# Resilience profiles and programmes in BRACED countries

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## Acknowledgements

The authors would like to thank Alice Caravani (ODI), Dan Sparks (Development Initiatives), Rob Reid (GFDRR) and Hermang Karelia (GFDRR) for their support and guidance. Thanks is also extended to Gladys Le Masson for her help with translation.

# Introduction

This paper presents a review of resilience projects, programmes and policies across the 13 BRACED countries: Burkina Faso, Chad, Ethiopia, Kenya, Mali, Mauritania, Myanmar, Nepal, Niger, Senegal, South Sudan, Sudan and Uganda. A broad range of characteristics and interventions are included to create a profile for each country, including projects implemented within the overlapping domains of: climate change, DRR/DRM, conflict, livelihoods, adaptive social protection and food security/ nutrition, and social/ human development. The review draws on project reports, evaluations, and policy plans and statements to provide an initial assessment of the scope of activities that help build resilience to climate extremes and disasters, as well as some of the constraints.

For each of the BRACED countries, the resilience policies and interventions landscape is explored by identifying:

- Major hazards
- Conflict and security profile
- Government agencies charged with overseeing DRR and CCA
- National policies (including NAPA and HFA commitments)
- The largest resilience investments
- Key donor funded projects and insights from their evaluations (where available)

The projects, programmes and policies included in this paper have the overall aim of building and enhancing the resilience of populations, alongside a link to disaster risk reduction, disaster preparedness, climate change and climate change adaptation as BRACED specifically focuses on climate extremes and disasters. Additionally, projects and policies that focus on climate change mitigation and disaster emergency response have not been included as these not specifically focus on the resilience of vulnerable populations. Additionally, it is important to take into account that a number of resilience building projects which are being, or have been, implemented are in fragile and conflict affected states (FCAS). Many states and communities experience shocks and stresses related to natural hazards simultaneously with the challenges of conflict and fragility, and therefore this is a critical component to be considered in building resilience.

The concept of resilience used for this paper is that adopted by the IPCC-SREX report (2012):

*The ability of a system and its component parts to anticipate, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner, including through ensuring the preservation, restoration, or improvement of its essential basic structures and functions.*

The paper is centrally concerned with reviewing initiatives aimed at building 'resilience' to a range of hazards in 13 countries and as such, also scrutinises programs focuses on disaster risk reduction and climate change adaptation. This is because there are numerous points of convergence between these three approaches as all three attempts to provide a range of tools that aim to help communities function through disturbances by reducing vulnerability and risk exposure. Also, these approaches have all informed policies and programmes focussed on developing responses to hydro-meteorological shifts caused by a changing climate. At the same time, the authors are mindful of certain points of divergence between these approaches as well. The resilience approach is hinged on an appreciation of non-linear dynamics, uncertainty and surprise whereas adaptation and DRR

tend to focus more mitigating damage from expected sources of risk (derived through models and scenarios) (Jansenn and Ostrom 2006). Also, critics have pointed out that resilience is about 'bouncing back better', in contrast, the existing discourse on adaptation and DRR is predicated on a focus to minimise loss of life and livelihoods to return to a state considered to be 'normal' (Manyena 2006). Despite debates on similarities and differences, there remains broad consensus that these three interrelated approaches need to be considered in unison when considering the ability of communities to deal with a variety of shocks and stresses (Dodman et. al. 2013).

# Methodology

The following section describes the methodology applied to obtaining relevant documents and the aid data discussed within this paper.

Selection of papers and sources

The methodology is comprised of two main steps described below. The main search engines/databases used to identify relevant publications were Google, Google Scholar and DeeperWeb, and these were chosen based on access to a wide breath of relevant literature, both grey and academic. Using Google provides broad access to publications on resilience from a wide variety of sources, which is particularly important considering the breath of exploration needed to locate the required information. DeeperWeb was used to search for relevant literature to generate security profiles for each country.

### 1.1 Question template and spreadsheet

In order to guide the exploration of resilience programmes, a question template was drafted (see Annex 1). The key focus of the questions was to explore what resilience related projects are underway, the existing national policies and government agencies involved, and total aid flows to indicate how much is spent on DRR and CCA. Following this, a spreadsheet was set up to capture information, but to also allow the cross examination of resilience related project information as discrepancies were found, particularly regarding the amount of funding specified.

### 1.2 Research scan

On Google, Google Scholar and DeeperWeb, key words and search terms from the questions in the template were selected and entered into the search engine with specific reference to each BRACED countries. A shortlist of literature was selected, but due to the type of information that was required, there were several websites that provided the bulk of the information: PreventionWeb, Adaptation Partnership, GFDRR, World Bank, UNISDR and the USGS for information on major hazard and climate trends. Security profiles were generated mainly using UN literature, literature from international NGOs, such as International Crisis Group, think tanks, such as Small Arms Survey, IRIN and government reports. However, where available, literature from NGOs was utilised. From these websites, relevant concept notes, programme approval documents, technical and research papers were selected.

In selecting relevant projects and programmes, criteria was based on a) donors and implementers; b) analyses of programme names and descriptions used a set of key terms (see Annex 2); c)resilience building aims and intentions; d) funding amounts with a lower limit of XXXX.

### 1.3 Aid expenditure mapping

Estimations for the amount spent on resilience programmes were calculated using the GFDRR Disaster Aid Tracking Database, which uses the Aiddata system and the OECD Creditor Reporting System (CRS).

When extracting aid statistics from the GFDRR, which focuses on disaster risk reduction data, programmes tagged under disaster risk reduction, disaster preparedness and prevention have been selected, and project descriptions were checked to ensure they were capacity-building or resilience orientated where descriptions were available. Where descriptions were absent, funding amounts were included if the title indicated resilience building activities in relation to DRR and CCA. However, the non-uniformity of programme reporting means that figures are an estimation, not as an exact value.

Due to the differentiations in reporting between aid databases, statistics from the OECD are also included in this report. The OECD DAC Creditor Reporting System (CRS) lists key projects by year, and provides 'probably the most accurate and easiest way of tracking funding for DRR, as it reports both development and humanitarian aid' (Kellett and Sparks, 2012). Key resilience related programmes as funded by Official Development Assistance (ODA) volumes, were selected using a 25 keyword search (see Annex 2)[1], which was utilised to search for both long and short descriptions. The key terms were generated based on recent literature on DRR and resilience (e.g DFID, UNISDR). All data included in this report was downloaded in November 2011, and is expressed in constant prices.

### 1.4 Limitations

Analysing aid commitments using different databases highlights a number of issues. Each database uses different markers, purposes and activities to define disaster risk reduction, disaster preparedness and prevention, and climate change adaptation. Therefore, databases that monitor aid commitments and dispersements only provide an indication as to the actual amount received by recipients, due to limitations in monitoring reporting on DRR and adaptation projects (Terpstra et al., 2013). Furthermore, accurate tagging and appropriate words used in the description, relies on project implementers or donors, and is sometimes problematic. For example, the word 'resilience' is a relatively new term in development, DRR and CCA lexicon. Whilst the term has gained prominence over the past years, from observing the GFDRR database it is evident that early adaptation projects, and resilience focussed projects, may at times include the tag of 'climate change mitigation'. Whilst programmes tagged under mitigation, and climate change mitigation, are largely excluded from aid statistics within this paper, some of the tags did utilise the term mitigation or climate change mitigation within descriptions of programmes that focused on achieving resilience. For the OECD

[1] Regarding climate change, upon examining the projects, it was evident that some US funding towards climate change was listed under or used the descriptive term of 'climate change mitigation'. Whilst climate change mitigation is not the focus of BRACED, the project description contained language that aligned with resilience. The decision was made not to remove projects that mentioned climate change mitigation if the descriptions indicated resilience.

database, it was evident that there was a conflation of disaster mitigation and adaptation terms within project descriptions, and therefore these were incorporated into the statistics.

# Burkina Faso

### Climate change and disaster risk profile

**Hazard trends:** Burkina Faso experiences multiple natural hazards, and is particularly vulnerable to droughts, floods and storms (GFDRR, 2014a). Between 1991 and 2009, Burkina Faso suffered eleven major floods affecting an estimated 383,203 people. The country was affected by severe drought throughout the 1970's and 1980's (GFDRR, n.d.).
**Rainfall trends:** Burkina Faso is also prone to strong seasonal and annual variations in rainfall, alongside severe variations in drought risk and evaporation.
**Temperature trends:** Probabilistic forecasts are limited, however values indicate that Burkina Faso may experience a 0.8 degree Celsius rise in average temperature by 2025 and a 1.7 degree rise by 2050, with a potential low drop in rainfall of -3.4% by 2015 and -7.3% by 2050 (GFDRR, n.d.).

### Security profiles

Since gaining independence in 1960, Burkina Faso has seen a series of civilian and military governments (BTI, 2014). Recent political developments have been a cause for concern, with a popular uprising removing President Blaise Compaore in October 2014. This has resulted in the military assuming control, despite objections from opposition parties (Bonkougou and Coulibaly, 2014). However the country is expected to return to civilian rule, with elections set to be held in October 2015 (ICG, 2015).

The reduction in cultivable land combined with a growth in population, has resulted in increased competition over land, with tensions over land ownership an area of concern (Bertrand, 2013). The most visible tensions are between Pastoralist and Farmers, with a high number of reported incidents of conflict between the two groups (IRIN, 2012). It has been highlighted that there is a danger of this competition for land spreading into neighboring countries as a result of pastoralist migrating to find suitable grazing sites for their cattle

**Government agencies overseeing DRR and CCA**

- Ministry of the Environment and Livelihoods
- National Council for Emergency Relief and Rehabilitation (CONASUR), attached to the Ministry of Social Action and National Solidarity.
- National Council on Environment and Sustainable Development (SP/CONEDD), made up of the Designated National Authority (AND) for the Clean Development Mechanism (MDP).
- Permanent Secretariat of the National Council for Environmental Management

*Source: Adaptation Partnership (2011a)*

### National DRR and CCA policies and plans

| Policy | Government Division Responsible | Dates | Description |
|---|---|---|---|
| National Implementation Strategy of the UNFCCC | Government of Burkina Faso | November 2001 | Identifies adaptation priorities in agriculture, forestry and water resources. Aims to build knowledge through climate change focused research and identify adaptation strategies. |
| National Communication on Climate Change | Permanent Secretariat of the National Council for Environmental Management | Released 2001 | Identifies planning steps to implement the UNFCCC, underlining key vulnerabilities (water resources, agriculture, livestock and forestry/ biodiversity) |
| National Adaptation Program of Action on Climate Change | Ministry of the Environment and Livelihoods | Released 2007 | Identifies national and regional climate change impacts, and climate change adaptation measures to address impacts. Twelve priority interventions have been identified. |
| Action Plan for Integrated Water Resources Management | Government of Burkina Faso | Unknown | Aims to establish rationalised management of water. |

*Source: Adaptation Partnership (2011a)*

### International and national investments in DRR and CCA

Leading organisations: UNDP, WWF, FAO, CLISS, World Bank. At a bilateral level, Danish, Japanese and Swedish Cooperation are major partners on environmental and climate risk management issues.

| Project Name | Project Dates | Funding (if amount specified) | Scale/ Geographical Focus | Donor and Implementers |
|---|---|---|---|---|
| Disaster Risk management and climate change adaptation - Phase 1 | 2011 - ongoing | US$ 1,500,000 | | *Donor(s):* GFDRR |
| Supporting Implementation of the Climate Change Programme in Burkina Faso | 2009 - ? | N/A | National | *Donor(s):* Government of Denmark. *Implementer(s):* SP-CONEDD; IUCN |
| Adapting to Climate change and improving human security in Burkina Faso | 2009 - ? | N/A | National | *Donor(s):* Government of Denmark. *Implementer(s):* SP-CONEDD; UNDP |

| | | | | |
|---|---|---|---|---|
| Strengthening National Capacity to manage and recover from crises and catastrophe | 2009 - 2011 | N/A | National | *Donor(s):* Unknown. *Implementer(s):* UNDP Bureau for Crisis Prevention and Recovery. |
| Strengthening Adaptation capacities and reducing the vulnerability to climate change in Burkina Faso | 2009 - 2013 | US$20,144,595[2] | Sahelo-Soudanian climatic zone | *Donor(s):* LDCF. *Implementer(s):* UNDP |
| Advancing Capacity for Climate Change Adaptation (ACCCA) | 2007 -2010 | N/A | Burkina Faso, Mali, Niger | *Donor(s):* IDRC, DEFRA, Swiss Federal Office for the Environment; NCAP, European Commission. *Implementer(s):* UNITAR |
| Climate proofing energy systems: vulnerability-adaptation-resilience | 2007 - 2009 | N/A | Benin, Burkina Faso, Cameroon, DRC, Kenya, Mali, Nigeria, Senegal, Tanzania, Uganda. | *Donor(s):* France, GIZ, BMZ, IUCN and La Francophoni. *Implementer(s):* HELIO international |
| Adaptation of land use to Climate Change in sub-Saharan Africa (ALUCSSA) | 2008 - 2011 | N/A | Burkina Faso, Ethiopia | *Donor(s):* BMZ. *Implementer(s):* Agriculture; Climate Information Services |
| Supporting integrated and comprehensive approaches to climate change adaptation in Africa (Africa Adaptation Programme – AAP) | 2008 - 2011 | 2,901,250[3] | Twenty African countries including Burkina Faso, Niger and Senegal. | *Donor(s):* Global Facility for Disaster Reduction and Recovery. *Implementer(s):* Agriculture and rural development (ARD) and sustainable agriculture systems, knowledge and information (SASKI) |
| Strengthening climate information and EWS for climate resilient and adaptation to climate change | Recently proposed through AAP | 4,000,000 | Burkina Faso | *Donor(s):* GEF |

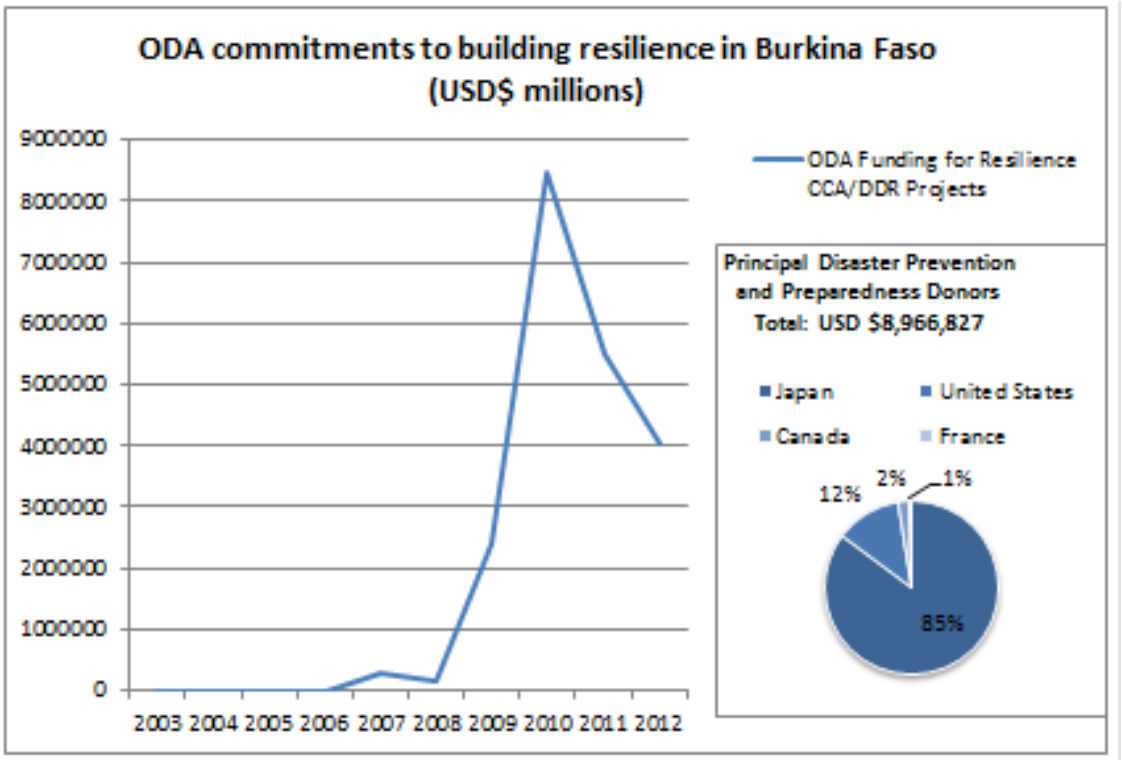
[2] Biagini et al. (2012)
[3] Rector et al. (2013)

| | | | | |
|---|---|---|---|---|
| Reducing Vulnerability of natural resource dependent livelihoods in sites at risk of climate change | Recently proposed through AAP | 7,000,000 | Burkina Faso | *Donor(s):* GEF |
| Generating global environmental benefits from improved local planning and decision-making systems | Recently proposed through AAP | 970,000 | Burkina Faso | *Donor(s):* GEF |

*Source: Adaptation Partnership (2011a), Rector et al. (2013).*

### Major aid commitments to DRR and CCA

**GFDRR disaster aid tracking**



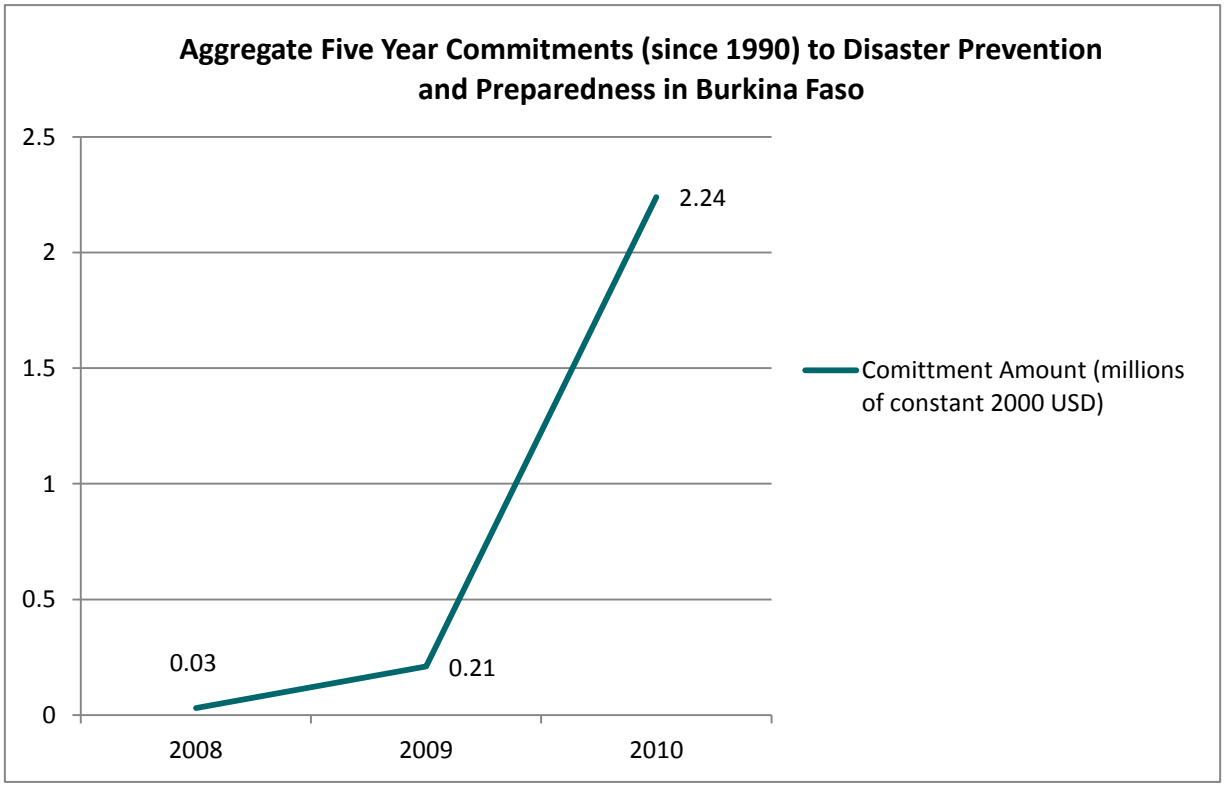

*Source: GFDRR Disaster Aid Tracking Database*

**Listed key funding programmes from bilateral donors**

| Year | Country | Title | Constant (USD) |
|---|---|---|---|
| | | | |
| **2010** | Japan | Programme for the Improvement of Capabilities to cope with Natural Disasters caused by Climate Change | 7,635,858 |
| **2010** | United States | Capacity Building, Preparedness, and Planning | 490,783.17 |
| **2009** | United States | Capacity Building, Preparedness, and Planning | 358,481.00 |
| | United States | Mitigation (Climate Change) | |
| **2008** | Canada | Mécanismes de coopération entre milieux ruraux et urbains dans gestion de l'eau pour faire face aux variations et changements climatiques au Burkina | 134,004.79 |
| **2009** | Canada | Fonds de soutien aux strategies locales d'adaptation (FSSA) | 48,150.74 |
| **2009** | France | Prévention des catastrophes et préparation à leur survenue | 34,559 |
| **2010** | France | Prévention des catastrophes et préparation à leur survenue | 9,707.77 |

*Source: GFDRR Disaster Aid Tracking*

**ODA commitments for resilience based programmes**




*Source: OECD DAC*[4]

[4] For all of the countries, the GFDRR Aiddata and OECD DAC database have indicated different funding amounts and patterns in funding. The GFDRR represents bilateral funding, whilst the OECD DAC represent

### Future commitments

In line with the Sahel Regional Resilience Program, and the regionally led Global Alliance for Resilience Initiative – Sahel (AGIR), the GFDRR have proposed a grant which will address availability and accessibility of water resources, DRM services, and strengthen regional collaboration for resilience between regional and national authorities, and Hydromet end users (GFDRR, 2014d). Indicative cost is USD$ 1.2 million and partners include EU, AFDB, CLISS, ACMAD, SSO, NBA and National Services. Countries include Burkina Faso, Chad, Mali, Niger and Senegal (ibid., 2014d).

Official Development Assistance. However, as acknowledged in the limitations, this could also be due to a number of reasons, such as a difference in the number of reported projects or the use of different tagging systems.

# Chad

## Climate change and disaster risk profile

**Hazard trends:** Chad is predominately affected by drought, epidemics, floods and storms. Between 1980 and 2010, drought has affected up 771,200 people and flooding has affected approximately 54,927.40 people[5].
**Rainfall trends**: Chad has experienced a general decline of rainfall. Between 2000 and 2009, the average rainfall in crop growing regions was approximately 13% lower than the 1920-1969 mean average. Reductions in rainfall range from -150mm to -50mm across the eastern part of Chad.
**Temperature trends:** Temperatures have increased by 0.8 ºC since 1975, with a typical warming rate of 0.2 ºC per decade (USGS, 2012a[6]).

## Security Profile

Despite a reduction in the risk of conflict between government forces and rebel groups, the political situation remains unpredictable.[7] A potential flashpoint is in Chads northwestern regions, which in the past have been home to rebel forces.[8] The area has suffered from environmental degradation and food insecurity,[9] adding to intercommunity pressures, with tensions between Pastoralists and Farmers an area of concern.[10]

Chad is located in a particularly volatile region, with conflicts in neighbouring countries resulting in a significant refugee populations based in the southern and eastern areas of the country.[11] With the violence set to continue, the number of refugees is expected to grow in 2015.[12] Additionally, the emergence of radical Islamic groups in the Sahel region has increased the risk of terrorist activity within Chad, with the threat again focused in north-west of the country.[13]

### Government agencies overseeing DRR and CCA

- Ministry of  Environment and Water
- Ministry of the Environment, Water and Freshwater Fisheries

*Source: Adaptation Partnership (2011b)*

[5] EM-DAT data (www.emdat.be)
[6] USGS (2012a)
[7] UK Parliament (2012) Chad: A political and security digest http://www.parliament.uk/business/publications/research/briefing-papers/SN06295/chad-a-political-and-security-digest
[8] International Crisis Group (2011) Chads north west: the next high risk area? http://www.crisisgroup.org/en/regions/africa/central-africa/chad/B78-chads-north-west-the-next-high-risk-area.aspx
[9] ibid
[10] ibid
[11] UNCHR (2015) Country profile http://www.unhcr.org/pages/49e45c226.html
[12] ibid
[13] International Crisis Group (2011) Chads north west: The next high risk area? http://www.crisisgroup.org/en/regions/africa/central-africa/chad/B78-chads-north-west-the-next-high-risk-area.aspx

## National DRR and CCA policies and plans

| Policy | Government Division Responsible | Dates | Description |
|---|---|---|---|
| First National Communication to the UNFCCC | Ministry of the Environment and Water | 2001 | Outlines Chad's potential mitigation measures, alongside existing climate change vulnerabilities and adaptation challenges. Offers a set of proposals for projects designed to address adaptation and mitigation challenges. |
| National Adaptation Programme of Action | Ministry of the Environment, Water and Freshwater Fisheries | 2010 | Lists observed and projected negative impacts of climate change through summaries of the findings of policy key documents. Lists priority projects to minimise negative impacts of climate change on national development objectives. |

*Source: Adaptation Partnership (2011b)*

## Key resilience projects and leading international and national organisations involved with DRR and CCA

**Lead organisations:** None specifically identified

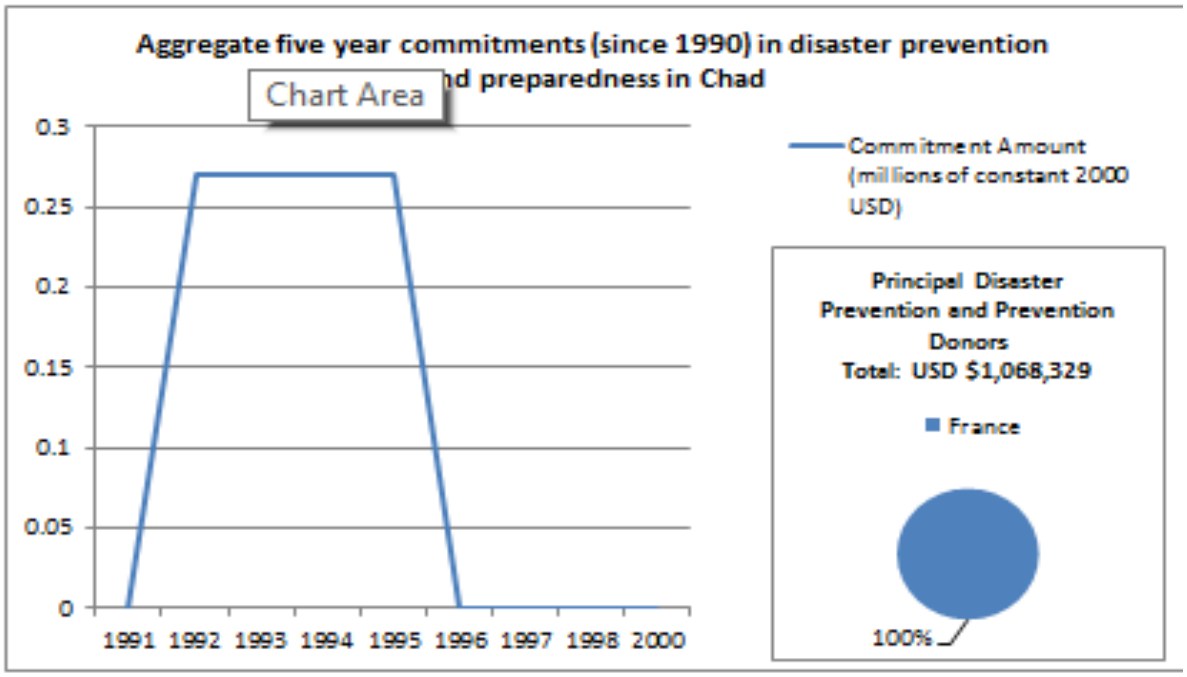
| Project Name | Project Dates | Funding (if amount specified) | Scale/ Geographical Focus | Donor(s) and Implementer(s) |
|---|---|---|---|---|
| Knowledge Sharing Film on Experiences of Adapting to Climate Change In Chad | 2009 - 2010 | N/A | Mbororo community | *Donor(s):* AfricaAdapt through its Knowledge Sharing Innovation Fund |
| Pilot projects on uses of plant genetic resources for Food and Agriculture to put Strategic Plans into Action to Promote Sustainable Use and Management of Land for Adaptation to Climate Variability | 2007 - 2010 | N/A | Burkina Faso, Chad, Niger, Sudan | *Donor(s):* FAO |
| Interdisciplinary and Participative Research on Interactions between Ecosystems, Climate and societies in West Africa. | 2007 - 2011 | N/A | Benin, Burkina Faso, Cameroon, Cape Verde, CAR, Chad, Cote d'Ivoire, Gambia, Ghana, Guinea Bissai, Mali, Mauritania, Niger, Nigeria, | *Donor(s):* France's Foreign Affairs Ministry |

| | | | | |
|---|---|---|---|---|
| | | | Senegal, Togo | |
| Climate Change Scenarios for the Congo Basin | 2009-2011 | N/A | COMIFAC (Burundi, Cameroon, CAR, Chad, Congo, DRC, Equatorial Guinea, Gabon, Rwanda, Sao Tome and Principe) | *Donor(s):* GIZ, COMIFAC |
| Lake Chad Sustainable Development Support Program | 2009 - 2015 | N/A | Cameroon, CAR, Chad, Niger, Nigeria | *Donor(s):* AfDB, Government of Chad, other co-financing |
| Evolution of Protected Area systems with regard to climatic, institutional, social, and economic conditions in the West Africa Region | 2009 - 2015 | US$14.0 million | Chad, The Gambia, Sierra Leone, Togo, Burkina Faso, Cote d'Ivoire and Ghana | *Donor(s):* UNEP World Conservation Monitoring Centre |
| Great Green Wall | 2011 - ongoing | US$3.108 billion | Benin, Burkina Faso, Chad, Djibouti, Eritrea, Ethiopia, Chana, Mali, Mauritania, Niger, Nigeria, Senegal, Sudan and Togo. | *Donor(s):* LDCF; SCCF, World Bank, AFDB |

*Source: Adaptation Partnership (2011b)*

## Aid commitments to DRR and CCA

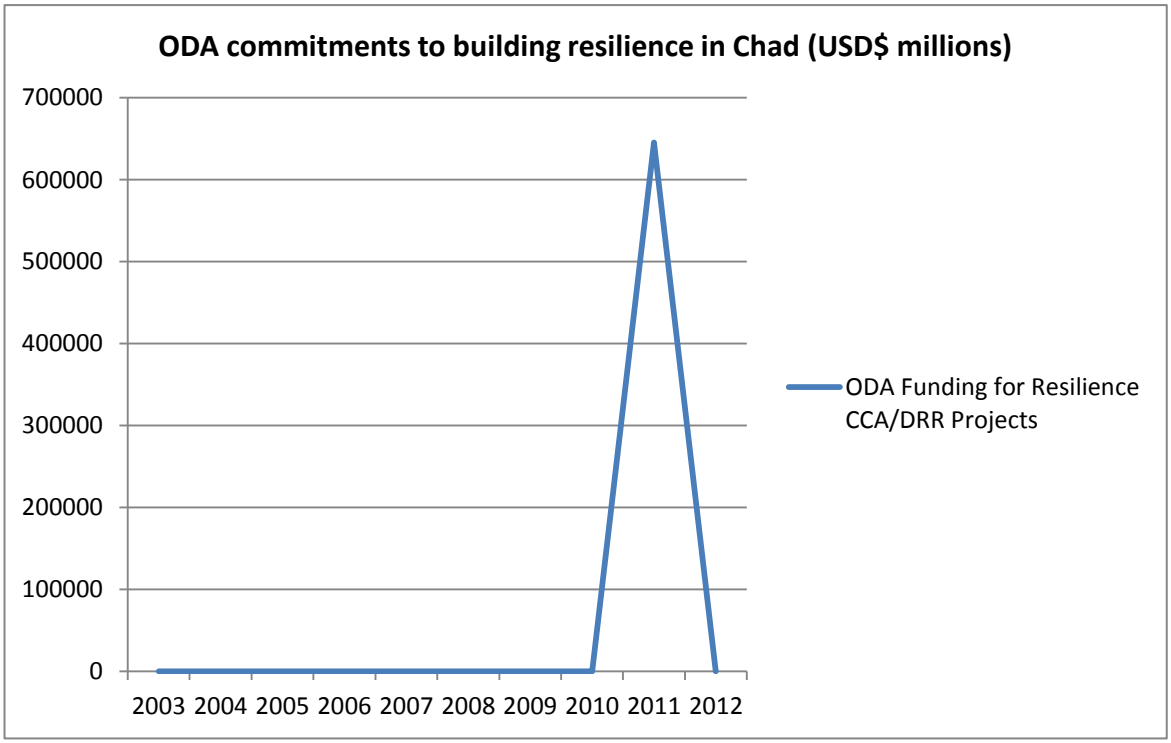
**Disaster prevention and preparedness aid commitments**




*Source: GFDRR Disaster Aid Tracking*

No relevant projects for DRR are listed by the GFDRR for Chad

**OECD funding commitments**




*Source: OECD DAC*

# Ethiopia

## Climate change and disaster risk profile

**Hazard trends:** Ethiopia is prone to highly prone to droughts and desertification[14], but also experiences floods, landslides, earthquakes and urban and forest fires[15].
**Rainfall trends:** Evidence indicates that spring and summer rainfall decreased by 15-20 percent between the mid-1970's and late 2000's across southern, south-western and south-eastern Ethiopia. Projected future rainfall indicates that rainfall is estimated to decline from -150 to -50mm across the south-central and eastern parts of the country.
**Temperature trends:** Based on the current warming trend in Ethiopia, estimates indicate that most of Ethiopia will experience more than a 1.0 degree Celsius increase in air temperature[16].

