (green, yellow, orange, and red) illustrates how far a country is from achieving a particular goal.

The SDG trends indicate whether a country is on track to achieve a particular goal by 2030, based on recent performance of individual indicators. Indicator trends are then aggregated at the goal level to give an appraisal of how well the country is progressing towards that SDG.

This section provides a brief summary of the methods used to compute the SDG Index and Dashboards. The methodology used is the same as in the "Sustainable Development Report". A detailed methodology document is available online. The European Commission Joint Research Centre (JRC) conducted an independent statistical audit of the methodology and results in 2019, reviewing the conceptual and statistical coherence of the index structure. Their audit and additional data tables are available on our website, www.sdgindex.org

A.2 Main limitations

In spite of our best efforts to identify data for the SDGs, several indicator and data gaps persist at the international level (Refer to table A.2 of the methodological annex of the 2022 SDR. Governments and the international community must increase investments in SDG data and monitoring systems and build strong data partnerships to support informed SDG decisions and strategies. To ensure maximum data comparability, we only use data from internationally comparable sources. These sources may adjust national data to ensure international comparability. As a result, some data points presented in this report may differ from data available from national statistical offices or other national sources. Moreover, the length of international organizations' validation processes can lead to significant delays in publishing some data. National statistical offices may therefore have more recent data for some indicators than what is presented in this report.

A.3 Methodology (overview)

This Sustainable Development Report for Benin provides a comprehensive assessment of how far we are from achieving the targets, based on the most recent data available covering all 15 ECOWAS countries. This year's report includes 91 indicators, of which 77 indicators are from the 2022 Sustainable Development Report, to which 14 indicators relevant to Benin and the rest of ECOWAS have been added.

The following sections provide an overview of the methodology for indicator selection, normalization, and aggregation and for generating indications on trends. Additional information including raw data, additional data tables, and sensitivity tests are available online.

A.3.1. Data selection

Where possible, this Report uses official SDG indicators endorsed by the UN Statistical Commission. Where there are data gaps or insufficient data available for an official indicator, we include other metrics from official and unofficial providers. Five criteria for indicator selection were used to determine suitable metrics for inclusion in the report:

1. Global relevance and applicability to a broad range of country settings.
2. Statistical adequacy: the indicators selected represent valid and reliable measures.
3. Timeliness: the indicators selected are up to date and published on a reasonably prompt schedule.
4. Coverage: data must be available for at least 80 percent of the UN Member States with a population greater than one million people.[2]
5. Capacity to measure distance to targets: optimal performance can be determined.

Data sources

The data included in this Report come from a mix of official and non-official sources. Most of the data (around two-thirds) come from international organizations (including FAO, ILO, OECD, UNICEF, WHO, and the World Bank,) which have extensive and rigorous data validation processes. Other data sources (around a third) come from less traditional statistics: including household surveys (Gallup World Poll); civil society organizations and networks (such as Oxfam, Reporters sans Frontières, the Tax Justice Network, and the World Justice Project); and peer-reviewed journals (for example, to track international spillovers). The complete list of indicators and data sources can be found below (Table A.1.)

2. There are two exceptions to this rule: (i) Exports of hazardous pesticides; (ii) Children involved in child labor

A.3.2. Missing data and imputations

The objective of this report is to accompany the country in monitoring and evaluating its progress and efforts to implement the 2030 Agenda, based on available and robust data. In order to minimize bias due to missing data, the SDG Index only includes countries that have data for at least 80% of the indicators included in the report. Cabo Verde and Guinea-Bissau were not included in the comparison of the SDG indices due to insufficient data availability. Cabo Verde has 19 missing values, or 21% of all indicators, and Guinea-Bissau has 20 missing values, or 22% of indicators. Both countries have nevertheless been retained in the dashboards (Part 1) and the Six Transformations analysis (Part 2.2).

Considering that many SDG priorities lack accepted statistical models that could be used to impute country-level data, missing data was only imputed or modelled in a few particular instances. The list of indicators for which imputations were performed is available online.

A.3.3. Method for constructing the SDG Index and Dashboards

The procedure for calculating the SDG Index comprises three steps: (i) establish performance thresholds and remove extreme values from the distribution of each indicator; (ii) rescale the data to ensure comparability across indicators (normalization); (iii) aggregate the indicators within and across SDGs.

Establishing performance thresholds

To make the data comparable across indicators, each variable was rescaled from 0 to 100 with 0 denoting worst possible performance and 100 describing optimum performance. Rescaling is usually very sensitive to the choice of limits and to extreme values (outliers) at both ends of the distribution. These outliers can become unintended thresholds and introduce spurious variability to the data. Consequently, the choice of upper and lower bounds can affect the relative ranking of countries in the index.

The upper bound for each indicator was determined using a five-step decision tree:

1. Use absolute quantitative thresholds in SDGs and targets: for example, zero poverty, universal school completion, universal access to water and sanitation, full gender equality.
2. Where no explicit SDG target is available, apply the principle of "leave no one behind" in setting the upper bound to universal access or zero deprivation.
3. Where science-based targets exist that must be achieved by 2030 or later, use these to set the upper bound (for example, zero greenhouse gas emissions from CO_2 by 2050 required for global warming to stay within 1.5°C, 100% sustainable management of fisheries).
4. Where several countries already exceed an SDG target, use the average of the top five performers (for example, child mortality).
5. For all other indicators, use the average of the top performers.

These principles interpret the SDGs as "stretch targets" and focus attention on the indicators on which a country is lagging. The lower bound was defined at the 2.5th percentile of the distribution. Each indicator distribution was censored, so that all values exceeding the upper bound scored 100, and values below the lower bound scored 0.

Normalization

After establishing the upper and lower bounds, variables were transformed linearly to a scale between 0 and 100 using the following rescaling formula for the range [0; 100]:

$$\frac{x - min(x)}{max(x) - min(x)} \times 100$$

where x is the raw data value; max/min denote the upper and lower bounds, respectively; and x' is the normalized value after rescaling.

The rescaling equation ensured that all rescaled variables were expressed as ascending variables (higher values denoted better performance). In this way, the rescaled data became easy to interpret and compare across all indicators: a country that scores 50 on a variable is half-way towards achieving the optimum value, while one with a score of 75 has covered three-quarters of the distance from worst to best.

Weighting and aggregation

Several rounds of expert consultations on earlier drafts of the SDG Index made it clear that there was no consensus across different epistemic communities on assigning higher weights to some SDGs over others. As a normative assumption, we therefore opted to give fixed, equal weight to every SDG, reflecting the commitment of policymakers to treat all SDGs equally as part of an integrated and indivisible set of goals. To improve their SDG Index score, countries need to place attention on all goals, albeit with a particular focus on those they are furthest from achieving and where incremental progress might be expected to be fastest.

To compute the SDG Index, we first estimate a country's scores on each goal using the arithmetic mean of its scores on the goal indicators. These scores are then averaged across all 17 SDGs to obtain the country's 2022 SDG Index score. Various sensitivity tests are made available online, including Monte Carlo simulations and comparisons of arithmetic mean versus geometric mean at both the Index and goal levels. Monte Carlo simulations call for prudence in interpreting small differences in the Index scores and rankings between countries, as they may be sensitive to the weighting scheme used.

Dashboards

We also introduced quantitative thresholds for each indicator, to group countries into a "traffic light" table. Thresholds have been established via statistical techniques supported by various rounds of consultations with experts since 2016.

Averaging across all indicators for an SDG might hide areas of policy concern if a country performs well on most indicators but faces serious shortfalls on one or two metrics within the same SDG (often called the "substitutability" or "compensation" issue). This applies particularly to high-income and upper-middle-income countries that have made significant progress on many SDG dimensions but may face serious shortfalls on individual variables.

As a result, the SDG Dashboards focus exclusively on the two variables on which a country performs worst. We applied the added rule that a red rating is given only if the country scores red on *both* of its worst-performing indicators for that goal. Similarly, to score green, both of these indicators had to be green. More details on the construction of the Dashboards are accessible online.

