



## Ireland's Bilateral Climate Finance Sierra Leone - 2013 Report

Sierra Leone, located on the west coast of Africa, has a total area of 71,740 km<sup>2</sup> with an estimated population of 6 million. The average annual temperature has increased by 0.8C degrees since 1960 and projections suggest an increase in annual temperature by 1.0 to 2.6C degrees by the 2060s (McSweeney et al. 2010). According to WHO, flooding in Sierra Leone now poses the biggest threat to health, through increased exposure to water borne diseases; cholera, diarrhoea and dysentery. Ireland provided a total of €326,421 to Sierra Leone in climate finance in 2013.

# Sierra Leone

## Country Statistics

<b>Population<sup>1</sup></b>	6,092,075
<b>Income per capita<sup>2</sup></b>	\$1,815
<b>HDI Rank<sup>3</sup></b>	183 <sup>rd</sup>
<b>Vulnerability Rank<sup>4</sup></b>	3 <sup>rd</sup>
<b>Extreme Events Rank<sup>5</sup></b>	132 <sup>nd</sup>



Map of Sierra Leone, Irish Aid, 2013

1 Population in 2013: World Bank (2014) <http://data.worldbank.org/indicator/SP.POP.TOTL> Available at 28th July 2014

2 Gross National Income per capita in 2013, 2011\$ PPP; UNDP (2014) International Human Development Indicators; <http://hdr.undp.org/en/countries> Available at 28th July 2014.

3 ibid

4 ND GAIN (2013) <http://index.gain.org/ranking> Available at 20th June 2014. The rank quoted is an inversion of the ND GAIN vulnerability index which gives a higher rank to the least vulnerable. We have inverted so that 1st place is most vulnerable and 183rd place is least vulnerable.

5 Average over 1993-2012. Higher rank denotes greater losses from extreme events; Germanwatch (2014); Global Climate Risk Index 2014, <http://germanwatch.org/en/download/8551.pdf> Available at 20th June 2014

	<b>Bilateral Programme 2013 EUR<sup>6</sup></b>
<b>Climate Finance; Adaptation (UNFCCC)<sup>7</sup></b>	326,420
<b>Climate Finance; Mitigation (UNFCCC)</b>	0
<b>UN Convention on Biological Diversity (UNCBD)</b>	234,250
<b>UN Combat Desertification and Degradation (UNCCD)</b>	0
<b>Disaster Risk Reduction (DRR) (UNISDR)</b>	326,420
<b>Irish Aid Support for Irish Civil Society Programme Partners in Sierra Leone</b>	622,450



Reports show that Sierra Leone is already suffering the impacts of climate change, with rising sea levels causing flooding in areas of Freetown. Irish Aid, 2012.

<sup>6</sup> These figures should not be aggregated as some disbursements have multiple intended co-benefits and are thus marked for multiple environmental impacts. Total climate finance is €326,420.

<sup>7</sup> Climate relevant disbursements where the principal climate marker is applied are counted at 100% whereas climate relevant activities to which the significant marker is applied are discounted by a coefficient factor of 50%. The principal marker indicates that the specified cross-cutting theme, in this case, climate adaptation, was a main objective of the activity. It implies that the activity may not have gone ahead if not for the climate dimension. The significant marker indicates that the activity had other principle objectives which were the focus of the activity but that co-benefits were planned or mainstreamed into the activity. The application of the 50% coefficient to significant expenditures is a proxy representation of this lesser role of the environmental dimension in the disbursed amount.

## **Sierra Leone, Climate Change and the UN Framework Convention on Climate Change**

Sierra Leone is a member of the Least Developed Countries Group in the UNFCCC.