## Security profile

Ethiopia is considered to be relatively stable in relation to the region. Given that the country is neighbour to several conflict affected states, it has inevitably become host to a number of refugees, a trends that is expected to continue into 2015.[17] However the countries stability has been questioned, with the government choosing not to adopt ethnic federalism in favour of tighter political control. This is seen as a reversal on the government's commitment to accommodate Ethiopia's varied ethnic identities.[18] This is of particular concern due to the continued security threat from armed insurgent groups, who seek greater autonomy for their respective regions.[19] [20]

Ethiopia's continued development schemes for the Omo Valley region continue not only to have a bearing on relations with neighbouring states, but also indigenous tribes within the Omo valley itself. Plans to develop the area into a major commercial farming area, has forced the relocation of local agro-pastoralists, potentially having a negative impact on livelihoods and food security in the region, which could lead to conflict between communities.[21]

[14] Adaptation Partnership (2011c)
[15] GFDRR (2014b)
[16] USGS (2012b)
[17] UNCHR (2015), Country profile, http://www.unhcr.org/pages/49e483986.html
[18] International Crisis Group (2012) Ethiopia after Meles, http://www.crisisgroup.org/~/media/Files/africa/horn-of-africa/ethiopia-eritrea/b089-ethiopia-after-meles
[19] Amnesty International (2014), 'Because I'm Oromo', Sweeping repression in the Oromia region of Ethiopia pp.19-21 https://www.amnesty.org/download/Documents/4000/afr250062014en.pdf pp.19-21
[20] IRIN (2013) Ethiopia's ONLF Rebellion. http://www.irinnews.org/report/96658/briefing-ethiopia-s-onlf-rebellion
[21] Human Rights Watch (2012) What will happen if hunger comes? http://www.hrw.org/node/107954/section/2

### Government agencies overseeing DRR and CCA

- Disaster Risk Management and Food Security Sector (DRMFSS) – part of the Ministry of Agriculture and Rural Development (MARD).
- Environmental Protection Authority
- Ministry of Finance and Economic Development (for GTP)
- Ministry of Agriculture including the Disaster Risk Management Food Security Sector

### National platforms overseeing DRR and CCA

- Disaster Risk Management technical working group

*Source(s): Fitzgibbon and Crosskey (2013); Adaptation Partnership (2011c)*

### National DRR and CCA policies and plans

| Policy | Government Division Responsible | Dates | Description |
|---|---|---|---|
| National Policy on Disaster Prevention and Management (NPDPM) | | 1993 | |
| Initial National Communication to the UNFCCC | Ministry of Water Resources; National Meteorological Services Agency | 2001 | Identifies Ethiopia's national circumstances and vulnerability to climate change by sector, and identifies potential adaptation measures. |
| National Adaptation Programme of Action | Ministry of Water Resources, National Meteorological Agency | 2007 | Review of Ethiopia's vulnerability to climate change, identifying key vulnerable sectors and outlining priority adaptation measures. |
| National Climate Change Forum | Government of Ethiopia, Funding from Oxfam | 2009 | Forum aims to coordinate actors involved in addressing the impacts of climate change. |
| National Policy and Strategy on Disaster Risk Management | | Drafted 2010 | The new draft of the NPDRM is organised around the priority areas of the HFA, and is guided by a set of principles that promote an integrated, multi sectoral approach in the context of broader sustainable development efforts in Ethiopia. |
| Growth and Transformation Plan (GTP) | 2010/2011 – 2014/2015 | | Objectives aim to achieve a sustainable increase in agricultural productivity and production, and to reduce degradation and improve productivity of natural resources. |
| Ethiopia Plan of Action | | | Replaces NAPA – Mainstream climate |

| | |
|---|---|
| to Adapt to Climate Change (EPACC) | change throughout government sectors by ensuring climate change is embedded within government policies and plans through Sectoral Climate Programmes and Action Places. EPACC is closely interlinked with the Climate Resilient Green Economy (CRGE) Strategy. |

*Source(s): Solomon (2014); Adaptation Partnership (2011c); Ethiopia Environmental Protection Authority (n.d); Nyasimi et al., (2013).*

Ethiopia has widely aligned their DRR strategies with the HFA, and progress has been made in encouraging the uptake of resilience building initiatives. For example, Ethiopia is currently revising their "National Policy on Disaster Prevention and Management", out dated early warning systems have been updated and there is an increase in the dissemination of EW and related disaster risk updates by a network for use in programming. A weather risk management system will shortly be used to estimate population assistance numbers, and the resources required. Ethiopia has also witnessed a tremendous progress in community participation as identified in risk assessments, early warning systems and seasonal assessments. However, the mid-term review does still note that community awareness levels are still low (Government of Ethiopia, 2012).

### Policy evaluation

Ethiopia seems to have progressed in developing DRR and CCA policies by drawing on evaluations of past policies. From the NAPA initiation, Ethiopia recognises the need to ensure commitment at policy and decision making levels, improve community awareness, work from a grassroots level upwards, and use action learning to scale up and refine climate change policy design (Solomon, 2014). Inadequate governance arrangements for disaster management combined with an absence of clarity on who, or which, government departments are responsible for DRM limits progress. Mechanisms, through which citizens can demand more effective DRM, are also presently lacking (Federal Democratic Republic of Ethiopia, 2009).

Building resilience was hampered as the NPDRPM did not recognise the need for fundamental research, and the need to risk map hazards. Additionally, mitigation, and preparedness modalities and capacities were not sufficiently deemed as significant for reducing disaster vulnerability and for sustainably protecting development initiatives. Finally, disaster management was seen as the responsibility of one institution (DPPC/DPPA), leading to weak vertical and horizontal disaster management information flows (ibid, 2009).

### International and national investments in DRR and CCA:

**Lead organisations funding DRR and CCA projects**: World Bank, UNDP, WFP, OCHA, UN Food and Agriculture Organisation (FAO), UNICEF, Japan International Cooperation Agency. *Regional Organisations:* African Union, Intergovernmental Authority on Development (IGAD), European Commission. *NGOs/CSOs:* Oxfam, Cordaid, Plan, Action Against Hunger, FEWSET, Mercy Corps, ASCID-Spanish, Save the Children, Help Age International, Cooperzione Internazionale, ACCRA.

| Project Name | Project Dates | Funding (if amount specified) | Scale/ Geographical Focus | Donor(s) and Implementer(s) |
|---|---|---|---|---|
| Coping with Drought and Climate Change | 2006 - 2012 | US$2.951217 million | Ethiopia | *Donor(s):* SCCF. *Implementer(s):* UNDP |
| Bilateral US government funding | 2010 - ? | US$49.3 million | Ethiopia | *Donor(s):* USAID |
| Promoting Autonomous Adaptation at the community-level in Ethiopia | 2010 - 2011 | | Ethiopia | *Donor(s):* LDCF. *Implementer(s):* UNEP, Federal Environmental Protection Agency |
| Mapping environmental resources for climate adaptation in Ethiopia | 2011 | CAD $15 million | Ethiopia | *Donor(s):* CIDA. *Implementer(s):* World Food Programme |
| Preparedness for climate change | Phase 1: 2006 - 2007. Phase II 2008 - 2010 | | 39 countries inc. Ethiopia, Kenya, Uganda | *Donor(s):* Red cross/ red crescent climate centre |
| Food and water security under global change: developing adaptive capacity with a focus on rural Africa | 2007 - 2008 (closed) | | Ethiopia | *Donor(s):* German government through the advisory service on agricultural research for development. *Implementer(s):* International Food Policy Research Institute |
| Advancing Capacity for Climate Change Adaptation (ACCCA) | 2007 - 2010 | | 17 countries including Ethiopia, Kenya | *Donor(s):* IDRC, DEFRA, Swiss Federal Office for the Environment, NCAP, European Commission. *Implementer(s):* UNITAR |
| Managing risk, reducing vulnerability and enhancing productivity under a climate change | 2001 - 2011 | CAD 1,626,100 | Ethiopia, Kenya, Sudan, Uganda | *Donor(s):* DIFD and IDRC through the CCAA program. *Implementer(s):* Sokoine University of Agriculture |

| | | | | |
|---|---|---|---|---|
| Running Dry: Empowering poor people to manage water in arid and semi-arid lands | 2007 - ongoing | | Ethiopia, Kenya Uganda | *Donor(s):* Howard G Buffet Foundation. Implementers: Action Against Hunger, CARE, Catholic Relief Services, the International Union for Conservation of Nature and Oxfam America |
| Climate Change Adaptation and development initiative (CC-DARE) | 2008 - 2011 | | Ethiopia, Senegal, Uganda | Danish Ministry of Foreign Affairs. *Implementer(s):* UNEP and UNDP |
| Adapting of Land use to climate change in sub-Saharan Africa (ALUCSSA) | 2008 - 2011 | | BF, Ethiopia | *Donor(s):* BMZ. *Implementer(s):* World Agroforestry Centre |
| Re-thinking water storage for climate change adaptation in Sub-Saharan Africa | 2008 - 2011 | | Ethiopia | *Donor(s):* GIZ. *Implementer(s):* IWMI, plus German, Ethiopian and Ghanian partners |
| Participatory Development and testing strategies to reduce climate variability of poor farm households in East Africa through innovations in Potato and Sweet Potato Technologies and enabling policies | 2008 - 2011 | EUR 1.2 million | Ethiopia, Kenya, Uganda | *Donor(s):* BMZ. *Implementer(s):* International Potato Centre |
| Supporting Integrated and Comprehensive Approaches to Climate Change Adaptation in Africa (or Africa Adaptation program - AAP) | 2008 - 2011 | US$6,482,749 million[22] | Burkina Faso, Ethiopia, Kenya, Senegal, Uganda | *Donor(s):* Japan International Cooperation Agency. *Implementer(s):* UNDP |

[22] Rector et al. (2013)

| | | | | |
|---|---|---|---|---|
| Building climate change resilience in Africa's agricultural research programmes | 2009 - 2011 | US$200,400 | Ethiopia, Kenya, Uganda | *Donor(s):* Rockefeller Foundation. *Implementer(s)* FANRPAN |
| Making the best of climate: adapting agriculture to climate variability | 2009 - 2011 | US433, 240 | Ethiopia, Kenya | *Donor(s):* World Bank. *Implementer(s):* ICRISAT |
| Adapting to Climate Change Induced Water Stress in the Nile River Basin | 2009 - 2012 | | Ethiopia, Kenya, Sudan, Uganda | *Donor(s):* SIDA. *Implementer(s):* UNEP, Nile Basin Initiative |
| Managing water in the rural-urban interface: the key to climate change resilient cities | 2009 - 2012 | | Ethiopia | *Donor(s):* DFID and IDRC through the CCAA. *Implementer(s):* IWMI, Water research institute, Addis Ababa University |
| Seeds for needs | 2009 - ? | | Ethiopia | *Donor(s):* World Bank. *Implementer(s):* Biodiversity International |
| Partners for resilience | 2011 - 2015 | EUR 40 million | Ethiopia, Kenya, Mali, Uganda | *Donor(s):* Netherlands. *Implementer(s):* Dutch Red Cross, Red Cross Climate Centre, CARE, Cordaid, Wetlands, International. |
| Africa Climate Change Resilience Alliance (ACCRA) | 2009 – 2011. Currently implementing Phase 2. | | Ethiopia, Uganda | *Donor(s):* DIFD, CDKN. *Implementer(s):* Care International, Oxfam, Save the Children, World Vision, Key Government Sectors. |

*Source: Adaptation Partnership (2011c), ACCRA (2014)*

Across Burkina Faso, Ethiopia, Mali and Senegal, the World Bank/ GFRR has implemented HFA guided DRM country plans in 2009. The goal was to implement a set of comprehensive activities

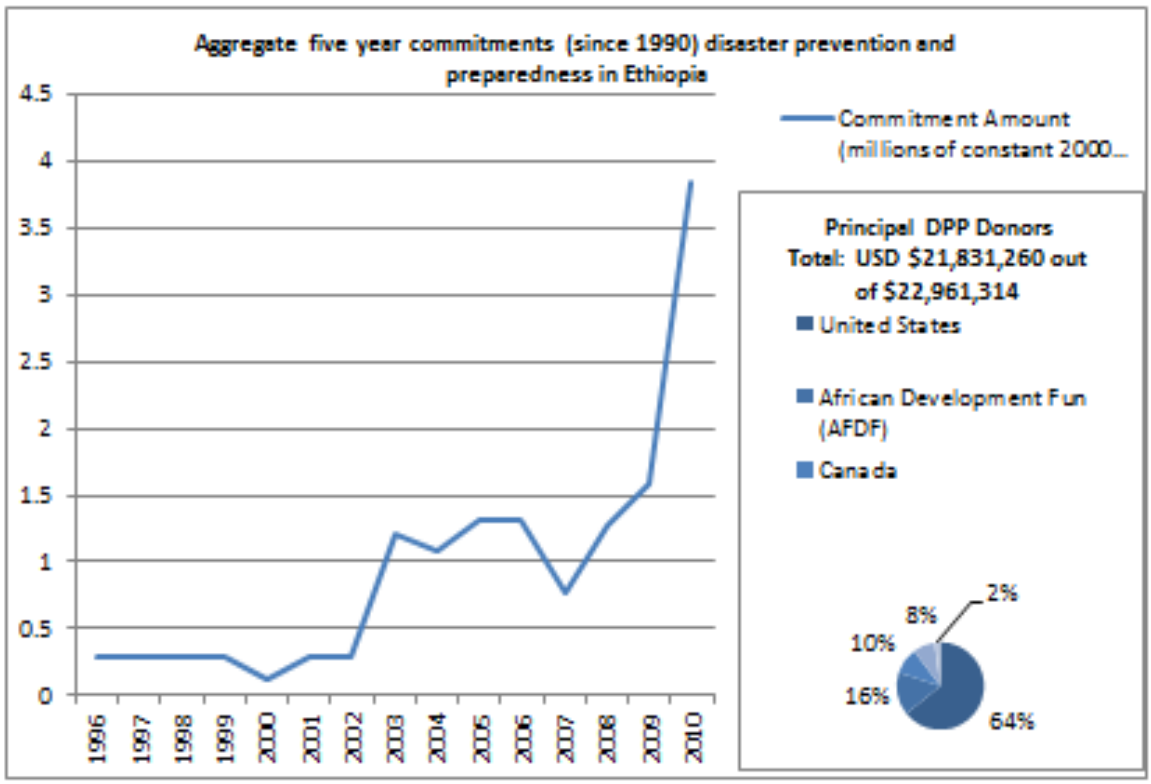
encompassing all aspects of HFA and supporting a range broad range of initiatives ranging from institutional strengthening to early warning systems. Through stakeholders, national ministries, development partners and NGOs, the DRM Country Plans established $5 million to be implemented over a three to five period (World Bank, 2010).

### Programme evaluation summary

An independent review of ACCRA, which aimed to increase communities' ability to adapt to climate hazards through ensuring increased use of evidence in DRR and CCA interventions, was conducted between 2009 and 2011 (CARE, 2012). Evaluators noted that ACCRA has been successful in attracting funds for new initiatives and better coordination between relevant projects, and has also influenced to some extent relevant policies and processes at national level with Disaster Risk Management (ibid, 2012). However, it was expressed that DRM needed to be linked to other relevant areas, and central planning mechanisms. The difficulties in policy implementation were discussed, although ACCRA was noted as impactful on a small scale. ACCRA had led to concrete outcomes in terms of new integrating planning routines, local action plans and generated interest from other districts and higher level governments.

### Aid commitments to DRR and CCA

**GFDRR disaster aid tracking**



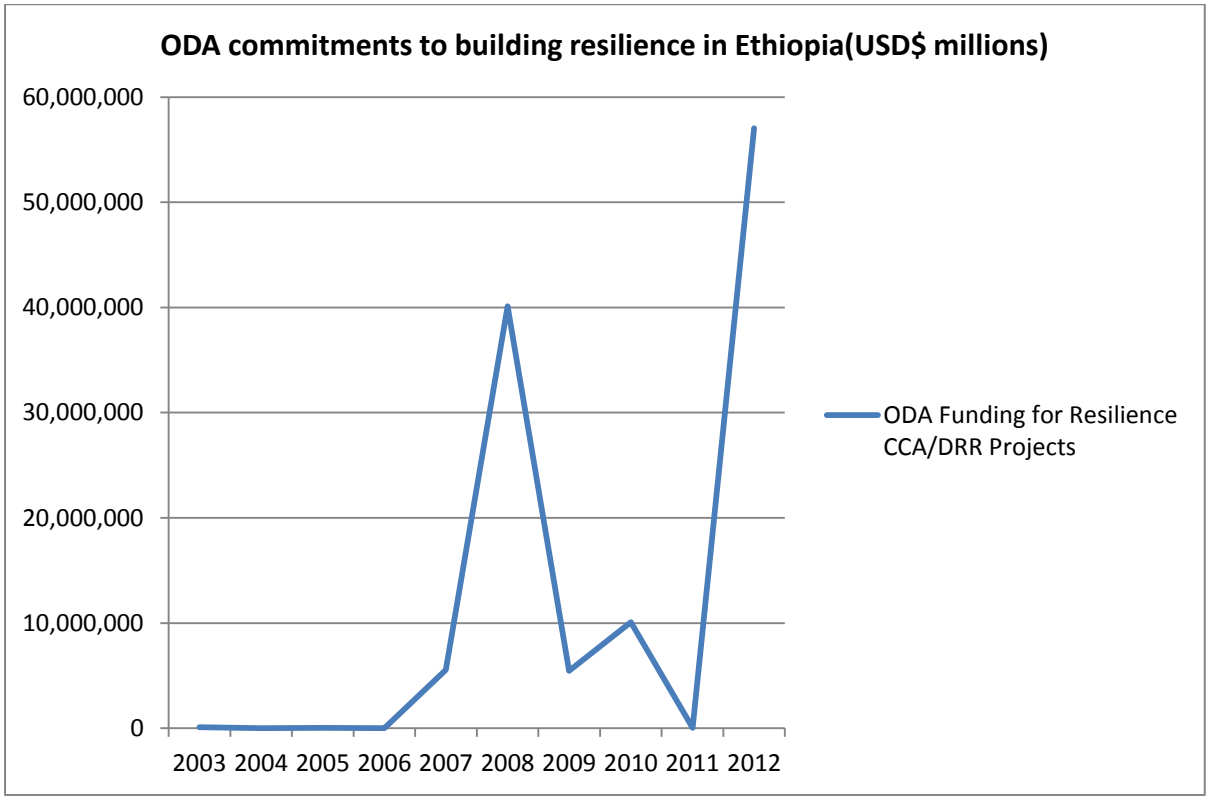

*Source: GFDRR Disaster Aid Tracking Database*

**Listed key funding programmes from bilateral donors (top 10)**

| Year | Country | Title | Constant (USD) |
|---|---|---|---|
| **2010** | United States | Capacity Building, Preparedness, and Planning | 5,444,841.52 |
| **2003** | African Development Fund (AFDF) | Awash River Basin Flood Control and Watershed Management Study | 3,460,803.69 |
| **2010** | Japan | Disaster prevention and preparedness | 1,530,193.22 |
| **1996** | Canada | Disaster Mitigation Phase I | 1,136,340.82 |
| **2005** | United States | OFDA Support to SO13 Integrated Early EWS | 1,096,148.48 |
| **2007** | United States | Capacity Building, Preparedness, and Planning | 956,970.46 |
| **2009** | Canada | Benishangul-Gumuz Regional Food Security and Economic Growth Program | 876,424.19 |
| **2008** | United States | Capacity Building, Preparedness, and Planning | 756,874.59 |
| **2010** | United States | Capacity Building, Preparedness, and Planning | 727,628.82 |
| **2008** | United States | Capacity Building, Preparedness, and Planning | 655,957.98 |

*Source(s): GFDRR Disaster Aid Tracking Database*

**OECD funding commitments**




*Source: OECD DAC*

# Kenya

## Climate change and disaster risk profile

**Hazard trends:** Kenya is prone to prolonged drought, extreme flooding, receding lake levels, and the drying of rivers and wetlands.
**Rainfall trends:** Inter-annual variability of rainfall leads to flooding by heavy rains in the rainy seasons, but can also lead to severe drought, particularly across the arid-and semi-arid regions of northern and eastern Kenya[23]. Rainfall trends show mixed signals with some locations indicating trends towards wetter conditions over past years[24].
**Temperatures trends:** Widespread warming has been observed across Kenya since 1960[25] with regional differences. The western and central region has received the highest rates of warming[26]

## Security profile

Kenya is considered to be a relatively stable democratic state, however the country's political history has been marred by incidents of unrest, with politics characterized by ethnic divisions.[27] Although the countries most recent elections in 2013 passed relatively peacefully, many believe that the underlying grievances - which led to post election violence in 2007 - have yet to be fully addressed.[28] Of particular significance are land related grievances, which continue to be a recurring factor in outbreaks of violence within the country.[29] [30]

Regional instability continues to have an impact on Kenya, with refugee flows from neighbouring conflict-affected states set to continue into 2015.[31] Terrorism is also a significant threat within country, with the frequency of attacks from Al-Shabab increasing since Kenya's decision to deploy troops within Somalia to combat the group.[32] Al-Shabab continues to build a presence within Kenya itself, recruiting from the country's ethnic Somali and Muslim communities.[33]

[23] Met Office (2013)
[24] Government of Kenya (2013)
[25] Met Office (2013)
[26] Government of Kenya (2013)
[27] BTI (2014) Kenya country profile pp.3-4 http://www.bti-project.de/uploads/tx_itao_download/BTI_2014_Kenya.pdf
[28] International Crisis Group (2013) Kenya after the elections http://www.crisisgroup.org/~/media/Files/africa/horn-of-africa/kenya/b094kenya-after-the-elections
[29] Small Arms Survey (2013) Survival at stake: Violent land conflict in Africa p.107 http://www.smallarmssurvey.org/fileadmin/docs/A-Yearbook/2013/en/Small-Arms-Survey-2013-Chapter-5-EN.pdf
[30] IRIN (2013) Land reform key to Kenya's Future http://www.irinnews.org/.../ briefing-land-reform-key-to-Kenya-s-future
[31] UNCHR (2015) Country profile http://www.unhcr.org/pages/49e483a16.html
[32] Congressional Research Service (2013) US-Kenya relations: Current political and security issues pp.3-4 http://fas.org/sgp/crs/row/R42967.pdf
[33] ibid

Government agencies and ministries overseeing DRR and CCA

- Ministry of Environment and Mineral Resources (MEMR)
- Ministry of Planning and National Development
- Ministry of Finance
- Ministry of Energy
- Ministry of Agriculture
- Ministry of States for Development of Northern Kenya and other Arid Lands
- Ministry of Water and Irrigation
- National Economic and Social Council
- Climate Change Unit at the Office of the Prime Minister
- National Economic and Science and Technology
- National Drought Management Authority

National DRR and CCA policies and plans

| Policy | Government Division Responsible | Dates | Description |
|---|---|---|---|
| First National Communication of Kenya to the UNFCCC | Ministry of Environment and Natural Resources, National Environment Secretariat | 2002 | Overview of Kenya's anticipated climate change impacts and vulnerability assessment, as well as adaptation options. |
| Strategy for Revitalising Agriculture | Ministries of Agriculture, Livestock and Fisheries Development and Cooperative | 2004 | Places emphasis on sustainable exploitation of arid and semi-arid lands through various adaptation strategies |
| National Policy for Sustainable Development of Arid and Semi-Arid Lands in Kenya (NPSDASAL) | | | Promote reforms of existing sectoral policy constraints in relation to land tenure, community land practices, water and pasture information mapping, emergency/ contingency planning, drought contingency trust fund mechanisms, suitable financial products. |
| Draft National Policy for Disaster Management in Kenya | Ministry of State for Special Programmes | Draft released in 2009 | Identified coordinated approach to disaster preparedness for response. The need to integrate disaster risk management and climate change is acknowledged within the document. |
| National Climate Change Response Strategy | | 2010 | NCCRS emphasises three major pathways, prioritising the most vulnerable sectors of the economic for immediate action, providing explicit measures for addressing climate change and, defining criteria for monitoring the effectiveness of such measures. The |

| | | | |
|---|---|---|---|
| | | | NCCRS provides a roadmap for climate change adaptation across the different sectors of the economy, and serves as a policy guideline. |
| National Climate Change Action Plan | Ministry of Environment and Natural Resources | 2013 - 2017 | The National Climate Change Action has been implemented with the aim of implementing the Kenya National Climate Change Response Strategy. The Aim is to ensure that adaptation measures are integrated in all government planning, budgeting and development objectives. The vision is to build a climate resilient Kenya, and strengthen nationwide actions by ensuring the commitment and engagement of stakeholders towards mitigation and adaptation to climate change. This will be revised every five years in line with Vision 2030. |

*Source: Adaptation Partnership (2011d); Government of Kenya (2013),The Republic of Kenya Ministry of Special Programmes and Office of the President (2008, Nyasimi et al. (2013)*

Kenya has also implemented the HFA widely within DRR policies, and the National Progress demonstrates progress towards enhancing the resilience of communities in alignment with achieving strategic goals. For example, a comprehensive disaster management policy is at an advanced level, DRR has been mainstreamed across all pillars of Vision 2030, and a National Platform from Disaster Reduction has been established. There is recognition that specific investments have been made towards drought risk reduction, poverty eradication and livelihoods improvement. Furthermore, communities have been increasingly involved in monitoring and early warning for floods, the government is able to create awareness and early warning in case of pending disasters, and there are now drought early warning systems implemented at grassroots level. District, Divisional and Locational Disaster Management Committees are in place across most of the country. Finally, a National Platform for Disaster Reduction has been put into place with a secretariat, playing a central role in drafting the DRM policy (MOSSP, 2013).

### Policy evaluation

Strengths and weaknesses of the current disaster management systems relate to inadequate policy, legal and institutional frameworks (Government of Kenya, 2009). Over the years, disasters in Kenya have been handled without a coordinated disaster management policy, legal and institutional frameworks. Disaster response activities have been poorly coordinated, due to lack of standard operational procedures and Disaster Emergency Operation Plans (ibid). In the absence of planned, coordinated action, prevention, preparedness and mitigation have not always been attained. Kenya has expressed the need and want for a definite paradigm shift, which stresses a proactive Disaster Risk Reduction (DRR approach), highlighting the need for systems such as EWS and prevention.

International and national investments in DRR and CCA:

**Lead organisations funding DRR and CCA projects**: High number of projects currently implemented in Kenya, with over thirty projects ongoing. Leading organisations include: DFID, the International Development Research Centre (IDRC), the Special Climate Change Fund (SCCF), the United States Agency for International Development (USAID), World Bank and Wetlands International (Adaptation Partnership, 2011d)

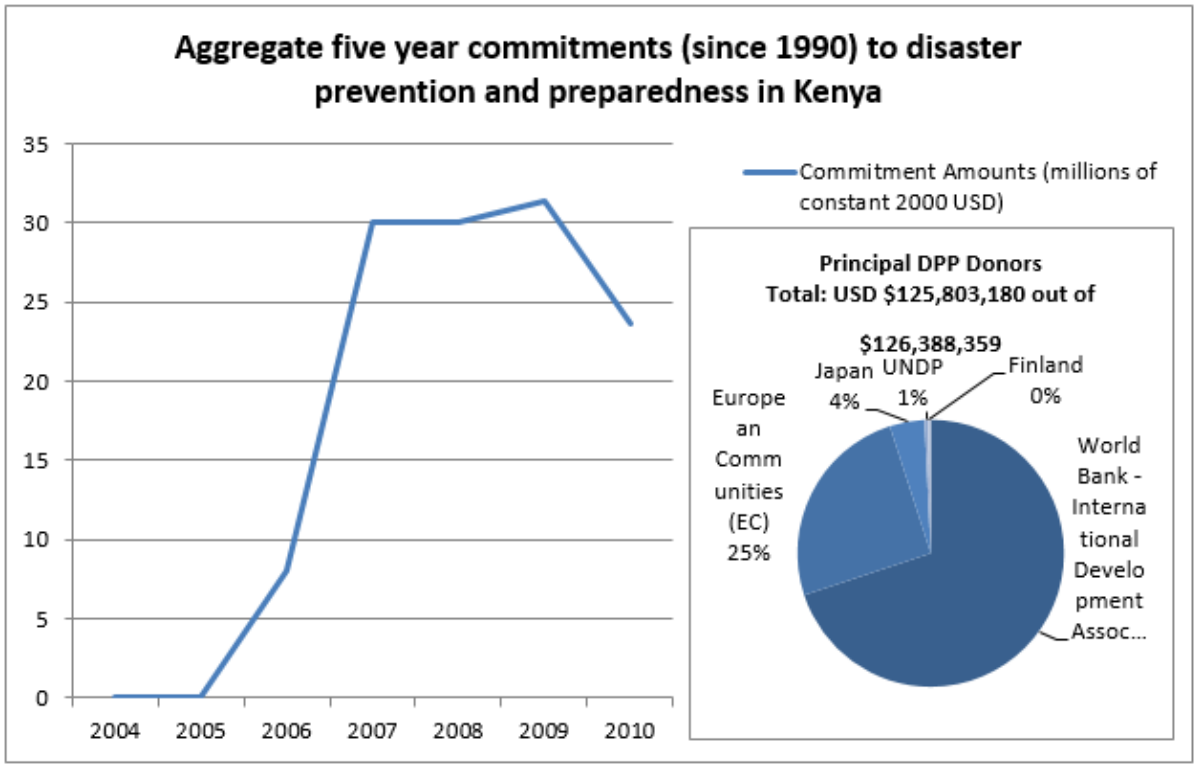
| Project Name | Project Dates | Funding (if amount specified) | Scale/ Geographical Focus | Donor(s) and Implementer(s) |
|---|---|---|---|---|
| Integrating Indigenous Knowledge in Climate Risk Management in support of Community-Based Adaptation | 2008 - 2010 | | Kenya | *Donor(s):* DFID and IDRC through the CCAA Program: *Implementer(s):* IGAD Climate Prediction and Application Centre |
| Enhancing Adaptation to Climate Change among Pastoralists in Northern Kenya | 2008 - 2010 | | Turkana and Mandera districts | |
| Climate Change Adaptation for Smallholder Agriculture in Kenya | 2009 - ? | | Kenya | *Donor(s):* World Bank: *Implementer(s):* International Food Policy Research Institute, ILRI, KARI, University of Georgia. |
| Integrated Approach to Wetland Management in the Kimana area of Amboseli Ecosystem in a Changing Climate | 2009-2010 | | Kimana area of Amboseli Ecosystem | *Donor(s):* Wetlands International: *Implementer(s):* World Vision, The Noomayianat community-based Organisation, The Kimana Wetlands Association. |
| Kenya: Adaptation to Climate Change in Arid Lands (KACCAL) | 2010 - 2013 | | Arid and Semi-Arid Lands, Kenya | *Donor(s):* Special Climate Change Fund, World Bank, Government of Kenya: *Implementer(s):* World Bank, UNDP, Government of Kenya |
| Support for projects that reduce vulnerability in rural areas | 2010 - ? | | Rural Areas | *Donor(s):* USAID |

| | | | | |
|---|---|---|---|---|
| Integrating Vulnerability and Adaptation to Climate Change into Sustainable Development Policy Planning and Implementation in Eastern and Southern Africa | 2005 – 2010 (Closed) | US$1,265,000[34] / US$2.355 million | Regional: Kenya, Mozambique, Rwanda | *Donor(s):* GEF, Netherlands, Norway. *Implementer(s):* UNEP, International Institute for Sustainable Development |
| Preparedness for Climate Change | Phase 1: 2006 – 2009; Phase 2: Ongoing | | 39 countries including Ethiopia, Kenya, Rwanda, Tanzania, Uganda | *Donor(s):* Red Cross/ Red Crescent Societies: *Implementer(s):* National Red Cross/ Red Crescent Societies |
| Climate Proofing Energy Systems: Vulnerability-Adaptation-Resilience | 2007 - 2009 | | Benin, Burkina Faso, Cameroon, Dem. Rep. of Congo, Kenya, Mali, Nigeria, Senegal, Tanzania, Uganda | *Donor(s):* France, GIZ, BMZ, IUCN, La Francophonie: *Implementer(s):* HELIO International |
| Advancing Capacity for Climate Change Adaptation (ACCCA) | 2007 - 2010 | | 17 counties in Asia and Africa, including Ethiopia, Kenya and Tanzania | *Donor(s):* IDRC, DEFRA, Swiss Federal Office for the Environment, NCAP, European Commission: *Implementer(s):* UNITAR |
| Managing Uncertainty: Innovation systems for coping with climate variability and change | 2007 - 2010 | | Kenya, Rwanda, Sudan, Uganda | *Donor(s):* AfDB: *Implementer(s):* International Crops Research Institute for the Semi-Arid Tropics. |

*Source: Adaptation Partnership (2011d)*

[34] Biagini et al. (2012)

## Aid commitments to DRR and CCA



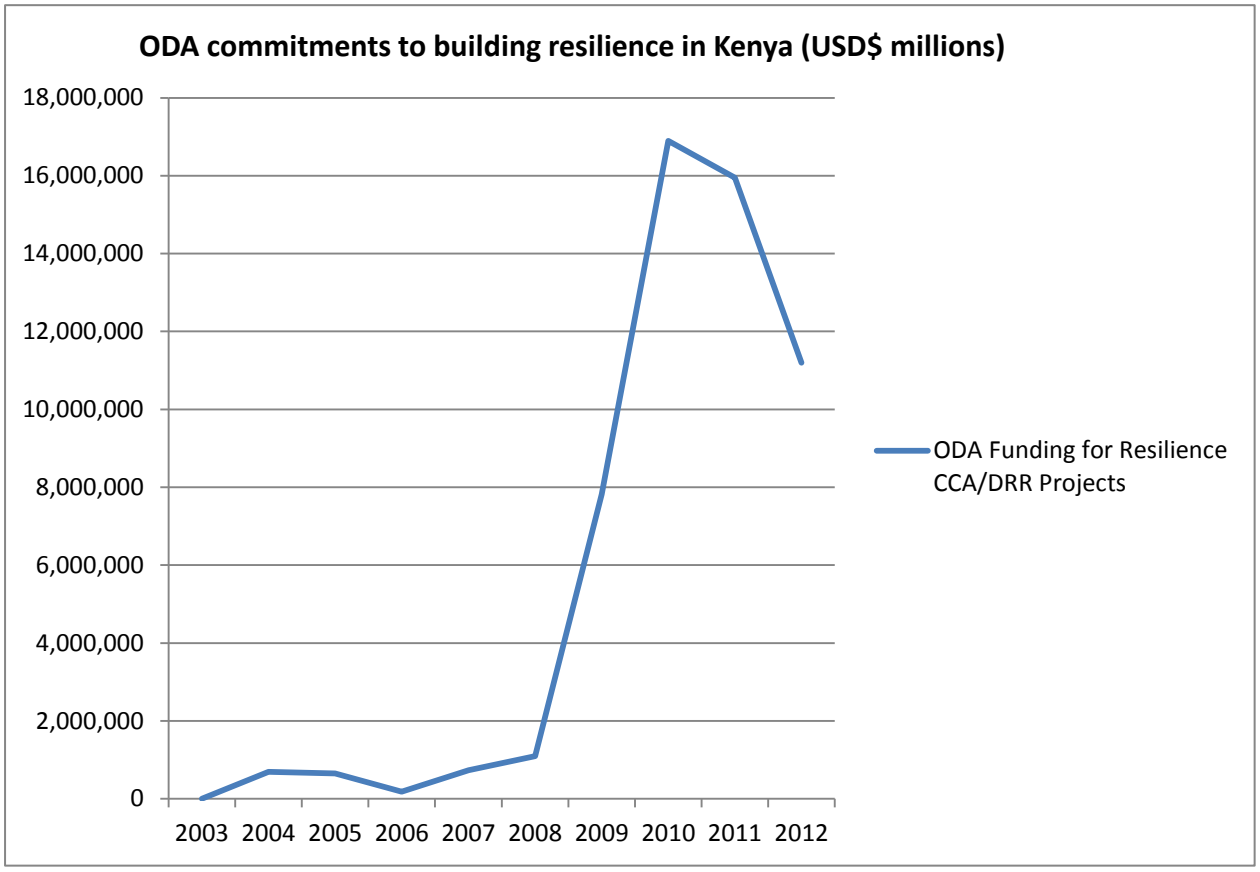

*Source: GFDRR Disaster Aid Tracking Database*

**Listed key funding programmes from bilateral donors (top 10)**

| Year | Country | Title | Constant (USD$) |
|---|---|---|---|
| **2004** | UNDP | Drought Management Initiative | 24,569,747.73 |
| **2007** | World Bank IDA | Western Kenya CCD and Flood Mitigation Project | 87,966,099.50 |
| **2006** | European Communities (EC) | Strengthen resilience of local population | 7,011,597.31 |
| **2009** | UNDP | Disaster Risk Management | 5,171,306.21 |
| **2008** | Finland | Frame agreement with NGO (Plan Finland) | 377,587.13 |
| **2008** | Finland | Frame agreement with NGO (Plan Finland) | 377,587.13 |
| **2010** | UNDP | Disaster Risk Management | 244,981.45 |
| **2004** | UNDP | Disaster Management | 226,976.01 |
| **2010** | Germany | Disaster Risk Reduction for 8 districts of 4 prov. In Kenya | 124,206.02 |
| **2010** | Japan | Disaster prevention and preparedness | 107,251.08 |

*Source: Disaster Aid Tracking Database*

**OECD funding commitments**




*Source: OECD DAC*

# Mali

## Climate change and disaster risk profile

**Hazard trends:** Mali in vulnerable to multiple natural hazards, particularly droughts and floods[35]
**Rainfall trends:** Rainfall declines rapidly between 1950 and the mid-1980's, recovered in the 1990's, and then declined slightly in the 2000's. Current rainfall volumes are 12 percent below the 1920 – 2969 average[36]
**Temperatures trends:** Since 1975, temperatures have increased by 0.8 ºC, which has amplified the effect of drought[37].