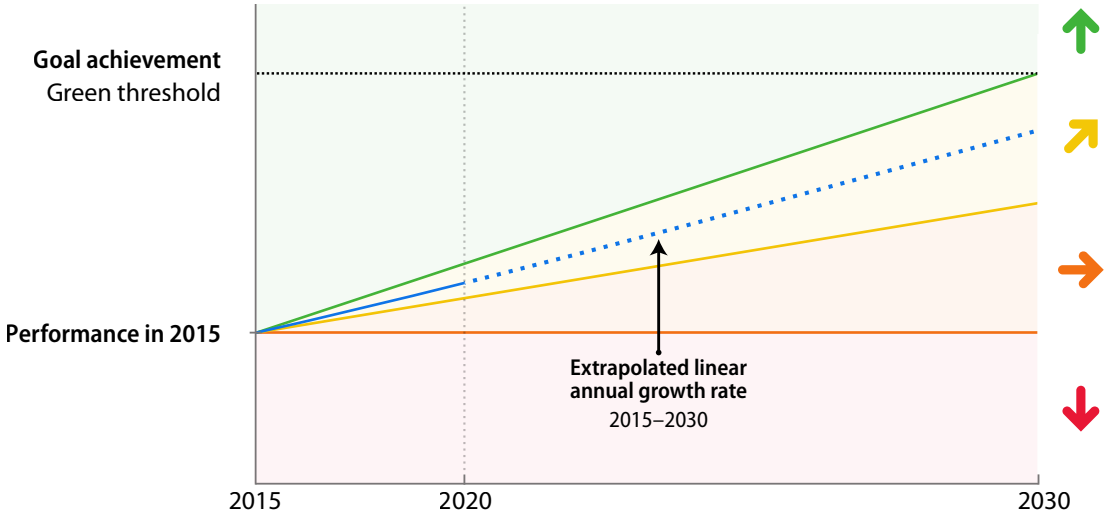
Figure A.1

The Four-arrow system for denoting SDG trends

Decreasing	Stagnating	Moderately improving	On track or Maintaining SDG achievement
Decreasing score, i.e. country moves in the wrong direction	Score remains stagnant or increases at a rate below 50% of the growth rate needed to achieve the SDG by 2030	Score increases at a rate above 50% of the required growth rate but below the rate needed to achieve the SDG by 2030	Score increases at the rate needed to achieve the SDG by 2030 or performance has already exceeded SDG achievement threshold

Figure A.2

Graphic representation of the methodology for SDG trends



Source: Authors' analysis

SDG Trends

Using historic data, we estimate how fast a country has been progressing towards an SDG and determine whether – if extrapolated into the future – this pace will be sufficient to achieve the SDG by 2030. For each indicator, SDG achievement is defined by the green threshold set for the SDG Dashboards. The difference in percentage points between the green threshold and the normalized country score denotes the gap that must be closed to meet that goal. To estimate trends at the indicator level, we calculated the linear annual growth rates (annual percentage improvements) needed to achieve the target by 2030 (from 2015–2030), which we compared to the average annual growth rate over the most recent period since the adoption of the SDGs in 2015 (for example, 2015–2020). Progress towards achievement on a particular indicator is described using a four-arrow system (Figure A1). Figure A2 illustrates the methodology graphically.

Since the projections are based on average growth rate over recent years, a country might have observed a decline in performance over the past year (for instance due to the impact of COVID-19) but still be considered as being on track. This methodology emphasizes long-term structural changes over time since the adoption of the SDGs in 2015, with less emphasis given to annual changes that may be cyclical or temporary.

Table A.1

Indicators included in the Pilot Baseline Report, *Benin Sustainable Development Report 2022*

Legend

[a] Indicator not from the Sustainable Development Report; added for relevance to Benin and ECOWAS.
[b] Indicator used for the figures in the Six Transformations analysis (Part 2.2).

SDG	Transformation	Notes	Indicator	Reference Year	Source	Description
1	1		Poverty headcount ratio at $1.90/day (%)	2022	World Data Lab	Estimated percentage of the population that is living under the poverty threshold of US$1.90 a day. Estimated using historical estimates of the income distribution, projections of population changes by age and educational attainment, and GDP projections.
1	1		Poverty headcount ratio at $3.20/day (%)	2022	World Data Lab	Estimated percentage of the population that is living under the poverty threshold of US$3.20 a day. Estimated using historical estimates of the income distribution, projections of population changes by age and educational attainment, and GDP projections.
1	1	[a]	Proportion of population living below the national poverty line	2019	World Bank	The percentage of the total population living below the national poverty line.
2	1		Prevalence of undernourishment (%)	2019	FAO	The percentage of the population whose food intake is insufficient to meet dietary energy requirements for a minimum of one year. Dietary energy requirements are defined as the amount of dietary energy required by an individual to maintain body functions, health and normal activity. FAO et al. (2015) report 14.7 million undernourished people in developed regions, which corresponds to an average prevalence of 1.17% in the developed regions. We assumed a 1.2% prevalence rate for each high-income country with missing data.
2	1		Prevalence of stunting in children under 5 years of age (%)	2019	UNICEF et al.	The percentage of children up to the age of 5 years that are stunted, measured as the percentage that fall below minus two standard deviations from the median height for their age, according to the WHO Child Growth Standards. UNICEF et al. (2016) report an average prevalence of wasting in high-income countries of 2.58%. We assumed this value for high-income countries with missing data.
2	1		Prevalence of wasting in children under 5 years of age (%)	2019	UNICEF et al.	The percentage of children up to the age of 5 years whose weight falls below minus two standard deviations from the median weight for their age, according to the WHO Child Growth Standards. UNICEF et al. (2016) report an average prevalence of wasting in high-income countries of 0.75%. We assumed this value for high-income countries with missing data.
2	2		Prevalence of obesity, BMI ≥ 30 (% of adult population)	2016	WHO	The percentage of the adult population that has a body mass index (BMI) of 30kg/m^2 or higher, based on measured height and weight.
2	4	[b]	Cereal yield (tonnes per hectare of harvested land)	2018	FAO	Cereal yield, measured as tonnes per hectare of harvested land. Production data on cereals relate to crops harvested for dry grain only and exclude crops harvested for hay or green for food, feed, or silage and those used for grazing.
2	4	[a]	Fertilizer consumption (kg per hectare of arable land)	2018	FAO	The amount of nutrients used per unit of arable land. Fertilizers cover nitrogen, potassium and phosphate fertilizers (including ground rock phosphate). Traditional nutrients - animal and plant manures - are not included. For data dissemination purposes, FAO has adopted the concept of a calendar year (January to December). Some countries compile fertilizer data on a calendar year basis, while others are compiled on a semi-annual basis. Arable land includes land defined by FAO as land under temporary crops (double-cropped areas are counted once), temporary grassland for mowing or grazing, land under market or kitchen gardens, and land temporarily fallow. Land abandoned as a result of shifting cultivation is excluded.

Table A.1

(continued)

