



National Adaptation Plans in focus: Lessons from Sierra Leone

The Republic of Sierra Leone is located in Western Africa, bordering the North Atlantic Ocean, Guinea and Liberia. The country's territory is 71,740 km² with 1,093 km of land boundaries and 402 km of coastlineⁱ. It has a population of about 7.8 million, of which 57.5 percent lives in rural areasⁱⁱ. The country's terrain is characterized by a coastal belt of mangrove swamps, wooded hill countryside, upland plateaus, and mountains in the east. The highest peak rises to 1945 m. The climate is tropical, hot, and humid, with a summer rainy season (May to December) and winter dry season (December to April). Rainfall along the coast can reach 4,950 mm a year, making it among the wettest places along the coast of western Africa. Dry and sand-laden harmattan winds blow from the Sahara between December and February, causing sand and dust storms. The country is rich in diamonds, titanium ore, bauxite, iron ore, gold, and chromite¹.

Sierra Leone is a least developed country (LDC) with nearly half of the working-age population engaged in subsistence agriculture. The Sierra Leone Integrated Household Survey (2018) showed that more than half of the population lives in povertyⁱⁱⁱ. Sierra Leone's Human



Development Index value for 2019 is 0.452, which sets the country in the low human development category^{iv}. Although it has substantial natural resources, the country is still recovering from the civil war that ended in the early 2000s and the Ebola outbreak in 2014/2015⁵. The climate-sensitive agricultural sector provides livelihoods for 75 percent of the population and contributes to more than 50 percent of GDP^v. GDP per capita was US\$715 before the outbreak in 2013 and it dropped to US\$528 in 2019^{vi}. The country's main exports are iron ore, diamonds, and rutile, and the economy is vulnerable to fluctuations in international prices¹.

Climate change risks

Sierra Leone is faced with multiple climate change risks that threaten key economic sectors and increase the potential for wider environmental degradation^v. The country's high dependence on agriculture and natural resources, coupled with increased poverty, unemployment, and environmental degradation, makes it vulnerable to climate change impacts^{vii}.

Sierra Leone is affected by climate-induced disasters, such as dust storms and prolonged and intense droughts. Key climate change trends since the 1960s are higher temperatures, reduced annual precipitation, and increased variability in the rainy season. Future climate projections for the country suggest further temperature

increase by 1-2.5 °C by 2060, overall rainfall increase and increase in single rainfall intensity, as well as increase in the Atlantic Ocean level (0.1-0.56 meters by 2100), coupled with an increasing risk of storms^{viii}.

Key climate impacts and associated vulnerabilities for Sierra Leone are related to agriculture (increased crop loss/failure, more pests, weeds and pathogens, and reduced food security), water resources (increased sedimentation and runoff, decline in water quality), human health (increased range for vector-borne diseases, increased breeding sites for water pathogens and illnesses) and disasters (damage to coastal infrastructure, loss of life and productive assets)⁹.



Groundwork for supporting the NAP process



Policy, planning and budgeting

Sierra Leone signed and ratified the United Nations Framework Convention on Climate Change (UNFCCC) in 1995^x. Since then, the country has launched several initiatives to meet its climate change adaptation goals. In addition to submitting the National Communications and its Nationally Determined Contribution (NDC) to the UNFCCC in 2016, Sierra Leone developed several national climate change strategies and identified a range of adaptation priorities. Recognized adaptation priorities in Sierra Leone are: i) rehabilitation of degraded coastal habitats, ii) integration of climate change adaptation into health and mining/extractive sectors, iii) promotion of integrated crop and livestock management, iv) monitoring of groundwater resources, and v) enhanced use of climate services. The National Sustainable Agriculture Development Plan also acknowledges the effects of climate change, referring to changing practices due to erratic rainfall^l. In July 2021, Sierra Leone submitted its Updated NDC, which included updated information on risk and vulnerability, detailed information on adaptation priorities and a commitment to validate the NAP.

The country has also developed the *Strategy for the Development of a Climate Change Abatement Economy: Introducing and Implementing REDD/REDD+ in Sierra Leone* in 2010. In an effort to develop the climate change abatement economy, Sierra Leone's main focus is to try and earn forest carbon credits through the implementation of the REDD/REDD+ programmes. The government's aim is to develop and manage 2.5 million hectares of forests and to assist income-generating activities of non-timber forest products, sustainable tree crops, and ecotourism. The plan is to achieve this through participatory forest management in all forested districts and communities^g.