## Security profile

Mali is in a process of recovering from a period of political instability, as a result of military coup, which ousted the government of President Amadou Toumani Toure. Despite the country returning to constitutional rule, the political environment remains tense, with relations between central government and the Malian Tuareg community in the north, posing a significant challenge.

The question of Tuareg separatism has resulted in recurrent episodes of armed conflict between armed Tuareg rebel groups and government forces, with the most recent occurring in 2012.[38] Although negotiations between the two sides are ongoing, continued violence persists, undermining attempts to reach an agreement.[39]

Regional security developments are also a concern, with the emergence of radical Islamic groups within the Sahel region posing a significant threat.[40] Although predominately based in the northern regions of Mali, these groups have previously been a security threat to the government-controlled south.[41]

Government agencies overseeing DRR and CCA

- Ministry of Public Infrastructure, Territorial Planning, Environment and Urbanisation
- Ministry of Transport

National policies, and key government policies and reports reflecting DRR and CCA needs, priorities and planned actions:

| Policy | Government Division | Dates | Description |
|---|---|---|---|

[35] GFDRR (2014c)
[36] USGS (2012c)
[37] USGS (2012c)
[38] Humanitarian Policy Group (2014), Security and humanitarian crisis in Mali, pp. 1-3 http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/8829.pdf
[39] International Crisis Group (2014) Mali: Last chance in Algiers p.11 http://www.crisisgroup.org/~/media/Files/africa/west-africa/mali/b104-mali-last-chance-in-algiers.pdf
[40] House of Commons Foreign Affairs Committee (2014) The UK's response to extremism and instability in North and West Africa pp.25-27 http://www.publications.parliament.uk/pa/cm201314/cmselect/cmfaff/86/8608.htm
[41] ibid

| | Responsible | | |
|---|---|---|---|
| Environmental Information, education and communication program. | Government of Mali | | Assesses climate change impacts, as well as information and awareness raising activities. |
| National Communication of Kenya to the UNFCCC | Ministry of Public Infrastructure, Territorial Planning, Environment and Urbanization | 2000 | Describes the steps Mali is undertaking to implement the UNFCCC, underlining key vulnerabilities. |
| National Adaptation Program of Action on Climate Change | Ministry of Public Infrastructures and of transport | 2007 | NAPA identifies national and regional climate change impacts and climate change adaptation measures to address those impacts. 19 priority interventions have been identified. |
| National Adaptation Plan Global Support Programme (NAP-GSP) | | | UNDP-UNEP will be supporting the integration of medium- to long-term planning for adaptation to climate change. A US$ UNDP-UNEP will be supporting the integration of medium-to long-term planning for adaptation to climate change. A US$ 10 million grant is being channelled through IFAD's Adaptation for Smallholder Agriculture Programe (ASAP) to support the l'Agence de l'environment et du development durable (AEDD) in Mali. |

*Source(s): IFAD (2013), Adaptation Partnership (2011e)*

International and national investments in DRR and CCA:

**Lead organisations funding DRR and CCA projects**: World Bank, UNDP, UNISDR, WFP; *National Organisations*: Economic Community of West African States (ECOWAS); *NGOs/CSOs;* Islamic Relief, Network on Climate Change, Mali Red Cross Society.

| Project Name | Project Dates | Funding (if amount specified) | Scale/ Geographical Focus | Donor(s) and Implementer(s) |
|---|---|---|---|---|
| Disaster Risk Management and Climate Change Adaptation – Phase 1 | 2012 - ongoing | US$1,400,000 | | *Donor(s):* World Bank (GFDRR) |
| Awareness Raising of Elected Community Representatives' on Climate Change Adaptation | Unknown | | Rural Regions | *Donor(s):* Unknown. *Implementer(s):* MFC/ Christian Aid |

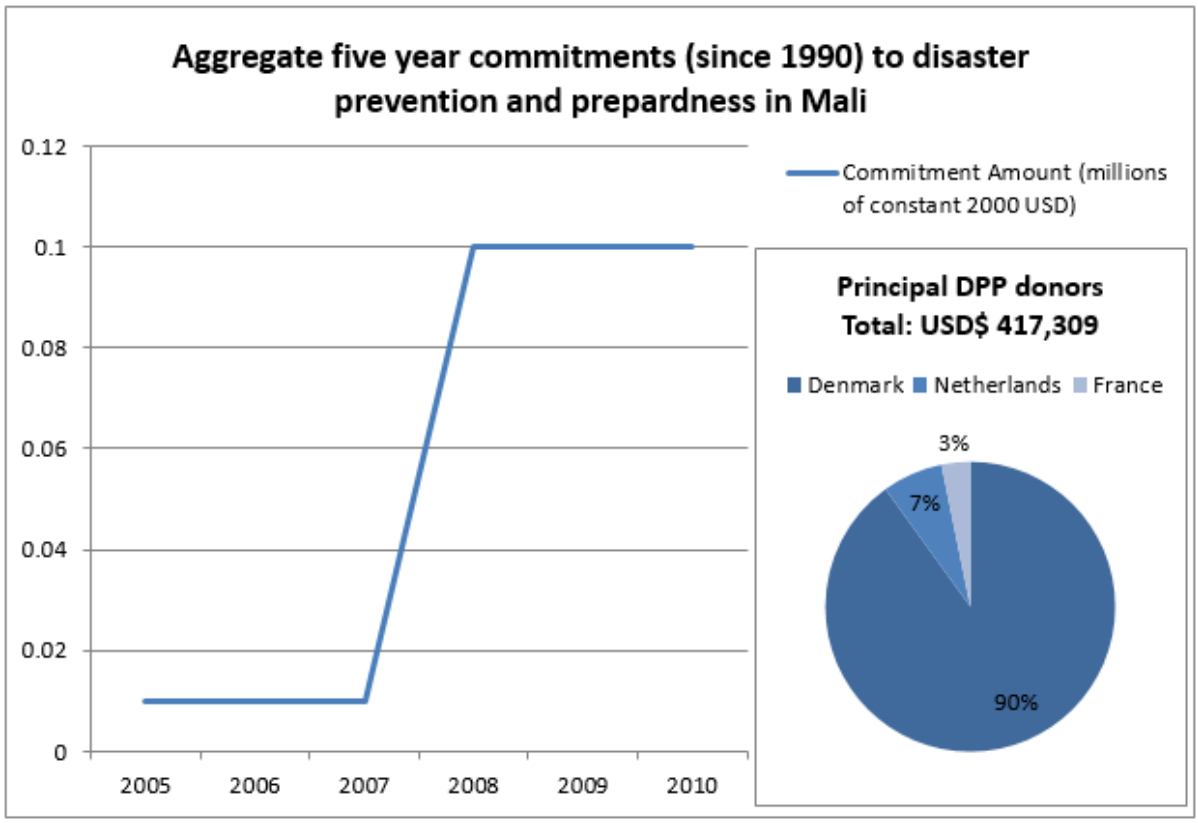
| | | | | |
|---|---|---|---|---|
| Climate Adaptation from Bottom-Up | Unknown | | National | *Donor(s):* Unknown; *Implementer(s):* UNEP |
| Scaling up the Climate Change Adaptation Activities of the FAO and UNDP | 2010 - ? | | Gao, Mopti, Segou and Timbuktu | *Donor(s):* Government of United States |
| Enhancing adaptive capacity and resilience to climate change in the Agriculture Sector in Mali | 2010 - 2014 | US$6,865,000[42]/ US$10,275,000 | National | *Donor(s):* LCDF; co-financing. *Implementer(s):* UNDP, Ministere de l'agriculture, de l'elevage de la peche. |
| Integrating climate resilience into agriculture production for food security in Rural areas in Mali | 2011 - 2015 | US$4,200,000[43] /US$6.6. million | National | *Donor(s):* LCDF; co-financing. *Implementer(s):* FAO, Ministry of Agriculture |
| Climate proofing energy systems: vulnerability-adaptation-resilience | 2007 - 2009 | | Burkina Faso, Kenya, Mali, Senegal, Uganda | *Donor(s):* France, GIZ, BMZ, IUCN, La Francophoni. *Implementer(s):* HELIO International |
| Advancing Capacity for Climate Change Adaptation (ACCCA) | 2007 - 2010 | | Burkina Faso, Mali, Niger | *Donor(s):* IDRC, DEFRA, Swiss Federal Office for the Environment, European Commissions; *Implementer(s):* UNITAR |
| Resilience and the African Smallholder: Enhancing the capacities of communities to adapt to climate change | 2007 - 2011 | CND$1,319,800 | Mali, Uganda | *Donor(s):* DFID, IDRC through the CCAA Program. *Implementer(s):* University of Zimbabwe, International Food Policy Research |
| Supporting the vulnerable: Increasing the adaptive capacity of agro-pastoralists to climate change in West and Southern Africa using a trans disciplinary research approach | 2008 - 2011 | | Mali, Uganda | *Donor(s):* BMZ. *Implementer(s):* International Livestock Research |

[42] Bianini et al. (2012)
[43] Bianini et al. (2012)

| | | | | |
|---|---|---|---|---|
| West African Science Service on Climate and Adapted Land Use | 2010 - 2011 | | Burkina Faso, Mali, Niger Senegal | *Donor(s):* German Federal Ministry of Education and Research. *Implementer(s):* University of Bonn |
| Partners for Resilience | 2011 - 2015 | EUR 40 Million | Ethiopia, Mali, Uganda | *Donor(s):* Netherlands. *Implementer(s):* Dutch Red Cross, Red Cross Climate Centre, CARE, Cordaid. |

*Source: Adaptation Partnership (2011e)*

## Aid commitments to DRR and CCA



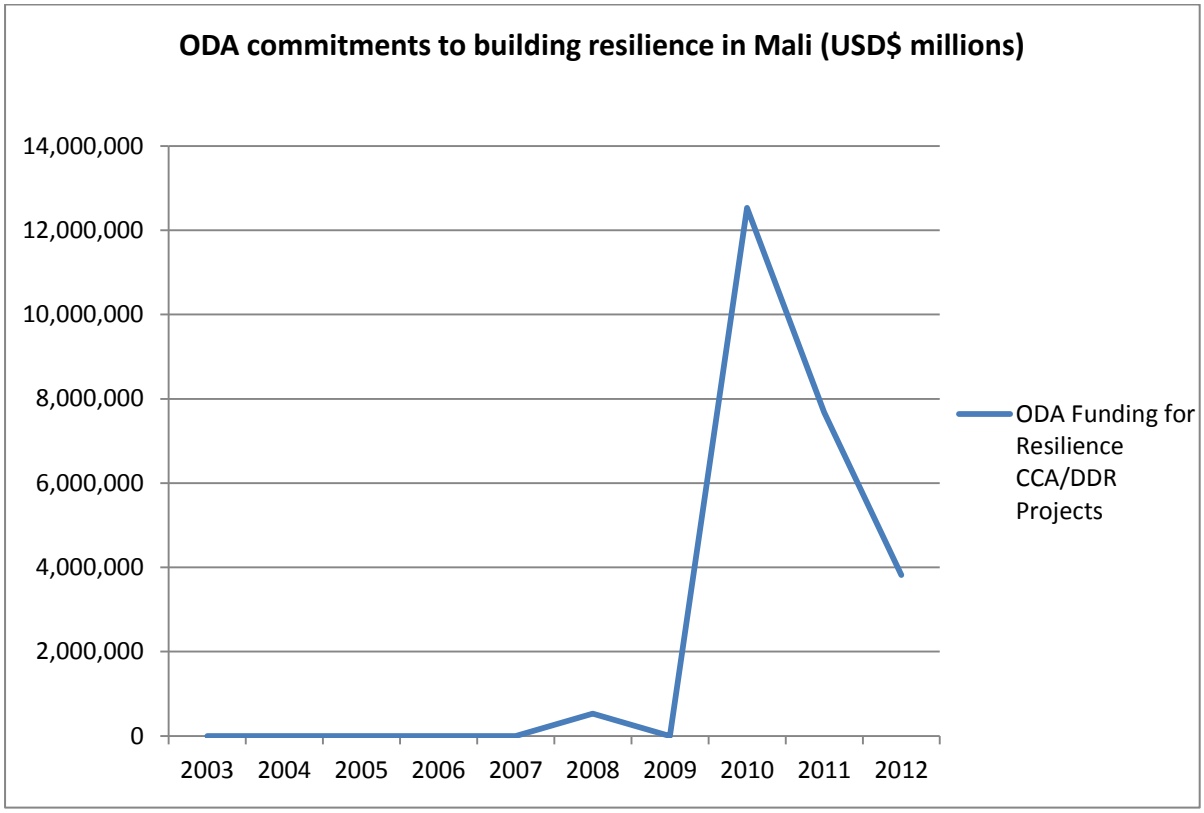

*Source: GFDRR Tracking Disaster Aid*

**Listed key funding programmes from bilateral donors**

| Year | Country | Title | Constant (USD$) |
|---|---|---|---|
| **2008** | Denmark | Strengthening authorities in diminishing risks of natural disasters | 375,722.25 |
| **2005** | Netherlands | BAM-NIGER FLOODPLAINS | 28,221.28 |
| **2009** | France | Prevention des catastrophes et preparation a leur survenue | 13,365.83 |

*Source: GFDRR Tracking Disaster Aid*

**OECD funding commitments**




*Source: OECD DAC*

# Mauritania

## Climate change and disaster risk profile

**Hazard trends:** Prone to flooding during the rainy seasons, and drought
**Rainfall trends:** Mauritania suffers from fluctuating and poor levels of rainfall. Whilst there are no climate projections available for Mauritania, but it expected that rainfall variability will increase, bringing about greater risks of drought, low water flows, flash flooding, changes in river morphology and human resettlement[44].
**Temperatures trends:** There are no climate projections for Mauritania at present, however, temperatures are expected to increase[45].

## Security profile

The country's political history since independence has seen a succession of military governments and regime change through coups.[46] The military continue to hold a significant influence over political proceedings, with the quality of democratic institutions dependent on military leaders at the time.[47] Ethnic divisions between Arabic speaking communities and non-Arabic speaking communities also characterize the political landscape.[48] These divisions have been a distinct cause of conflict in the past and continue to pose challengers for the country, particularly over the issue of land in the Senegal River valley.[49] [50]

As with the wider Sahel region, an immediate security concern for Mauritania is the threat of Islamic extremist groups, which operate within the region.[51] Although the country's security forces have been fighting groups outside the countries borders, there are fears that socio-economic factors may increase the risk of radicalizing the country's youth.[52] [53]

Government agencies overseeing DRR and CCA

- Ministry of Rural Development and Environment including the Department of the Environment and the Department of the Environmental Project.

[44] Adaptation Partnership (2011f)
[45] Adaptation Partnership (2011f)
[46] GSDRC (2014) Conflict analysis of Mauritania p.5 http://reliefweb.int/sites/reliefweb.int/files/resources/GSDRC_ConflAnal_Mauritania.pdf
[47] ibid p.11
[48] BTI (2012) Mauritania country report p.4 http://www.bti-project.org/fileadmin/Inhalte/reports/2012/pdf/BTI 2012 Mauritania.pdf
[49] ibid p.6
[50] Carnegie Endowment for International Peace (2012) The drivers of insecurity in Mauritania pp.7-10 http://carnegieendowment.org/files/mauritania_insecurity.pdf
[51] GSDRC (2014) Conflict analysis of Mauritania pp.8-11 http://reliefweb.int/sites/reliefweb.int/files/resources/GSDRC_ConflAnal_Mauritania.pdf
[52] ibid p.8
[53] Carnegie Endowment for International Peace (2012) The drivers of insecurity in Mauritania pp.10-14 http://carnegieendowment.org/files/mauritania_insecurity.pdf

National policies, and key government policies and reports reflecting DRR and CCA needs, priorities and planned actions:

| Policy | Government Division Responsible | Dates | Description |
|---|---|---|---|
| First National Communication | Ministry of Rural Development and Environment | 2002 | Describes the steps that Mauritania is undertaking to implement the UNFCCC, underlining key vulnerabilities. |
| National Adaptation programme of Action | Ministry of Rural Development and Environment | 2004 | NAPA identifies national and regional climate change impacts and climate change adaptation measures to address those impacts. 27 priority interventions have been identified. |
| Second National Communication | Ministry of Rural Development and Environment | 2008 | Updates the efforts that Mauritania is taking to support the UNFCCC, underlining key vulnerabilities and potential adaptation measures. |
| National Environmental Action (PANE) | Government of Mauritania | Proposed but not adopted | Main aim is to integrate the question of environment into the fight against poverty, with one axe devoted to the adaptation of climate change. |

*Source: Adaptation Partnership (2011f)*

International and national investments in DRR and CCA:

**Lead organisations funding DRR and CCA projects**: None specifically specified

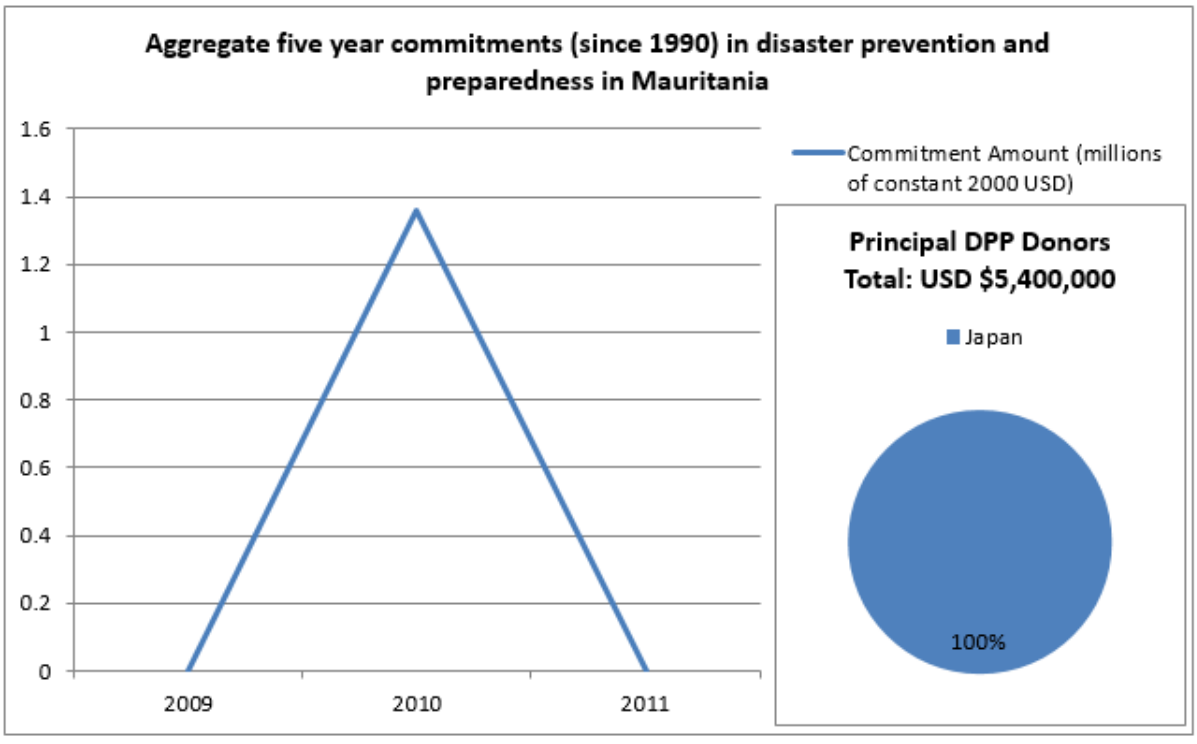
| Project Name | Project Dates | Funding (if amount specified) | Scale/ Geographical Focus | Donor(s) and Implementer(s) |
|---|---|---|---|---|
| Adaptation to climate change: responding to coastline change and its human dimension in West Africa through integrated Coastal Area Management | 2011 - 2015 | | | *Donor(s):* LDCF. *Implementer(s):* IFAD, Ministry of Environment and Sustainable Development; Ministry of Rural Development; Ministry of Hydraulic and Sanitisation. |
| Mainstream adaptation to climate change into integrated Coastal Area Management Planning through the development and implementation of pilot adaptation activities in response to shoreline changes. | 2006 - 2010 | US$9,729,517[54] | Cape Verde, The Gambia, Guinea-Bissau, Mauritania, Senegal | *Donor(s):* GEF Trust Fund. *Implementer(s):* UNDP-GEF, UNESCO/IOC. |

[54] Bianini et al. (2012)

| | | | | |
|---|---|---|---|---|
| An ecosystems approach to managing water and health in the context of climate change: Adaptive strategies to drought and flooding in four West African countries | 2008 - 2011 | | Mauritania, Senegal | *Donor(s):* Canada. *Implementer(s):* IDRC, Environment and Development Action in the Third World. |
| Regional Coordination on Natural Resources Management and Capacity Building | 2009 - 2014 | US$87,679,545 | Mauritania | *Donor(s):* GEF Trust Fund, National Government, Bilateral Aid; *Implementer(s);* Arab Water Council (AWC), Arab Water Academy, and relevant agencies of AWC members. |
| Support to the Adaptation of Vulnerable Agricultural Production Systems in Mauritania | N/A | US$4,500,000 | | *Donor(s):* GEF |

*Source: Adaptation Partnership (2011f), Bianini et al. (2012)*

### Aid commitments to DRR and CCA



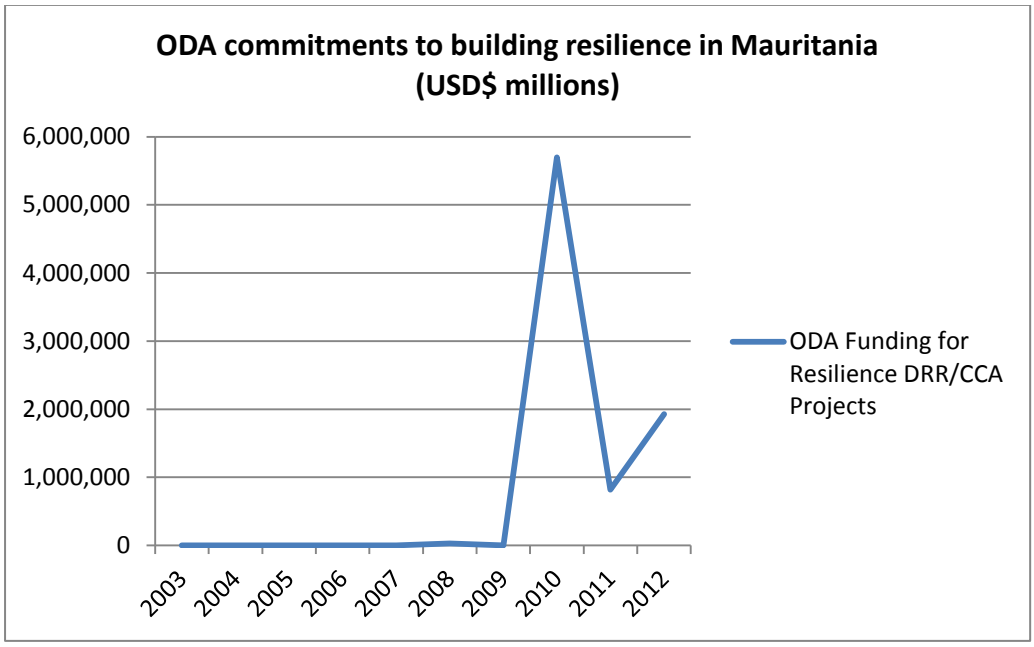
*Source: GFDRR Disaster Aid Tracking*

**Listed key funding programmes from bilateral donors**

| Year | Country | Title | Constant (USD$) |
|---|---|---|---|
| **2010** | Japan | The Programme for the Improvement of Capabilities to cope with Natural Disasters caused by Climate Change | 5,454,184.28 |

*Source: GFDRR Disaster Aid Tracking*

**OECD funding commitments**




*Source: OECD DAC*

# Myanmar

## Climate change and disaster risk profile

**Hazard trends:** Fires account for a significant portion of disasters, followed by storm surges, floods, earthquakes and landslides. Myanmar has recently been struck by multiple natural hazards, such as Cyclone Nargis, Cyclone Mala, Indian Ocean Tsunami and the Taungdwingyi Earthquake (Myanmar Department of Meteorology and Hydrology et al., 2009).
**Rainfall trends:** Over time, the length of the wet season has decreased, alongside a decrease in monsoon intensity (Ministry of Agriculture and Irrigation of the Union of Myanmar, 2010). Projections of mean annual rainfall indicate an increasing trend, particularly during the wet season. Additionally, sea-level is projected to rise by 15cm by 2030 and up to 45cm by 2070 along the coasts of Myanmar (Early, 2011).
**Temperatures trends:** Analysis indicates that there is an increasing warming trend, with a significant increase in warm nights (Early, 2011). Evidence also indicates that there are consistent warming trends across the whole country, with projections indicating that mean annual temperatures are projected to increase by 1 ºC to 4 ºC by the end of the century (ibid, 2011).

## Security profile

Myanmar is currently in a period of transition towards greater political and economic liberalisation, after emerging from decades of military rule and isolationism in 2010. However this process has been described as slow, with the military continuing to have a significant influence on political proceedings.[55] Additionally the government's ability to create a sense of ethnic unity will be key to the countries development, with the spread of inter-communal tensions a cause for concern.[56]

Historically Myanmar's relations with its ethnic minorities have proved a challenge.[57] The country is a complex mix of multiple ethnicities and religions, with each regarding the protection of their individual languages, customs and culture as key to their national identity.[58] However often these minorities have felt both marginalised and discriminated against, leading to numerous armed ethnic groups taking-up arms, calling for greater ethnic rights and autonomy,[59] with years of violence resulting in hundreds of thousands of internally displaced peoples.[60]

Government agencies overseeing DRR and CCA

- Department of Meteorology and Hydrology (NAPA implementation
- Ministry of Transport of Union of the Republic of Myanmar (NAPA implementation)

[55] [redacted]
[56] [redacted] http://www.crisisgroup.org/~/media/Files/asia/south-east-asia/burma-myanmar/251-the-dark-side-of-transition-violence-against-muslims-in-myanmar.pdf
[57] World Politics Review (2013) A house divided: Finding peace in a multiethnic Myanmar http://www.worldpoliticsreview.com/articles/13200/a-house-divided-finding-peace-in-multiethnic-myanmar
[58] IRIN (2012) Myanmars ethnic problems http://www.irinnews.org/report/95195/briefing-myanmar-s-ethnic-problems
[59] ibid
[60] UNHCR (2015) Country profile http://www.unhcr.org/pages/49e4877d6.html

*Source: Myanmar Ministry of Environmental Conservation and Forestry (2009)*

### National policies, and key government policies and reports reflecting DRR and CCA needs, priorities and planned actions:

Currently, no national-level policy initiatives regarding climate change adaptation could be identified. In 2008, the Government of Myanmar initiated development of the NAPA alongside UNEP, and in 2012, a national development strategy, which did incorporate elements of adaptation (UNEP, 2012). According to U Aung Win, the project coordinator of the NAPA project, Myanmar's National Adaptation Programme of Action on climate change will be submitted to the Global Environment Facility soon (Phyu, 2013). The NAPA provides a preliminary policy direction for adaptation action in Myanmar (Adaptation Partnership, 2011g).

However, Myanmar is much more active regarding DRR. The Union of Myanmar has endorsed the HFA, and is an active participant in the Asian Ministerial Conferences on Disaster Risk Reduction (AMCDRR). The Union is also an active member of the ASEAN Committee on Disaster Management (ACDM), established in 2003, which provides a regional comprehensive framework to strengthen preventative, monitoring and mitigation measures to reduce disaster losses in the region. Myanmar is a member of the UNESCAP Committee on Disaster Risk Reduction. Leading on from thus, Myanmar has implemented the Myanmar Action Plan on Disaster Risk Reduction (MAPDRR), with the purpose to identify projects that need to be implemented to meet the HFA and ASEAN Agreement of Disaster Management and Emergency Response (AADMER) commitments (Myanmar Ministry of Social Welfare, Relief and Resettlement, 2009).

In line with the HFA, there has been evidence of some progress towards resilience in Myanmar. DRR frameworks were developed to assist with inclusion at all levels, whilst institutions and capacities are being built at the community level to ensure that local DRR issues are being incorporated into plans and programmes which focus on preparedness, response and recovery. Township levels plans were being developed between 2009 and 2011 in a participative manner to ensure locations specific vulnerabilities, risks and hazards are being addressed. The Department of Meteorology and Hydrology (DMH) has also set up early warning centres, and put EWS in place for cyclones, storm surges and floods. Hazard profiles and weather information has been collected and is sent to local authorities (Ministry of Social Welfare, Relief and Resettlement, 2011).