SDG	Transformation	Notes	Indicator	Reference Year	Source	Description
3	2	[b]	Maternal mortality rate (per 100,000 live births)	2017	WHO et al.	The estimated number of girls and women, between the ages of 15 and 49, who die from pregnancy-related causes while pregnant or within 42 days of termination of pregnancy, per 100,000 live births.
3	2		Neonatal mortality rate (per 1,000 live births)	2020	UNICEF et al.	The number of newborn infants (neonates) who die before reaching 28 days of age, per 1,000 live births.
3	2	[b]	Mortality rate, under-5 (per 1,000 live births)	2020	UNICEF et al.	The probability that a newborn baby will die before reaching age five, if subject to age-specific mortality rates of the specified year, per 1,000 live births.
3	2		Incidence of tuberculosis (per 100,000 population)	2020	WHO	The estimated rate of new and relapse cases of tuberculosis in a given year, expressed per 100,000 people. All forms of tuberculosis are included, including cases of people living with HIV.
3	2		New HIV infections (per 1,000 uninfected population)	2020	UNAIDS	Number of people newly infected with HIV per 1,000 uninfected population.
3	2	[a]	People living with HIV receiving antiretroviral therapy (%)	2020	UNAIDS	Percentage of people undergoing antiretroviral treatment among all the people living with HIV.
3	2	[a]	Proportion of children under five years old with fever, who are treated with appropriate antimalarial drugs (%)	2021	USAID	Percentage of children aged 0–59 months who were ill with a fever in the two weeks before the survey and who received any anti-malarial drugs during that time.
3	2	[a]	Malaria mortality rate (per 100,000 population)	2020	WHO World Malaria Report 2021	The number of adults and children who died of malaria in a given year, expressed as a rate per 100,000 population.
3	2	[a]	Coverage of preventive chemotherapy for neglected tropical diseases (%)	2020	WHO	Coverage is calculated as the number of people needing a PC and treated out of population needing a PC.
3	2		Age-standardized death rate due to cardiovascular disease, cancer, diabetes, or chronic respiratory disease in adults aged 30–70 years (%)	2019	WHO	The probability of dying between the ages of 30 and 70 years from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases, defined as the percent of 30-year-old-people who would die before their 70th birthday from these diseases, assuming current mortality rates at every age and that individuals would not die from any other cause of death (for example injuries or HIV/AIDS).
3	2		Age-standardized death rate attributable to household air pollution and ambient air pollution (per 100,000 population)	2016	WHO	Mortality rate that is attributable to the joint effects of fuels used for cooking indoors and ambient outdoor air pollution.
3	2		Traffic deaths (per 100,000 population)	2019	WHO	Estimated number of fatal road traffic injuries per 100,000 people.
3	2		Life expectancy at birth (years)	2019	WHO	The average number of years that a newborn could expect to live, if he or she were to pass through life exposed to the sex- and age-specific death rates prevailing at the time of his or her birth, for a specific year, in a given country, territory, or geographic area.
3	2		Adolescent fertility rate (births per 1,000 females aged 15 to 19)	2019	WHO	The number of births per 1,000 females between the age of 15 to 19.
3	2		Births attended by skilled health personnel (%)	2018	UNICEF	The percentage of births attended by personnel trained to give the necessary supervision, care, and advice to women during pregnancy, labor, and the postpartum period, to conduct deliveries on their own, and to care for newborns.

Table A.1

(continued)

SDG	Transformation	Notes	Indicator	Reference Year	Source	Description
3	2		Surviving infants who received 2 WHO-recommended vaccines (%)	2020	WHO and UNICEF	Estimated national routine immunization coverage of infants, expressed as the percentage of surviving infants, children under the age of 12 months, who received two WHO-recommended vaccines (3rd dose of DTP and 1st dose of measles). Calculated as the minimum value between the percentage of infants who have received the 3rd dose of DTP and the percentage who have received the 1st dose of measles.
3	2	[b]	Universal health coverage (UHC) index of service coverage (worst 0–100 best)	2019	WHO	Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population). The indicator is an index reported on a unitless scale of 0 to 100, which is computed as the geometric mean of 14 tracer indicators of health service coverage.
4	1		Net primary enrollment rate (%)	2020	UNESCO	The percentage of children of the official school age population who are enrolled in primary education.
4	1		Lower secondary completion rate (%)	2020	UNESCO	Lower secondary education completion rate measured as the gross intake ratio to the last grade of lower secondary education (general and pre-vocational). It is calculated as the number of new entrants in the last grade of lower secondary education, regardless of age, divided by the population at the entrance age for the last grade of lower secondary education.
4	1	[a] [b]	Mean years of schooling (years)	2019	UNESCO	Average number of completed years of education of a country's population, excluding years spent repeating individual grades.
4	1		Literacy rate (% of population aged 15 to 24)	2020	UNESCO	The percentage of youth, aged 15 to 24, who can both read and write a short simple statement on everyday life with understanding.
5	2	[b]	Demand for family planning satisfied by modern methods (% of females aged 15 to 49)	2022	UNDESA	The percentage of women of reproductive age whose demand for family planning has been met using modern methods of contraception.
5	1	[b]	Ratio of female-to-male mean years of education received (%)	2019	UNESCO	The mean years of education received by women aged 25 and older divided by the mean years of education received by men aged 25 and older.
5	1		Ratio of female-to-male labor force participation rate (%)	2020	ILO	Modeled estimate of the proportion of the female population aged 15 years and older that is economically active, divided by the same proportion for men.
5	1		Seats held by women in national parliament (%)	2020	IPU	The number of seats held by women in single or lower chambers of national parliaments, expressed as a percentage of all occupied seats. Seats refer to the number of parliamentary mandates, or the number of members of parliament.
5	1	[a]	Women in ministerial positions (%)	2021	IPU - UN Women	Percentage of women in ministerial positions, reflecting appointments through January 1, 2017.
6	5	[b]	Population using at least basic drinking water services (%)	2020	JMP	The percentage of the population using at least a basic drinking water service, such as drinking water from an improved source, provided that the collection time is not more than 30 minutes for a round trip, including queuing.
6	5	[b]	Population using at least basic sanitation services (%)	2020	JMP	The percentage of the population using at least a basic sanitation service, such as an improved sanitation facility that is not shared with other households.
6	4		Freshwater withdrawal (% of available freshwater resources)	2018	FAO	The level of water stress: freshwater withdrawal as a proportion of available freshwater resources is the ratio between total freshwater withdrawn by all major sectors and total renewable freshwater resources, after taking into account environmental water requirements. Main sectors, as defined by ISIC standards, include agriculture, forestry and fishing, manufacturing, electricity industry, and services. This indicator is also known as water withdrawal intensity.
6	5		Anthropogenic wastewater that receives treatment (%)	2018	EPI	The percentage of collected, generated, or produced wastewater that is treated, normalized by the population connected to centralized wastewater treatment facilities. Scores were calculated by multiplying the wastewater treatment summary values, based on decadal averages, with the sewerage connection values to arrive at an overall total percentage of wastewater treated.

Table A.1

(continued)

SDG	Transformation	Notes	Indicator	Reference Year	Source	Description
6			Scarce water consumption embodied in imports (m3 H2O equivalent/capita)	2018	UNEP	Water scarcity is measured as water consumption weighted by scarcity indices. In order to incorporate water scarcity into the virtual water flow calculus, water use entries are weighted so that they reflect the scarcity of the water being used. The weight used is a measure of water withdrawals as a percentage of the existing local renewable freshwater resources.
7	3	[b]	Population with access to electricity (%)	2019	SE4All	The percentage of the population who has access to electricity.
7	3		Population with access to clean fuels and technology for cooking (%)	2019	SE4All	The percentage of the population primarily using clean cooking fuels and technologies for cooking. Under WHO guidelines, kerosene is excluded from clean cooking fuels.
7	3	[b]	CO_2 emissions from fuel combustion per total electricity output ($MtCO_2$/TWh)	2019	IEA	A measure of the carbon intensity of energy production, calculated by dividing CO_2 emissions from the combustion of fuel by electricity output. The data are reported in Megatonnes per billion kilowatt hours.
7	3	[b]	Share of renewable energy in total primary energy supply (%)	2019	OECD	The share of renewable energy in the total primary energy supply. Renewables include the primary energy equivalent of hydro (excluding pumped storage), geothermal, solar, wind, tide and wave sources. Energy derived from solid biofuels, biogasoline, biodiesels, other liquid biofuels, biogases and the renewable fraction of municipal waste are also included.
7	3	[a] [b]	Consumer affordability of electricity (scale 0 to 100)	2019	RISE report	Electricity is considered affordable if the annual expenditure of 30 kWh per month is at most 5% of the GNI per household of the poorest 20% of the population.
8		[a]	5-year average GDP Growth per capita (%)	2020	World Bank	Five-year moving average (e.g., in 2020: average of 2020-2016) of the annual percentage growth rate of GDP per capita based on constant local currency. GDP per capita is gross domestic product divided by mid-year population. GDP at acquisition price is the sum of the gross value added of all resident producers in the economy, plus taxes on products and minus subsidies not included in the value of products. It is calculated without deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.
8		[a]	Employment-to-population ratio (%)	2022	ILO	The employment-to-population ratio is the proportion of a country's working-age population that is employed. Employment includes all persons of working age who, during a short period of time, such as a week or a day, were in the following categories: a) paid employment (whether at work or with a job, but not at work); or b) self-employment (whether at work or with an enterprise, but not at work.)
8	1		Victims of modern slavery (per 1,000 population)	2018	Walk Free Foundation (2018)	Estimation of the number of people in modern slavery. Modern slavery is defined as people in forced labor or forced marriage. It is calculated based on standardized surveys and Multiple Systems Estimation (MSE).
8	6		Adults with an account at a bank or other financial institution or with a mobile-money-service provider (% of population aged 15 or over)	2017	Demirguc-Kunt et al. (2018)	The percentage of adults, 15 years and older, who report having an account (by themselves or with someone else) at a bank or another type of financial institution, or who have personally used a mobile money service within the past 12 months.
8	1	[b]	Fundamental labor rights are effectively guaranteed (worst 0–1 best)	2020	World Justice Project	Measures the effective enforcement of fundamental labor rights, including freedom of association and the right to collective bargaining, the absence of discrimination with respect to employment, and freedom from forced labor and child labor.
9	6	[b]	Population using the internet (%)	2020	ITU	The percentage of the population who used the Internet from any location in the last three months. Access could be via a fixed or mobile network.
9	6	[b]	Mobile broadband subscriptions (per 100 population)	2019	ITU	The number of mobile broadband subscriptions per 100 population. Mobile broadband subscriptions refer to subscriptions to mobile cellular networks with access to data communications (for example the Internet) at broadband speeds, irrespective of the device used to access the internet.

