

METRICS	WHAT NL ACTORS DO
GOVERNMENT POLICIES	TRENDS & LIMITATIONS
INTERVENTIONS & PLANS	MAIN RESULT AREAS

Senegal

This country profile, commissioned by The Netherlands Ministry of Foreign Affairs (Department of Inclusive Green Growth), gives a snapshot of what is happening in in the closely related themes Food & Nutrition Security, Water and Climate and Renewable Energy in Senegal. It provides basic statistics on Senegal’s performance on key indicators and indexes, but also analyses relevant national policies, current donor interventions, and the main trends on the abovementioned themes. Combined with an overview of Dutch support to Senegal, this profile ends by suggesting possible priority result areas for The Netherlands.

In total, 12 countries profiles have been made, plus one regional profile for the Sahel.



BURKINA FASO	CHAD	EGYPT
IRAQ	JORDAN	LEBANON
NIGER	NIGERIA	SOMALIA
SUDAN	TUNESIA	SAHEL REGION

COUNTRY PROFILE SENEGAL

METRICS

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Metrics



SENEGAL, FACTS

Government

Unitary semi-presidential republic
President: Macky Sall
Languages: Balanta-Ganja, Hassaniya, Arabic, Jola-Fonyi, Mandinka, Mandjak, Mankanya, Noon, Pulaar, Serer, Soninke
Religion: slam, Christianity, traditional African religion
Area: Total 196,712 km² (86th)

Population

- 2018 estimate: 16,294,270
- Prospect 2050: 34,031,000
- Density 68,7/km² (134th)
- **GDP (PPP) 2017 estimate**
- Total \$ 43.347 billion
- **GDP (nominal) 2017 estimate**
- Total \$ 16.172 billion
- Per capita \$ 1,090

GENERAL INDICATORS

UN Human Development Index

188 countries: 1st = best opportunities for development



Anti-corruption and Accountability

100 = strongest policies and practices



World Bank Doing Business Index

100 = most conducive environment for business



Gender Inequality Index

188 countries: 1st = smallest gender divide



CLIMATE/RENEWABLE ENERGY INDEXES

World Bank ESMAP Electrification Index

population with access to electricity



ND GAIN Index

181 countries: 1st = least climate change vulnerable, and best ready to improve resilience



FOOD NUTRITION SECURITY INDEXES

Global Hunger Index (IFPRI)

Range 0 – 100: 0 = no hunger



Global Food Security Index (Economist)

113 countries: 1st = best food security



Land Management Index (UNCCD)

180 countries: 1st = most sustainable land governance



WATER INDEXES

FAO AquaStat

Variation per capita internal renewable water resources



World Bank Drinking Water Index

population using at least basic drinking water services



JMP Sanitation Index

population with access to improved sanitation facilities



Government policies



Food security

For several years, Senegal has invested in a countrywide nutrition-specific programme that has helped to significantly reduce the national stunting prevalence. In 2015, the prevalence of stunting was 17.1%, which is far better than many Sahelian countries. With the adoption of a new **National Policy for the Development of Nutrition** (2015-2025), Senegal's government has renewed its commitment to tackle undernutrition and has adopted a more multi-sectoral approach. Each nutrition-sensitive sector should, more efficiently, contribute to the human and economic development of the country¹.

The Emerging Senegal Plan (PSE, 2016) sets food security as one of its top priorities. Its national efforts are further delineated in the **National Strategy for Food Security and Resilience** (SNSAR, 2015-2035). Recently established initiatives, including interventions related to rice self-sufficiency, child malnutrition (**Nutrition Enhancement Program**) show promise in addressing the country's priority FNS needs.

Water

Senegal's **Millennial Program for Water and Sanitation** (PEPAM, renewed in 2016) is based on the thought that only joint efforts of the state, civil society, local authorities, NGOs, private sector and development partners will enable to achieve goals. According to data from PEPAM, Senegal is on track to meet the national targets for drinking water.