### **Recent Climate Trends in Sierra Leone**

Average annual temperature has increased by 0.8°C since 1960. Data is limited but available data shows significantly increasing trends in the frequency of ‘hot’ nights. Average annual rainfall over Sierra Leone has decreased since 1960 but it is difficult to determine whether this is part of a long term trend because of the variable nature of rainfall in this region. There are insufficient daily rainfall observations available from which to determine changes in extremes (or heavy rainfall events) of daily rainfall (McSweeney et al, 2010). The National Adaptation Programme of Action suggests that flooding has increased. It notes the observation of the World Health Organisation that “floods pose the biggest threat to health... Floods increase the number of people exposed to water-borne diseases such as cholera, diarrhoeas and dysenteries... sanitation, storm-water drainage and sewage disposal are often disrupted by flood events” (MTA, 2007). Parts of Sierra Leone have also suffered droughts.

### **Projections of Future Climate in Sierra Leone**

The average annual temperature is projected to increase by 1.0 to 2.6°C by the 2060s. All projections indicate substantial increases in the frequency of days and nights that are considered ‘hot’ in the current climate. Projections of average annual rainfall vary over different models but tend towards overall increases particularly in the latter half of the year (McSweeney et al, 2010). Regional model studies suggest an increase in the number of extreme rainfall days over West Africa. Seasonally this varies between tendencies for decrease in January to March and for increase in the latter half of the year.

Coastal countries of West Africa will experience a significant negative impact from climate change. The frequency and duration of cholera outbreaks are associated with heavy rainfall in coastal West African countries. Thus climate change could possibly lead to more frequent cholera outbreaks in the sub-regions affected. However, further research is needed to quantify the climatic impacts (IPCC, 2014). In West Africa, fisheries mainly depend on coastal upwelling. These ecosystems will be affected by climate change through ocean acidification, a rise in sea surface temperatures, and changes in upwelling. For some scenarios, the IPCC references projections of a 21% decline in the annual landed value for fish by 2050 resulting in a nearly 50% decline in fisheries-related employment and a total annual loss of US\$ 311 million to the region’s economy (IPCC, 2014).

## Adaptation

Sierra Leone produced a National Adaptation Plan of Action (NAPA) in 2007. It documents the resources and information that were used to prioritise adaptation interventions for Sierra Leone. A process of analysis and broad consultation with stakeholders lead to a very detailed priority list of actions as follows;

1. Establishment of National Early Warning System
2. Rehabilitation & Reconstruction of meteorological/climate Monitoring stations throughout the country
3. Capacity building of the Meteorological Department through training of personnel for the country's adaptation to climate change
4. Sensitization and awareness raising campaigns on climate change impacts on women relating to the three conventions of biodiversity, desertification and UNFCCC
5. Development of Inland Valley Swamps for Rice Production in the Moyamba District.
6. Development of an Integrated Natural Resources and Environmental Management programme for Sierra Leone.
7. Development of Irrigation and drainage systems for agricultural production in the Bombali District.
8. Promotion of the use of renewable energy (Solar Energy) in Sierra Leone and improvement of energy efficiency and conservation of energy resources.
9. Establishment of new Forest Reserves, Protected Areas and National Parks in Sierra Leone.  
Management and Protection of Forest Reserves and Catchment areas in Sierra Leone including Wetlands.
10. Institutional Strengthening of the Water Resources Sector in Sierra Leone
11. Improvement of energy Efficiency and conservation in order to reduce dependence on firewood and charcoal.
12. Promotion of Rain Water Harvesting and Development of An Integrated Management System for Fresh Water Bodies
13. Development of an Integrated Coastal Zone Management Plan for Sierra Leone.
14. Rehabilitation of degraded coastal habitats in the Northern Province/Kambia district.
15. Development and enactment of appropriate policies and regulations relevant to the development of coastal communities, urban growth planning, and critical coastal ecosystems preservation
16. Establishment of a National Sea-Level Observing System in Sierra Leone
17. Establishment of a Permanent Study Programme of the Multi Species Fisheries in Sierra Leone
18. Delineation and Restoration of Vulnerable Habitats and Ecosystems in the Western Area of Sierra Leone.
19. Improvement in the Quality of Fisheries Related Data and Research
20. Monitoring and control of malaria in the Moyamba district of Southern Sierra Leone.
21. Development of appropriate water and Sanitation program activities in the slum areas of the Western Area of Sierra Leone.
22. Monitoring and control of HIV/AIDS prevention activities in the Koinadugu district, northern Sierra Leone

23. Monitoring, evaluation and control of water and sanitation activities in slum areas of Freetown, the capital city of Sierra Leone.