Table A.1

(continued)

SDG	Transformation	Notes	Indicator	Reference Year	Source	Description
9	5	[b]	Logistics Performance Index: Quality of trade and transport-related infrastructure (worst 1–5 best)	2018	World Bank	Survey-based average assessment of the quality of trade and transport related infrastructure, for example ports, roads, railroads and information technology, on a scale from 1 (worst) to 5 (best).
9			Articles published in academic journals (per 1,000 population)	2020	Scimago Jounal Rank	Number of citable documents published by a journal in the three previous years (selected year documents are excluded). Exclusively articles, reviews and conference papers are considered.
10	1		Gini coefficient	2019	World Bank	The Gini coefficient measures the extent to which the distribution of income among individuals or households within an economy deviates from a perfectly equal distribution.
10	1		Palma ratio	2019	OECD & UNDP	The share of all income received by the 10% people with highest disposable income divided by the share of all income received by the 40% people with the lowest disposable income.
11	5	[b]	Proportion of urban population living in slums (%)	2018	UN Habitat	Population living in slums is the proportion of the urban population living in slum households. A slum household is defined as a group of individuals living under the same roof lacking one or more of the following conditions: access to improved water, access to improved sanitation, sufficient living area, housing durability, and security of tenure.
11	5	[b]	Annual mean concentration of particulate matter of less than 2.5 microns in diameter (PM2.5) ($\mu g/m^3$)	2019	IHME	Air pollution measured as the population-weighted mean annual concentration of PM2.5 for the urban population in a country. PM2.5 is suspended particles measuring less than 2.5 microns in aerodynamic diameter, which are capable of penetrating deep into the respiratory tract and can cause severe health damage.
11	5		Access to improved water source, piped (% of urban population)	2020	WHO and UNICEF	The percentage of the urban population with access to improved drinking water piped on premises. An "improved" drinking-water source is one that, by the nature of its construction and when properly used, adequately protects the source from outside contamination, particularly fecal matter.
12	5		Electronic waste (kg/capita)	2019	UNU-IAS	Waste from electrical and electronic equipment, estimated based on figures for domestic production, imports and exports of electronic products, as well as product lifespan data.
12	3		Production-based SO_2 emissions (kg/capita)	2018	Lenzen et al. (2022)	SO_2 emissions associated with the production of goods and services, which are then either exported or consumed domestically.
12			SO_2 emissions embodied in imports (kg/capita)	2018	Lenzen et al. (2022)	Emissions of SO_2 embodied in imported goods and services. SO_2 emissions have severe health impacts and are a significant cause of premature mortality worldwide.
12	4		Production-based nitrogen emissions (kg/capita)	2015	Oita et al. (2016)	Reactive nitrogen emitted during the production of commodities, which are then either exported or consumed domestically. Reactive nitrogen corresponds to emissions of ammonia, nitrogen oxides and nitrous oxide to the atmosphere, and of reactive nitrogen potentially exportable to water bodies, all of which can be harmful to human health and the environment.
12			Nitrogen emissions embodied in imports (kg/capita)	2015	Oita et al. (2016)	Emissions of reactive nitrogen embodied in imported goods and services. Reactive nitrogen corresponds here to emissions of ammonia, nitrogen oxides and nitrous oxide to the atmosphere, and of reactive nitrogen potentially exportable to water bodies, all of which can be harmful to human health and the environment.
12	5		Exports of plastic waste (kg/capita)	2021	UN Comtrade	The average annual amount of plastic waste exported over the last 5 years expressed per capita.
13	3		CO_2 emissions from fossil fuel combustion and cement production (tCO_2/capita)	2020	Global Carbon Project	Emissions from the combustion and oxidation of fossil fuels and from cement production. The indicator excludes emissions from fuels used for international aviation and maritime transport.
13			CO_2 emissions embodied in imports (tCO_2/capita)	2018	Lenzen et al. (2022)	CO_2 emissions embodied in imported goods and services.

Table A.1

(continued)

SDG	Transformation	Notes	Indicator	Reference Year	Source	Description
13	3		CO_2 emissions embodied in fossil fuel exports (kg/capita)	2021	UN Comtrade	CO_2 emissions embodied in the exports of coal, gas, and oil. Calculated using a 5-year average of fossil fuel exports and converting exports into their equivalent CO_2 emissions. Exports for each fossil fuel are capped at the country's level of production.
14	4		Mean area that is protected in marine sites important to biodiversity (%)	2020	Birdlife International et al.	The mean percentage area of marine Key Biodiversity Areas (sites that are important for the global persistence of marine biodiversity) that are protected.
14	4		Ocean Health Index: Clean Waters score (worst 0–100 best)	2020	Ocean Health Index	The clean waters subgoal of the Ocean Health Index measures to what degree marine waters under national jurisdictions have been contaminated by chemicals, excessive nutrients (eutrophication), human pathogens, and trash.
14	4		Fish caught by trawling or dredging (%)	2018	Sea Around Us	The percentage of fish caught by trawling, a method of fishing in which industrial fishing vessels drag large nets (trawls) along the seabed.
14	4		Fish caught that are then discarded (%)	2018	Sea around Us	The percentage of fish that are caught only to be later discarded.
14			Marine biodiversity threats embodied in imports (per million population)	2018	Lenzen et al. (2012)	Threats to marine species embodied in imports of goods and services.
15	4		Mean area that is protected in terrestrial sites important to biodiversity (%)	2020	Birdlife International et al.	The mean percentage area of terrestrial Key Biodiversity Areas (sites that are important for the global persistence of biodiversity) that are protected.
15	4		Mean area that is protected in freshwater sites important to biodiversity (%)	2020	Birdlife International et al.	The mean percentage area of freshwater Key Biodiversity Areas (sites that are important for the global persistence of biodiversity) that are protected.
15	4		Red List Index of species survival (worst 0–1 best)	2021	IUCN and Birdlife International	The change in aggregate extinction risk across groups of species. The index is based on genuine changes in the number of species in each category of extinction risk on The IUCN Red List of Threatened Species.
15	4	[b]	Permanent deforestation (% of forest area, 3-year average)	2020	Curtis et al. (2018)	The mean annual percentage of permanent deforestation over the last 3-year period. Permanent deforestation refers to tree cover removal for urbanization, commodity production and certain types of small-scale agriculture whereby the previous tree cover does not return. It does not include temporary forest loss due to cuttings within the forestry sector or wildfires. Since data on tree cover gains are not available, the annual net loss cannot be calculated, thus the indicator is an estimate for gross permanent deforestation.
15			Terrestrial and freshwater biodiversity threats embodied in imports (per million population)	2018	Lenzen et al. (2012)	Threats to terrestrial and freshwater species embodied in imports of goods and services.
16		[a]	Absence of armed conflict (worst 0-100 best)	2019	Ibrahim Index of African Governance	Based on the Uppsala Conflict Data Program (UCDP) and the Armed Conflict Location and Events Dataset (ACLED), this indicator measures the number of violent events in state and non-state conflicts as well as instances of non-state conflict within a country's territory.
16			Unsentenced detainees (% of prison population)	2019	UNODC	Unsentenced prisoners as a percentage of overall prison population. Persons held unsentenced or pre-trial refers to persons held in prisons, penal institutions or correctional institutions who are untried, pre-trial or awaiting a first instance decision on their case from a competent authority regarding their conviction or acquittal.
16			Property Rights (worst 1–7 best)	2020	World Economic Forum	Survey-based assessment of protection of property rights, on a scale from 1 (worst) to 7 (best). The indicator reports respondents' qualitative assessment based on answers to several questions on the protection of property rights and intellectual property rights protection.
16	6		Birth registrations with civil authority (% of children under age 5)	2020	UNICEF	The percentage of children under the age of five whose births are reported as being registered with the relevant national civil authorities.