The 2012 floods in Dakar were of significant importance in catalyzing a turning point in Senegal's flood risk management, as the government adopted the Decennial Flood Management Program. The **Storm Water Management and Climate Change Adaptation Project** (PROGEP) started in December 2013, is investing in necessary infrastructure and also working on institutional capacities, urban planning, wetland management, community engagement in flood risk reduction, waste management and climate change adaptation.

Climate/renewable energy

Senegal has not yet submitted a NDC to the UNCCC, instead it has prepared and **Intended Nationally Determined Contribution** (INDC) for the Paris 2015 conference. Significant benefits are expected from the adaptation options to be implemented by Senegal by 2035. For soils and agriculture: Reducing the incidence of poverty; Contribution to improved food and nutrition security; Building resilience; Job creation; Increased average agricultural yields to 3.2 tons in 2035. For fisheries: Creation of an added value of 9,200 million US dollars in the sector by 2035; Better economic and social contribution of the sector through sustainable management of fisheries (control of crises and climate). For water resources: Limitation of rural exodus and its harmful effects; Obtaining a "productive water" sector that generates added value in agricultural regions Recharging of groundwater; Contribution to the fight against salinization problems; Participation in the fight against floods; Marine submersion risk adaptation benefits in St. Louis; Reduced Coastal Erosion.

1] European Commission, 2017. Country Profile on Nutrition - Senegal

2] <http://www4.unfccc.int/Submissions/INDC/Published%20Documents/Senegal/1/CPDN%20-%20Senegal.pdf>

Donor interventions and plans

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Top 3 donors (based on 2017 IATI data³)

DONOR	AMOUNT (IN \$)
World Bank Group	186,436,000
EU Institutions	99,546,700
African Development Bank	79,042,300



Top 3 Sectors attracting development funding

SECTOR	AMOUNT (IN \$)
Transport and storage	105,668,000
Agriculture	100,059,000
Other social infrastructure and services	99,735,700

Food security

AFD supports job-creation via two areas: **Strengthening vocational training** to ensure it matches market needs, financing vocational training centres' and the construction of 2 higher vocational education institutions for agricultural activities; and **Supporting SMEs**, now extended to three regions: the Senegal River Valley, the South-East and Casamance⁴.

The Global Agriculture and **Food Security Program (GAFSP)** is implementing a Food Security Support Project in Louga, Matam and Kaffrine Regions (PASA/Lou-Ma-Kaf) to promote livestock and crop production in vulnerable zones, including investments focused on provision of water management systems, rural roads, and animal vaccination centres.

Through Feed the Future, USAID works with the Government of Senegal to reduce poverty and undernutrition by promoting agriculture as a driver for economic growth. Focus is on improving the value chains for four key agricultural products: rice, maize, millet, and fish. The program aims to improve productivity, harvest and collection, processing and the delivery of the right product quality and quantity according to the needs of the market.

Water

ENABEL is realising **hydro-agricultural infrastructure** such as embankments, anti-salt dams and boreholes to meet the growing need for water of the agricultural sector. The population of five regions of the Groundnut basin (Diourbel, Fatick, Kaffrine, Kaolack and Thiès) was invited to identify their needs in this respect and to submit a project application, communities started a consultation and decision-making process involving farmers, village heads, women and youths. Overall, some 200 rural communities submitted a project application⁵.

The development objective of the **Urban Water and Sanitation Project for Senegal** (World bank) is to improve access to water and sanitation services in selected urban areas in a financially sustainable manner⁶.

Stretching for more than 1,800 kilometres across Guinea, Mali, Senegal and Mauritania, the Senegal River is the third longest river in Africa. In a region plagued by drought, poverty, and underdevelopment, access to a water resource such as the Senegal River is critical to local populations who rely on it for energy production, land irrigation, and potable water. The Netherlands support the **Senegal River Basin Development Organization (OMVS)**,

a regional cooperative management body. The OMVS has implemented the principle of equitable sharing among member states when it comes to ownership of infrastructure constructed in the river basin or water resource benefits.