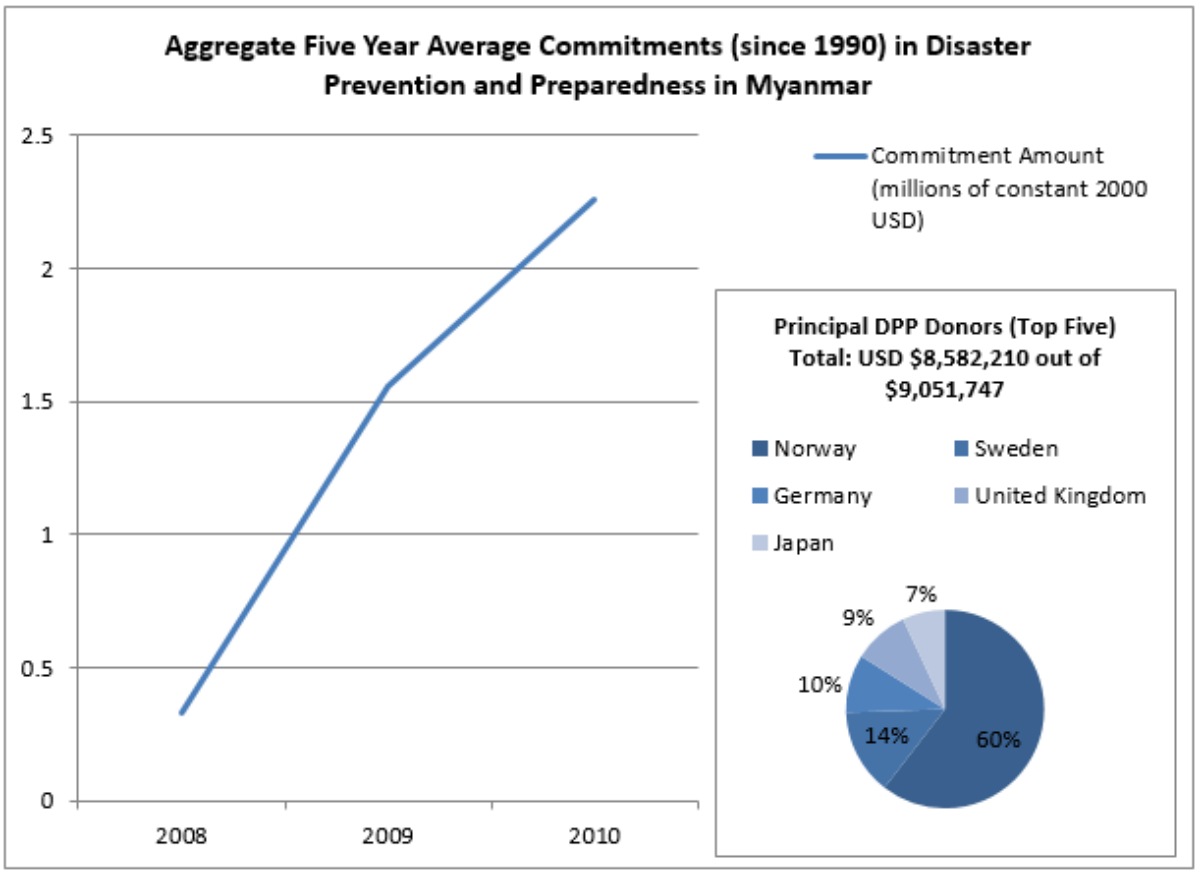
### Key resilience projects and leading international and national organisations involved with DRR and CCA

**Lead organisations funding DRR and CCA projects**: Adaptation projects in Myanmar are being supported by the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA) and the governments of Germany and Sweden.

| Project Name | Project Dates | Funding (if amount specified) | Scale/ Geographical Focus | Donor(s) and Implementer(s) |
|---|---|---|---|---|
| DIPECHO Projects: Several Disaster Preparedness | | USD$3.1 million | | *Implementer(s):* UN Habitat, OXFAM GB, Intermon OXFAM. |
| Environment, Climate Change and Disaster Risk Reduction Project | 2013 - 2015 | US$20,550,000 | Delta and Coastal region, the Dry Zone and the Northern Forest Landscape | *Donor(s):* UNDP |
| Knowledge centre on climate change: adaptation and best practices in agriculture and natural resource sectors. | 2009 - 2014 | US$1.0 billion | | *Donor(s):* SEARCA's University Consortium in Southeast Asia, University of the Philippine Los Banos, World Fish Centre and the Adaptation Learning Mechansim. |
| Adaptation Knowledge Platform | 2009 - 2012 | | | *Donor(s):* SIDA |

*Source: Adaptation Partnership (2011g)*

### Aid Commitments to DRR and CCA



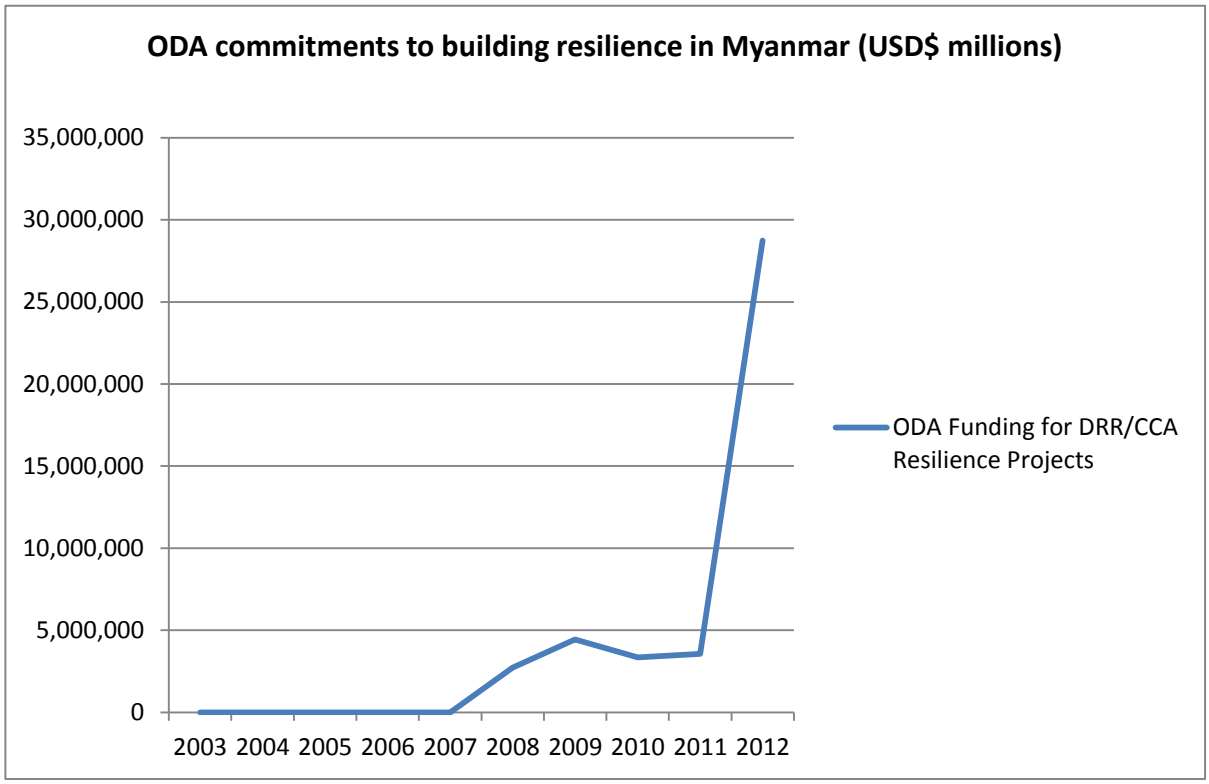
*Source: GFDRR Disaster Aid Tracking*

**Listed key funding programmes from bilateral donors (top ten)**

| Year | Country | Title | Constant (USD$) |
|---|---|---|---|
| **2009** | Norway | Myanmar Disaster Prevention Activities | 2,707,696.23 |
| **2008** | Sweden | WB – GDRRR Myanmar WB | 1,201,441.30 |
| **2009** | Japan | Assessment of Mangrove Forest Affected by Cyclone Nargis to Facilitate the Development of an Integrated Mangrove Ecosystem Management | 955,657.49 |
| **2009** | United Kingdom | Reducing the vulnerability of under assisted cycle Nargis affected populations (ActionAid) | 781,005.94 |
| **2010** | Norway | UNDP, Disaster Risk Reduction | 764,235.86 |
| **2010** | Norway | UN-Habitat, Disaster Preparedness | 764,235.86 |
| **2010** | Germany | Disaster Risk Reduction and Sustainable Land Use | 428,306.13 |
| **2009** | Australia | Strengthening Early Warning Capacity - Burma | 234,375.00 |
| **2010** | United States | Capacity Building, Preparedness, and Planning | 231,900.75 |
| **2010** | United States | Capacity Building, Preparedness, and Planning | 231,900.24 |

*Source: GFDRR Disaster Aid Tracking*

**OECD funding commitments**




*Source: OECD DAC*

# Nepal

## Climate change and disaster risk profile

**Hazard trends:** Nepal is prone to multiple hazards, such as earthquakes, floods, flash floods, landslides, GLOF's, fires and extreme weather events including thunderstorms, epidemics and cold waves (Pradhan, 2007; Ministry of Home Affairs of Nepal and Disaster Preparedness Network-Nepal, 2014).
**Rainfall trends:** Pre-monsoon rainfall across the eastern, central and western development regions are increasing (Practical Action, 2009).
**Temperatures trends:** Mean annual temperatures are projected to increase by 0.5ºC to 2.0ºC by 2030, 1.8ºC to 3.8ºC by 2060 and by 1.8 ºC to 5.8 ºC by 2090 (McSweeney et al., 2008). The number of hot days and nights are projected to increase from between 22 percent to 18 percent for hot days and from 18 percent and 28 percent for hot nights by the 2060s (McSweeney, 2010). GCMS predict that there will be an increase in heat waves (ibid, 2010).

## Security profile

In 2006 Nepal emerged from a decade long civil war between government forces and the Maoist Peoples Liberation Army, with a peace agreement between the two sides brining an end to the Monarchy and Nepal becoming a democratic republic. Although positive steps have been made, identity based political differences remain an obstacle, with deeply divergent views on how the future of the country should look.[61] These debates have polarized politics, led to the dissolution of parliament in 2012 and left the country without a fully effective government since the end of the civil war.[62] [63]

This political uncertainty is reflected in periods of violence, which can intensify in response to political events.[64] Although the return to insurgency remains low, a number of armed groups still exist within the country, however their numbers have fallen in recent years.[65] Though some of these groups advocate a political message, it is believed that their motivations are more economically based.[66]

[61] International Crisis Group (2012) Nepals constitution: The expanding political matrix http://www.crisisgroup.org/~/media/Files/asia/south-asia/nepal/234-nepals-constitution-ii-the-expanding-political-matrix.pdf
[62] IRIN (2012) Political impasse deepens economic uncertainty http://www.irinnews.org/report/95553/nepal-political-impasse-deepens-economic-uncertainty
[63] IRIN (2012) Humanitarian fallout from Nepals constitutional stalemate http://www.irinnews.org/report/95761/analysis-humanitarian-fallout-from-nepal-apos-s-constitutional-stalemate
[64] Small Arms Survey (2013) In search of lasting security: Assessment of Nepals armed violence p.17 http://www.smallarmssurvey.org/fileadmin/docs/C-Special-reports/SAS-SR20-In-Search-of-Lasting-Security-NAVA.pdf
[65] Small Arms Survey (2013) The missing middle: Examining the armed group phenomenon p.2 http://www.smallarmssurvey.org/fileadmin/docs/G-Issue-briefs/NAVA-IB1-Missing-Middle.pdf
[66] Small Arms Survey (2013) In search of lasting security: Assessment of Nepals armed violence p.81 http://www.smallarmssurvey.org/fileadmin/docs/C-Special-reports/SAS-SR20-In-Search-of-Lasting-Security-NAVA.pdf

Government agencies and ministries overseeing DRR and CCA

- Ministry of Environment, Science and Technology (MoSTE), including the Strategic Programme for Climate Resilience (SPCR)
- Disaster Management Section within the Ministry of Home Affairs
- Central Disaster Relief Committee (CDRC)
- District Disaster Relief Committee (DDRC)
- Nepal Climate Change Support Programme (NCCSP)
- National Council for Disaster Management (NCDM)
- Nepal Risk Reduction Consortium (NRRC)
- Office of the Prime Minister and Council of Ministers
- National Planning Commission
- Water and Energy Commission (WECS)
- Ministry of Home Affairs
- Ministry of Irrigation (MoI)
- Ministry of Forests and Soil Conservation (MoFSC)
- Ministry of Environment (MoEn)
- Ministry of Health and Population (MoHP)
- Ministry of Local Development (MoLD)
- Ministry of Physical Planning and Works (MoPPW)
- Ministry of Industries (MoI)
- Ministry of Education (MoE)
- Ministry of Agriculture and Cooperatives (MoAC)
- Ministry of Energy

*Source: Government of Nepal Ministry of Home Affairs(2009), Adaptation Partnership (2011h), Fisher and Slaney (2013)*

National policies, and key government policies and reports reflecting DRR and CCA needs, priorities and planned actions:

| Policy | Government Division Responsible | Dates | Description |
|---|---|---|---|
| National Action Plan for Disaster Risk Management | Government of Nepal | 1996 | Plan dealt with different stages of a disaster (pre, during and post). |
| Initial National Communication to the UNFCCC | Ministry of Populations and Environment | 2004 | Identifies key vulnerabilities and adaptation options, and policies and measures to address climate change. |
| Three Year Interim Plan | | 2008 - 2010 | Emphasised the importance of resilience, alongside highlighting the importance of DRM and disaster mitigation. It called for changes in existing national policies to give greater attention to disaster preparedness and reconstruction in addition to relief activities. |

| | | | |
|---|---|---|---|
| National Strategy for Disaster Risk Management (NSDRM) | Government of Nepal | 2009 | National framework with commitment of the Government of Nepal for protection, growth and promotion of national heritages and physical infrastructures. This strategy marked a shift away from reactive approaches, and a shift towards a proactive (preparedness) and holistic approach to disaster risk reduction, incorporating the principles of the HFA. |
| National Adaptation Programme of Action | Ministry of Environment | 2010 | Provides an overview of the country's national circumstances, impacts of climate change and identifies key needs. |
| Local Adaptation Plan for Action (LAPA) | Government of Nepal | 2010 - Present | Suggested as a framework alongside NAPA. LAPA aims to ensure that the process of integrating climate adaptation and resilience into local and national planning is bottom-up, inclusive, responsive and flexible. |
| Disaster Risk Reduction Action Plan for Nepal 2010 - 2013 | Government of Nepal | 2010 - 2013 | Calls for the preparation of the risk-sensitive land use plan for Kathmandu Valley, providing a framework for development, land allocations and related strategies, policies and regulatory tools and procedures for controlling future growth and safeguarding it from natural hazards. |
| National Climate Change Policy | Government of Nepal | 2011 | Formulated to address the adverse impacts of climate change and utilise the opportunities created by it to improve livelihoods and achieve climate-friendly physical, social and economic development. Involved mitigating and adapting to adverse impacts of climate change. |
| Disaster Management Act | Government of Nepal | Pending Approval | Draft includes planning, sustainability, risk reduction and development. |

*Source: Adaptation Partnership (2011h), Government of Nepal (2011), IIED (2011), NRRC (2013), Fisher and Slaney (2013), Kissinger and Namgyel (2013)*

For Nepal, resilience building and disaster preparedness have enhanced significantly. The HFA National Progress Report indicates that 67 districts (out of 75) now have disaster preparedness plans. To run alongside this, the District Natural Disaster Relief Committee (DNDRC) has been streamlined and empowered to strengthen DRR efforts and enhance emergency response capacity. Disaster Risk Reduction (DRR) and Climate Change Adaptation have become institutionalised in Nepal in an integrated manner and across all sectoral plans, whilst early warning strategies have been formulated to be integrated into a developing framework (Nepal Ministry of Home Affairs, 2010).

### Policy evaluation

Lack of coordination amongst key actors, a scarcity of financial resources and a political instability has resulted in inadequate progress on DRM in Nepal over the last decade (Pradhan, 2007). Additionally, low staffing and limited DRR expertise within the Home Ministry has also resulted in limited DRM progress (Jones et al., 2014). Regarding resilience, NAPA places emphasis on addressing social exclusion, and overcoming restricted entitlements and behaviour constraints that could potentially result in maladaptation. Additionally, the LAPA was intended to provide a means of integrating social inclusion and gender considerations into planning and local decision-making (IIED, 2011). However, plans for the National Adaptation Plan (NAP) are currently being discussed due to some of the challenges that the NAPA faced.

Opinions discussing policy processes in DRR in Nepal were varied, presenting 'manifold and conflicting' viewpoints (Jones et al., 2014). For example, Nepal has aligned with implementing the HFA, however literature suggests that the Government of Nepal limits engagement with the pressure and resources of the international community, UN and donor organisations. NGO's play an important role in the implementation of DRR programmes, while the consortium plays an integral part in the coordination role within the haphazard DRR landscape due to the proliferation of NGOs. Currently, the strong coordinating role of the consortium in the absence of a strong centralised government questions the sustainability of disaster risk governance in Nepal (Jones et al., 2014). Whilst there is a long way to go for the Government to achieve DRM ownership, the paper suggests that the Government of Nepal needs to develop institutional structures such as the National Disaster Management Authority and a National Platform, encouraging ownership of the process, and leading future resilience building in Nepal (ibid, 2014).

### International and national investments in DRR and CCA:

Leading organisations: *International Organisations:* World Bank, UNDP, International Federation of the Red Cross and Red Crescent Societies (IFRC), Office for the Coordination of Humanitarian Affairs (OCHA): *Regional Organisations;* Asian Development Bank (ADB), International Centre for Integrated Mountain Development (ICIMOD). *NGOs/CSOs:* National society for earthquake technology-Nepal (NSET), Centre for International Studies and Cooperation (CCEI). *DRR Donors:* Australia, European Commission, Japan, South Korea, UK, USA.

| **Project Name** | **Project Dates** | **Funding (if amount specified)** | **Scale/ Geographical Focus** | **Donor(s) and Implementer(s)** |
|---|---|---|---|---|
| DRM Country Program | 2010 - Ongoing | US$1,885,000 | | *Donor(s): GFDRR* |
| Strengthening capacities for disaster preparedness and climate risk management in the | 2008 - 2010 | | Rural areas in Nepal | *Donor(s):* FAO. *Implementers:* Ministry of Agriculture and Cooperatives, Department of |

| | | | | |
|---|---|---|---|---|
| Nepalese Agriculture Sector | | | | Agriculture, Nepal Agriculture. |
| Implementing Climate Change Adaptation in Nepal | 2009 - 2011 | | Langtang National Park and Buffer Zone, Nepal | *Donor(s):* WWF-Nepal. *Implementer(s):* WWF |
| Community Based Vulnerability Assessment, Risk Mapping and Adaptation Planning | 2010 - 2011 | US$2267,00 | Rural area, Rasuwa in Mountain eco-zone, Dhanakuta in Hill Eco-Zone, Nawalparsi in Footholl eco-zone, & Dhanusha in Terai eco-zone | *Donor(s):* ADB. *Implementer(s):* Ministry of Environment, Science and Technology, Practical Action, WWF-Nepal, International Union for Conservation of Nature and National Association of VDC's in Nepal. |
| Supporting Government Planning in Building Climate Resilience | 2010 - ? | US$225,000 | Nepal | *Donor(s):* ADB/ World Bank (Strategic Climate Fund): *Implementer(s):* MOEST |
| Advancing Capacity for Climate Change Adaptation (ACCCA) | 2007 - 2010 | | 17 countries including Bangladesh, India and Nepal | *Donor(s):* IDRC, DEFRA, Switzerland, NCAP, European Commission: *Implementer(s):* UNITAR |
| Adaptation to Climate Change in the Hindu Kush Himalayas and Central Asia | 2007 - 2011 | US$62 million | China, India, Nepal, Pakistan | *Donor(s):* Norway through UNEP: *Implementer(s):* Center for International Climate and Environmental Research, UNEP, International Centre for Integrated Mountain development, National Governments |
| Capacity Development for Policy Makers: Addressing Climate Change in Key Sectors | 2008 - 2010 | US$6,953,413 | 19 countries, including Nepal | *Donor(s):* UNDP, UN Foundation, Government of Norway, Government of Finland, Government of Switzerland. |

| | | | | |
|---|---|---|---|---|
| Pilot Program for Climate Resilience | 2009 - Present | US$971.75 million | Nepal, Niger | *Donor(s):* World Bank's Strategic Climate Fund: *Implementer(s):* World Bank |
| Integrating Climate Change Mitigation and Adaptation into Development Planning (CCMAP) Project | | | Nepal, Senegal | *Donor(s):* European Commission; UNEP; USAID; *Implementer(s):* START with WMO, IPCC, UNEP, University of Dar es Salaam, University of Ghana, Bangladesh Centre for Advanced Studies. |
| Adaptation Knowledge Platform | 2009 - 2012 | | Myanmar, Nepal | *Donor(s):* SIDA: *implementer(s):* SEI, SENSA, UNEP, AIT, UNEP Regional Centre for Asia and the Pacific |
| Climate Risk Management: Technical Assistance Report Project: Phase II | 2010 - 2011 | | Kenya, Niger, Pakistan, Nepal, Uganda | *Donor(s):* European Commission, Czech Republic, Sweden, 10th European Development Fund: *Implementer(s):* National Governments |
| Cities and Climate Change Initiative Asia Pacific | 2010 - ? | US$10 million | Urban areas | *Donor(s):* Sweden, SIDA through UNDP, UNDP Core Finance: *Implementer(s):* ADPC, International Institute for Sustainable Development. |
| Asia Pacific Climate Change Adaptation Project Preparation Facility (ADAPT) | 2011 - 2016 | US$18.0 million | Nepal | *Donor(s): USAID: Implementer(s): WWF, Conservation International, the Nature Conservancy, ARC inc, NOAA.* |
| Nepal Climate Change Support Programme (NCCSP) | 2011 | Approximately £16m (£10m met by DFID, €8.5m by the EU) | Nepal | *Donor(s):* DFID, EU |

| | | | | |
|---|---|---|---|---|
| Nepal Risk Reduction Consortium | 2011- 2016 | US195.8 million | Nepal | *Coordinator(s):* ADB, WHO, UNOCHA, World Bank, IFRC, UNDP |
| Pilot Program for Climate Resilience (PPCR) | Proposal stage 2013 – 2014. Entering implementation phase | US $1.2 billion for the pilot program across 18 countries. US $7.6 billion in total. | 18 countries including Nepal and Niger. Nepal and Niger are not included in pilot stage. | *Donor(s):* AfDB, ADB, EBRD, IDB, IFC, WB. |

*Source: Adaptation Partnership (2011h), NRRC (2013), Climate Investment Funds (n.d.), Kissinger and Namgyel (2013), World Bank (2010)*

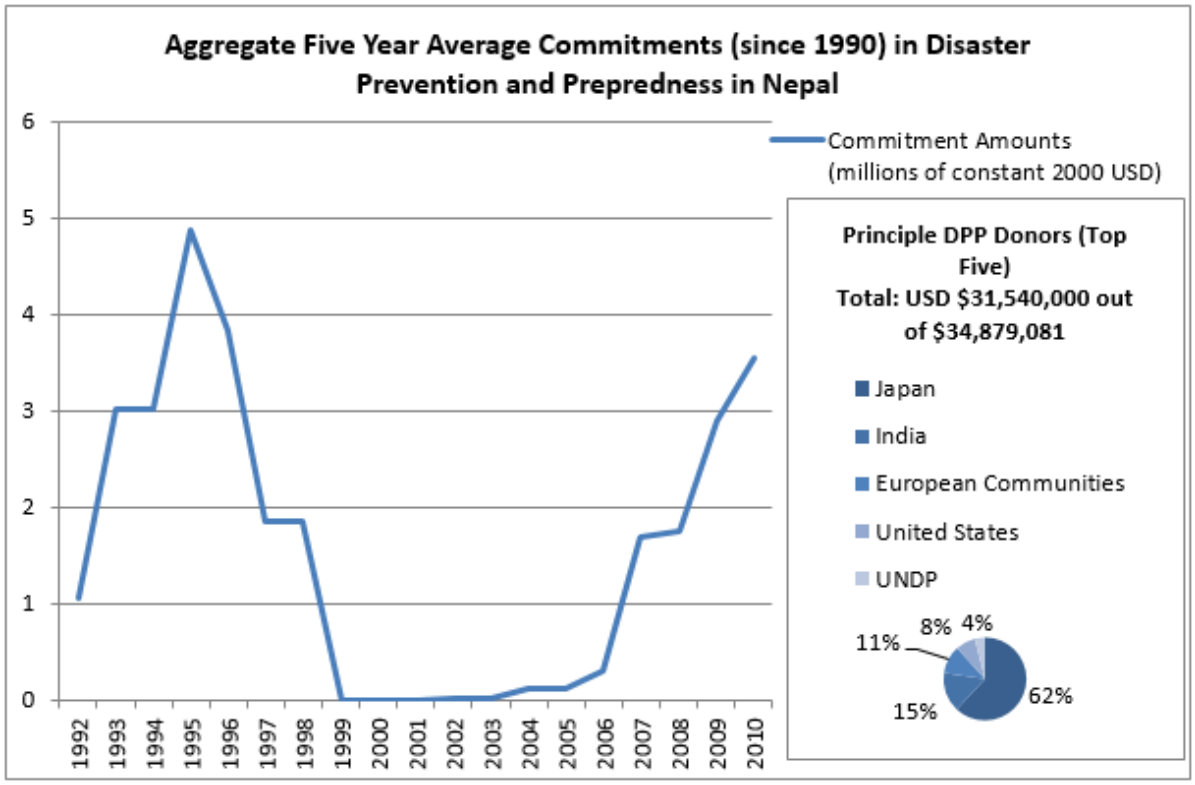
### Programme evaluation

The Cities and Climate Change Initiative, a mixture of adaptation and mitigation policies, aims to build local resilience within cities supported by national policies. CCCI has a relatively small budget, but has, according to UN Habitat, has yielded significant results in disseminating, replicating and scaling up its country and city levels and working alongside national-local policies. The evaluation by UN Habitat notes that the CCCI project needs to ensure that any engagement process is inclusive and engages the most climate change vulnerable groups, such as the elderly, urban poor and women. Additionally, a higher priority needs to be placed on mainstreaming climate change activities in the city's policies, planning and management, suggesting the link between resilience and national policy needs to be strengthened in Nepal.

However, more needs to be done for the effort of sustainability of the project objectives, as the evaluation recognises the need to reduce poverty as a major component of enhancing resilience (UNHABITAT, 2012).

In 2011, the Government of Nepal launched the Nepal Risk Reduction Consortium (NRRC) with an estimated budget of US195.8 million across five flagship areas that aim to build the resilience of different groups across programmes related to emergency preparedness and response capacity, flood management in the Kosi River Basin, Integrated Community Based DRR, Policy/ Institutional support for disaster risk management and school and hospital safety (NRRC, 2013). The programme is aligned with the HFA (ibid, 2013).

## Aid commitments to DRR and CCA



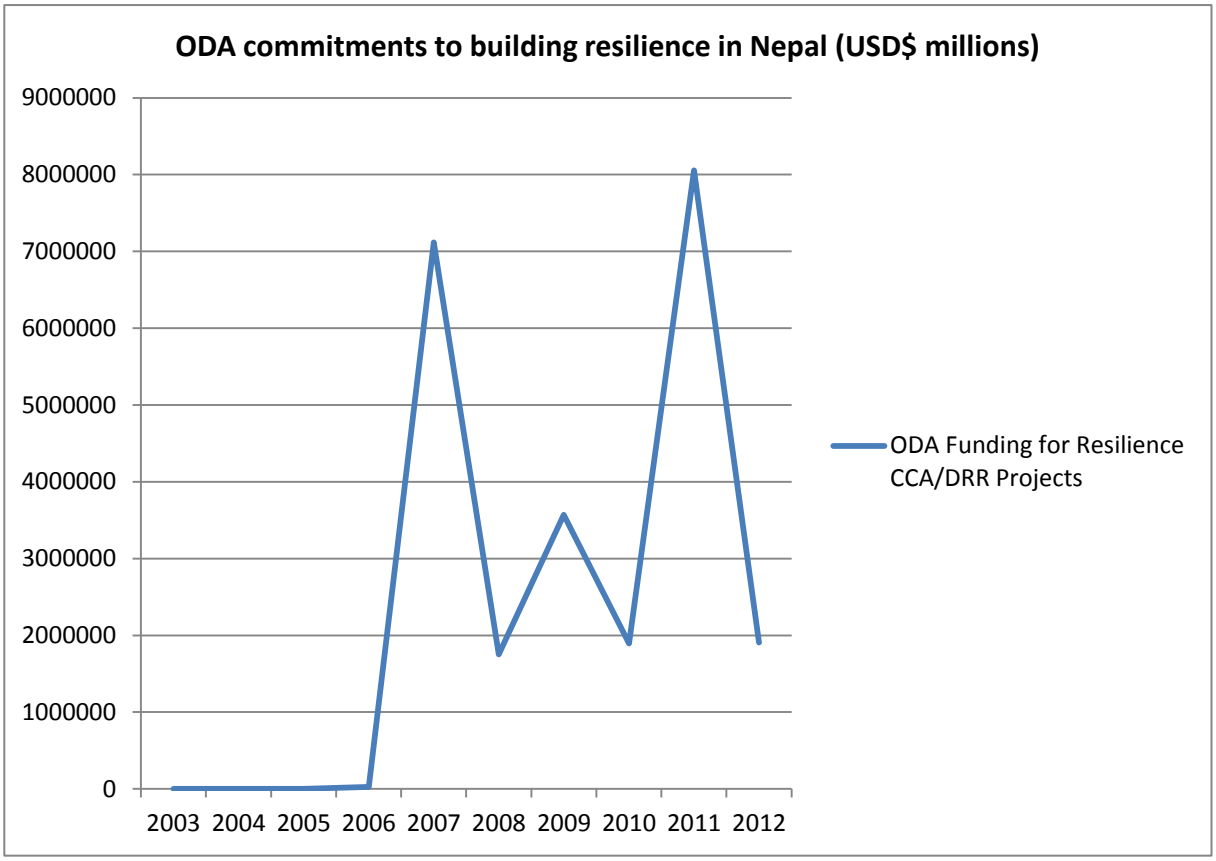

*Source: GFDRR Disaster Aid Tracking*

**Listed key funding programmes from bilateral donors (top ten)**

| Year | Country | Title | Constant (USD$) |
|---|---|---|---|
| **1993** | Japan | | 7,863,066.18 |
| **1995** | Japan | | 7,405,829.27 |
| **1992** | Japan | | 4,220,732.54 |
| **2010** | India | Embankment Construction on Lalbakaya, Bagmati, Kamla and Khando Rivers | 1,884,672.31 |
| **2009** | India | Embankment Construction on Lalbakaya, Bagmati, Kamla and Khando Rivers | 1,745,677.81 |
| **2007** | United States | Capacity Building, Preparedness and Planning | 1,731,895.54 |
| **2009** | India | Flood Management | 1,163,096.58 |
| **2006** | United Kingdom | Risk Management | 725,574.45 |
| **2007** | European Communities | ECHO/DIP | 714,111.44 |
| **2010** | Canada | Forest and Water Management for Mitigating the effects of Climate Change in the Middle Hills, Nepal | 682,263.08 |

*Source: GFDRR Disaster Aid Tracking*

**OECD funding commitments**




*Source: OECD DAC*

# Niger

## Climate change and disaster risk profile

**Hazard trends:** Niger is prone to experiencing frequent droughts, alongside earthquakes and floods. During the 1970's and 1980's, Niger suffered from a series of droughts, with the largest in 1970 called the 'la grande secheresse'.
**Rainfall trends:** Rainfall trends in Niger differ across the region. Between 1950 and the mid-1980s, rainfall declined and partially recovered during the 1990s and 2000s. Records indicated that between 2000 and 2009, the average rainfall across crop growing districts was approximately 8 percent lower than the 1920-69 mean[67]
**Temperatures trends:** Temperatures have increased by more than 0.7 ºC across Niger. Approximate warming indicates an increase of 0.15 ºC per decade[68]. With the projected increasing temperatures, Niger is predicted to suffer from increased desertification.