Table A.1

(continued)

SDG	Transformation	Notes	Indicator	Reference Year	Source	Description
16	6		Corruption Perception Index (worst 0–100 best)	2021	Transparency International	The perceived levels of public sector corruption, on a scale from 0 (highest level of perceived corruption) to 100 (lowest level of perceived corruption). The CPI aggregates data from a number of different sources that provide perceptions of business people and country experts.
16		[a]	Accountability & Transparency (worst 0-100 best)	2019	Ibrahim Index of African Governance	It assesses institutional and civic checks and balances, absence of undue influence on government, financial and judicial disclosure, and accessibility of this information.
16	1	[b]	Children involved in child labor (% of population aged 5 to 14)	2019	UNICEF	The percentage of children, between the ages of 5–14 years, involved in child labor at the time of the survey. A child is considered to be involved in child labor under the following conditions: (a) children 5–11 years old who, during the reference week, did at least one hour of economic activity or at least 28 hours of household chores, or (b) children 12–14 years old who, during the reference week, did at least 14 hours of economic activity or at least 28 hours of household chores. We assumed 0% child labor for high-income countries for which no data was reported.
16	6		Press Freedom Index (best 0–100 worst)	2021	Reporters sans frontières	Degree of freedom available to journalists in 180 countries and regions, determined by pooling the responses of experts to a questionnaire devised by RSF.
16			Access to and affordability of justice (worst 0–1 best)	2020	World Justice Project	Measures the accessibility and affordability of civil courts, including whether people are aware of available remedies; can access and afford legal advice and representation; and can access the court system without incurring unreasonable fees, encountering unreasonable procedural hurdles, or experiencing physical or linguistic barriers.
17		[a]	Tax revenue (% of GDP)	2020	World Revenue Longitudinal Data (IMF)	Tax revenues are mandatory transfers to the central government for public purposes. Some mandatory transfers, such as fines, penalties and most social security contributions, are excluded. Refunds and corrections of erroneously collected tax revenues are treated as negative revenue. It is reported as a percentage of GDP.
17			Government spending on health and education (% of GDP)	2020	UNESCO	The sum of public expenditure on health from domestic sources and general government expenditure on education (current, capital, and transfers) expressed as a percentage of GDP. This indicator is based on the World Bank health and education spending datasets, sourced from WHO & UNESCO respectively. Values are carried forward for both health and education, but a value in a given year is only reported if at least one data point is a real observation (not carried forward).
17			Corporate Tax Haven Score (best 0–100 worst)	2019	Tax Justice Network	The Corporate Tax Haven Score measures a jurisdiction's potential to poach the tax base of others, as enshrined in its laws, regulations and documented administrative practices. For countries with multiple jurisdictions, the value of the worst-performing jurisdiction was retained.
17	6	[b]	Statistical Performance Index (worst 0–100 best)	2019	World Bank	The Statistical Performance Index is a weighted average of the statistical performance indicators that evaluate the performance of national statistical systems. It aggregates five pillars of statistical performance: data use, data services, data products, data sources, and data infrastructure.

Table A.2

Indicators for the "Leave no one behind" analysis

Category	Indicator	Year of reference	Source	Description
Accessibility and quality of services	Proportion of births attended by skilled health personnel	2018	EDSB-5 (2017/2018)	The proportion of births attended by skilled health personnel is the percentage of births attended by personnel trained (physician, nurse, or midwife) to supervise, and provide care and counseling to women during pregnancy, labor, and the postnatal period, and to deliver and care for newborns.
	Number of inhabitants per hospital bed	2019	Ministère de la Santé	This indicator provides the number of inhabitants per available hospital bed.
	Number of inhabitants per health personnel (doctors and nurses)	2019	Ministère de la Santé	This indicator measures the number of doctors and nursing personnel per 10,000 inhabitants.
	Average travel time (minutes) to health center	2019	EHCVM-1 (2018/2019)	Average access time in minutes to a health center.
	HIV testing coverage (% of populations aged 15-49 who know where to get an HIV test)	2018	EDSB-5 (2017/2018)	This indicator measures the percentage of the population aged 15-49 who know where to go for an HIV test; who have taken an HIV test once; who have received the results of their last HIV test; and who have taken a test in the last 12 months and received the results.
	Net enrollment rate in primary school (%)	2019	EHCVM-1 (2018/2019)	The net enrollment rate in primary school is an indicator that tells us about the total enrollment of the legal age population in primary school, expressed as a percentage of the officially school-age population in a given school year.
	Median number of years of schooling	2018	EDSB-5 (2017/2018)	The number of years of schooling is obtained by summing the years (or grades) of schooling of the population at the primary, secondary, and tertiary levels. The median number of years of schooling is the number of years of schooling that divides the population into two equal parts.
	Number of students per primary school teacher	2020	MEMP	This indicator corresponds to the number of students enrolled in primary school divided by the number of primary school teachers.
	Net enrollment ratio in secondary education (%)	2021	MESTFP	The net enrollment rate in secondary education is an indicator that provides information on the total enrollment of the legal age population in secondary education, expressed as a percentage of the officially school-age population at the same level for a given school year.
	BAC (baccalaureate or high school final examination) success rate (%)	2020	MESTFP	The number of students who passed the baccalaureate is related to the number of students who sat for the exam.
	Proportion of the population with access to safe drinking water	2019	EHCVM-1 (2018/2019)	This indicator corresponds to the percentage of the population using water supply services.
	Proportion of the population with access to electricity	2019	EHCVM-1 (2018/2019)	The proportion of the population with access to electricity is the percentage of the population that uses electricity from one of the following sources: SBEE power, generator, and solar power.
	Proportion of men and women aged 15-49 using the Internet	2018	EDSB-5 (2017/2018)	The indicator expresses the percentage of the population aged 15-49 using the Internet.
	Proportion of children under 5 who were registered by a civil registration authority	2018	EDSB-5 (2017/2018)	The percentage of children under 5 who were registered by a civil registration authority.
Extreme poverty and material deprivation	Proportion of population living on less than $US 1.90 per day (% of population)	2019	EHCVM-1 (2018/2019)	This indicator expresses the percentage of the population living on less than $US 1.90 per day.
	Proportion of men of all ages living in any form of poverty	2019	EHCVM-1 (2018/2019)	This indicator corresponds to the percentage of the population living in income and non-income poverty.
	Proportion of population living below the national poverty line	2019	EHCVM-1 (2018/2019)	The proportion of the population living below the national poverty line is the percentage of the national population that is unable to meet its food and non-food needs as represented by the poverty line (SPG).
	Proportion of urban population living in slums, informal settlements, or inadequate housing	2018	EDSB-5 (2017/2018)	The proportion of the urban population living in slum areas, informal settlements, or inadequate housing is the ratio expressed as a percentage of the number of people living in slum areas, informal settlements, or inadequate housing to the total number of people living in the areas.