Climate/renewable energy

The **Energy Development Senegal** project (GiZ) comprises two major components: improved cook stoves and rural electrification.

For 2018 the **Green Climate Fund** approved USD 9.98 million for building the climate resilience of food insecure smallholder farmers through integrated management of climate risk project in Senegal with the United Nations World Food Program (WFP). and the Senegal Integrated Urban Flood Management Project.

3] This data originates from self-reported data in IATI by major donors. It should be noted that not all aid flows and financial sources are captured.

4] <https://www.afd.fr/en/page-region-pays/senegal> 5] <https://www.enabel.be/story/water-agriculture> 6] <http://projects.worldbank.org/P150351?lang=en>

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What NL actors already do

Major commitments from the Netherlands (based on IATI) in 2017

BUDGET SPENT BY NL MINISTRY OF FOREIGN AFFAIRS	AMOUNT (IN \$)
Government and civil society, general	448,530
Reconstruction relief and rehabilitation	136,947
BUDGET SPENT BY NETHERLANDS ENTERPRISE AGENCY	AMOUNT (IN \$)
Transport and storage	176,285
Industry	83,540
Energy generation and supply	83,111

Top largest programmes supported by the Netherlands (active as of 2017)

THEME	ORGANISATION	TITLE	COMMITTED (IN \$)
Solar energy	FMO	EDS EXIMAG S.A.	15,140,000
Water transport	Netherlands Enterprise Agency / Royal Haskoning	Development of Port of Ziguinchor	7,693,860
Women equality	Stichting Kinderpostzegels Nederland	Program Her Choice Management	4,570,820

The Netherlands have been giving years of extensive support to Senegal (until 2015), with a peak of more than 20 million per year by 2010. Themes included land and water management, forestry, and the environmental sector both through support to the government and through civil society.

Food security

PSI support for high **quality sesame seeds** production from 2014-2018. The world market for sesame products is steadily growing. Senegal only exports small quantities of untreated and unsorted sesame, due to a lack of mechanized production. Partners Sumeco SA and Compagnie Développement Agricole have invested in a cleaning and sorting factory for locally produced raw sesame seeds in the Ziguinchor region in Senegal. The raw sesame will be supplied by a cooperation of female outgrowers⁷.

RVO's **Orange Corners** is currently also rolled out in Senegal. It is a platform for (young) entrepreneurs to learn, stimulate their creativity, grow their business and expand their professional network. The aim is to contribute to economic growth by creating an environment for local entrepreneurship to thrive⁸.

Water

To date the Netherlands support the **Senegal River Basin Commission** (OMVS), a regional cooperative management body of the Senegal River which currently includes Guinea, Mali, Mauritania, and Senegal. Through programs such as the Senegal River Basin Multi-Purpose Water Resources Development Project (PGIRE), the World Bank has helped the OMVS enhance the development of transboundary waters, cross-border malaria prevention, and the development of hydroelectric generation⁹.

The ORIO **Fight against weed pests in the Senegal River Delta project** (Royal Haskoning/DHV, OMVS). Weed infestation along the Senegal River is a direct environmental consequence of the earlier construction of two dams in the Senegal river and has profoundly impacted the livelihood of the people using the river for their activities. The project constructs 8 polders along the Senegal River where the Typha weed cannot grow. The polders will create new agricultural ground in which rice and other agricultural products such as vegetables can be grown¹⁰.

Climate/renewable energy

FMO is funding EDS EXIMAG S.A Senegal to develop, construct and maintain a **solar power plant** in the Louga region in the North¹¹.

Energizing Development (EnDev) is an energy access partnership currently financed by six donor countries, among which the Netherlands. EnDev promotes sustainable access to modern energy services that meet the needs of the poor - long lasting, affordable, and appreciated by users. The EnDev Senegal project comprises two major components: improved cook stoves (ICS) and rural electrification¹².