## Security profile

Since gaining independence in 1960, Niger's political dynamics have been characterized by a number of military coups and periods of military rule.[69] The current government is an outcome of a transition from military rule to civilian government and although the elections were seen as positive, the military still exert a significant influence on political life.[70]

Relations between central government and Niger's Tuareg community in the north have in the past been marred by conflict. The 2012 crisis in Mali has revived concerns, however the government has managed to avoid further conflict, with a series of steps taken to improve relations. [71] The peace between the two sides is however described as weak and tensions still remain. [72]

Regional security developments are also a concern, with the emergence of Islamic extremist groups within the Sahel region posing a significant threat, [73] with the stability of Niger's border region with Nigeria being particularly fragile.[74]

Government agencies overseeing DRR and CCA

- National Environmental Council for Sustainable Development
- Republic of Niger
- Office of the Prime Minister

[67] USGS (2012d)
[68] USGS (2012d)
[69] International Crisis Group (2013) Niger: Another week link in the Sahel pp.3-15 http://www.crisisgroup.org/~/media/Files/africa/west-africa/niger/208-niger-another-weak-link-in-the-sahel-english.pdf
[70] ibid pp.20-21
[71] Can Niger offer Mali Lessons on the Tuareg? IRIN April 2013
[72] Niger: Another weak link in the Sahel? International Crisis Group September 2013 pp. 27-33
[73] The UK's response to extremism and instability inn north and West Africa. UK House of Commons Foreign Affairs Committee March 2014 p27
[74] IRIN (2014) Boko Haram fuels displacement crisis in Nigers Diffa region http://www.irinnews.org/report/100937/boko-haram-fuels-displacement-crisis-in-niger-s-diffa-region

National policies, and key government policies and reports reflecting DRR and CCA needs, priorities and planned actions:

| Policy | Government Division Responsible | Implemented Date | Description |
|---|---|---|---|
| National Environmental Plan for Sustainable Development (PNEDD) | National Environmental Council for Sustainable Development | 1998 | Based on six priority programs including a climate change and variability program. |
| Initial National Communication on Climate Change | Republic of Niger, Office of the Prime Minister, National Environmental Council for Sustainable Development | 2000 | Describes the steps being taken to implement the UNFCCC, underlining key vulnerabilities. |
| National Strategy and Action Plan for Climate Change and Variability | Republic of Niger | 2004 | Six priority programs of the National Environmental Plan for a Sustainable Development. |
| National Capacity Self Assessment | National Environmental Council for Sustainable Development | 2006 | Inventory and analysis of all national initiatives related to biodiversity, climate change, soil degradation including laws, policies, strategies, plans, programs and projects, environmental multilateral agreements considered a priority for the country. |
| National Adaptation Program of Action (NAPA) | National Environmental Council for Sustainable Development | 2006 | Contributes to the reduction of the adverse effects of climate on the most vulnerable populations. The NAPA identifies national and regional climate change impacts and climate change adaptation measures to address those impacts. |
| Second National Communication on Climate Change | Republic of Niger, Office of the Prime Minister, National Environmental | 2009 | Describes the steps taken to implement the UNFCCC, underlining key vulnerabilities as well as potential adaptation measures. |

*Source: Adaptation Partnership (2011i),*

Policy evaluation

Current policies do not enable or promote linkages, as Niger's Poverty Reduction Strategy (PDRS) (2012 – 2015) does not link to the NAPA or Second National Communication (Kissinger and Namgyel, 2013).

International and national investments in DRR and CCA:

**Lead organisations funding DRR and CCA projects**: World Bank, UNDP, International Federation of the Red Cross and Red Crescent Societies (IFRC), Office for the Coordination of Humanitarian Affairs (OCHA). *Regional Organisations:* Asian Development Bank (ADB), International Centre for Integrated Mountain Development (ICIMOD).

| Project Name | Project Dates | Funding (if amount specified) | Scale/ Geographical Focus | Donor(s) and Implementer(s) |
|---|---|---|---|---|
| Implementing NAPA priority interventions to build resilience and adaptive capacity of the Agriculture Sector to Climate Change | 2009 - ? | US$11,060,000[75] / US$15.02 million | National | *Donor(s):* LDCF: *Implementer(s):* NECSD |
| Program on Reinforcing Capacities for Preventing and Managing Crisis | 2010 - 2013 | | National | *Donor(s):* UNDP (BCPR): *Implementer(s):* UNDP |
| Advancing Capacity for Climate Change Adaptation (ACCCA) | 2007 - 2010 | | Burkina Faso, Mali, Niger | *Donor(s):* IDRC, DEFRA, Swiss Federal Office for the Environment, NCAP, European Commissions |
| Pilot Program for Climate Resilience | 2009 - Present | US$971.75 million | Nepal, Niger | *Donor(s):* World Bank's Strategic Climate Fund: *Implementer(s):* World Bank |
| Community-Based Adaptation (CBA) Program | 2009 - 2011 | US$6.7 million | Niger | *Donor(s):* GEF, co-financing: *Implementer(s):* UNDP. |
| Supporting Integrated and Comprehensive Approaches to Climate Change Adaptation in Africa (or Africa Adaptation Program – AAP) | 2008 - 2011 | US$3,000,000 million[76] | Burkina Faso, Niger, Senegal | *Donor(s):* Japan International Cooperation Agency. *Implementer(s):* UNDP. |

[75] Biagini et al. (2012)
[76] Rector et al. (2013)

| | | | | |
|---|---|---|---|---|
| Lake Chad Sustainable Development Support Program | 2009 - 2015 | US$95 million | Chad, Niger | *Donor(s):* African Development Bank, Government of Chad and other co-financing. *Implementer(s):* Lake Chad Basin Commission. |
| Climate Risk Management: Technical Assistance Report Project: Phase II | 2010 - 2011 | | Kenya, Nepal, Niger, Uganda | *Donor(s):* Sweden, SIA through UNDP, UNDP core finance: *Implementer(s):* ADPC, International Institute for Sustainable Development. |
| West African Science Service on Climate and Adapted Land Use | 2010 - 2011 | GBP £5,000,000 | Kenya, Niger | *Donor(s):* DFID, Ministry of Foreign Affairs of Denmark, Ministry of Foreign Affairs of Finland. |
| Community Action project for Climate Resilience | 2012 - 2013 | US$63,000 | Kenya | *Donor(s):* World Bank |
| Pilot Program for Climate Resilience (PPCR) | Proposal stage 2013 – 2014. Entering implementation phase | US $1.2 billion for the pilot program across 18 countries. US $7.6 billion in total. | 18 countries including Nepal and Niger. Nepal and Niger are not included in pilot stage. | *Donor(s):* AfDB, ADB, EBRD, IDB, IFC, WB. |

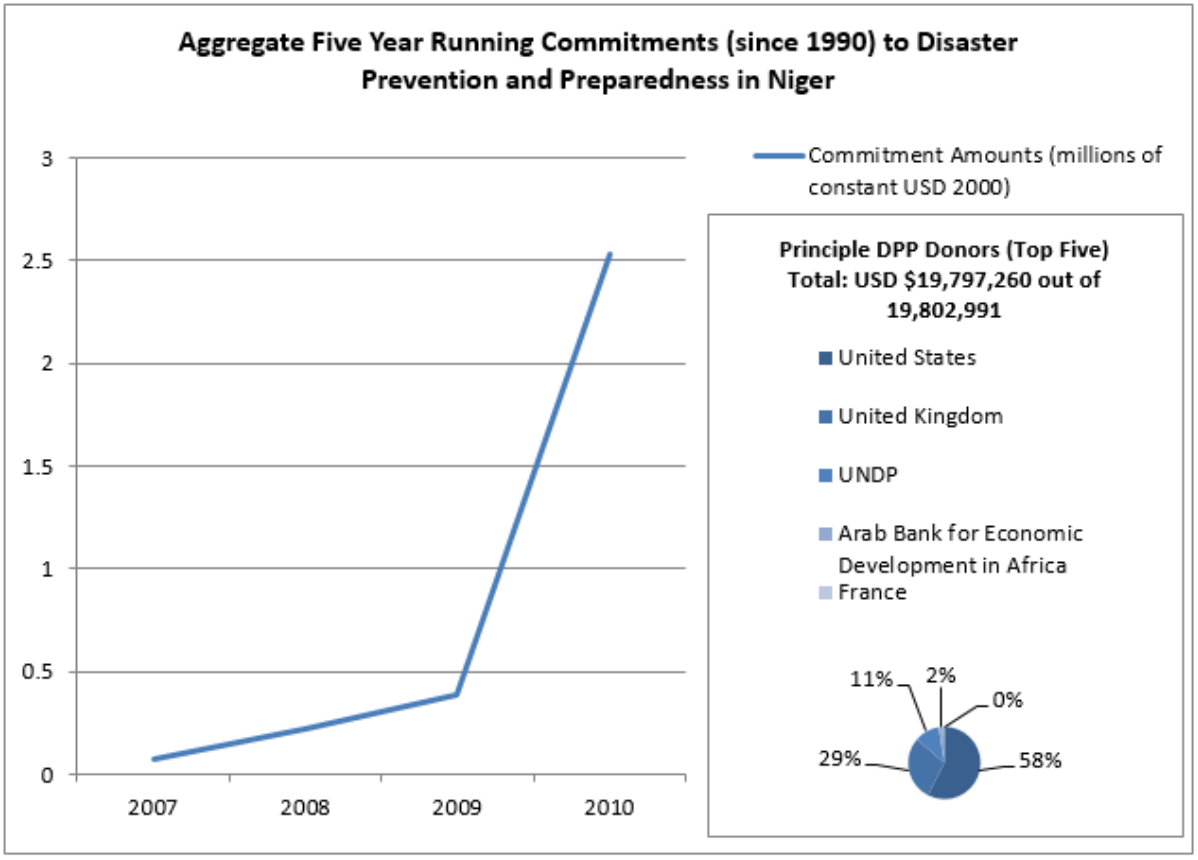
*Source: Rector et al. (2013), Adaptation Partnership (2011d), Climate Investment Funds (n.d), World Bank (2010)*

### Programme evaluation

The AAP has been implemented across a number of BRACED countries (Burkina Faso, Ethiopia, Kenya, Niger and Senegal), with a focus on resilience. The aim is to promote early adaptation action, and 'lay foundations for long-term investment to increase resilience to climate change across the African continent' (Rector et al., 2013). As a result, all four of the BRACED countries have produced climate change adaptation-related knowledge products, and enhanced education and information dissemination. Many successes are listed. For example, the report indicates that AAP Kenya has held discussions with AAP Mozambique regarding the establishment of the Climate Change Innovation Centre, Niger and Senegal have both integrated gender dimensions of climate change into programmes, and Kenya and Niger have reportedly carried out gender policy analysis (ibid, 2013). Both Niger and Senegal have provided case studies and reviews of gender analysis as a result. Initiatives to enhance the AAP's sustainability are also discussed. However, it is evident that the constraints and limitations within the report in relation to the project are limited in discussion, and

so, as reflected by the many other projects, drawing on limitations is hindered. As an aside, the AAP is reported to have experienced disagreements between governments and implementing partners and WFP on where funds should be targeted (ibid, 2013).

### Aid commitments to DRR and CCA

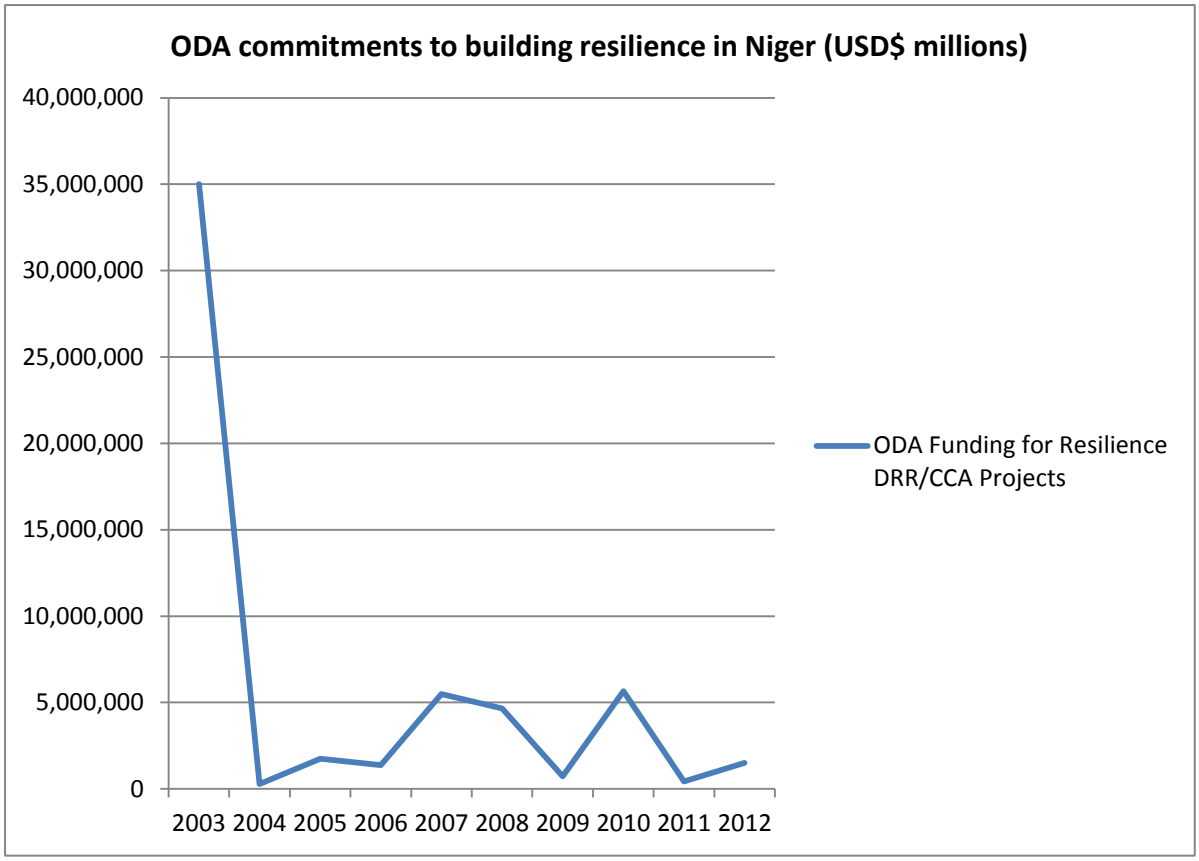



**Listed key funding programmes from bilateral donors (top ten)**

| Year | Country | Title | Constant (USD$) |
|---|---|---|---|
| **1992** | United States | | 3,580,666.54 |
| **2008** | United Kingdom | Niger Disaster Risk Reduction Programme (CARE) | 3,515,301.10 |
| **2010** | United States | Capacity Building, Preparedness and Planning | 2,078,939.49 |
| **1994** | United States | Disaster Prep and Mitigation Support | 2,058,582.83 |
| **2010** | United Kingdom | Niger Disaster Risk Reduction Phase 2 Led by CARE | 1,449,024.96 |
| **2010** | United States | Capacity Building, Preparedness and Planning | 1,187,965.42 |
| **1994** | United States | Disaster Prep and Mitigation Support (NPA) | 1,029,291.21 |
| **2010** | United States | Capacity Building, Preparedness and Planning | 988,354.56 |
| **2005** | UNDP | Mecanisme de Prevention et Ges | 838,042.73 |
| **2009** | United Kingdom | Niger Disaster Risk Reduction Programme (CARE) | 727,397.69 |

*Source: GFDRR Disaster Aid Tracking*

**OECD funding commitments**




*Source: OECD DAC*

# Senegal

## Climate change and disaster risk profile

**Hazard trends:** Senegal is most prone to droughts, floods and coastal erosion, with floods occurring on a more frequent basis than droughts. Droughts primarily affect the arid and semi-arid Sahelian regions in Northern Senegal every three to four years. Droughts have more severe consequences than floods, particularly due to heavy rains and insufficient drainage infrastructure (World Bank, 2011).
**Rainfall trends:** During the rainy season, rainfall is highly variable, evident across annual and inter-decadal timescales. Sea level rise also threatens 74% of households within coastal areas. Over recent dry seasons, unusually high rainfalls have occurred, but this has not been consistent (ibid, 2011).
**Temperatures trends:** Mean annual temperatures have been estimated to have increased by 0.9 ºC since 1960, at an average of 0.2 ºC per decade (World Bank, 2011. Mean annual temperatures are projected to increase by between 1.1 ºC and 3.1 ºC by the 2060s, and approximately 1.7 ºC to 4.9 ºC by the 2090s (ibid, 2011).

## Security profile

Senegal is considered to be relatively stable and democratic state in a particularly volatile region, with recent elections in 2012 passing peacefully.[77][78] Although there is a growing divide of opinion over the role of religion in politics,[79] ethnic and religious divisions are not significant, with individuals from different groups holding positions of economic and political leadership.[80]

An ongoing security concern is Senegal's long running civil war with the Movement of Democratic forces of Casamance, an armed group fighting for independence for the countries southern region of Casamance. However the intensity of the conflicts remain low, with the threat to the country's overall stability not considered significant.[81] A ceasefire was signed in April 2014, raising renewed hopes for peace.[82]

Regional security developments are also a concern, with the emergence of Islamic extremist groups in the Sahel region. This has increased the risk of terrorist activity within Senegal, with concerns raised that such groups may prove appealing to the country's underemployed youth. [83]

[77] Congressional Research Service (2013) Senegal: Background and US relations p.3 http://fas.org/sgp/crs/row/R41369.pdf
[78] New York Times (2012) A turbulence free election in Senegal http://www.nytimes.com/2012/03/26/world/africa/president-concedes-race-in-senegal.html?pagewanted=all&_r=2
[79] Centre for Strategic and International Studies (2011) Senegal: Assessing the risks to stability p.8 http://csis.org/files/publication/110623_Villalon_Senegal_Web.pdf
[80] ibid pp.3-5
[81] ibid pp.10-11
[82] The Guardian (2014) Senegals secret civil war http://www.theguardian.com/global-development-professionals-network/2014/may/26/senegal-conflict-youth-unemployment-jobs
[83] Congressional Research Service (2013) Senegal: Background and US relations p.5 http://fas.org/sgp/crs/row/R41369.pdf

Government agencies overseeing DRR and CCA

- Ministry of Environment and Nature Protection

*Source: Adaptation Partnership (2011j)*

National policies, and key government policies and reports reflecting DRR and CCA needs, priorities and planned actions:

| Policy | Government Division Responsible | Dates | Description |
|---|---|---|---|
| First National Communication | Ministry of Environment and Nature Protection | 1997 | Highlights Senegal's initial efforts to support achievement of the objectives of the UNFCCC, providing overview of the country's vulnerability to climate change and adaptation needs. |
| National Adaptation Programme of Action | Ministry of Environment and Nature Protection | 2006 | Identifies national and regional climate change impacts and climate change adaptation measures to address those impacts. Five priority interventions have been identified. |
| Second National Communication | Ministry of Environment and Nature Protection | 2010 | Describes the steps that Senegal is taking and wants to take to facilitate implementation of the UNFCCC, underlining key vulnerabilities. The Second National Communication provides further details on the adaptation measures identified in Senegal's NAPA on the basis of the three action pillars. |
| National Adaptation Strategy to Climate Change in Senegal | Unknown | Unknown | This strategy is mentioned in the description of the project submitted by Senegal to the Adaptation Fund. There is no more information on this strategy available at the moment. |

*Source: Adaptation Partnership (2011j)*

International and national investments in DRR and CCA:

**Leading organisations:** World Bank, UNDP, WFP, FAO, UN OCHA: *National Organisations:* Economic Community of West African States (ECOWAS); *NGOs/CSOs:* GFDRR Donors, European Union (EU), France, Japan, Norway.

| Project Name | Project Dates | Funding (if amount specified) | Scale/ Geographical Focus | Donor(s) and Implementer(s) |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Disaster Risk Management and Climate Change Adaptation – Phase 1 | 2012 - ongoing | USD $1,240,000 | | |
| Platform for helping vulnerable communities adapt to climate change | 2007 - 2010 | | Thies Region, Rural Area | *Donor(s):* DFID, IDRC through the CCAA Program: *Implementer(s):* ISRA |
| Climate Change Adaptation Projects in the areas of Watershed Management and Water Retention | 2010 - 2016 | | | *Donor(s):* LCDF: *Implementer(s):* FAO |
| Adaptation to climate change: responding to coastline change and its human dimensions in West Africa through integrated Coastal Area Management | 2006 - 2010 | US$9,729,517[84] | Mauritania, Senegal | *Donor(s):* GEF trust Fund. *Implementer(s):* UNDP-GEF, UNESCO/IOC. |
| An ecosystems approach to managing water and health in the context of climate change: Adaptive strategies to drought and flooding in four West African countries. | 2008 - ? | | Mauritania, Senegal | *Donor(s):* DFID, IDRC through the CCAA Program: *Implementer(s):* Centre Suisse de Recherché Scientifiques en Cote d'Ivoire. |
| Enhancing the Disaster Risk Reduction Capacity in Agriculture and Rural Development | 2008 – 2010 (Closed) | US$50,000 | Burkina Faso, Ethiopia, Kenya, Niger, Senegal | *Donor(s):* Global Facility for Disaster Reduction and Recovery: *Implementer(s):* Agriculture and Rural Development (ARD) and Sustainable Agriculture Systems, Knowledge and Information (SASKI). |
| Climate Change Adaptation and development initiative (CC-DARE) | 2008 - 2011 | | Ethiopia, Senegal, Uganda | Danish Ministry of Foreign Affairs. Implementers: UNEP and UNDP |

[84] Biagini et al. (2012)

| | | | | |
|---|---|---|---|---|
| Integrating Climate Change Mitigation and Adaptation into Development Planning (CCMAP) Project | | | Nepal, Senegal | *Donor(s):* European Commission; UNEP; USAID; *Implementer(s):* START with WMO, IPCC, UNEP, University of Dar es Salaam, University of Ghana, Bangladesh Centre for Advanced Studies. |
| Supporting integrated and comprehensive approaches to climate change adaptation in Africa (Africa Adaptation Programme – AAP) | 2008 - 2011 | USD $2,975,000[85]<br><br>As of 2013, Senegal AAP was pending 4,000,000 USD for expansion/ continuation[86] | Twenty African countries including Burkina Faso, Niger and Senegal. | *Donor(s):* Global Facility for Disaster Reduction and Recovery. *Implementor(s):* Agriculture and rural development (ARD) and sustainable agriculture systems, knowledge and information (SASKI) |
| West African Science Service on Climate and Adapted Land Use | 2010 - 2011 | | Burkina Faso, Mali, Niger Senegal | *Donor(s):* German Federal Ministry of Education and Research. *Implementer(s):* University of Bonn |

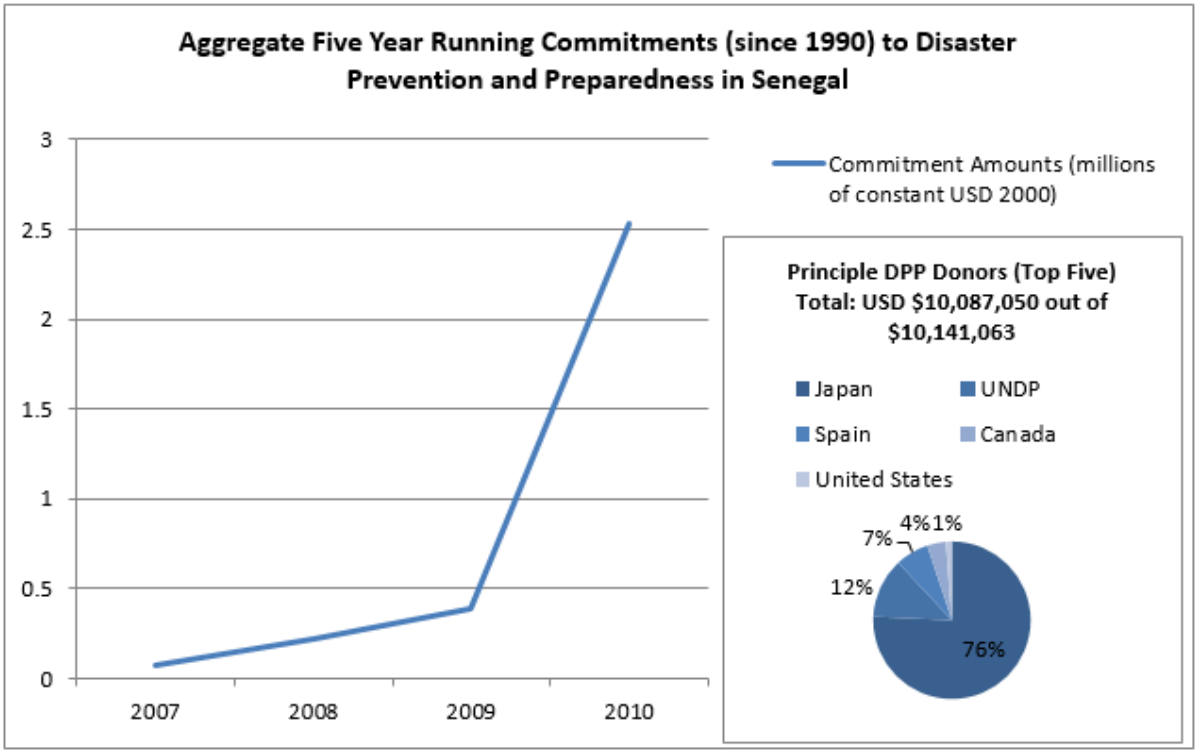
*Source: Adaptation Partnership (2011j)*

### Programme evaluation

A UNEP terminal evaluation of the CC-DARE programme indicated that the programme had generated knowledge, incorporating climate change into national and regional climate change policies and strategies. Climate Risk was also integrated into national planning and development frameworks, strengthening resilience capacity. UNEP recognised that knowledge and skills had strengthened the institutional capacity for the identification, documentation and dissemination of information required for forecasting climate change adaptation needed. In general across the countries, however, UNEP identified the need to check for environmental and social impacts that may have had maladaptive side effects and the fulfilment of this was not mentioned in the Senegal evaluation (Zeidler and Braby, 2013).

[85] Rector et al. (2013)
[86] Rector et al. (2013)

## Aid commitments to DRR and CCA

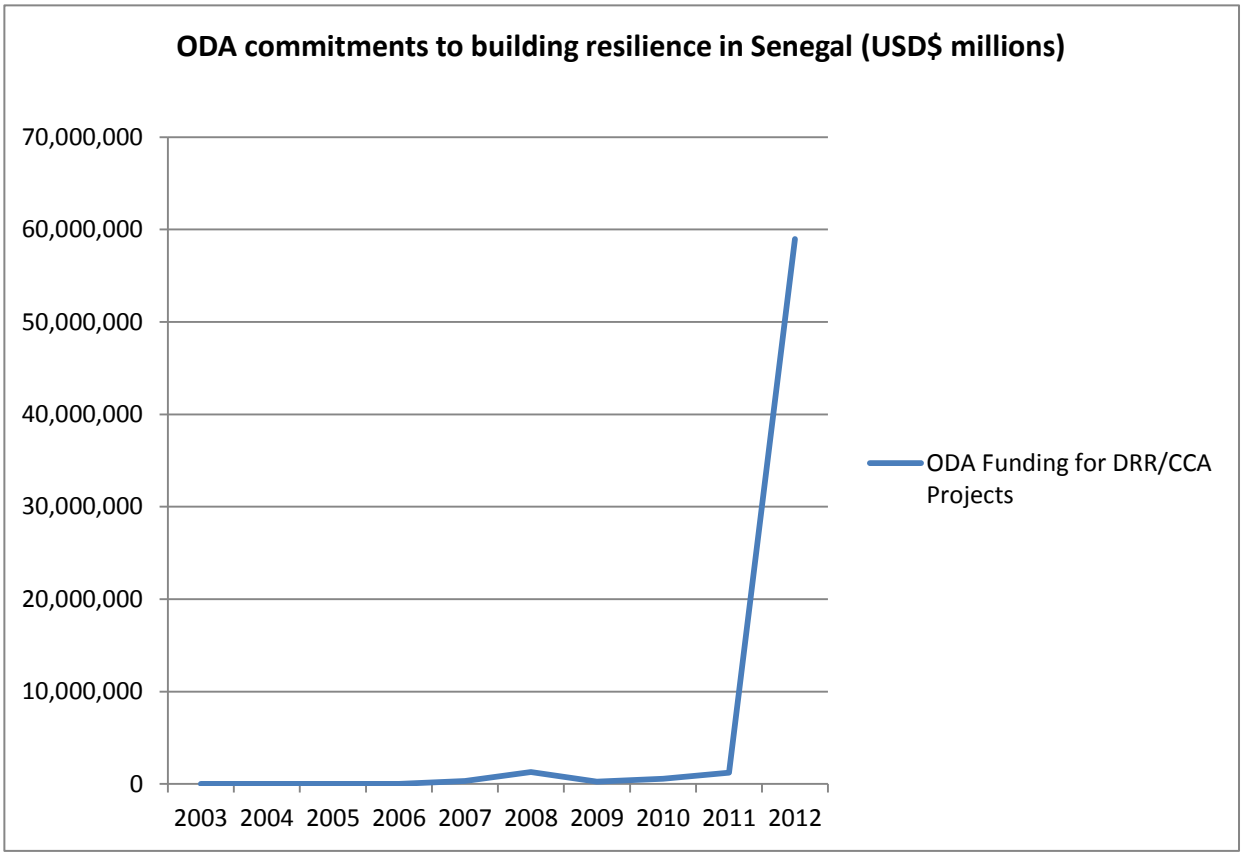



**Listed key funding programmes from bilateral donors (top ten)**

| Year | Country | Title | Constant (USD$) |
|---|---|---|---|
| **2010** | Japan | Le programme pour l'amerlioration de capacite faisant face aux desastres naturels causes par le changement climatique | 7,635,858.00 |
| **2010** | Spain | Civil protection | 693,688.35 |
| **2008** | UNDP | Prevention/ Gest. Catastrophes | 544,739.59 |
| **2009** | UNDP | Prevention/ Gest. Catastrophes | 464,210.00 |
| **2007** | UNDP | Prevention/ Gest. Catastrophes | 161,658.48 |
| **2010** | Canada | Food security and nutrition support – Early Warning System | 241,759.92 |
| **2009** | United States | Capacity Building, Preparedness, and Planning | 117,700.00 |
| **2007** | Canada | Plateform participative d'information pour l'adaptation des communautes | 97,555.94 |
| **2008** | UNDP | Ap. Lutte Nle Contre Criquets | 57,560.24 |
| **2009** | Luxembourg | Prevention – inondations recurrentes a SDakar | 53,145.98 |

*Source: GFDRR Disaster Aid Tracking*

**OECD funding commitments**




*Source: OECD DAC*

# South Sudan

## Climate change and disaster risk profile

**Hazard trends:** South Sudan is prone to flooding, such as in 2013[87], but also drought[88].
**Rainfall trends:** Specific analysis of rainfall trends in South Sudan are limited, however Hulme (1990) comments that there has been a severe reduction in rainfall in the semi-arid central latitudes of Sudan[89]. Rainfall trends are becoming increasingly erratic, with delays and shortening of rainy seasons[90].
**Temperature trends:** Reports from the Famine Early Warning Systems Network (FEWS NET) highlights that there has been an increase in seasonal mean temperature in many areas, including South Sudan, over the last 50 years[91].

## Security profile

Since gaining independence from Sudan in 2011, the country's development has been severely disrupted by the outbreak of civil war in December 2013, which resulted from a power struggle within the ruling Sudan Peoples Liberation Movement.[92] Since then a proliferation of armed groups and communities aligning themselves with military factions, has deepened the complexity of the conflict, providing a further obstacle to peace.[93] In all the conflict has created 1.4 million internally displaced people, which have caused tensions and violence between refugees and host communities.[94]

Ongoing relations with neighbouring Sudan continue to provide an additional source of concern to the country's overall stability. Despite the signing of the Comprehensive Peace Agreement in 2005 and the succession of the South in 2011, a number of issues between the two countries remain unresolved.[95] Intertwined communities and economies, plus interconnected armed groups on both sides, mean that stability in both countries is intrinsically linked.[96]

[87] Deressa (2013)
[88] Mattsson and Rapp (1991)
[89] Hulme (1990)
[90] Oliver (2013)
[91] Funk et al. ( 2012), USGS (2012e)
[92] IRIN (2015) South Sudan peace: Deal? What deal? http://www.irinnews.org/report/101082/south-sudan-peace-deal-what-deal
[93] International Crisis Group (2014) Conflict alert: Looming military offensives in south Sudan http://www.crisisgroup.org/en/publication-type/alerts/2014/conflict-alert-looming-military-offensives-in-south-sudan.aspx
[94] UNCHR (2015) Country profile http://www.unhcr.org/pages/4e43cb466.html
[95] Small Arms Survey (2014) Contested Borders: Continuing tensions over the Sudan-South Sudan border pp.6-10 http://www.smallarmssurveysudan.org/fileadmin/docs/working-papers/HSBA-WP34-Contested-Borders.pdf
[96] ibid

Government agencies overseeing DRR and CCA

- Ministry of Environment

*Source: FAO (2013)*

National policies, and key government policies and reports reflecting DRR and CCA needs, priorities and planned actions:

| Policy | Government Division Responsible | Dates | Description |
|---|---|---|---|
| South Sudan National Environment Policy | | | Policy calls for: development of a national strategy for climate change adaptation and mitigation; formulation of a climate change policy for South Sudan; supporting efforts to reduce community vulnerability to climate variability and change (Oliver, 2013). |

South Sudan has not fully developed climate change policy and strategies (Oliver, 2013). However adaptation strategies and plans have been incorporated into development plans, particularly in the agriculture and forestry, livestock, health, water and disaster risk management.

However, progress has been made with South Sudan acceding to the three conventions of UNFCCC through the Ministry of Environment, including implementation of the NAP, the UNCBD, including the National Biodiversity Strategy and Action Plan, and the UNCCD, including the National Action Plan, in 2013 (Oliver, 2013). South Sudan has also joined the GEF in 2013 (ibid).