In 2020, the county has launched a *Climate Change Communications Strategy under the National Adaptation Plan*. The strategy aims to provide short- and mid-term directions on how the Government of Sierra Leone can use information strategically and effectively to support the National Adaptation Plan (NAP) process. The strategy is based on wide consultations with key government stakeholders all over the country to make it a comprehensive and realistic guidance tool that will support the country's communication under the NAP^h. Other relevant documents include the National Environmental Policy, the National Environmental Action Plan, the National Drought Management Plan, and National Biodiversity Strategy and Action Plan.

Preparing for adaptation planning

The Republic of Sierra Leone has invested substantial efforts into preparing strategies and plans to address climate change adaptation in the country, amongst others: i) First National Communication (2007), ii) National Adaptation Programme of Action (NAPA) (2007), iii) Second National Communication (2012), iv) Intended Nationally Determined Contribution changed to a Nationally Determined Contribution (NDC, 2015)^y and a revised NDC (2021) and v) Third National Communication (2018).

Implementation of adaptation actions

The government of Sierra Leone, together with national and international partners, has implemented various climate change-related projects and programmes. This includes:

- [West Africa Biodiversity and Climate Change, USAID \(2015-2020, US\\$49 million\)](#): Improve conservation and climate-resilient, low-emissions growth across West Africa (including Sierra Leone).
- [Building the Adaptive Capacity of Water Supply Services to Climate Change, GEF-UNDP \(2012-2018, US\\$3 million\)](#): Enhance capacity for climate resilient decision-making in the water sector through policy reforms, technical capacity development activities, and by igniting informed dialogues in public and private sector.

- [Adapting to Climate Change Induced Coastal Risks Management in Sierra Leone \(2017 – 2023\)](#): This project aims to strengthen the ability of coastal communities to systematically manage climate change risks and impacts on physical infrastructure and economic livelihoods.

Institutional arrangements

The NAP process is led by the Environmental Protection Agency (EPA). In 2012, the EPA established the National Secretariat for Climate Change (NSCC). The NSCC has the mandate and potential to establish institutional links between different agencies on the cross-cutting issues of climate change adaptation, disaster management, agricultural development, and design and planning of infrastructure projects^{v,xiii}.

The meteorological service of Sierra Leone is responsible for the collection, analysis, dissemination, and storage of national meteorological and climate data and information. However, its capabilities are affected by the war that destroyed numerous weather stations and only a limited number of observational stations exist in the country^u.

NAP formulation

Sierra Leone has formulated its Initial National Adaptation Plan (iNAP) building on other national policy or planning documents, such as the NDC and the Medium-term National Development Plan. The iNAP is considered an instrument aimed at facilitating climate change adaptation integration into medium- and long-term national planning and financing. Sierra Leone has taken a whole-of-government approach, and it is creating linkages across all levels of government and between sectors to enhance collaborative planning and joint decision-making to mainstream adaptation^{xiii}. The iNAP prioritizes adaptation action in 7 sectors, two of which it considers cross-cutting:



For each of these sectors, the iNAP includes a programme of actions and define the lead ministry/government agency for implementation.