7] https://www.rvo.nl/sites/default/files/rvo_website_content/opendata/iati/IATI-psi.xml 8] <https://www.orangecorners.com/> 9] <http://www.internationalwatersgovernance.com/senegal-river-basin.html> 10] <https://aiddata.rvo.nl/projects/NL-KVK-27378529-ORIO10SN02/?tab=summary> 11] <https://www.fmo.nl/project-detail/51732> 12] <https://endev.info/content/Senegal>

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Trends and limitations

Senegal is a politically stable country and till now not targeted by terrorist attacks. Temporary eruption of violent actions by independent activists in the Casamance region. Challenges which still prevail are unemployment, infrastructure and food security. The country can rely on a number of advantages: its democratic tradition, its geographical position, a young population, a vast agricultural and mining potential and the dynamism of its diaspora.

Senegal is a transit country for the illegal migration to Europe. Destination country for migrants from Guinea and Mali (active in trade; part of informal regional traders' networks), and Benin, Togo and Ivory Coast (high-skilled, service sector) Regional migration to Guinea, Guinea Bissau, Mauritania, Ivory Coast and Gabon (low skilled labor, petty traders, taxi drivers). Migration to EU countries: France, Spain and Italy.

Food security

The economy of Senegal relies heavily on cash crops and fishing, both of which are vulnerable to climate change. Harvest deficits in 2014 and 2015, triggered by recurring droughts and floods, resulted in the early onset of the lean season (when food is scarcer), severely weakening food security in northern and central Senegal. Rice production, processing and marketing is an important agribusiness sector due to enabling national policies (in the Casamance area and the Senegal valley).

Production and food supply are erratic in Senegal due to dependency on rain-fed agriculture, unfavourable climatic conditions, and low water availability. Senegal has the highest volatility of food production in sub-Saharan Africa.

Senegal also falls far below the sub-Saharan African average for both cereal yields and agricultural value added per worker.

Extensive measures are currently being developed to revive food production. Despite satisfactory macro-economic performance, poverty still affects more than half of the population and has not declined much in rural areas. The nutrition situation across the country is uneven. In 8 out of 14 regions, the nutrition situation is precarious if not critical. A succession of climate and economic shocks has plunged northern and eastern parts of the country in a food and nutrition crisis, and the south eastern part of the country faces protracted difficulties. Further efforts are necessary to tackle the nutrition challenge. Difficulties in the agricultural sector combined with poverty are the main causes of household food insecurity.

Water

Water has become a national concern for Senegal given the range of issues facing the sector: scarcity, random nature of rainfall, vulnerability of water resources, disparity in their spatial distribution, lack of equity in access to water resources between areas. When comparing Senegal to other Sahel countries it has enough water

reserves sufficient for different uses and for the supply of drinking water. However, the geographical distribution remains a problem, especially in central and northern regions of the country particularly in the sylvo-pastoral zone. Access to safe water has improved considerably but sanitation remains problematic.

Climate/renewable energy

Senegal remains vulnerable to environmental shocks including recurring natural disasters (particularly floods and droughts) that will increase in magnitude and extent due to increased climate variability. Roughly 67 percent of Senegal's population resides in the urban coastal zone, also the location of 90 percent of Senegalese industrial production. This coastal area is characterized by low-lying, rapidly expanding, high population suburbs, high water tables and poorly planned drainage systems. In addition to extreme events, rising sea levels place much of the coastal population, infrastructure and ecosystems at risk from flooding and erosion. Climate change will also impact climate sensitive sectors such as agriculture, livestock and fisheries. Agriculture in Senegal is highly dependent on rainfall and favourable climatic conditions, and this makes it vulnerable to both current climatic variability and climate change.

The increase in temperatures will increase crop water requirements and may lead to decreased yields.