International and national investments in DRR and CCA:

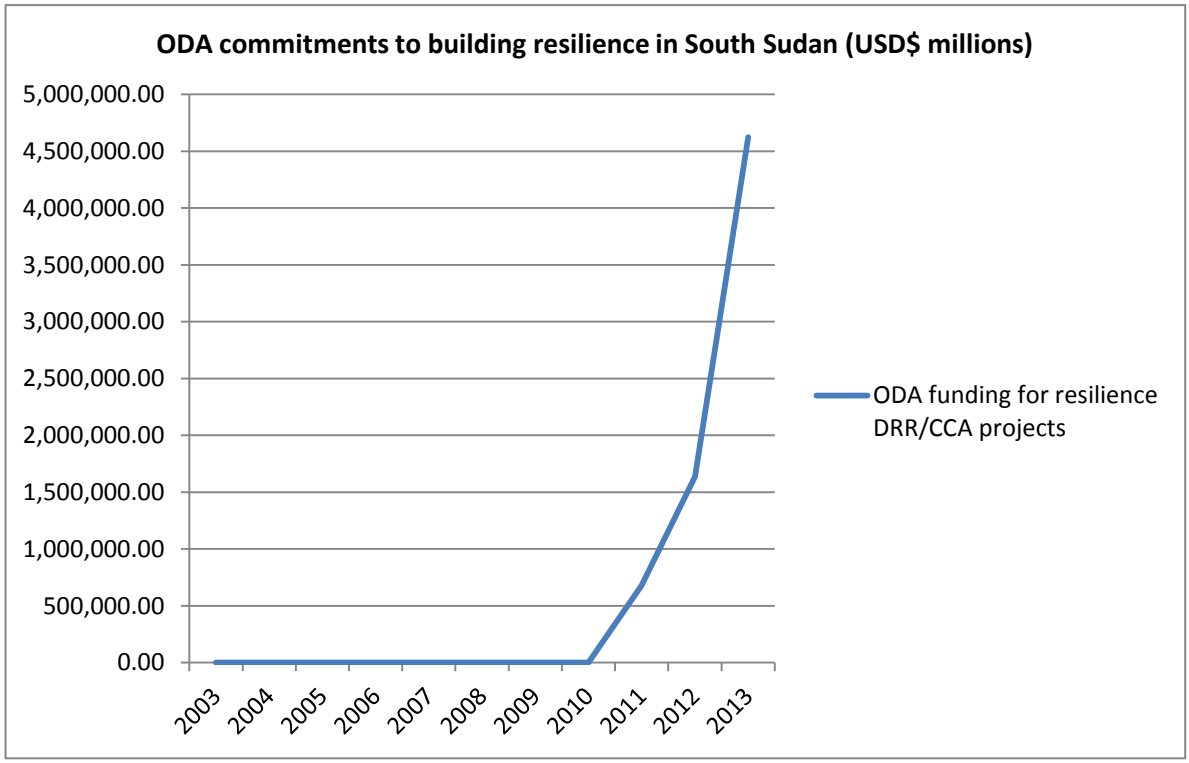
**Leading Organisations:** UNFAO (Oliver, 2013)

There is sub sufficient information on South Sudan DRR and CCA related projects to be able to map the most significant projects.

Aid commitments to DRR and CCA

No data was available for South Sudan on the GFDRR database.

**OECD funding commitments**




*Source: OECD DAC*

# Sudan

## Climate change and disaster risk profile

**Hazard trends:** Major hazards include persistent droughts and floods. Sudan has suffered from a number of long and devastating droughts over the past, whilst floods are commonplace with the most devastating occurring on the Blue Nile, and is associated with river bank erosion. In addition, Sudan also suffers from heat waves, dust storms, landslides and seismic hazards.
**Rainfall trends:** Summer rains have declined by between 10 and 20 percent since the mid-1970s. Sudan is one of the driest, but most variable countries in Africa. Rainfall is becoming increasingly unpredictable[97].
**Temperatures trends:** Temperatures have increased by more than 1 ºC in central and southern areas. Records state that these regions have been among the most rapidly warming locations on the globe, with increases as high as 0.4 ºC. The warming and drying have impacted southern Darfur and areas around Juba, threatening future food production and crop growth[98].

## Security profile

Political life for more than two decades has been dominated by the regime of President Omar Bashir, who took power through a military coup in 1989. The country is made up of multiple of ethnicities, languages and religions, meaning that attempts to find of unity has often proved a challenge, with the country's post independence history characterised by civil war.[99] Power and wealth has often been concentrated around the centre of the country, meaning peripheral regions have often been politically and economically marginalized.[100] Many believe this has created a sense of resentment, which can escalate into armed conflict. The continuation of armed conflicts in Darfur, South Kordofan and Blue Nile states undermine the county's peace and stability.[101]

Perhaps the most significant concern to Sudan is its relations with South Sudan. Since the succession of the South in 2011 and the Comprehensive Peace Agreement in 2005 unresolved issues remain a cause for concern.[102] Interconnected armed groups on both sides of the border mean that stability in both countries is intrinsically linked, as its people and their livelihoods.[103]

[97] Zakieldeen (2009)
[98] USGS (2012e)
[99] Centre for Strategic International Studies (2011) Sudan: Assessing the risks to stability p.4 http://csis.org/files/publication/110623_Downie_Sudan_Web.pdf
[100] ISPI (2011) The crises continues, Sudans remaining conflicts pp.3-5 http://www.ispionline.it/it/documents/WP41_2011.pdf
[101] International Crisis Group (2014) Sudans intertwining conflicts http://www.crisisgroup.org/en/regions/africa/horn-of-africa/sudan/op-eds/arbour-tubiana-im-sudan-hangen-alle-konflikte-zusammen.aspx
[102] Small Arms Survey (2014) Contested borders: Continuing tensions over the Sudan-South Sudan border pp.6-10 http://www.smallarmssurveysudan.org/fileadmin/docs/working-papers/HSBA-WP34-Contested-Borders.pdf
[103] ibid

Government agencies overseeing DRR and CCA

- Ministry of Environment and Physical Development

### International and national investments in DRR and CCA:

| Policy | Government Division Responsible | Dates | Description |
|---|---|---|---|
| Sudan First National Communication under the United Nations Framework Convention on Climate Change | Ministry of Environment and Physical Development | 2003 | Adaptation priority sectors proposed are water, forestry, agriculture and public health |
| National Adaptation Programme of Action | Ministry of Environment and Physical Development | 2007 | Identifies adaptation priority sectors, and puts forward 32 priority actions that take into consideration identified sectors. |
| Second National Communication to the UNFCCC | | In Progress | |

*Source: Adaptation Partnership (2011k)*

### Policy evaluation

In 2009, despite NAPA being prepared in 2007, no projects were implemented on the ground, and only one of the thirty two projects that were identified by the NAPA were being considered for funding by the Global Environment Facility (Zakieldeen, 2009).

### International and national investments in DRR and CCA:

Leading organisations:

| Project Name | Project Dates | Funding (if amount specified) | Scale/ Geographical Focus | Donor(s) and Implementer(s) |
|---|---|---|---|---|
| Implementing NAPA priority interventions to build resilience in the agriculture and water sectors to the adverse impacts of climate change in Sudan | 2009 - 2013 | US$3,00,000[104] / US$ 6.9 million | | *Donor(s):* Least Developed Countries Fund (LDCF); co-financing |

[104] Biagini et al. (2012)

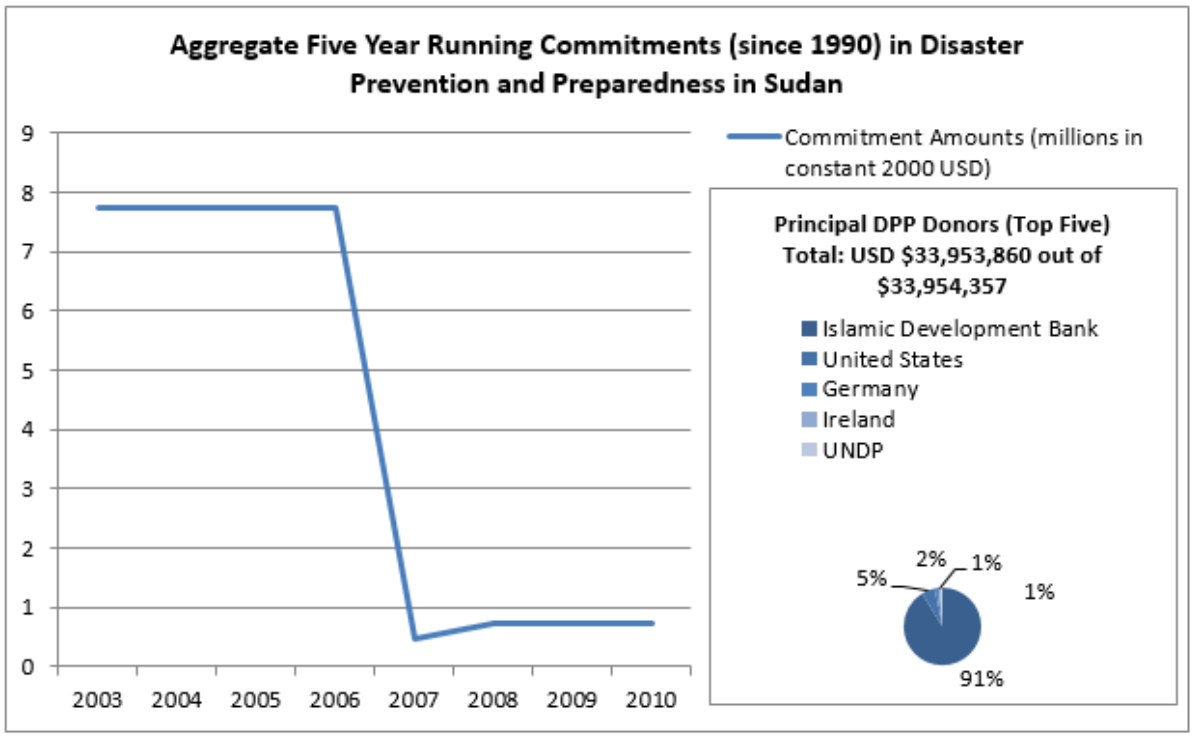
| | | | | |
|---|---|---|---|---|
| Managing uncertainty: Innovation systems for coping with climate variability and change | 2007 - 2011 | CAD $1,626,100 | Eritrea, Ethiopia, Kenya, Sudan, Tanzania | *Donor(s):* DFID, IDRC through the CCAA Program |
| Community-Based Adaptation to Climate Change in Africa | Completed 2009 | | North Kordofan | |
| Adapting to Climate Change Induced Water Stress in the Nile River Basin | 2009 - 2012 | | Ethiopia, Kenya, Sudan, Uganda | *Donor(s):* SIDA. *Implementer(s):* UNEP, Nile Basin Initiative |
| Support to policy consultations and actions to boost sustainable use of water and energy resources for agricultural production and livelihood improvement in the Near East and North Africa Region in the context of Climate Change. | 2010 - 2011 | US$436,000 | 30 countries including Mauritania and Sudan | *Donor(s):* FAO |

*Source: Adaptation Partnership (2011k)*

### Project notes

Sudan is involved in a regional non-government project involving eight African countries (including Kenya, Sudan, Uganda) know as Community Based Adaptation Africa (CBAA), with the objective to assist vulnerable communities, and help them adapt to climate change. This includes sharing lessons from project activities with key stakeholders at local, national, regional and international levels to elicit their support for climate change adaptation. The CBAA project targets areas which are vulnerable to climate change but also meet other criteria (ibid, 2009).

## Aid commitments to DRR and CCA



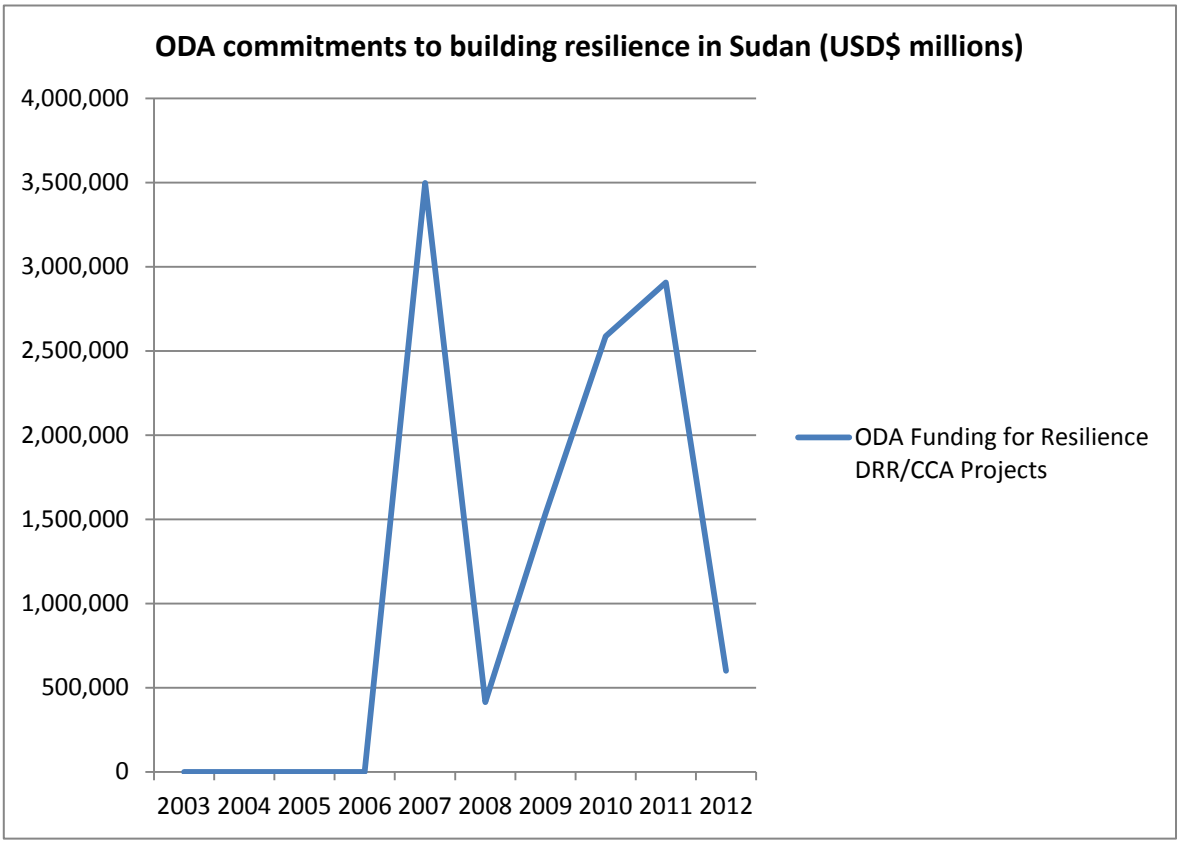

*Source: GFDRR Disaster Aid Tracking*

**Listed key funding programmes from bilateral donors**

| Year | Country | Title | Constant (USD$) |
|---|---|---|---|
| **2003** | ISDB | The Drought Mitigation project for Greater Darfur States | 30,976,789.95 |
| **2007** | United States | Mitigation | 1,856,192.71 |
| **2008** | Germany | Flood prevention and water conservation in East Sudan | 564,783.27 |
| **2008** | Ireland | Recovery Assistance – Disaster Risk Reduction | 347,515.25 |
| **2008** | UNDP | Disaster Risk Management in So | 201,560.43 |
| **1997** | Netherlands | Disaster Prevention Measures | 7,484.31 |
| **2008** | United States | Program Support (Disaster Readiness) | 31.28 |

*Source: GFDRR Disaster Aid Tracking*

**OECD funding commitments**




*Source: OECD DAC*

# Uganda

## Climate change and disaster risk profile

**Hazard trends:** Uganda is mostly affected by drought, floods and landside. In 2008, drought affected 750,000 people. In 2010, landslides killed about 250 people, whilst displacing 8500 people[105].
**Rainfall trends:** Rainfall declines across the west and northwest of Uganda threatens food production prospects, with the decrease of both Spring and Summer rains over the past 25 years. A smoothed time series shows that rainfall between 2000 and 2009 has been, on average, 8 percent lower than rainfall between 1920 and 1969[106].
**Temperatures trends:** It is estimated that between 1975 to 2009, warming has been more than 0.8 ºC during the March to June period, and the June to September rainy seasons. Temperatures have increased by up to 1.5 ºC across Uganda[107]

## Security profile

For almost 30 years political life has been dominated by the ruling National Resistance Movement, led by president Yoweri Museveni. Despite democratic reforms leading to multi-party elections in 2006 and 2011, the rule of governance is described as 'authoritarian patronage based,'[108] with claims of harassment of opposition common.[109] However declining resources have raised questions over the strength of patron-client relations, with divisions in the National Resistance Movement beginning to show.[110] This, coupled with growing social discontent,[111] have raised concerns over potential unrest leading up to the 2016 presidential elections.

The most immediate concern for the country's internal security is regional instability. Refugee flows from conflict affected South Sudan into Uganda's northern regions is heightening security and humanitarian concerns within an area which is recovering from the 20-year insurgency by the Lord's Resistance Army.[112] The area has with deep socio-economic problems, and land related conflicts in the region continue, particularly among returnees who were displaced by the conflict.[113]

[105] Directorate of Relief, Disaster Preparedness and Refugees and Office of the Prime Minister (2010)
[106] USGS (2012f)
[107] USGS (2012f)
[108] Centre for Strategic International Studies (2011) Uganda: Assessing the risks to Stability p.2 http://csis.org/files/publication/110623_Barkan_Uganda_Web.pdf
[109] International Crisis Group (2012) Uganda: No resolution to growing tensions pp.29-31 http://www.crisisgroup.org/~/media/Files/africa/horn-of-africa/uganda/187-uganda-no-resolution-to-growing-tensions
[110] Centre for Strategic International Studies (2011) Uganda: Assessing the risks to Stability pp.15-16 http://csis.org/files/publication/110623_Barkan_Uganda_Web.pdf
[111] International Crisis Group (2012) Uganda: No resolution to growing tensions pp.32-33 http://www.crisisgroup.org/~/media/Files/africa/horn-of-africa/uganda/187-uganda-no-resolution-to-growing-tensions
[112] IRIN (2014) Refugee arrivals in Uganda raise humanitarian, security concerns http://www.irinnews.org/report/99477/refugee-arrivals-in-uganda-raise-humanitarian-security-concerns
[113] Land disputes threaten northern peace. IRIN 2012

Government agencies overseeing DRR and CCA

- Ministry of Water, Lands and Environment
- Ministry of Finance (for the five-year development plan),
- Office of the Prime Minister (OPM)
- Ministry for Disaster Preparedness, Relief and Refugees (MDPRR)
- National Platform for Disaster Preparedness and Management/ Inter-Agency Technical Committee
- District Disaster Management Committees (DMC)
- National Emergency Coordination and Operations Centre (NECOC)
- Department of Relief, disaster preparedness and management
- Climate Change Unit (CCU)
- Parliamentary Forum on Climate Change (PFCC)

*Source: Adaptation Partnership (2011l), Barihaihi (2010)*

International and national investments in DRR and CCA:

The government had focused largely on disaster response leading to limited early warning and information flow to vulnerable communities. The DRR and NAPA units also work independently, but there is evidence of collaboration (Barihaihi, 2010). There is however evidence that there are DRR/CCA policies currently development or at planning stages.

| Policy | Government Division Responsible | Dates | Description |
|---|---|---|---|
| Initial National Communication to the UNFCCC | Ministry of Water, Lands, and Environment | 2002 | Discusses national circumstances, and sets out options to deal with the impacts of climate change |
| Poverty Eradication Action Plan | | 2005 | Replaced with the National Development Plan (NDP). It was a series of six plans intended to help achieve the national vision of transforming Uganda into a prosperous country in 30 years. The PEAP does not adequately capture climate change, although it did have a sub sector-of disaster management that reflected climate change. However, objectives does only seem to focus on disaster impacts, disaster preparedness, risks and management, but did not capture climate change adaptation. |
| National Adaptation Programme of Action | Ministry of Water, Lands and Environment | 2007 | Discusses Uganda's areas of vulnerability to climate change, identifies key adaptation options, and presents a number of adaptation projects/ measures for funding in order of priority |
| Five-year National Development Plan | Ministry of Finance | 2007/2008 | Notes the importance of establishing strategies to combat the already existing impacts of climate change like |

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|---|---|---|---|
| | | | floods, droughts, and landslides. |
| Parliamentary Forum on Climate Change | Parliament of Uganda | 2008 | The forum was created in 2008 to respond to the issues raised by climate change. In 2009, the Forum created a timeline of priorities and outcomes, with the mandate to promote awareness and action around the effects of climate change and to ensure resilience through targeted capacity building efforts. |
| Climate Change Policy and Implementation Strategy | | In development | |
| National Disaster Preparedness and Management (NDPM) | | Advanced Stages | Policy incorporates all climate and man-made hazards and disasters, which is an opportunity to incorporate CCA issues into the NDPM draft policy. |
| Second National Communication to the UNFCCC | | Planning Stages | Currently being planned by the CCU. Funds have not materialised. |

*Source: Adaptation Partnership (2011l), Barihaihi (2010)*

### Policy evaluation

There is limited effort to coordinate and integrate climate change adaptation and mitigation actions in local government development planning, which could partly be attributed to the lack of implementation of NAPA, and the associated weak linkages between national level institutions working on climate change and local government stakeholders (Environmental Alert, 2010).

As supported by a report by Hepworth (2010), climate change response provides an opportunity to address problems in the 'implementation gap' between government policy and action on the ground. Innovative thinking to address these issues, including in disaster risk management, is highlighted as an opportunity to play a major role in building resilience.

### International and national investments in DRR and CCA:

Leading organisations:

| **Project Name** | **Project Dates** | **Funding (if amount specified)** | **Scale/ Geographical Focus** | **Donor(s) and Implementer(s)** |
|---|---|---|---|---|
| Climate Change awareness creation and adaptation for improved livelihoods among rural communities | 2009 | | Uganda | *Donor(s):* Africa Adapt Knowledge Sharing Innovation Fund. *Implementer(s):* Association of Uganda, Professional Women in |

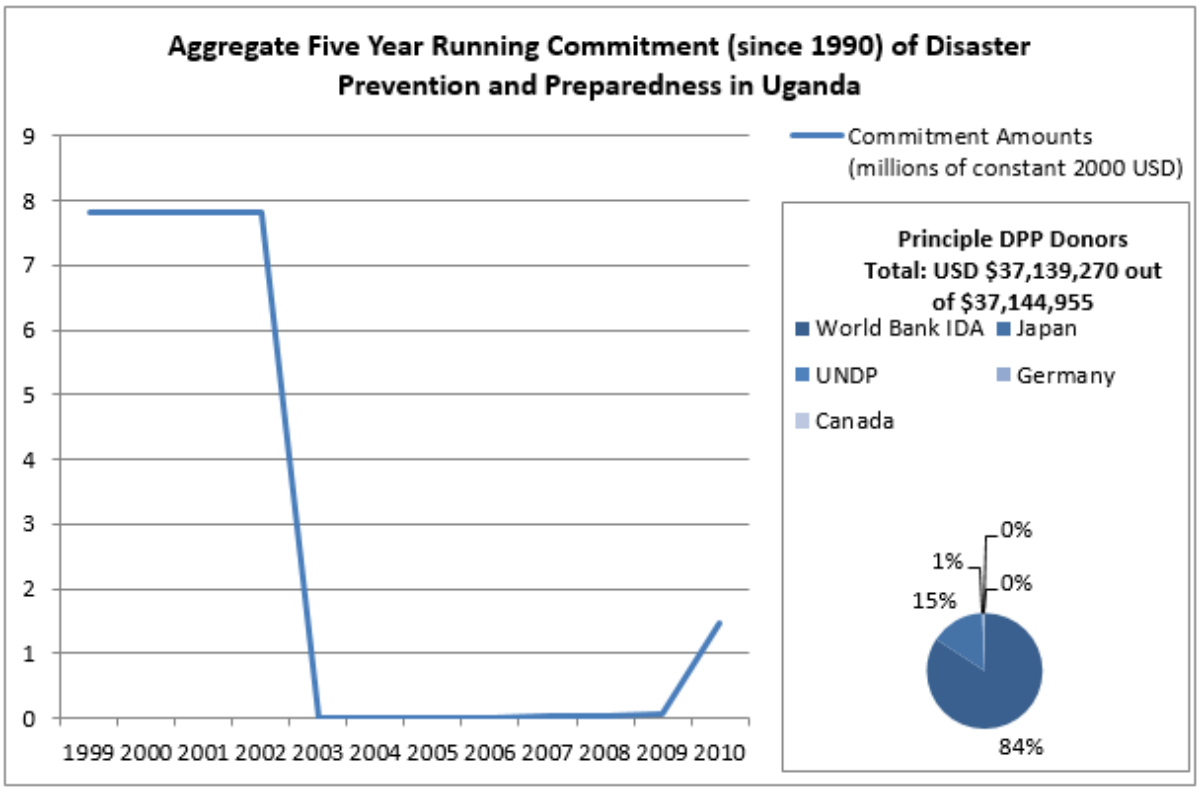
| | | | | |
|---|---|---|---|---|
| | | | | Agriculture and the Environment |
| Lukwanga community awareness creation on climate change adaptation using multimedia approaches | 2009 - ? | | Lukwanga region | *Donor(s):* Africa Adapt Knowledge Sharing Innovation Fund: *Implementer(s):* Environmental Alert |
| Preparedness for Climate Change | 2006 - 2009 | | | *Donor(s):* Red Cross/ Red Crescent Climate Change: *Implementer(s):* Red Cross/ Red Crescent Climate Change: |
| Climate proofing energy systems: vulnerability-adaptation-resilience | 2007 - 2009 | N/A | Benin, Burkina Faso, Cameroon, DRC, Kenya, Mali, Nigeria, Senegal, Tanzania, Uganda. | *Donor(s):* France, GIZ, BMZ, IUCN and La Francophoni. *Implementer(s):* HELIO international |
| Adaptation for smallholders to climate change (AdapCC) | 2007 - 2010 | | Kenya, Uganda | *Donor(s):* German Federal Ministry for Economic Cooperation (BMZ), Cafedirect: *Implementer(s):* GIZ, Cepicafe |
| Resilience and the African Smallholder: Enhancing the capabilities of communities to adapt to climate change | 2007 - 2011 | CAD$1,319,800 | Mali, Uganda | *Donor(s):* DFID, IDRC through the CCAA program: *Implementer(s):* University of Zimbabwe, International Food Policy Research Institute |
| Running Dry: Empowering poor people to manage water in arid and semi-arid lands | 2007 - ongoing | | Ethiopia, Kenya, Uganda | *Donor(s):* Howard G Buffet Foundation: *Implementer(s):* Action Against Hunger, CARE, Catholic Relief Services, the |

| | | | | |
|---|---|---|---|---|
| | | | | International Union for Conservation of Nature, Oxfam America. |
| Community-Based Adaptation to Climate Change in Africa | 2008 - 2011 | CAD$1,398,500 | Kenya, Sudan, Uganda | *Donor(s):* DFID, IDRC through the CCAA Program: *Implementer(s):* African Centre and Technology Studies |
| Climate Change Adaptation and development initiative (CC-DARE) | 2008 - 2011 | | Ethiopia, Senegal, Uganda | *Donor(s)L* Danish Ministry of Foreign Affairs. *Implementers*: UNEP and UNDP |
| Building Climate Change Resilience in Africa's Agricultural Research Programmes | 2009 - 2011 | US$200,400 | Ethiopia, Kenya, Uganda | *Donor(s):* Rockefeller Foundation: *Implementer(s):* FARNPAN |
| Adapting to Climate Change Induced Water Stress in the Nile River Basin | 2009 - 2012 | | Ethiopia, Kenya, Sudan, Uganda | *Donor(s):* SIDA: *Implementer(s):* UNEP, Nile Basin Intiative |
| Managing Uncertainty: Innovation Systems for coping with Climate Variability and Change | 2007 - 2010 | | Kenya, Sudan, Uganda | *Donor(s):* AFDB: *Implementer(s):* UNEP, Nile Basin Initiative |
| Partners for resilience | 2011 - 2015 | EUR 40 million | Ethiopia, Kenya, Mali, Uganda | *Donor(s):* Netherlands: *Implementer(s):* Dutch Red Cross, Red Cross Climate Centre, CARE, Cordaid, Wetlands, International. |

| | | | |
|---|---|---|---|
| Africa Climate Change Resilience Alliance (ACCRA) | 2009 – 2011. Currently implementing Phase 2. | Ethiopia, Uganda | *Donor(s):* DIFD, CDKN. *Implementer(s):* Care International, Oxfam, Save the Children, World Vision, Key Government Sectors. |

*Source: Adaptation Partnership (2011l), ACCRA (2014)*

## Aid commitments to DRR and CCA



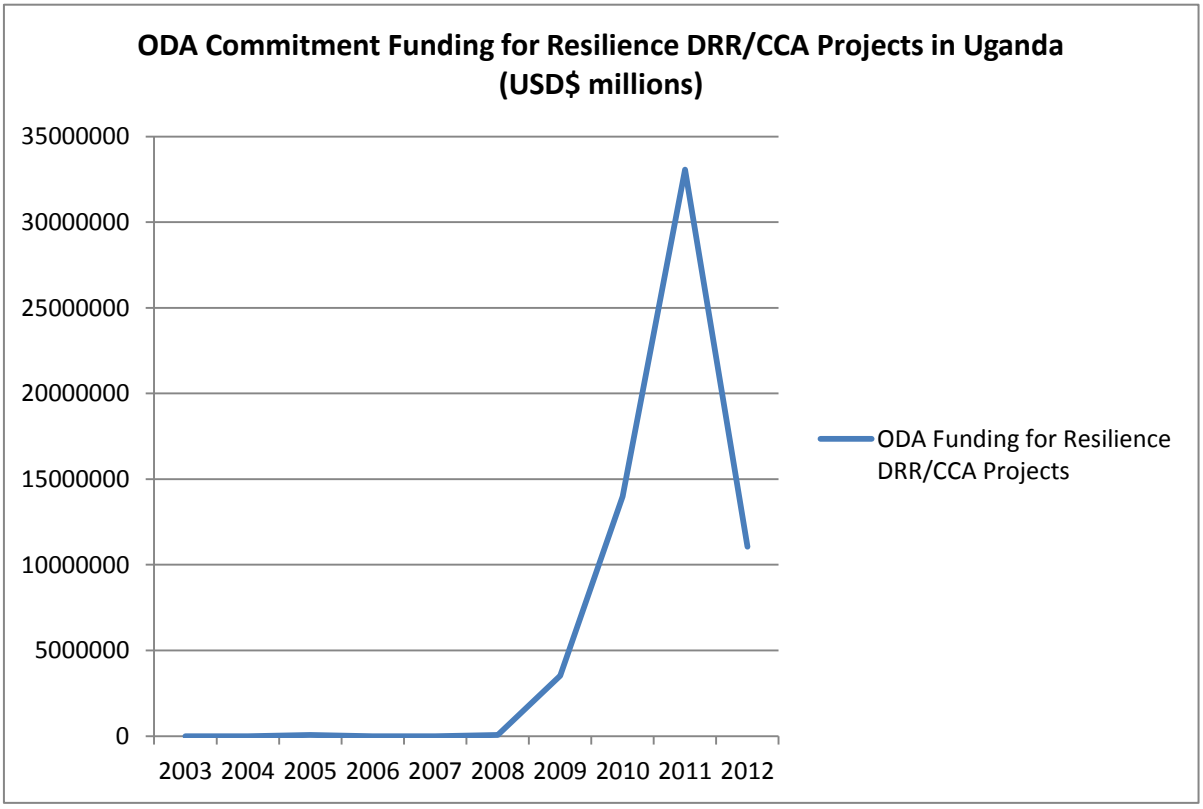

*Source: GFDRR Disaster Aid Tracking*

**Listed key funding programmes from bilateral donors (Top Ten)**

| Year | Country | Title | Constant (USD$) |
|---|---|---|---|
| **1999** | World Bank IDA | Nakivubo Channel Rehabilitation Project | 31,289,392.42 |
| **2010** | Japan | The Programme for the Improvement of Capabilities to cope with Natural Disaster caused by Climate Change | 5,454,184.28 |
| **2007** | UNDP | Strengthening National Disaster | 104,143.83 |
| **2010** | Japan | Disaster Prevention and Preparedness | 102,364.13 |
| **2010** | Japan | Disaster Prevention and Preparedness | 102,364.13 |
| **2009** | UNDP | Strengthening National Disaster | 65,740.00 |
| **2006** | Germany | Disaster Reduction | 59,181.19 |
| **2009** | Canada | Linking African Researchers with Adaptation Policy Spaces | 44,943.03 |
| **2010** | Japan | Disaster Prevention and Preparedness | 12,937.13 |
| **2006** | UNDP | Strengthening National Disaster | 2,202.01 |

*Source: GFDRR Disaster Aid Tracking*

**OECD funding commitments**

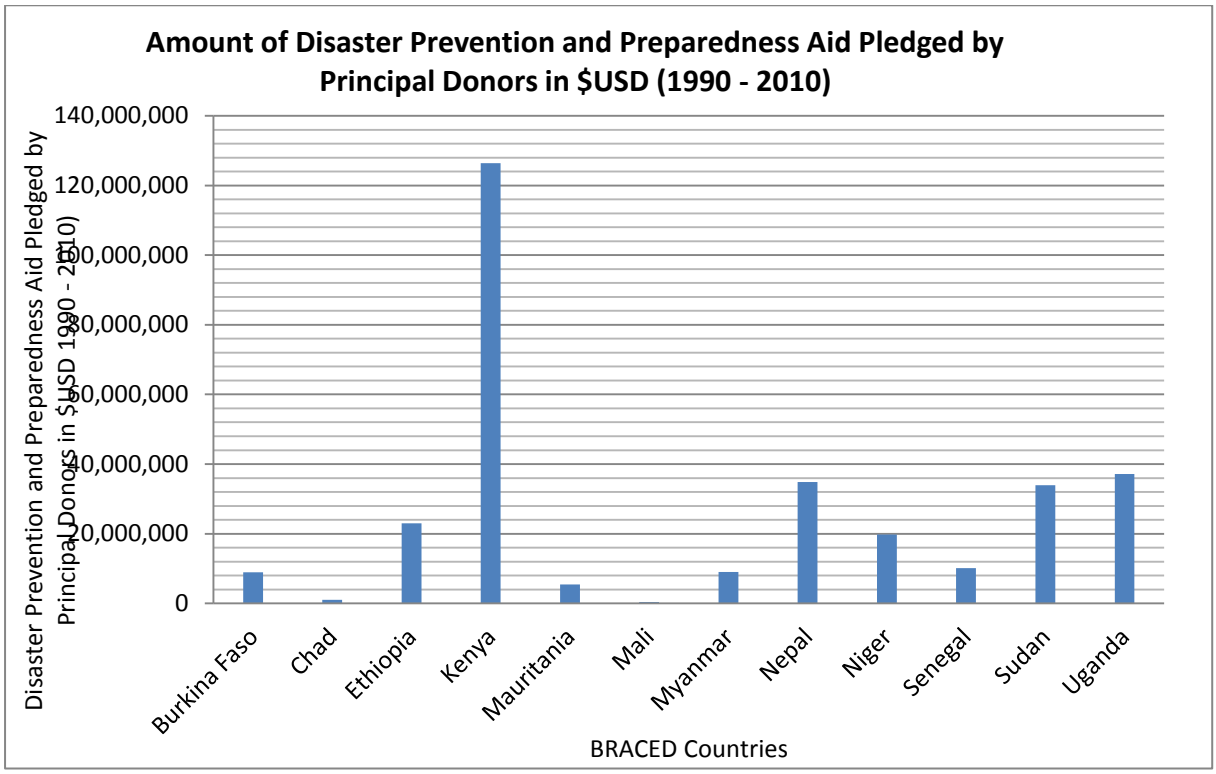



*Source: OECD DAC*

# Comparative aid data between BRACED countries

The statistics collated from the GFDRR database indicates that there are wide disparities in the amount of aid directed towards building resilience in relation to climate change adaptation and disaster risk reduction across the BRACED countries. Kenya evidently receives, and allocates, a significant proportion of funding to DRR and CCA, mirroring the extensive list of projects implemented across the country. Further, Ethiopia, Nepal, Sudan and Uganda, all divert a significant amount of resources to DRR/CCA projects. For Mali, Chad and however, information available on funding for resilience related projects, reflects low contributions, and the low priority of preventive projects in the face of emergency response.