Challenges and successes



Support programmes

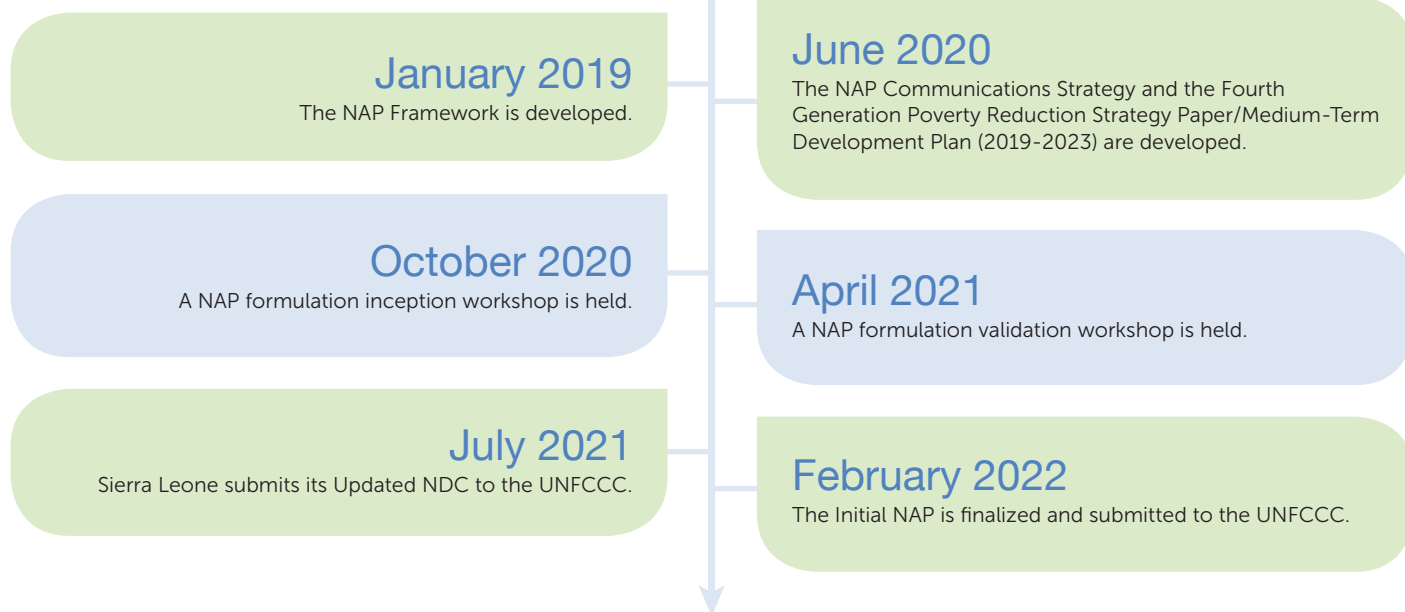
Sierra Leone's NAP process has been supported by the United Nations Development Programme (UNDP) mission in Sierra Leone and the Global Environment Facility (GEF). Additional support has been provided by the NAP Global Network, the United States Agency for International Development (USAID), the European Union (EU), and the Food and Agriculture Organization of the United Nations (FAO). The updated NDC was developed with support from UNDP's Climate Promise Initiative.

Challenges

With the ongoing and projected impacts of climate change, there are several challenges that need to be addressed. These include, but are not limited to: i) the establishment of the national early warning system, ii) the rehabilitation and reconstruction of the meteorological/ climate monitoring stations in the country, iii) the capacity building of the meteorological department through training of personnel, iv) sensitization and awareness raising campaigns on impacts climate change has on women, v) the promotion of the use of renewable energy in Sierra Leone and improvement of energy efficiency and conservation of energy^{xiv}.

Successes

Sierra Leone has successfully developed a suite of climate policy and technical documents, including the NAPA, three National Communications to the UNFCCC. The country also developed a National Climate Change Policy Framework, the National Climate Change Strategy and Action Plan and finalized a framework for its national adaptation planning process. The country's commitment to address global warming and climate change and to reduce GHG emissions is evident. The country further appointed a national UNFCCC focal point, represented by the National Meteorological Agency^{xv}. In 2021, Sierra Leone submitted its Updated NDC with enhanced adaptation commitments and early 2022, the country submitted its iNAP. These are two additional milestones confirming the country's drive to address its short- medium- and long-term adaptation needs.



The process to formulate and implement NAPs

The NAP process is seen as key to the implementation of both the Climate Change Policy and the adaptation component of the NDC.



Opportunities and next steps

The ongoing NAP process in Sierra Leone is aligned with the vision for adaptation in the country, which includes increasing the resilience capacity at the local level and supporting an integrated approach to climate change adaptation and policymaking. Key sectors in Sierra Leone will work together to harmonize climate-relevant policies and regulations, while also improving the coordination and cross-linkages between the sectors^{xiii}. The next steps require the implementation of the priority adaptation actions that are outlined in Sierra Leone's iNAP. These priority actions include: the development and enactment of policies and regulations for the protection of coastal communities; livelihood diversification; urban growth planning; the establishment of a national sea level observing system; coastal ecosystems preservation; and conservation of critical ecosystems^{xvi}.