Table A.2

(continued)

Category	Indicator	Year of reference	Source	Description
Extreme poverty and material deprivation	Prevalence of stunting (ratio of height to age less than -2 standard deviations from the mean of the WHO-defined child growth standards) in children under 5	2018	EDSB-5 (2017/2018)	The prevalence of stunting (height-to-age index less than -2 standard deviations from the mean of the WHO-defined child growth standards) in children under 5 is the proportion of children whose height-to-age is more than two standard deviations below the median of the reference population, thus considered small for their age and classified as moderately or severely stunted.
	Prevalence of malnutrition (ratio of weight to height greater than +2 standard deviations or less than -2 standard deviations from the mean of the WHO-defined child growth standards in children under 5, by form (overweight and wasting)	2018	EDSB-5 (2017/2018)	The prevalence of malnutrition by form (overweight and wasting) is the proportion of children whose ratio of weight to height is more than 2 standard deviations below the median of the reference population (moderately or severely wasted) or those who are more than 3 standard deviations below the median (severely wasted).
	Proportion of the population 15 years old and older with a bank account	2019	EHCVM-1 (2018/2019)	This indicator expresses the percentage of the population 15 years old and older with a bank account.
Gender inequality	Proportion of women aged 20-24 who were married or in union before age 18	2019	EHCVM-1 (2018/2019)	The proportion of women aged 20-24 married or in union before age 18 represents the share of the population of women aged 20-24 who were married or in union before age 18.
	Boy/girl parity index: Net enrollment rate in primary school (%)	2019	EHCVM-1 (2018/2019)	This is the ratio of the net primary enrollment rate for girls to the net primary enrollment rate for boys. (This is the ratio of the urban net primary enrollment rate to the rural net primary enrollment rate).
	Boy/girl parity index: Median number of years of schooling	2018	EDSB-5 (2017/2018)	This is the ratio of the median number of years of schooling for girls to the median number of years of schooling for boys. (This is the ratio of the median number of years of schooling in urban areas to the median number of years of schooling in rural areas).
	Boy/girl parity index: Net enrollment rate in secondary education (%)	2021	MESTFP	This is the ratio of the net secondary school enrollment rate for girls to the net secondary school enrollment rate for boys. (This is the ratio of the urban net secondary enrollment rate to the rural net secondary enrollment rate.)
	Boy/girl parity index: BAC (baccalaureate or high school final examination) success rate (%)	2020	MESTFP	This is the ratio of the BAC success rate for girls to the BAC success rate for boys. (This is the ratio of the urban BAC success rate to the rural BAC success rate.)
	Ratio of women to men labor force participation rate	2018	ERI-ESI	This indicator expresses the ratio of the female labor force participation rate to the male labor force participation rate.
	Proportion of women of reproductive age (15-49) using modern family planning methods	2018	EDSB-5 (2017/2018)	The proportion of women of reproductive age (15-49) using modern family planning methods is the percentage of women of reproductive age who are using some form of modern contraception.
	Men/Women Parity Index: Proportion of men and women living in any form of poverty	2019	EHCVM-1 (2018/2019)	This indicator expresses the ratio of the percentage of men living in all forms of poverty to the percentage of women living in all forms of poverty.
	Men/Women Parity Index: Proportion of the population living below the national poverty line	2019	EHCVM-1 (2018/2019)	This indicator expresses the ratio of the percentage of men living below the national poverty line to the percentage of women living below the national poverty line.
	Men/Women Parity index: Proportion of the population living on less than $US 1.90 per day	2019	EHCVM-1 (2018/2019)	This indicator expresses the ratio of the percentage of men living on less than $US 1.90 per day to the percentage of women living on less than $US 1.90 per day.
	Men/Women Parity Index: Proportion of Internet use	2018	EDSB-5 (2017/2018)	This indicator expresses the ratio of the percentage of men using the Internet to the percentage of women using the Internet.
	Men/Women Parity Index: HIV testing coverage (%)	2018	EDSB-5 (2017/2018)	This indicator expresses the ratio of the percentage of men aged 15-49 who know where an HIV test can be done to the percentage of women aged 15-49 who know where an HIV test can be done.
Income and wealth inequality	Gini coefficient	2019	EHCVM-1 (2018/2019)	The Gini index (or coefficient) is a synthetic indicator for reporting the level of inequality for a given population.
	Proportion of people living on less than half the median income	2019	EHCVM-1 (2018/2019)	The percentage of people living in households that spend, per capita, less than half of the median per capita expenditure on household final consumption.
	Proportion of people living with incomes more than 50% below median income	2019	EHCVM-1 (2018/2019)	The percentage of people living in households that spend, per capita, more than 50% less than the median per capita expenditure on household final consumption.

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This list covers only the 14 indicators specific to this report (Annex A.1) and the additional data references (not taken from SDR 2022) used in the "Six Transformations" analysis, as well as data provided by the Institut national de la statistique et de l'analyse économique of Benin (INStaD) for the "Leave no one behind" sub-national analysis. For the rest of the indicators, see SDR 2022.

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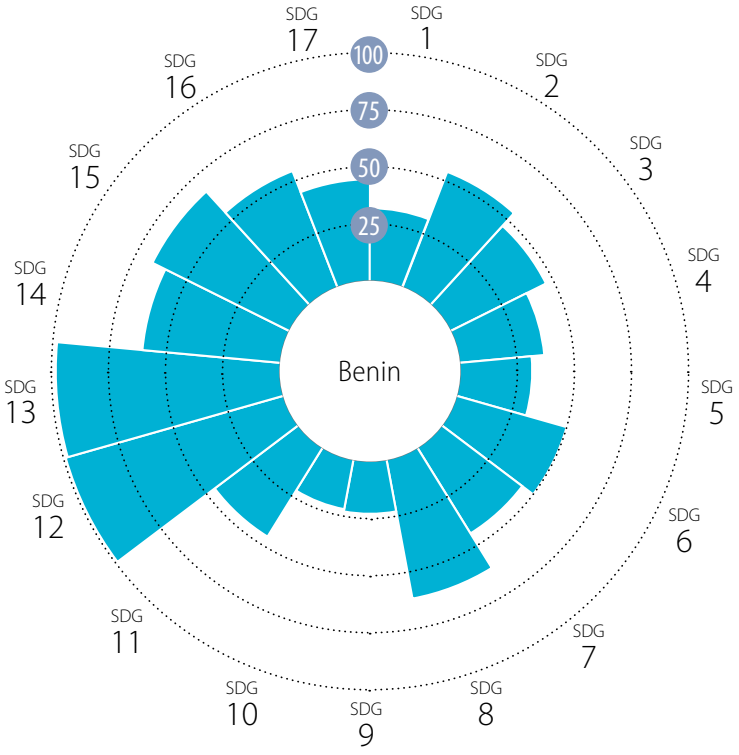
Country Profiles

Benin

OVERALL PERFORMANCE

COUNTRY SCORE

PERFORMANCE BY SDG



SDG DASHBOARDS AND TRENDS

Major challenges | Significant challenges | Challenges remain | SDG achieved | Information unavailable

Decreasing | Stagnating | Moderately improving | On track or maintaining SDG achievement | Information unavailable

Notes: The full title of each SDG is available here: https://sdgs.un.org/fr#goal_section