### Mitigation

Sierra Leone submitted a “Nationally Appropriate Mitigation Action” (NAMA) under the Copenhagen Accord and the Cancún Agreements to the UNFCCC. This includes thirteen specific mitigation actions in diverse areas such as;

- Institutional strengthening and capacity building for environmental protection and management
- Sustainable management and protection of forest reserves and improved forest governance
- Developing and setting air, water and soil quality pollution standards,
- Introduction of conservation agriculture and promoting the use of other sustainable agricultural practices e.g. Agro-forestry
- Expanding clean energy utilization
- Sustainable production of charcoal and reduced dependence on firewood
- Waste management
- Public transport

More information is available in Sierra Leone’s submission to the UNFCCC in 2010.



In January 2014 the World Bank reported that only 10% of Sierra Leone's population has access to electricity. World Bank, 2014.

**Resources:**

IPCC 5th Assessment Report (2014), Working Group II Impacts, Adaptation and Vulnerability: <http://ipcc-wg2.gov/AR5/>

UNDP climate change profile for Sierra Leone: [http://www.geog.ox.ac.uk/research/climate/projects/undp-cp/index.html?country=Sierra\\_Leone&d1=Reports](http://www.geog.ox.ac.uk/research/climate/projects/undp-cp/index.html?country=Sierra_Leone&d1=Reports)

Ministry of Transport and Aviation, National Adaptation Programme of Action Sierra Leone (2007): <http://unfccc.int/resource/docs/napa/sle01.pdf>

Sierra Leone (2010); "Note Including Mitigation Actions" ;  
[http://unfccc.int/files/meetings/cop\\_15/copenhagen\\_accord/application/pdf/sierraleonecphaccord\\_app2.pdf](http://unfccc.int/files/meetings/cop_15/copenhagen_accord/application/pdf/sierraleonecphaccord_app2.pdf)

## Sierra Leone & the UN Convention on Biological Diversity (UNCBD)

Sierra Leone submitted its Biodiversity Strategy and Action Plan in 2003 and its third National Report to the UNCBD in 2008. The 2008 National Report is not very detailed but it does outline *inter alia* where national policies and targets exist, the endangered species of Sierra Leone and also issues of international cooperation e.g. The Mano River Union Status of Sierra Leone, Guinea and Liberia for cooperation in the effective management of their transboundary biodiversity conservation areas in the sub-region; the Guinea Large Marine Ecosystem which involves 18 countries along the shores of West and Central Africa to combat fisheries depletion and physical alterations and destruction of coastal habitats.



The majority of the population in Sierra Leone rely on natural resources such as land, water, forests and fish for their livelihoods. Irish Aid, 2013

### Resources:

UNCBD Country Profile: <http://www.cbd.int/countries/default.shtml?country=sl>

National Communication: <http://www.cbd.int/doc/world/sl/sl-nr-03-en.pdf>

## **Sierra Leone & the UN Convention to Combat Desertification (UNCCD)**

Sierra Leone has ratified the UNCCD and has a designated focal point for the UNCCD in the department of the Environment in the Ministry of Lands, Housing, Country Planning and the Environment. However, Sierra Leone has not submitted any national reports or action programmes to the convention.