Senegal's energy consumption is predominantly sourced from biomass and petroleum products, the rest from coal and renewable energy (hydro, solar). Biomass is predominantly used for cooking, mostly in rural areas. Households are responsible for 54% of the total energy consumption, which again is predominantly used for cooking, for which firewood and charcoal are the most important sources of energy, while, different from other Sahel countries, in urban areas also use of LPG is widespread. For example, 90% of households in Dakar normally cook on LPG, though supply is not always reliable in which case they fall back on charcoal. The electrification rate of the country is relatively high compared to surrounding countries. The potential for renewable electricity generation is large: solar, wind and hydro each offer good possibilities.

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Main result areas

Based on the above metrics and trends, the following “directions” can be considered to be most promising for intervention. These are based on the country needs, complementarity to interventions by other donors, and match with The Netherlands’ development policy, knowledge and experience.

More details on directions (also on regional approaches) can be found in the Sahel regional profile.

FOOD

Food security

- **Climate resilient Integrated territorial based programs.** Integrated, territorial based (landscape, catchment areas) interventions combining integrated soil and water management, climate smart agriculture (erosion control, soil fertility technologies, drought resistant crops), small scale irrigation, agro-forestry, gardening, warehouse receipt systems etc. with improved marketing, access to credit facilities and organisation building,
- **Encouraging Public Private Partnerships for value chain development and entrepreneurship:** Extend the number of countries for programs like the 2Scale program to Senegal (or elaborate a like-wise program) to stimulate inclusive agribusiness and public private partnerships
- **Enhancing youth employment, economic opportunities and capacity development.** Integrate youth employment in all the result areas and enhance economic opportunities of youth in local economic development and through skills development (e.g. agriculture skills, pastoral skills). Generally youth are more interested in high value crops, processing, book keeping, agriculture info-systems, ICT, and transport.
- **Improving access to quality seed in Senegal:** Create a dynamic seed sector consisting of small and medium sized enterprises and multinationals, underpinned by strong private and public support. Integrated seed sector development is an approach to enhance reliable access of male and female smallholder farmers to sufficient quantities of quality seed of superior varieties at the right time and at an affordable price; and to increase male and female farmers’ choice in terms of crop varieties, and seed quality, price and availability. Integrated seed sector development is only one of the building blocks of a sustainable integrated agricultural development approach, in addition one should address input availability (organic and inorganic fertilizer), disease and pest management and value chain development.

Water

- Work on the nexus between water access and availability, agriculture and climate resilience (**small scale irrigation**).
- Continue **support to the Senegal River Basin Authority**

Climate/renewable energy

- **Support access to renewable energy** for electricity provision of the urban and rural poor and for agricultural value chains
 - **Promoting energy security with solar energy.** Promote integrated use of solar energy for electricity and for agricultural purposes (processing, water pumps for irrigation, grinding mills etc.).
 - Install **small and medium sized renewable power plants.**

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Linking to IGG result areas

The suggested directions are placed against the results areas in IGG. These directions are not in order of priority – as many are interrelated. This is in line with the integrated approach to intervening in food, water, and climate in urban areas in the Sahel, as suggested in the new policy of the Ministry of Foreign Affairs¹².

FOOD AND NUTRITION SECURITY	SUGGESTED DIRECTION
Promote agricultural growth	Climate resilient Integrated territorial based programs Improving access to quality seed
Create ecologically sustainable food systems	Encouraging Public Private Partnerships for value chain development and entrepreneurship
Better governance for food and nutrition security	Enhancing youth employment, economic opportunities and capacity development
WATER	SUGGESTED DIRECTION
Water resources management	Small scale irrigation
Transboundary river basins management	Continue support to the Senegal River Basin Authority
CLIMATE* / RENEWABLE ENERGY	SUGGESTED DIRECTION
Access to renewable energy	Promoting energy security with solar energy
Sustainable forestry management and related practices	Install small and medium sized renewable power plants Climate resilient Integrated territorial based programs

¹² Ministry of Foreign Affairs (2018) Investeren met perspectief: Goed voor de wereld, goed voor Nederland. [New policy Foreign Affairs/Foreign Trade]. The referred Sahel example is on page 39. www.rijksoverheid.nl/regering/bewindspersonen/sigrid-kaag/documenten/beleidsnota-s/2018/05/18/pdf-beleidsnota-investeren-in-perspectie

* The result areas under climate are partly integrated in the resilience components under the Water and Food and Nutrition Security results areas.