Benin

SDG1 – No Poverty	Value	Year	Rating	Trend
Poverty headcount ratio at $1.90/day (% population)	45.5	2022		
Poverty headcount ratio at $3.20/day (% population)	69.5	2022		
Proportion of the population living below the national poverty line	38.5	2019		
SDG2 – Zero Hunger				
Prevalence of undernourishment (%)	7.6	2019		
Prevalence of stunting in children under 5 years of age (%)	32.2	2018		
Prevalence of wasting in children under 5 years of age (%)	5.0	2018		
Prevalence of obesity, BMI ≥ 30 (% of adult population)	9.6	2016		
Cereal yield (tonnes per hectare of harvested land)	1.4	2018		
Fertilizer consumption (kg per hectare of arable land)	36.6	2018		
SDG3 – Good Health and Well-Being				
Maternal mortality rate (per 100,000 live births)	397.0	2017		
Neonatal mortality rate (per 1,000 live births)	29.7	2020		
Mortality rate, under-5 (per 1,000 live births)	85.9	2020		
Incidence of tuberculosis (per 100,000 population)	55.0	2020		
New HIV infections (per 1,000 uninfected population)	0.2	2020		
People living with HIV receiving antiretroviral therapy (%)	70	2020		
Proportion of children under five years old with fever, who are treated with appropriate antimalarial medication (%)	37.0	2018		
Malaria mortality rate (per 100,000 population)	83.5	2020		
Coverage of preventive chemotherapy for neglected tropical diseases (%)	81.6	2020		
Age-standardized death rate due to cardiovascular disease, cancer, diabetes, or chronic respiratory disease in adults aged 30–70 years (%)	22.6	2019		
Age-standardized death rate attributable to household air pollution and ambient air pollution (per 100,000 population)	205	2016		
Traffic deaths (per 100,000 population)	26.8	2019		
Life expectancy at birth (years)	63.4	2019		
Adolescent fertility rate (births per 1,000 females aged 15 to 19)	108	2016		
Births attended by skilled health personnel (%)	78.1	2018		
Surviving infants who received 2 WHO-recommended vaccines (%)	65	2020		
Universal health coverage (UHC) index of service coverage (worst 0–100 best)	38	2019		
SDG4 – Quality Education				
Net primary enrollment rate (%)	93.3	2020		
Lower secondary completion rate (%)	33.0	2020		
Mean years of schooling (years)	3.8	2019		
Literacy rate (% of population aged 15 to 24)	60.9	2018		
SDG5 – Gender Equality				
Demand for family planning satisfied by modern methods (% of females aged 15 to 49)	28.0	2018		
Ratio of female-to-male mean years of education received (%)	43.6	2019		
Ratio of female-to-male labor force participation rate (%)	95.7	2020		
Seats held by women in national parliament (%)	7.2	2020		
Women in ministerial positions (%)	20.8	2021		
SDG6 – Clean Water and Sanitation				
Population using at least basic drinking water services (%)	65.4	2020		
Population using at least basic sanitation services (%)	17.0	2020		
Freshwater withdrawal (% of available freshwater resources)	1.0	2018		
Anthropogenic wastewater that receives treatment (%)	0.0	2018		
Scarce water consumption embodied in imports (m^3 H_2O eq/capita)	462.6	2018		
SDG7 – Affordable and Clean Energy				
Population with access to electricity (%)	40.3	2019		
Population with access to clean fuels and technology for cooking (%)	4.0	2019		
CO_2 emissions from fuel combustion per total electricity output ($MtCO_2$/TWh)	34.0	2019		
Share of renewable energy in total primary energy supply (%)	54.6	2019		
Consumer affordability of electricity (scale 0 to 100)	81	2019		

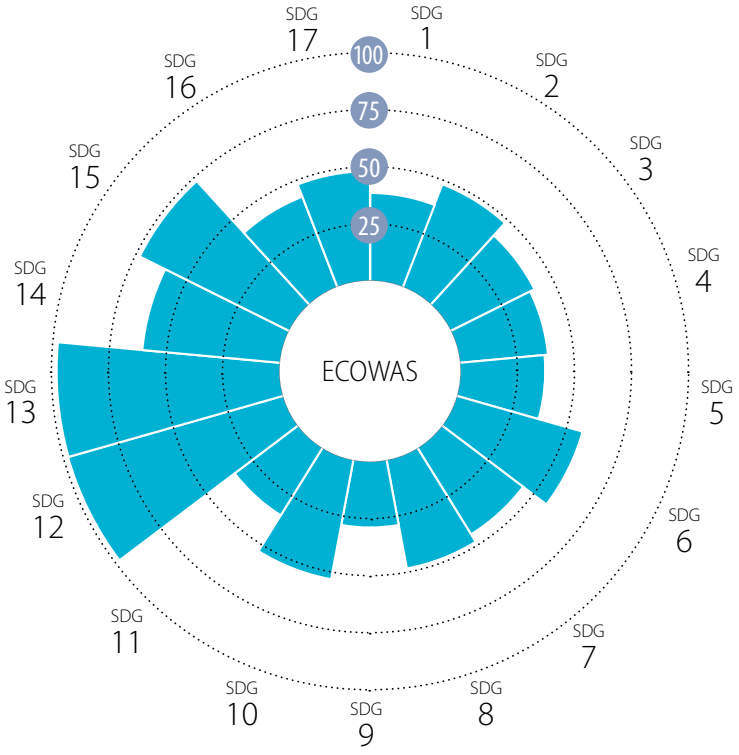
SDG8 – Decent Work and Economic Growth	Value	Year	Rating	Trend
5-year average GDP Growth per capita (%)	2.4	2020		
Ratio emploi-population (%)	70.2	2022		
Victims of modern slavery (per 1,000 population)	5.5	2018		
Adults with an account at a bank or other financial institution or with a mobile-money-service provider (% of population aged 15 or over)	38.5	2017		
Fundamental labor rights are effectively guaranteed (worst 0–1 best)	0.6	2020		
SDG9 – Industry, Innovation and Infrastructure				
Population using the internet (%)	25.8	2020		
Mobile broadband subscriptions (per 100 population)	21.5	2019		
Logistics Performance Index: Quality of trade and transport-related infrastructure (worst 1–5 best)	2.5	2018		
Articles published in academic journals (per 1,000 population)	0.1	2020		
SDG10 – Reduced Inequalities				
Gini coefficient	47.8	2015		
Palma ratio	2.9	2018		
SDG11 – Sustainable Cities and Communities				
Proportion of urban population living in slums (%)	59.2	2018		
Annual mean concentration of particulate matter of less than 2.5 microns in diameter (PM2.5) ($\mu g/m^3$)	41.9	2019		
Access to improved water source, piped (% of urban population)	48.6	2020		
SDG12 – Responsible Consumption and Production				
Electronic waste (kg/capita)	0.8	2019		
Production-based SO_2 emissions (kg/capita)	0.7	2018		
SO_2 emissions embodied in imports (kg/capita)	0.5	2018		
Production-based nitrogen emissions (kg/capita)	6.5	2015		
Nitrogen emissions embodied in imports (kg/capita)	0.4	2015		
Exports of plastic waste (kg/capita)	0.0	2020		
SDG13 – Climate Action				
CO_2 emissions from fossil fuel combustion and cement production (tCO_2/capita)	0.6	2020		
CO_2 emissions embodied in imports (tCO_2/capita)	0.2	2018		
CO_2 emissions embodied in fossil fuel exports (kg/capita)	0.0	2020		
SDG14 – Life Below Water				
Mean area that is protected in marine sites important to biodiversity (%)	0.0	2020		
Ocean Health Index: Clean Waters score (worst 0–100 best)	23.9	2020		
Fish caught by trawling or dredging (%)	0.0	2018		
Fish caught that are then discarded (%)	0.0	2018		
Marine biodiversity threats embodied in imports (per million population)	0.0	2018		
SDG15 – Life on Land				
Mean area that is protected in terrestrial sites important to biodiversity (%)	66.7	2020		
Mean area that is protected in freshwater sites important to biodiversity (%)	0.0	2020		
Red List Index of species survival (worst 0–1 best)	0.9	2021		
Permanent deforestation (% of forest area, 5-year average)	0.2	2020		
Terrestrial and freshwater biodiversity threats embodied in imports (per million population)	0.0	2018		
SDG16 – Peace, Justice and Strong Institutions				
Absence de conflit armé (pire 0–100 meilleur)	98.7	2019		
Unsentenced detainees (% of prison population)	62.3	2017		
Property Rights (worst 1–7 best)	4.3	2020		
Birth registrations with civil authority (% of children under age 5)	85.6	2020		
Corruption Perception Index (worst 0–100 best)	42	2021		
Accountability & Transparency (worst 0-100 best)	52.0	2019		
Children involved in child labor (% of population aged 5 to 14)	24.8	2019		
Press Freedom Index (best 0–100 worst)	38.2	2021		
Access to and affordability of justice (worst 0–1 best)	0.4	2020		
SDG17 – Partnerships for the Goals				
Tax revenue (% of GDP)	10.6	2019		
Government spending on health and education (% of GDP)	3.5	2019		
Corporate Tax Haven Score (best 0–100 worst)	0.0	2019		
Statistical Performance Index (worst 0–100 best)	48.0	2019		

ECOWAS

OVERALL PERFORMANCE

COUNTRY SCORE

PERFORMANCE BY SDG



SDG DASHBOARDS AND TRENDS

Major challenges | Significant challenges | Challenges remain | SDG achieved | Information unavailable

Decreasing | Stagnating | Moderately improving | On track or maintaining SDG achievement | Information unavailable

Notes: The full title of each SDG is available here: https://sdgs.un.org/fr#goal_section