### **Resources:**

UNCCD Country Profile: <http://www.unccd.int/en/regional-access/Pages/countries.aspx?place=189>

## **Key Partner Country's Bilateral Projects and Programmes**

### **1. National Early Warning System on Food and Nutrition Security in Sierra Leone, UN FAO**

This project is aimed at enhancing the capacity of government and its partners to establish and operationalise a Food Security and Nutrition National Early Warning System (NEWS) both at national and district level. The NEWS will provide timely and reliable information to enable government, development partners and the affected population to take effective action to prevent or reduce food and nutrition security risk and prepare for effective response. The outputs include technical capacity and data collection tools to help identify and respond to food and nutrition insecurity. One group of early warning indicators will come from the department of meteorology and include rainfall and other agro-meteorological data.

FAO Sierra Leone has as one of its three outcomes the establishment of an effective management of disasters by a fully operational disaster risk reduction and management system. The two outputs under this outcome are the establishment of a disaster early warning system for agriculture, food/nutrition security and the strengthening of human and institutional capacity for disaster response (Disaster Risk Management); and to address emerging environmental challenges such as climate change (adaptation). As adapting to climate change is a key component in the aims of this project, this is marked as 'significant' for adaptation and is counted at 50% towards climate finance.

### **2. Linking Agriculture, Natural Resource Management and Nutrition, Welthungerhilfe**

LANN is a community based participatory training approach to lever agriculture, natural resource management, income-generating activities and empowerment of women for better nutrition. Based on a training of trainers (ToT) strategy, it links local food availability from agriculture, local markets and the wild with education on healthy nutrition, environmental awareness and the importance of well-managing natural resources with the overall aim of encouraging improved and nutritious diets on household level, especially for vulnerable groups such as pregnant and breastfeeding women and young children. Functional solutions take into account existing

opportunities to improve nutrition practices including for example diversified and nutrition-sensitive agriculture and animal rearing, use of natural or ‘wild’ food sources and neglected local and traditional food crops, proper child feeding and cooking practices, hygiene behaviour and nutritionally wise spending of money. One aim of the learning tools is to increase understanding of the need to manage food sources for the next generation, especially to realize an understanding of their dependency on wild foods and the pressing need for sustainable management of wild food sources. By increasing awareness of the value of traditional and local crops and wild food, this project supports **biodiversity**. Promoting proper management of these sources also has **environmental** benefits.

### **Irish Aid funding to Irish Civil Society Programme Partners in Sierra Leone**

The following disbursements by Irish Aid were identified as relevant to climate change, environment and/or disaster risk reduction by the beneficiary CSOs but are not included in Ireland Climate finance reports;

In 2013 Irish Aid supported GOAL activities with relevance to environment;

- Increasing community access to and quality of water, sanitation and improved hygiene practises in Freetown and Kenema (€404,290)
- Strengthening GOAL's programming of HIV and Environment through the effective mainstreaming (€58,953)

In 2013 Irish Aid supported Concern Worldwide activities with relevance to environment and disaster risk management;

- Increasing the resilience to hazards of the extremely poor and vulnerable in Freetown and Tonkolili (€159,206)

## Mapping of Bilateral Expenditure

Project/Programme, Organisation	2013 Actual	2014 Planned	ENV	CBD	CC Mit	CC Ad	CCD	Agri	DRM	CB	TT	REDD
National Early Warning System on Food and Nutrition Security in Sierra Leone, UN FAO	652,841	0	0	0	0	1	0	1	1	1	1	0
Linking Agriculture, Natural Resource Management and Nutrition, Welthungerhilfe	468,500	0	1	1	0	0	0	0	0	1	0	1

## Significant versus Principle Markers

The OECD DAC Rio Markers and the anticipated Disaster Risk Management Rio Markers work on a three-score system. Activities can be identified with;

- Principle marker of 2
- Significant marker of 1
- Or not targeted; 0.

The choice of principle, significant or not-targeted relates to hierarchy of objectives in the programme or project design. A principle marker is applied if the marker policy is one of the principle objectives of the activity and has a profound impact on the design of the activity. A significant marker is applied if the marker policy is a secondary objective, or a planned co-benefit, in the programme or project design. The zero marker is applied to show that the marker policy was not targeted in the programme or project design. If this is unknown, the marker is left blank.