Colofon

Country profile: This country profile is part of a series of 12 countries in the Sahel, Horn of Africa, and MENA regions, covering per country the themes of Food & Nutrition Security, Water, Climate and Renewable Energy. Commissioned by the Netherlands Ministry of Foreign Affairs (Department of Inclusive Green Growth, IGG), and implemented by Wageningen Centre for Development Innovation (WC DI), as part of the Support Facility of Food & Nutrition Security.

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Photo: <https://www.flickr.com/photos/jbdodane/8676089455/>

Design: <http://rco.design>

Methodology

These country profiles are considered a first reconnaissance for IGG in countries that currently do not have bilateral programmes on food, water, climate or energy. As a consequence, the design of these profiles is light and pragmatic. The consultants based these country profiles primarily on focus group discussions and interviews with staff of the Ministry of Foreign Affairs, Ministry of Agriculture, and RVO.

This data was augmented by interviews with country experts, databases from UN and World Bank Group, and IATI (a voluntary, multi-stakeholder initiative aiming to improve the transparency of aid and development resources. The Netherlands is committed to sharing data on its programmes and target areas in IATI).

Based on this data, the consultants offer for each country several result areas for consideration. These should be seen as general directions towards possible actions which (1) are needed and requested by the

country, (2) are complementary to what others are doing already, and (3) present an opportunity to cooperate on areas of Dutch expertise and interest. These possible result areas are not recommendations for specific programmes to be developed.

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Documents consulted

Besides internal Ministry of Foreign Affairs documentation and public documents from other agencies (such as WBG, EC, FAO, WFP, USAID, DFID), specific references are footnoted in the text.

Sources for metrics

General country statistics: sourced from CIA World Factbook, UNFPA, UNDESA, IMF, and Wikipedia.

Human Development: UN Human Development Index (2016) www.hdr.undp.org/en/countries

Anti-corruption and Accountability: Africa Integrity Indicators http://aii.globalintegrity.org/scores-map?stringId=access_information_openness&year=2017

Doing Business: WBG Doing Business Index <http://www.doingbusiness.org/>

Gender Inequality: Gender Inequality Index <http://hdr.undp.org/en/content/gender-inequality-index-gii>

Population 2018 estimate <http://worldpopulationreview.com/countries/>

Population 2050 projection UNDESA 2017 https://esa.un.org/unpd/wpp/Publications/Files/WPP2017_KeyFindings.pdf

Hunger: Global Hunger Index (IFPRI) <https://www.ifpri.org/publication/2017-global-hunger-index-data>

Food security: Global Food Security Index (Economist) <http://foodsecurityindex.eiu.com>

Land management: Land Management Index (UNCCD) https://global-land-outlook.squarespace.com/s/Preliminary-draft-scoping-paper-fro-LMI_May-2017.pdf

Renewable water resources: FAO AquaStat <http://www.fao.org/nr/water/aquastat/main/index.stm>. We calculated the Variation in per capita internal renewable water resources, by comparing the total internal renewable water resources per capita in 2014 (m³/inhabitant/year) with same values in 2007.

Drinking water: World Bank Drinking Water Index <https://data.worldbank.org/indicator/SH.H2O.SMDW.ZS>

Electrification: World Bank ESMAP Electrification Index <http://rise.esmap.org/>

Climate change vulnerability and readiness: ND GAIN Index <https://gain.nd.edu/our-work/country-index/>

IATI: <http://d-portal.org/> and <https://www.iatiregistry.org/>