SDG1 – No Poverty	Value	Year	Rating	Trend
Poverty headcount ratio at $1.90/day (% population)	31.3	2022	●	→
Poverty headcount ratio at $3.20/day (% population)	50.2	2022	●	→
Proportion of the population living below the national poverty line	40.2	2019	●	●
SDG2 – Zero Hunger				
Prevalence of undernourishment (%)	13.8	2019	●	↓
Prevalence of stunting in children under 5 years of age (%)	29.1	2020	●	→
Prevalence of wasting in children under 5 years of age (%)	7.1	2019	●	→
Prevalence of obesity, BMI ≥ 30 (% of adult population)	8.7	2016	●	↑
Cereal yield (tonnes per hectare of harvested land)	1.5	2018	●	→
Fertilizer consumption (kg per hectare of arable land)	19.9	2018	●	↗
SDG3 – Good Health and Well-Being				
Maternal mortality rate (per 100,000 live births)	707.9	2017	●	→
Neonatal mortality rate (per 1,000 live births)	31.5	2020	●	→
Mortality rate, under-5 (per 1,000 live births)	94.2	2020	●	→
Incidence of tuberculosis (per 100,000 population)	169.9	2020	●	→
New HIV infections (per 1,000 uninfected population)	0.4	2020	●	↑
People living with HIV receiving antiretroviral therapy (%)	75.6	2020	●	↑
Proportion of children under five years old with fever, who are treated with appropriate antimalarial medication (%)	51.2	2021	●	●
Malaria mortality rate (per 100,000 population)	82.4	2020	●	→
Coverage of preventive chemotherapy for neglected tropical diseases (%)	56.2	2020	●	→
Age-standardized death rate due to cardiovascular disease, cancer, diabetes, or chronic respiratory disease in adults aged 30–70 years (%)	19.5	2019	●	↗
Age-standardized death rate attributable to household air pollution and ambient air pollution (per 100,000 population)	267.6	2016	●	●
Traffic deaths (per 100,000 population)	23.6	2019	●	→
Life expectancy at birth (years)	63.2	2019	●	→
Adolescent fertility rate (births per 1,000 females aged 15 to 19)	110.4	2018	●	●
Births attended by skilled health personnel (%)	55.9	2019	●	●
Surviving infants who received 2 WHO-recommended vaccines (%)	64.4	2020	●	↗
Universal health coverage (UHC) index of service coverage (worst 0–100 best)	43.3	2019	●	→
SDG4 – Quality Education				
Net primary enrollment rate (%)	73.5	2020	●	→
Lower secondary completion rate (%)	46.6	2020	●	→
Mean years of schooling (years)	5.4	2019	●	→
Literacy rate (% of population aged 15 to 24)	71.1	2019	●	●
SDG5 – Gender Equality				
Demand for family planning satisfied by modern methods (% of females aged 15 to 49)	39.6	2020	●	→
Ratio of female-to-male mean years of education received (%)	65.8	2019	●	→
Ratio of female-to-male labor force participation rate (%)	80.5	2020	●	↑
Seats held by women in national parliament (%)	11.9	2020	●	→
Women in ministerial positions (%)	14.8	2021	●	↓
SDG6 – Clean Water and Sanitation				
Population using at least basic drinking water services (%)	73.5	2020	●	↗
Population using at least basic sanitation services (%)	36.0	2020	●	→
Freshwater withdrawal (% of available freshwater resources)	7.8	2018	●	●
Anthropogenic wastewater that receives treatment (%)	0.2	2018	●	●
Scarce water consumption embodied in imports (m^3 H_2O eq/capita)	270.4	2018	●	●
SDG7 – Affordable and Clean Energy				
Population with access to electricity (%)	52.5	2019	●	→
Population with access to clean fuels and technology for cooking (%)	12.8	2019	●	→
CO_2 emissions from fuel combustion per total electricity output ($MtCO_2$/TWh)	4.3	2019	●	→
Share of renewable energy in total primary energy supply (%)	NA	2019	●	●
Consumer affordability of electricity (scale 0 to 100)	90.6	2019	●	→

SDG8 – Decent Work and Economic Growth	Value	Year	Rating	Trend
5-year average GDP Growth per capita (%)	-0.1	2020	●	↓
Ratio emploi-population (%)	54.8	2022	●	↓
Victims of modern slavery (per 1,000 population)	5.3	2018	●	●
Adults with an account at a bank or other financial institution or with a mobile-money-service provider (% of population aged 15 or over)	38.9	2017	●	↗
Fundamental labor rights are effectively guaranteed (worst 0–1 best)	0.5	2020	●	●
SDG9 – Industry, Innovation and Infrastructure				
Population using the internet (%)	33.6	2020	●	↗
Mobile broadband subscriptions (per 100 population)	40.1	2019	●	↑
Logistics Performance Index: Quality of trade and transport-related infrastructure (worst 1–5 best)	2.4	2018	●	↓
Articles published in academic journals (per 1,000 population)	0.1	2020	●	→
SDG10 – Reduced Inequalities				
Gini coefficient	36.9	2018	●	●
Palma ratio	2.0	2018	●	●
SDG11 – Sustainable Cities and Communities				
Proportion of urban population living in slums (%)	51.5	2018	●	→
Annual mean concentration of particulate matter of less than 2.5 microns in diameter (PM2.5) ($\mu g/m^3$)	65.2	2019	●	↓
Access to improved water source, piped (% of urban population)	36.8	2020	●	↓
SDG12 – Responsible Consumption and Production				
Electronic waste (kg/capita)	1.7	2019	●	●
Production-based SO_2 emissions (kg/capita)	0.8	2018	●	●
SO_2 emissions embodied in imports (kg/capita)	0.5	2018	●	●
Production-based nitrogen emissions (kg/capita)	8.5	2015	●	↑
Nitrogen emissions embodied in imports (kg/capita)	0.3	2015	●	↑
Exports of plastic waste (kg/capita)	0.1	2020	●	●
SDG13 – Climate Action				
CO_2 emissions from fossil fuel combustion and cement production (tCO_2/capita)	0.5	2020	●	↑
CO_2 emissions embodied in imports (tCO_2/capita)	0.2	2018	●	↑
CO_2 emissions embodied in fossil fuel exports (kg/capita)	613.5	2020	●	●
SDG14 – Life Below Water				
Mean area that is protected in marine sites important to biodiversity (%)	16.9	2020	●	→
Ocean Health Index: Clean Waters score (worst 0–100 best)	37.8	2020	●	↓
Fish caught by trawling or dredging (%)	9.0	2018	●	↓
Fish caught that are then discarded (%)	4.1	2018	●	↑
Marine biodiversity threats embodied in imports (per million population)	0.0	2018	●	●
SDG15 – Life on Land				
Mean area that is protected in terrestrial sites important to biodiversity (%)	68.6	2020	●	→
Mean area that is protected in freshwater sites important to biodiversity (%)	63.8	2020	●	→
Red List Index of species survival (worst 0–1 best)	0.9	2021	●	→
Permanent deforestation (% of forest area, 5-year average)	0.6	2020	●	↓
Terrestrial and freshwater biodiversity threats embodied in imports (per million population)	0.0	2018	●	●
SDG16 – Peace, Justice and Strong Institutions				
Absence de conflit armé (pire 0–100 meilleur)	46.0	2019	●	↓
Unsentenced detainees (% of prison population)	57.6	2018	●	●
Property Rights (worst 1–7 best)	3.7	2020	●	↓
Birth registrations with civil authority (% of children under age 5)	57.3	2020	●	●
Corruption Perception Index (worst 0–100 best)	29.8	2021	●	↓
Accountability & Transparency (worst 0-100 best)	49.6	2019	●	↓
Children involved in child labor (% of population aged 5 to 14)	28.6	2019	●	●
Press Freedom Index (best 0–100 worst)	34.3	2021	●	↓
Access to and affordability of justice (worst 0–1 best)	0.5	2020	●	●
SDG17 – Partnerships for the Goals				
Tax revenue (% of GDP)	8.0	2020	●	↓
Government spending on health and education (% of GDP)	5.5	2020	●	→
Corporate Tax Haven Score (best 0–100 worst)	4.8	2019	●	●
Statistical Performance Index (worst 0–100 best)	54.5	2019	●	↗

BENIN SUSTAINABLE DEVELOPMENT REPORT 2022

Pilot Baseline Report

December 2022 (Original French edition published in July 2022.)

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A GLOBAL INITIATIVE FOR THE UNITED NATIONS

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