Key documents

- [National Adaptation Programme of Action \(NAPA\) \(2007\)](#)
- [Initial National Communication \(2007\)](#)
- [Second National Communication \(2012\)](#)
- [Intended Nationally Determined Contribution \(2015\)](#)
- [Nationally Determined Contribution \(2016\)](#)
- [Third National Communication \(2018\)](#)
- [Climate Change Communications Strategy \(2020\)](#)
- [Updated Nationally Determined Contribution \(2021\)](#)
- [Initial NAP \(2022\)](#)

1–2.5 °C
increase in average
temperatures
by 2060

The Atlantic Ocean will
rise by **0.1–0.56m**
by 2100

75 percent of the
population's livelihoods
depend on the
agriculture sector

**Human
Development Index**
value for 2019 is 0.452

Notes

- ⁱ CIA (2021). The World Factbook: Sierra Leone. URL: <https://www.cia.gov/the-world-factbook/countries/sierra-leone/>. Accessed 2 April 2021
- ⁱⁱ World Bank Data (2021): Population - Sierra Leone <https://data.worldbank.org/indicator/SP.POP.TOTL?locations=SL>. Accessed 2 April 2021
- ⁱⁱⁱ World Bank in Sierra Leone (2021). URL: <https://www.worldbank.org/en/country/sierraleone/overview#1>. Accessed 2 April 2021
- ^{iv} United Nations Development Programme (2021). Human Development Reports - Sierra Leone. URL: <http://hdr.undp.org/en/countries/profiles/SLE>. Accessed online 02 April 2021
- ^v USAID (2016). Climate Change Risk Profile – Sierra Leone. URL: <https://www.climatechange.org/sites/default/files/asset/document/2016%20CRM%20Fact%20Sheet%20-%20Sierra%20Leone.pdf>. Accessed 2 April 2021
- ^{vi} World Bank Data (2021): GDP per capita - Sierra Leone <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=SL>. Accessed 2 April 2021
- ^{vii} United Nations Development Programme (2021). Sierra Leone: Country Profile. URL: <https://www.sl.undp.org/content/sierraleone/en/home/countryinfo.html>. Accessed 2 April 2021
- ^{viii} Republic of Sierra Leone (2012). Second National Communication on Climate Change. URL: <https://unfccc.int/resource/docs/natc/slenc2.pdf>. Accessed 2 April 2021
- ^{ix} UNFCCC (2018). Third National Communication of Sierra Leone to the United Nations Framework Convention on Climate Change. URL: <https://unfccc.int/sites/default/files/resource/FinalThird%20Nat.%20Com.%20document%20111.pdf>. Accessed 2 April 2021

- ^x Sierra Leone Government (2010). Strategy for the Development of a Climate Change Abatement Economy: Introducing and Implementing REDD/REDD+ in Sierra Leone. URL: https://www.globalsupportprogramme.org/sites/default/files/downloads/seirra_leoneredd_strategy.pdf. Accessed 2 April 2021
- ^{xi} Government of Sierra Leone (2020). Sierra Leone's Climate Change Communications Strategy Under the National Adaptation Plan. URL: <https://napglobalnetwork.org/wp-content/uploads/2020/10/napgn-en-2020-Sierra-Leone-Climate-Change-Communications-Strategy-under-the-NAP.pdf>. Accessed 2 April 2021
- ^{xii} Environmental Protection Agency (2021). EPA Sierra Leone. URL: <https://epa.gov.sl/>. Accessed 2 April 2021
- ^{xiii} UNDP (2020). Sierra Leone prepares a National Adaptation Plan to achieve resilience across all sectors. URL: <https://www.adaptation-undp.org/sierra-leone-prepares-national-adaptation-plan-achieve-resilience-across-all-sectors>. Accessed 2 April 2021
- ^{xiv} Government of Sierra Leone (2007). National Adaptation Programme of Action (NAPA). URL: <https://unfccc.int/resource/docs/napa/sle01.pdf>. Accessed 2 April 2021
- ^{xv} Government of the Republic of Sierra Leone (2018). Third National Communication of Sierra Leone to the United Nations Framework Convention on Climate Change. URL: <https://unfccc.int/sites/default/files/resource/FinalThird%20Nat.%20Com.%20document%20111.pdf>. Accessed 2 April 2021
- ^{xvi} World Bank (2021). Country - Sierra Leone. URL: <https://climateknowledgeportal.worldbank.org/country/sierra-leone>. Accessed 2 April 2021

About the NAP-GSP

The joint UNDP-UN Environment National Adaptation Plan Global Support Programme (NAP-GSP) was launched in June 2013, financed by the Global Environment Facility (GEF) Least Developed Countries Fund (LDCF), and the Special Climate Change Fund (SCCF). The NAP-GSP, together with partners, are assisting developing countries to identify technical, institutional and financial needs to integrate climate change adaptation into medium and long-term national planning and financing. The NAP-GSP provides technical expertise and guidance on country NAP processes, and opportunities for knowledge exchange on NAPs.



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