South Sudan is omitted from the graph as no data was available from the GFDRR.




*Source: GFDRR Disaster Aid Tracking*

### Limitations

The authors acknowledge the limitations inherent in this review of resilience building investments, including problems in accessing concept notes, project approval documents, technical and research reports and mid- and final evaluations for many of the BRACED countries. Whilst some evaluation literature could be found (such as for the AAP with regards to Burkina Faso, Ethiopia, Kenya, Niger and Senegal as reported by Rector et al. (2013)) and did provide a critical insight into a number of major resilience building projects, there were significant gaps for many of the projects. These documents may lie with the implementers, donors or with NGOs, or information may not have been compiled, but nonetheless, the current availability of data limits the possibility of mapping the resilience landscape in these countries.

One critical problem that presented itself was the difficulty in identifying all resilience-related programmes and projects from funding sources because of barriers to accessing statistics on official and private funding, both within the aid databases and for literature that reports of projects. At present, exact amounts are difficult to calculate for a number of reasons, including: use of different definitions of tagging keywords, unknown gaps in how many relevant projects or programmes are reported, subjective approaches to projects tagging, and interchangeable use of keywords. Therefore, whilst the OECD DAC database and GFDRR Disaster Aid Tracking database provides useful insights, there are limitations that must be acknowledged, such as the afore discussed problems. Further in cases, some documents that discussed project funding supplied differences in funding amounts. In this case, both amounts have been included in the tables documenting the international and national investments in DRR and CCA. As a result, the figures presented in this paper provide an estimate of the current funding aimed at building resilience.

# Conclusions

Whilst it is evident that there have been improvements over the past decade in integrating resilience focused climate change adaptation and disaster risk reduction across all BRACED countries, it is also apparent that there are wide disparities between countries in the number of key projects aligned with resilience, policy progress and the progress of countries in enhancing resilience according to the HFA reports.

It is difficult to comment on whether projects have been successful due to a lack of evaluations for resilience based projects, although a general increase in resilience-related projects over the past decade can generally be seen for all of the BRACED countries. However, there are vast differences in funding commitments for relevant projects and programmes between countries. What is clear is that many of the key resilience projects often span more than one BRACED country. When utilising the OECD DAC database to search for resilience projects, it was clear that there has been a significant shift in focus from 'disaster and emergency response' to 'prevention and preparedness' to different extents for each of the countries.

Equally, there are vast disparities in policy progress, where some countries have limited focus on DRR and CCA, through to countries with several policies. It is still evident that for some countries, the concepts of DRR/DRM, including prevention and preparedness, and CCA, are relatively new, and it is these countries that have or are currently establishing new departments to lead on DRR and CCA, whilst for others, the shift from response to preparedness occurred earlier, meaning that departments are established and policies are being improved. In some of these countries, DRR and CCA policies are still in draft form, or pending approval. The quality of these policies and progress on implementation is difficult to assess given the absence of evaluations or studies, and where there are evaluations these have often been undertaken by government and may provide an overly optimistic picture.

This paper provides an oversight of the focus of resilience within the BRACED countries, and it is evident that some countries, such as Kenya, Ethiopia and Nepal, have placed a greater emphasis, and progressed further in funding and implementing resilience based projects and policies. However, for other BRACED countries, such as South Sudan, Chad and Mali, emphasis is largely still based on disaster response opposed to adaptive or preventative measures, despite increasing commitments to resilience particularly over the past five years. Further to this, many countries are still in the early stages of generating national level DRR/ CCA policies. Additionally, BRACED is implemented in a number of FCAS where challenging environments and past conflict has arguably had an impact on the ability to achieve resilience. Comparatively, BRACED countries are at different conflict and post-conflict stages. Projects must therefore consider the impact of conflict on the implementation of resilience focused projects, but also consider relevant factors that must be integrated in the design of projects to successfully build resilience. Particularly for BRACED, and the wider humanitarian and development resilience scene, it is critical to build on the comparative studies started in this paper through crucial next steps. This paper used information and data found through the Google search engine, and focused on specific websites. However, an important next step would be to gather further relevant data from partners and organisations that could complement, enhance, and provide further critical insights to this paper. Particularly, analysis of more project evaluations to establish

what resilience initiatives have been implemented and to determine what initiatives have been successful or faced challenges are critical for informing BRACED projects.

# Acronyms

| | |
|---|---|
| BRACED | Building resilience and adaptation against climate extremes and disasters programme |
| CCA | Climate Change Adaptation |
| CSO | Civil Society Organisation |
| DPP | Disaster Prevention and Preparedness |
| DRR | Disaster Risk Reduction |
| DRM | Disaster Risk Management |
| FCAS | Fragile and Conflict Affected States |
| HFA | Hyogo Framework for Action |
| ICG | International Crisis Group |
| IPCC SREX | Intergovernmental Panel of Climate Change Special Report: Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation |
| GFDRR | Global Facility for Disaster Reduction and Recovery |
| GLOF | Glacial Lake Outburst Flood |
| M&E | Managing and Evaluating |
| NAPA | National Adaptation Programme of Action |
| NGO | Non-governmental Organisation |
| OECD | Organisation for Economic Co-Operation and Development |
| OECD DAC | Organisation for Economic Co-Operation and Development Assistance Committee |
| UNISDR | United Nations Office for Disaster Risk Reduction |
| UNCBD | United Nations Convention on Biological Diversity |
| UNCCD | United Nations Convention to Combat Desertification |

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# Annex 1. Template for BRACED programme mapping

1. What are the key hazards, disasters and climate impacts affecting the country?
2. What are the key conflict events and what is the governance status of each country?
3. What are the key projects and initiatives underway to deal with these?
    - Lead Organisation and partners
    - Name of project
    - Remit/ objectives (e.g. research, action, advocacy, campaign etc.)
    - Activities
    - Duration
    - Budget
    - Scale (national, provincial, city, community, total target population)
    - Geographical focus area
    - Sectoral entry point (agriculture, livestock, livelihoods etc.)
    - Donors
    - Impact, outcome, results (possibly from evaluation reports)
    - Key documents
4. What are the key government agencies designated to deal with disasters and climate change?
5. What are the nodal national policies for dealing with disasters and climate change?
6. Of total aid flows, how much is earmarked/spent on dealing with disaster and climate change?
    - OECD DAC Data
    - Any other data bases
7. Examples of how disasters and climate change figure in the national agenda-
    - Pronouncements by national politicians/leaders
    - Key debates and controversies
8. Key secondary data on climate change and disasters in this country-
    - Books
    - Peer reviewed articles
    - Grey lit
    - High level reports and research findings

# Annex 2. Keywords to identify projects and aid commitments

Hazard Specific:

| | | |
|---|---|---|
| Climate/ Climate Change | Drought | Earthquake |
| Fires | Flood | Landslides/ Lahars |
| Receding lakes | Sea Level Rise | Unpredictable rainfall/ water |

Risk and Resilience:

| | | |
|---|---|---|
| Adapt/ Adaptation | Capacity/ Capacity-building | Climate Change Adaptation |
| Disaster | Disaster Risk Reduction | Early-warning |
| Hazard | Map/ Mapping | Preparedness |
| Prevention | Resilience | Resource Management |
| Risk/ Risk Assessment | Security | Threat |
| Vulnerability/ Vulnerable | Climate Change Mitigation (dependent on link to resilience) | |

# Annex 3. GFDRR disaster prevention and preparedness tagging

Codes and definitions used by the DAT sector coding for foreign aid projects[114]

| | | | |
|---|---|---|---|
| **740** | | **Disaster prevention and preparedness (Including disaster risk reduction)** | |
| **74010** | | Disaster Risk Reduction | |
| | **74010.01** | Disaster prevention and preparedness, activity unspecified | Will capture any generic disaster related aid which cannot be classified into other categories. |
| | **74010.03** | Institutional Consensus, awareness and Capacity Building | Will also include training provided and advocacy, technical courses, awareness campaigns |
| | **74010.02** | Disaster risk assessment & monitoring | |
| | **74010.04** | Knowledge, Innovation and Education | Including research, training in schools, translating research into practice, knowledge sharing exercises |
| | **74010.05** | Disaster Risk Financing | Will include Catastrophe risk financing, disaster insurance related aid. |
| | **74010.06** | Strengthening Early Warning Systems | Will include aid for strengthening early warning systems, national hydrometeorological systems etc. |
| | **74010.07** | Protecting Critical Infrastructure | Will include aid for strengthening schools, hospitals and public buildings. |
| | **74010.08** | Response preparedness and sustainable recovery | |
| | **74010.09** | Macroeconomic Analysis | Will include aid provided for carrying out DR4 related economic analysis and research. |

[114] Coding information taken from GFDRR and Development Gateway project coding memo

# Annex 4. Country risk profiles

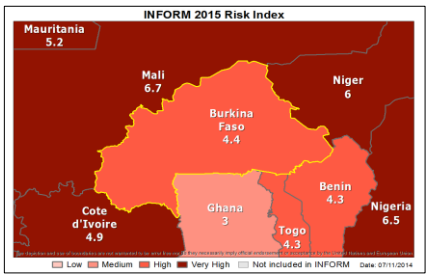
## BURKINA FASO

Western Africa
Low income

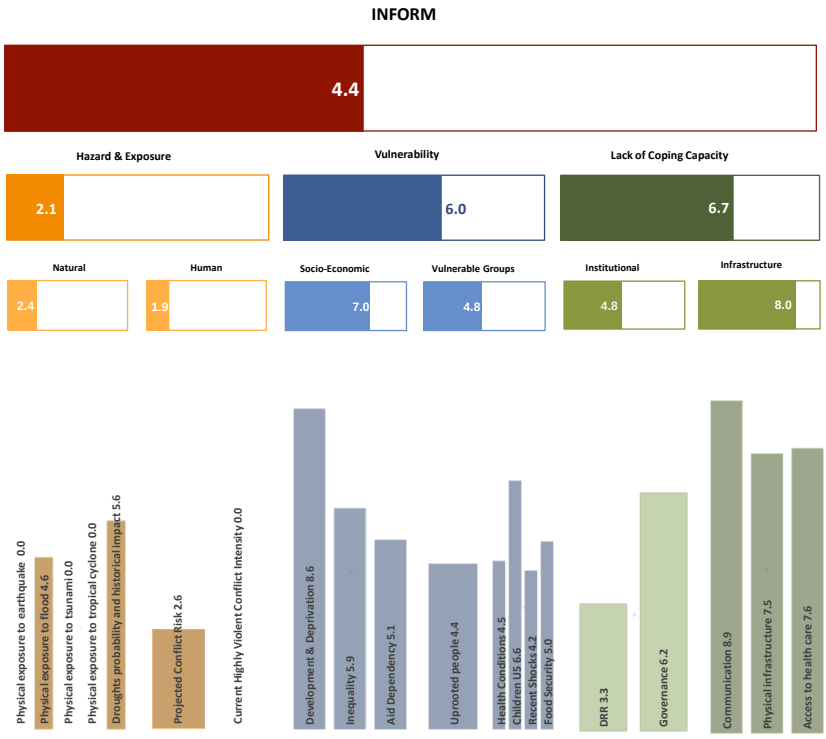
*INFORM Country Risk Profile*

*VERSION 2015*

| | Value | Rank | Trend (3 years) |
|---|---|---|---|
| INFORM Risk | 4.4 | 58 | ⇩ |
| Hazard & Exposure | 2.1 | 120 | ⇩ |
| Vulnerability | 6.0 | 19 | ⇩ |
| Lack of Coping Capacity | 6.7 | 49 | ⇨ |



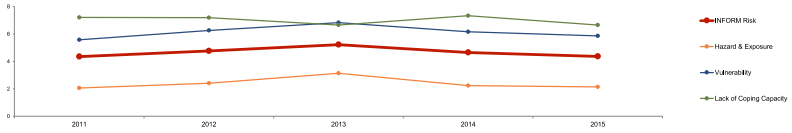

### RISK PROFILE

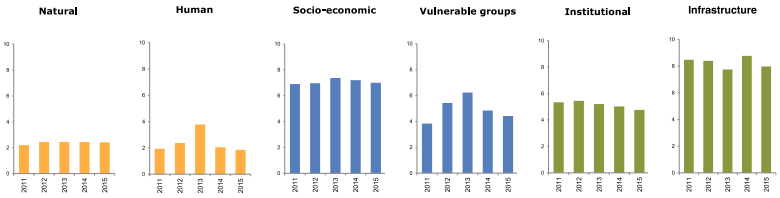


## RISK INDICATORS

| | Indicator | Component | Index | Value | Unit |
|---|---|---|---|---|---|
| HIGHEST 5 RISK INDICATORS | Malaria death rate | Other Vulnerable Groups | **10.0** | 163.00 | per 100,000 people |
| | Adult literacy rate | Communication | **10.0** | 28.73 | % |
| | Phisicians Density | Access to health care | **9.9** | 0.50 | per 10,000 people |
| | Health expenditure per capita | Access to health care | **9.9** | 90.10 | current int USD PPP |
| | Road density | Physical Connectivity | **9.7** | 5.57 | km of road per 100 sq.km |
| LOWEST 5 RISK INDICATORS | Current High Violent Conflict Intensity Score | Current Conflicts Intensity | **0.0** | 0.00 | Index |
| | Physical exposure to Cyclone Surge | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS3 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS1 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Tsunami | Tsunami | **0.0** | 0.00 | Average annual population exposed per country |

## TRENDS

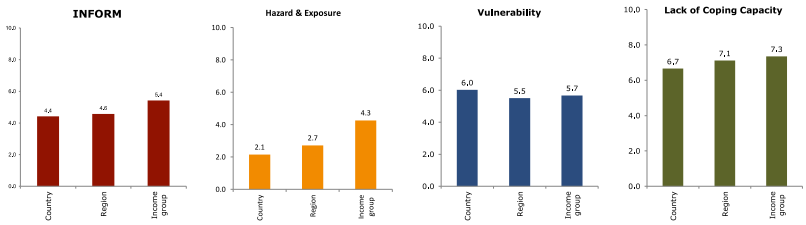



## GLOBAL PEERS

| Country | INFORM | Hazards & Exposure | Vulnerability | Lack of Coping Capacity |
|---|---|---|---|---|
| Djibouti | 4.5 | 2.8 | 4.8 | 6.8 |
| Sri Lanka | 4.5 | 5.8 | 3.6 | 4.3 |
| Tajikistan | 4.4 | 5.3 | 3.0 | 5.6 |
| **Burkina Faso** | **4.4** | **2.1** | **6.0** | **6.7** |
| China | 4.4 | 7.2 | 2.9 | 4.1 |
| Vanuatu | 4.4 | 3.1 | 4.2 | 6.4 |
| Venezuela | 4.4 | 4.2 | 3.6 | 5.5 |

## REGION AND INCOME GROUP CONTEXT



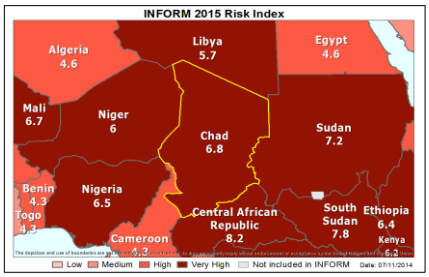
# CHAD

Middle Africa
Low income

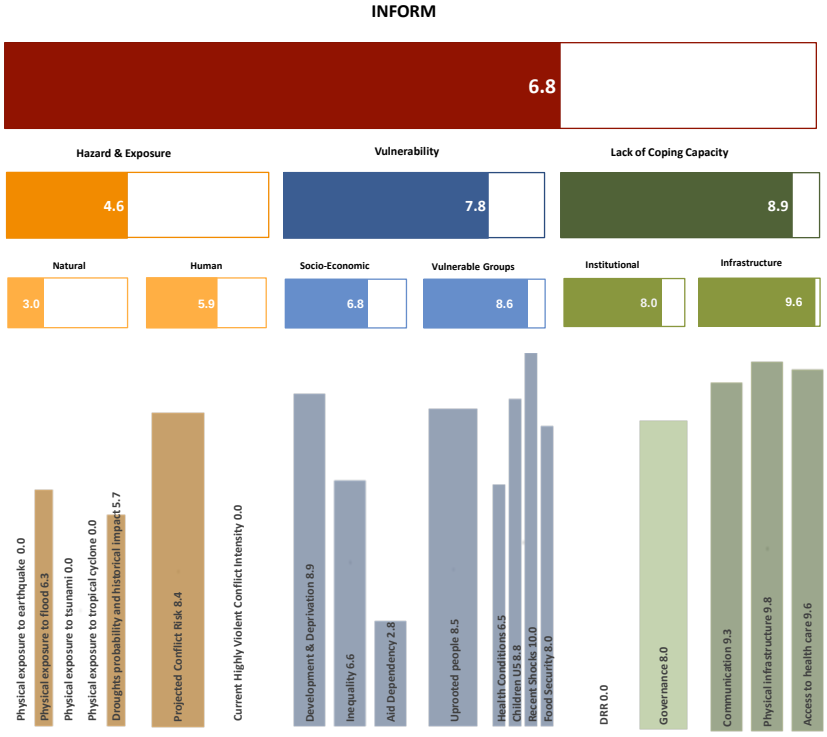
*INFORM Country Risk Profile*

*VERSION 2015*

| | Value | Rank | Trend (3 years) |
|---|---|---|---|
| INFORM Risk | 6.8 | 9 | ⇩ |
| Hazard & Exposure | 4.6 | 45 | ⇩ |
| Vulnerability | 7.8 | 3 | ⇨ |
| Lack of Coping Capacity | 8.9 | 2 | ⇨ |



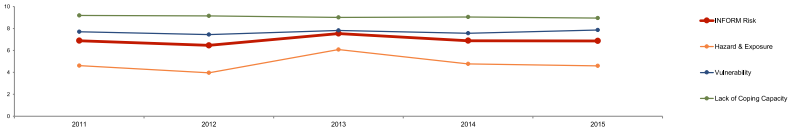

## RISK PROFILE

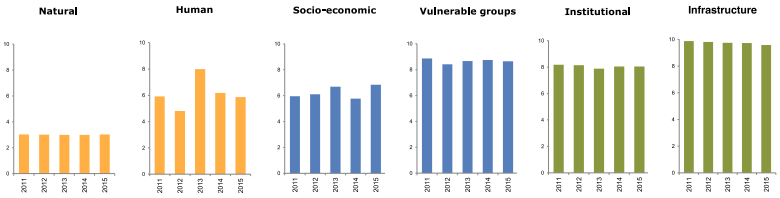


## RISK INDICATORS

| | Indicator | Component | Index | Value | Unit |
|---|---|---|---|---|---|
| HIGHEST 5 RISK INDICATORS | Malaria death rate | Other Vulnerable Groups | **10.0** | 181.00 | per 100,000 people |
| | Mortality rate, under-5 | Other Vulnerable Groups | **10.0** | 147.50 | per 1,000 live births |
| | People affected by Natural Disasters | Other Vulnerable Groups | **10.0** | 1353834.75 | Number |
| | Health expenditure per capita | Access to health care | **10.0** | 41.90 | current int USD PPP |
| | Prevalence of Undernourishment | Other Vulnerable Groups | **9.9** | 34.80 | % |
| LOWEST 5 RISK INDICATORS | Current High Violent Conflict Intensity Score | Current Conflicts Intensity | **0.0** | 0.00 | Index |
| | Physical exposure to Cyclone Surge | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS3 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS1 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Tsunami | Tsunami | **0.0** | 0.00 | Average annual population exposed per country |

## TRENDS

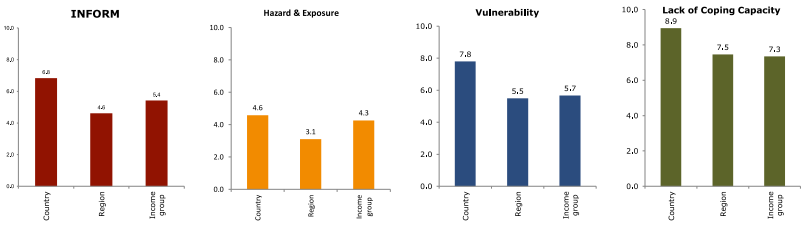



## GLOBAL PEERS

| Country | INFORM | Hazards & Exposure | Vulnerability | Lack of Coping Capacity |
|---|---|---|---|---|
| Yemen | 7.2 | 7.9 | 5.6 | 8.2 |
| Iraq | 7.0 | 8.2 | 6.0 | 7.0 |
| Congo DR | 7.0 | 5.4 | 7.6 | 8.3 |
| **Chad** | **6.8** | **4.6** | **7.8** | **8.9** |
| Myanmar | 6.8 | 8.2 | 5.4 | 7.0 |
| Mali | 6.7 | 6.0 | 6.5 | 7.8 |
| Syrian Arab Republic | 6.7 | 8.4 | 6.0 | 5.9 |

## REGION AND INCOME GROUP CONTEXT



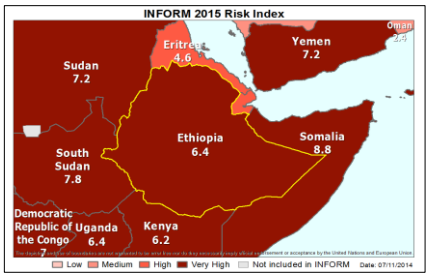
# ETHIOPIA

Eastern Africa
Low income

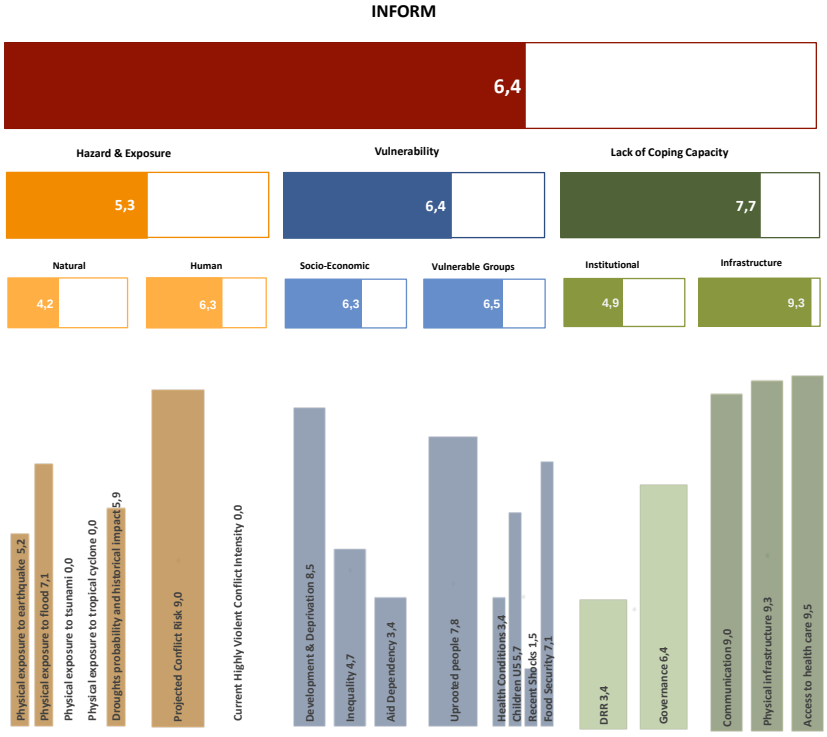
*INFORM Country Risk Profile*

*VERSION 2015*

| | Value | Rank | Trend (3 years) |
|---|---|---|---|
| INFORM Risk | 6,4 | 15 | ⇨ |
| Hazard & Exposure | 5,3 | 38 | ⇨ |
| Vulnerability | 6,4 | 12 | ⇨ |
| Lack of Coping Capacity | 7,7 | 15 | ⇨ |



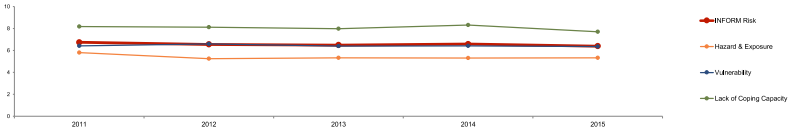

## RISK PROFILE

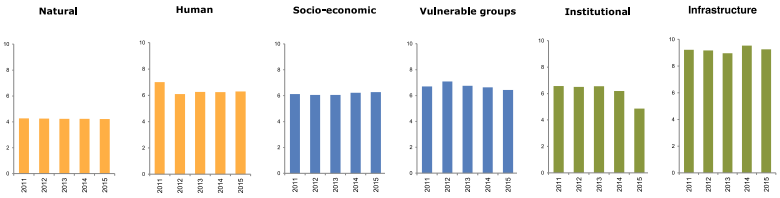


## RISK INDICATORS

| | Indicator | Component | Index | Value | Unit |
|---|---|---|---|---|---|
| HIGHEST 5 RISK INDICATORS | Prevalence of Undernourishment | Other Vulnerable Groups | **10,0** | 35,00 | % |
| | Health expenditure per capita | Access to health care | **10,0** | 43,65 | current int USD PPP |
| | Phisicians Density | Access to health care | **9,9** | 0,30 | per 10,000 people |
| | Internet users | Communication | **9,9** | 1,48 | % |
| | Road density | Physical Connectivity | **9,8** | 4,00 | km of road per 100 sq.km |
| LOWEST 5 RISK INDICATORS | Current High Violent Conflict Intensity Score | Current Conflicts Intensity | **0,0** | 0,00 | Index |
| | Physical exposure to Cyclone Surge | Tropical Cyclone | **0,0** | 0,00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS3 | Tropical Cyclone | **0,0** | 0,00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS1 | Tropical Cyclone | **0,0** | 0,00 | Average annual population exposed per country |
| | Physical exposure to Tsunami | Tsunami | **0,0** | 0,00 | Average annual population exposed per country |

## TRENDS

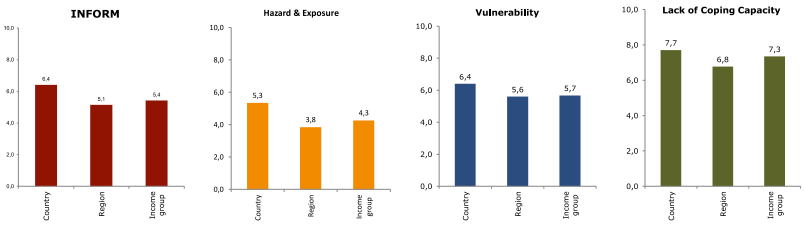



## GLOBAL PEERS

| Country | INFORM | Hazards & Exposure | Vulnerability | Lack of Coping Capacity |
|---|---|---|---|---|
| Syrian Arab Republic | 6,7 | 8,4 | 6,0 | 5,9 |
| Nigeria | 6,5 | 6,8 | 5,9 | 6,8 |
| Uganda | 6,4 | 6,2 | 6,0 | 7,1 |
| **Ethiopia** | **6,4** | **5,3** | **6,4** | **7,7** |
| Pakistan | 6,3 | 7,6 | 5,4 | 5,9 |
| Kenya | 6,2 | 5,8 | 6,3 | 6,6 |
| Haiti | 6,1 | 5,0 | 5,4 | 8,2 |

## REGION AND INCOME GROUP CONTEXT



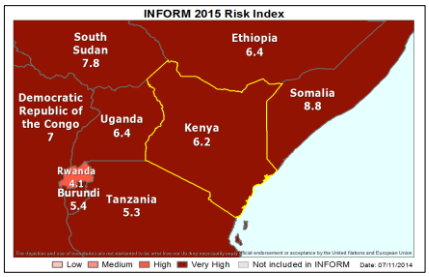
# KENYA

Eastern Africa
Low income

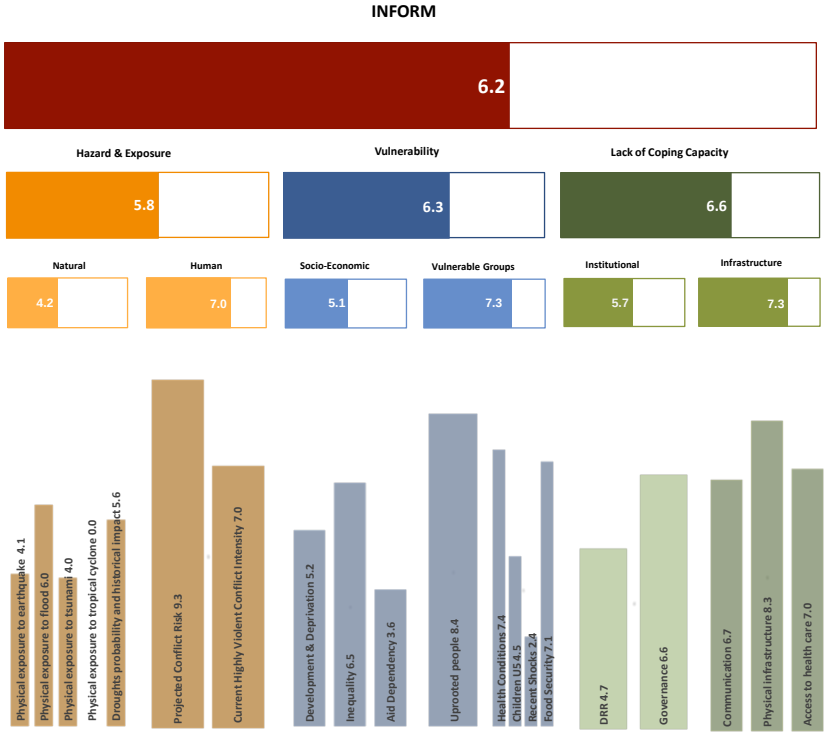
*INFORM Country Risk Profile*

*VERSION 2015*

| | Value | Rank | Trend (3 years) |
|---|---|---|---|
| INFORM Risk | 6.2 | 17 | ⇨ |
| Hazard & Exposure | 5.8 | 32 | ⇨ |
| Vulnerability | 6.3 | 13 | ⇩ |
| Lack of Coping Capacity | 6.6 | 51 | ⇧ |



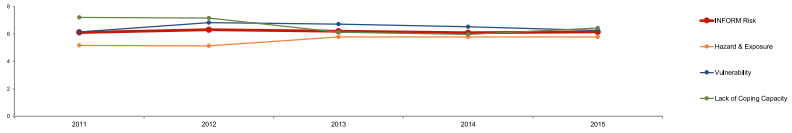

## RISK PROFILE

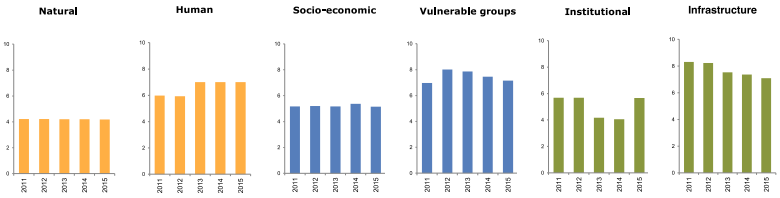


## RISK INDICATORS

| | Indicator | Component | Index | Value | Unit |
|---|---|---|---|---|---|
| HIGHEST 5 RISK INDICATORS | Total affected by Drought | Drought | **10.0** | 2006521.74 | Average annual population affected per country |
| | Frequency of drought events | Drought | **10.0** | 0.39 | Average annual events per country |
| | Estimated number of people living with HIV - Adult (>15) rate | Other Vulnerable Groups | **10.0** | 6.10 | % |
| | Domestic Food Price Level Index | Other Vulnerable Groups | **10.0** | 2.92 | Index |
| | Health expenditure per capita | Access to health care | **9.9** | 83.51 | current int USD PPP |
| LOWEST 5 RISK INDICATORS | Physical exposure to Cyclone Surge | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS3 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS1 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to earthquake MMI VIII | Earthquake | **0.0** | 0.00 | Average annual population exposed per country |
| | Domestic Food Price Volatility Index | Other Vulnerable Groups | **0.6** | 6.00 | Index |

## TRENDS

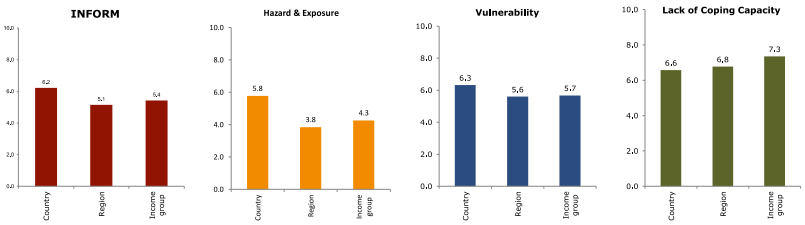



## GLOBAL PEERS

| Country | INFORM | Hazards & Exposure | Vulnerability | Lack of Coping Capacity |
|---|---|---|---|---|
| Uganda | 6.4 | 6.2 | 6.0 | 7.1 |
| Ethiopia | 6.4 | 5.3 | 6.4 | 7.7 |
| Pakistan | 6.3 | 7.6 | 5.4 | 5.9 |
| **Kenya** | **6.2** | **5.8** | **6.3** | **6.6** |
| Haiti | 6.1 | 5.0 | 5.4 | 8.2 |
| Bangladesh | 6.0 | 7.9 | 4.7 | 5.8 |
| Niger | 6.0 | 3.9 | 6.8 | 8.2 |

## REGION AND INCOME GROUP CONTEXT



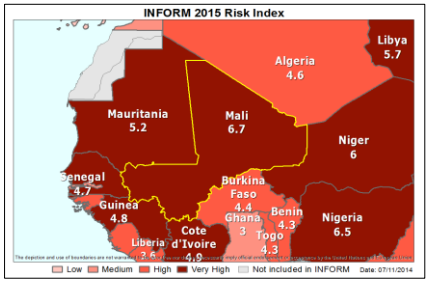
# MALI

Western Africa
Low income

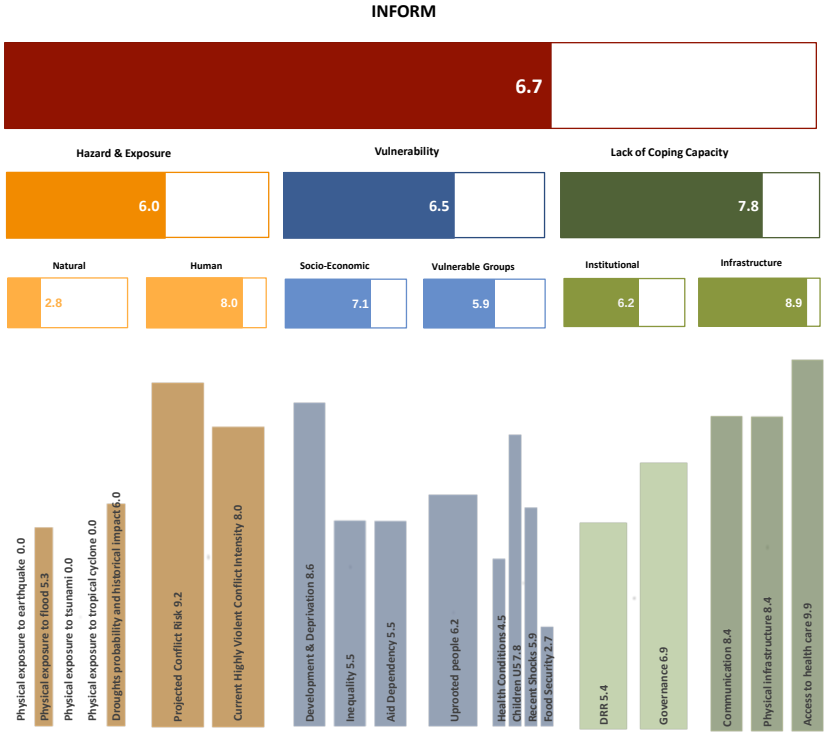
*INFORM Country Risk Profile*

*VERSION 2015*

| | Value | Rank | Trend (3 years) |
|---|---|---|---|
| INFORM Risk | 6.7 | 11 | ⇩ |
| Hazard & Exposure | 6.0 | 28 | ⇩ |
| Vulnerability | 6.5 | 11 | ⇩ |
| Lack of Coping Capacity | 7.8 | 13 | ⇨ |



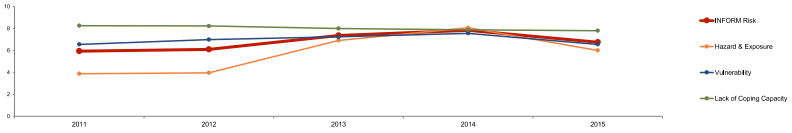

## RISK PROFILE

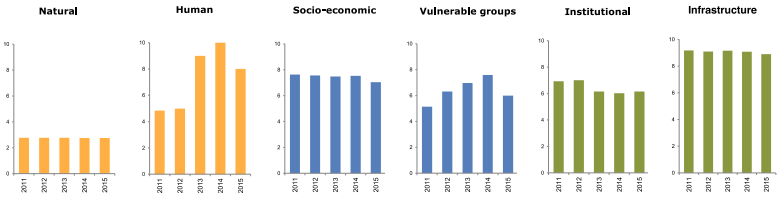


## RISK INDICATORS

| | Indicator | Component | Index | Value | Unit |
|---|---|---|---|---|---|
| HIGHEST 5 RISK INDICATORS | Malaria death rate | Other Vulnerable Groups | **10.0** | 176.00 | per 100,000 people |
| | One-year-olds fully immunized against measles | Access to health care | **10.0** | 59.00 | % |
| | Road density | Physical Connectivity | **9.9** | 2.00 | km of road per 100 sq.km |
| | Health expenditure per capita | Access to health care | **9.9** | 73.75 | current int USD PPP |
| | Phisicians Density | Access to health care | **9.8** | 0.80 | per 10,000 people |
| LOWEST 5 RISK INDICATORS | Prevalence of Undernourishment | Other Vulnerable Groups | **0.0** | 4.90 | % |
| | Physical exposure to Cyclone Surge | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS3 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS1 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Tsunami | Tsunami | **0.0** | 0.00 | Average annual population exposed per country |

## TRENDS

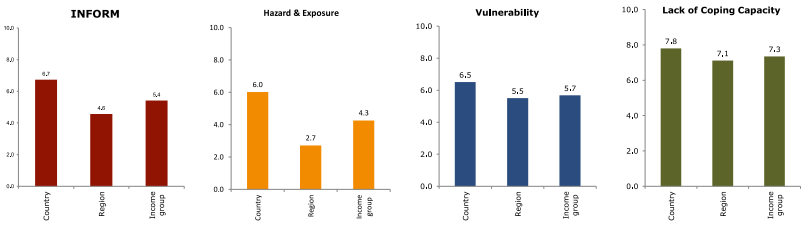



## GLOBAL PEERS

| Country | INFORM | Hazards & Exposure | Vulnerability | Lack of Coping Capacity |
|---|---|---|---|---|
| Congo DR | 7.0 | 5.4 | 7.6 | 8.3 |
| Chad | 6.8 | 4.6 | 7.8 | 8.9 |
| Myanmar | 6.8 | 8.2 | 5.4 | 7.0 |
| **Mali** | **6.7** | **6.0** | **6.5** | **7.8** |
| Syrian Arab Republic | 6.7 | 8.4 | 6.0 | 5.9 |
| Nigeria | 6.5 | 6.8 | 5.9 | 6.8 |
| Uganda | 6.4 | 6.2 | 6.0 | 7.1 |

## REGION AND INCOME GROUP CONTEXT



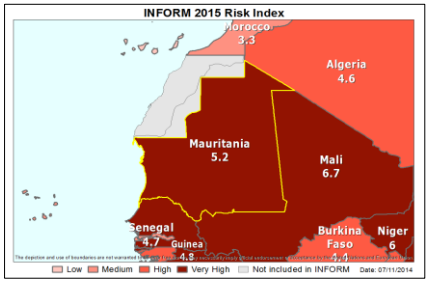
# MAURITANIA

Western Africa
Lower middle income

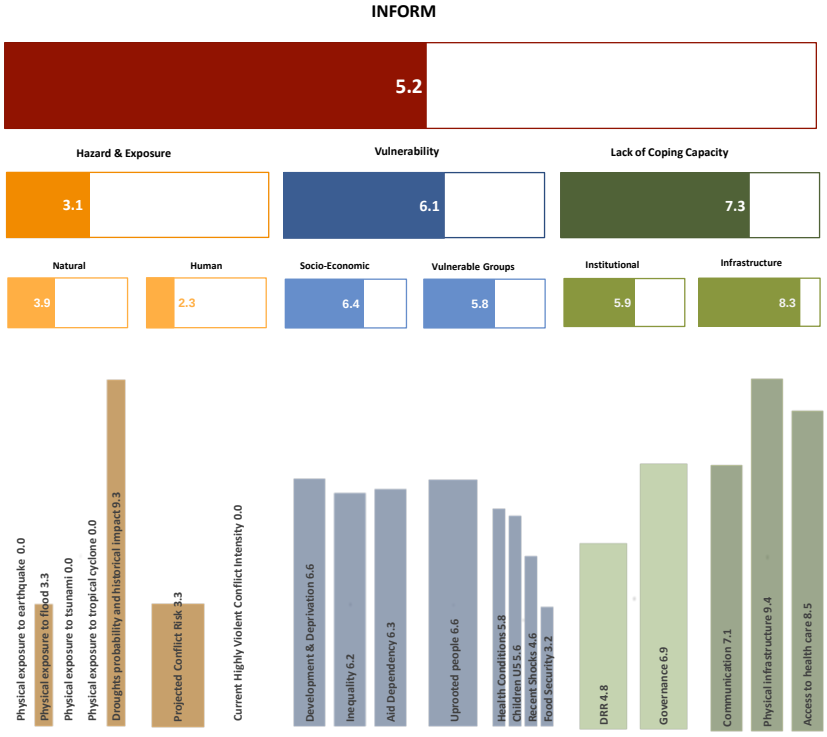
*INFORM Country Risk Profile*

*VERSION 2015*

| | Value | Rank | Trend (3 years) |
|---|---|---|---|
| INFORM Risk | 5.2 | 30 | ⇩ |
| Hazard & Exposure | 3.1 | 79 | ⇩ |
| Vulnerability | 6.1 | 17 | ⇨ |
| Lack of Coping Capacity | 7.3 | 24 | ⇩ |



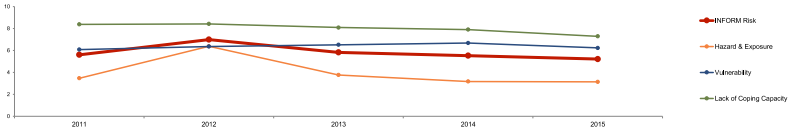

## RISK PROFILE

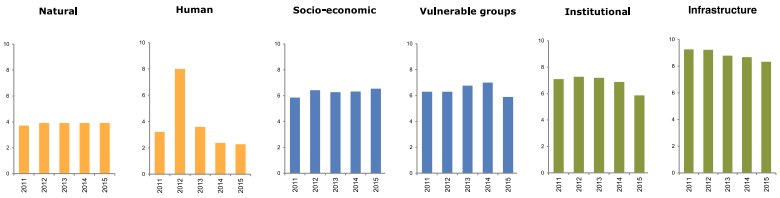


## RISK INDICATORS

| | Indicator | Component | Index | Value | Unit |
|---|---|---|---|---|---|
| HIGHEST 5 RISK INDICATORS | Total affected by Drought | Drought | **10.0** | 130691.61 | Average annual population affected per country |
| | Agriculture drought probability | Drought | **10.0** | 0.33 | Average annual events per country |
| | Tuberculosis prevalence | Other Vulnerable Groups | **10.0** | 794.00 | per 100,000 people |
| | Improved water source (% of population with access) | Physical Connectivity | **10.0** | 49.60 | % |
| | Road density | Physical Connectivity | **10.0** | 1.03 | km of road per 100 sq.km |
| LOWEST 5 RISK INDICATORS | Current High Violent Conflict Intensity Score | Current Conflicts Intensity | **0.0** | 0.00 | Index |
| | Physical exposure to Cyclone Surge | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS3 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS1 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Tsunami | Tsunami | **0.0** | 0.00 | Average annual population exposed per country |

## TRENDS

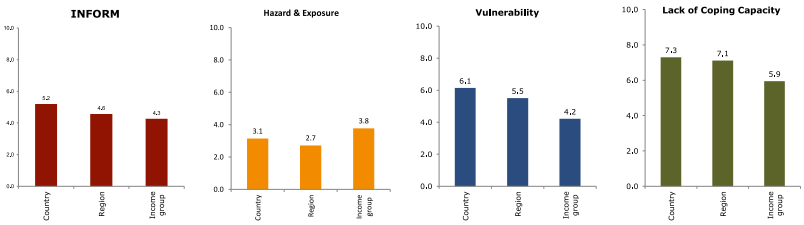



## GLOBAL PEERS

| Country | INFORM | Hazards & Exposure | Vulnerability | Lack of Coping Capacity |
|---|---|---|---|---|
| Tanzania | 5.3 | 4.0 | 5.5 | 6.9 |
| Nepal | 5.2 | 5.5 | 4.1 | 6.4 |
| Philippines | 5.2 | 8.3 | 3.7 | 4.7 |
| **Mauritania** | **5.2** | **3.1** | **6.1** | **7.3** |
| Guatemala | 5.2 | 5.4 | 4.9 | 5.2 |
| Ukraine | 5.1 | 7.0 | 3.4 | 5.6 |
| Zimbabwe | 5.1 | 3.4 | 5.4 | 6.9 |

## REGION AND INCOME GROUP CONTEXT



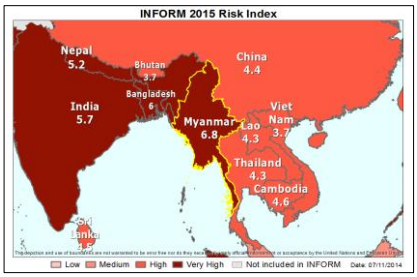
# MYANMAR

South-Eastern Asia
Low income

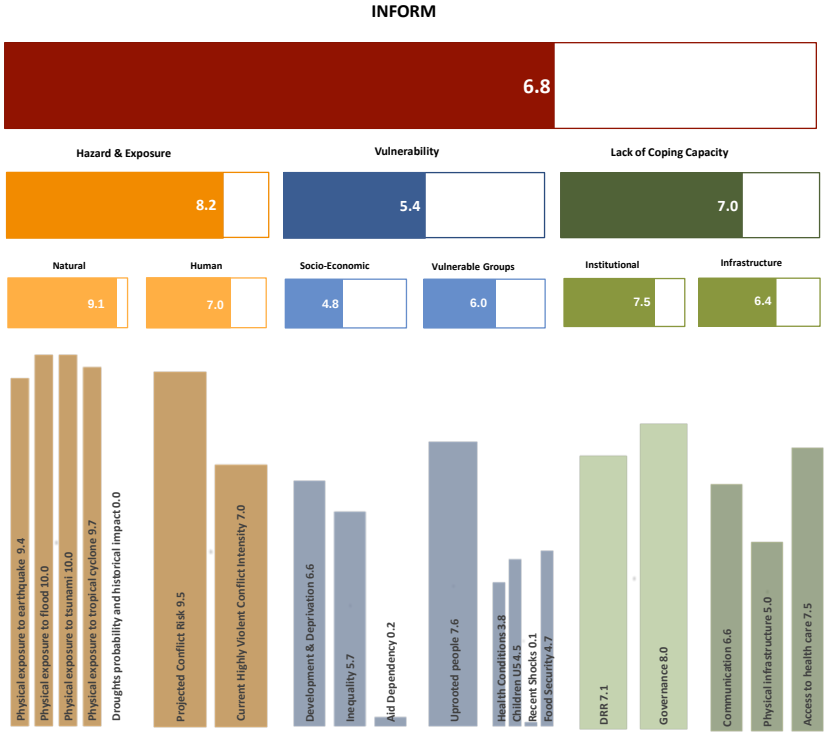
*INFORM Country Risk Profile*

*VERSION 2015*

| | Value | Rank | Trend (3 years) |
|---|---|---|---|
| INFORM Risk | 6.8 | 10 | ⇨ |
| Hazard & Exposure | 8.2 | 6 | ⇩ |
| Vulnerability | 5.4 | 39 | ⇨ |
| Lack of Coping Capacity | 7.0 | 35 | ⇨ |



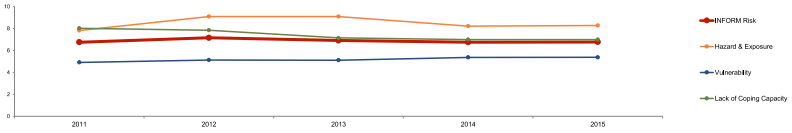

## RISK PROFILE

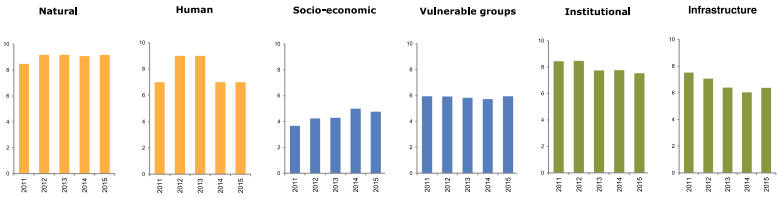


## RISK INDICATORS

| | Indicator | Component | Index | Value | Unit |
|---|---|---|---|---|---|
| HIGHEST 5 RISK INDICATORS | Physical exposure to earthquake MMI VI | Earthquake | **10.0** | 108115.79 | Average annual population exposed per country |
| | Physical exposure to Flood | Flood | **10.0** | 414875.00 | Average annual population exposed per country |
| | Physical exposure to Tsunami | Tsunami | **10.0** | 600576.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS3 | Tropical Cyclone | **10.0** | 109245.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone Surge | Tropical Cyclone | **10.0** | 54031.00 | Average annual population exposed per country |
| LOWEST 5 RISK INDICATORS | Net ODA received (% of GNI) | Economical Dependency | **0.0** | 0.00 | % of GNI |
| | Agriculture drought probability | Drought | **0.0** | 0.00 | Average annual events per country |
| | Frequency of drought events | Drought | **0.0** | 0.00 | Average annual events per country |
| | Total affected by Drought | Drought | **0.0** | 0.00 | Average annual population affected per country |
| | People affected by Natural Disasters | Other Vulnerable Groups | **0.1** | 58271.50 | Number |

## TRENDS

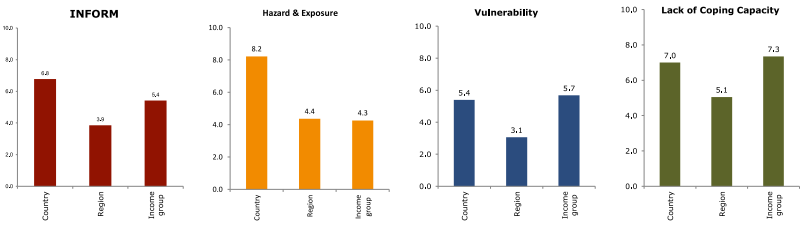



## GLOBAL PEERS

| Country | INFORM | Hazards & Exposure | Vulnerability | Lack of Coping Capacity |
|---|---|---|---|---|
| Iraq | 7.0 | 8.2 | 6.0 | 7.0 |
| Congo DR | 7.0 | 5.4 | 7.6 | 8.3 |
| Chad | 6.8 | 4.6 | 7.8 | 8.9 |
| **Myanmar** | **6.8** | **8.2** | **5.4** | **7.0** |
| Mali | 6.7 | 6.0 | 6.5 | 7.8 |
| Syrian Arab Republic | 6.7 | 8.4 | 6.0 | 5.9 |
| Nigeria | 6.5 | 6.8 | 5.9 | 6.8 |

## REGION AND INCOME GROUP CONTEXT



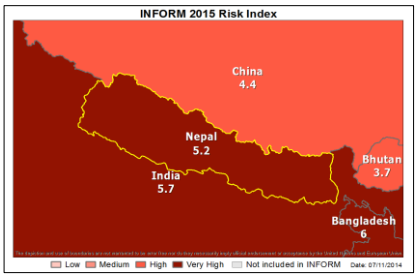
# NEPAL

Southern Asia
Low income

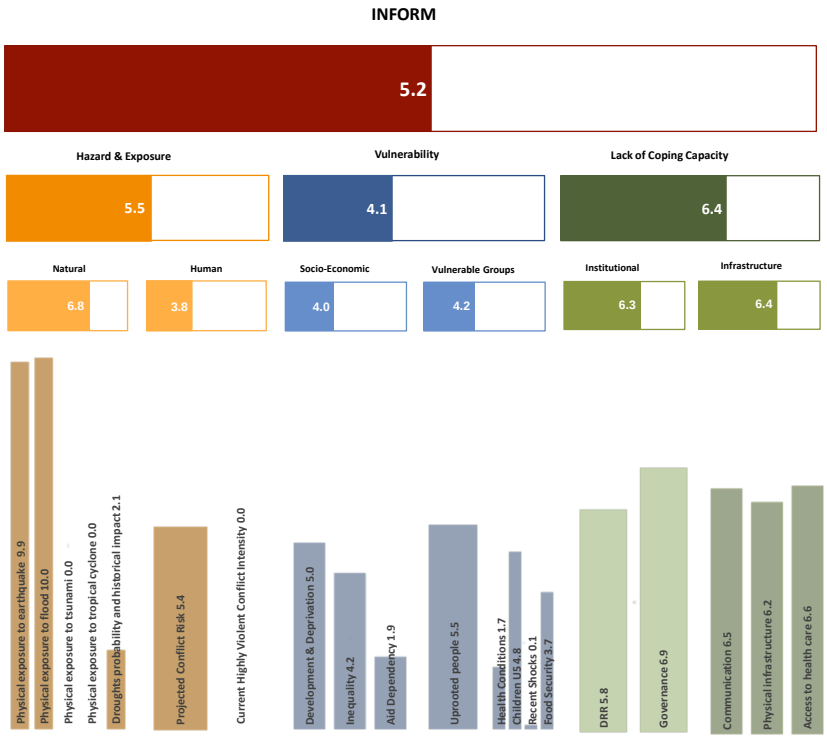
*INFORM Country Risk Profile*

*VERSION 2015*

| | Value | Rank | Trend (3 years) |
|---|---|---|---|
| INFORM Risk | 5.2 | 28 | ⇩ |
| Hazard & Exposure | 5.5 | 35 | ⇩ |
| Vulnerability | 4.1 | 68 | ⇩ |
| Lack of Coping Capacity | 6.4 | 54 | ⇨ |



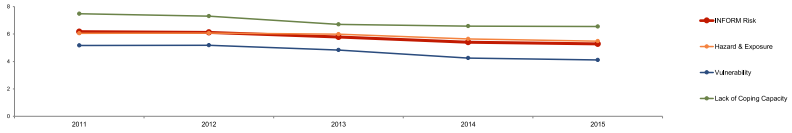

## RISK PROFILE

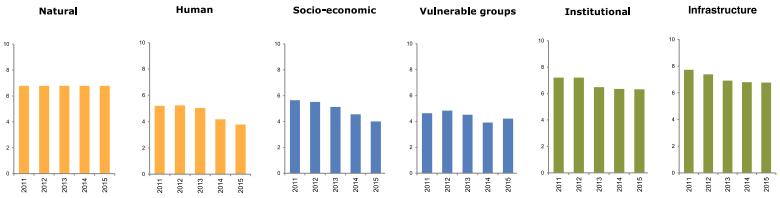


## RISK INDICATORS

| | Indicator | Component | Index | Value | Unit |
|---|---|---|---|---|---|
| HIGHEST 5 RISK INDICATORS | Physical exposure to earthquake MMI VIII | Earthquake | **10.0** | 40918.74 | Average annual population exposed per country |
| | Physical exposure to Flood | Flood | **10.0** | 354534.00 | Average annual population exposed per country |
| | Health expenditure per capita | Access to health care | **9.9** | 80.00 | current int USD PPP |
| | Physical exposure to earthquake MMI VI | Earthquake | **9.7** | 62694.95 | Average annual population exposed per country |
| | Road density | Physical Connectivity | **9.1** | 14.00 | km of road per 100 sq.km |
| LOWEST 5 RISK INDICATORS | Current High Violent Conflict Intensity Score | Current Conflicts Intensity | **0.0** | 0.00 | Index |
| | Agriculture drought probability | Drought | **0.0** | 0.00 | Average annual events per country |
| | Physical exposure to Cyclone Surge | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS3 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS1 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |

## TRENDS

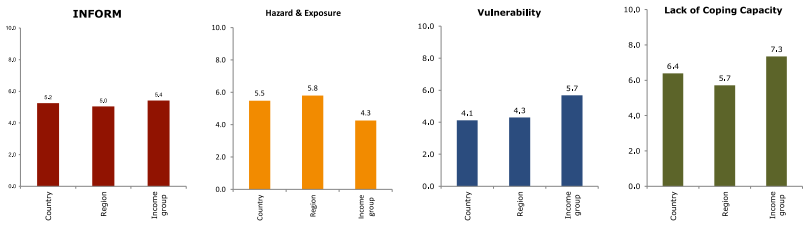



## GLOBAL PEERS

| Country | INFORM | Hazards & Exposure | Vulnerability | Lack of Coping Capacity |
|---|---|---|---|---|
| Colombia | 5.5 | 6.4 | 5.9 | 4.3 |
| Burundi | 5.4 | 3.7 | 6.6 | 6.5 |
| Tanzania | 5.3 | 4.0 | 5.5 | 6.9 |
| **Nepal** | **5.2** | **5.5** | **4.1** | **6.4** |
| Philippines | 5.2 | 8.3 | 3.7 | 4.7 |
| Mauritania | 5.2 | 3.1 | 6.1 | 7.3 |
| Guatemala | 5.2 | 5.4 | 4.9 | 5.2 |

## REGION AND INCOME GROUP CONTEXT



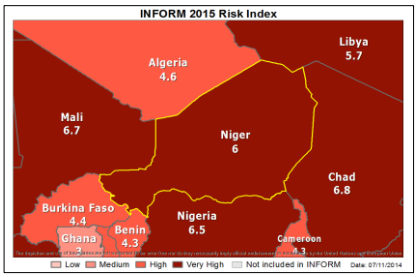
# NIGER

Western Africa
Low income

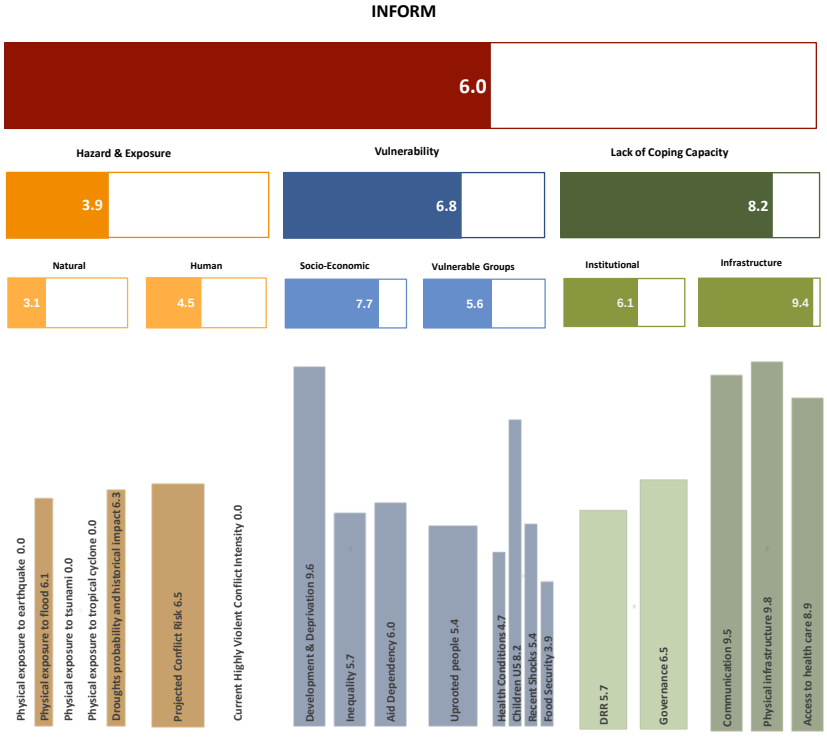
*INFORM Country Risk Profile*

*VERSION 2015*

| | Value | Rank | Trend (3 years) |
|---|---|---|---|
| INFORM Risk | 6.0 | 20 | ⇩ |
| Hazard & Exposure | 3.9 | 62 | ⇨ |
| Vulnerability | 6.8 | 8 | ⇩ |
| Lack of Coping Capacity | 8.2 | 10 | ⇩ |



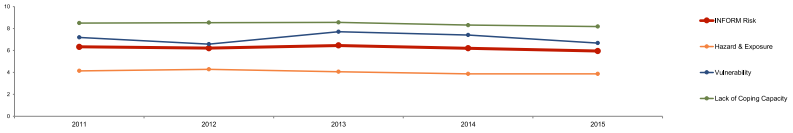

## RISK PROFILE

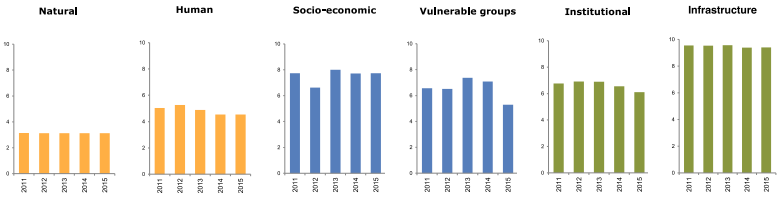


## RISK INDICATORS

| | Indicator | Component | Index | Value | Unit |
|---|---|---|---|---|---|
| HIGHEST 5 RISK INDICATORS | Total affected by Drought | Drought | **10.0** | 831437.30 | Average annual population affected per country |
| | Malaria death rate | Other Vulnerable Groups | **10.0** | 154.00 | per 100,000 people |
| | Adult literacy rate | Communication | **10.0** | 28.67 | % |
| | Improved sanitation facilities (% of population with access) | Physical Connectivity | **10.0** | 9.00 | % |
| | Health expenditure per capita | Access to health care | **10.0** | 44.24 | current int USD PPP |
| LOWEST 5 RISK INDICATORS | Current High Violent Conflict Intensity Score | Current Conflicts Intensity | **0.0** | 0.00 | Index |
| | Physical exposure to Cyclone Surge | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS3 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS1 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Tsunami | Tsunami | **0.0** | 0.00 | Average annual population exposed per country |

## TRENDS

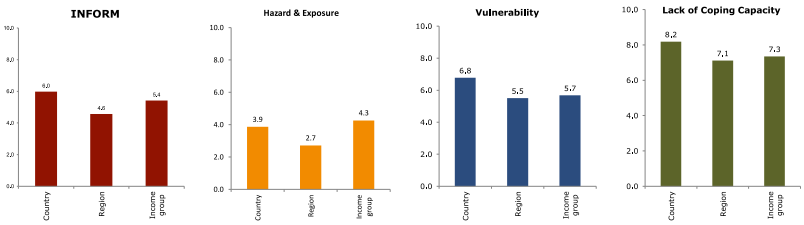



## GLOBAL PEERS

| Country | INFORM | Hazards & Exposure | Vulnerability | Lack of Coping Capacity |
|---|---|---|---|---|
| Kenya | 6.2 | 5.8 | 6.3 | 6.6 |
| Haiti | 6.1 | 5.0 | 5.4 | 8.2 |
| Bangladesh | 6.0 | 7.9 | 4.7 | 5.8 |
| **Niger** | **6.0** | **3.9** | **6.8** | **8.2** |
| Palestine | 5.9 | 6.8 | 6.0 | 5.1 |
| Mozambique | 5.7 | 4.4 | 6.0 | 7.2 |
| India | 5.7 | 7.6 | 4.4 | 5.3 |

## REGION AND INCOME GROUP CONTEXT



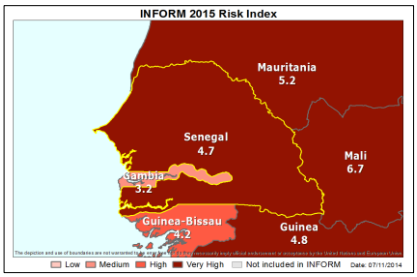
# SENEGAL

Western Africa
Lower middle income

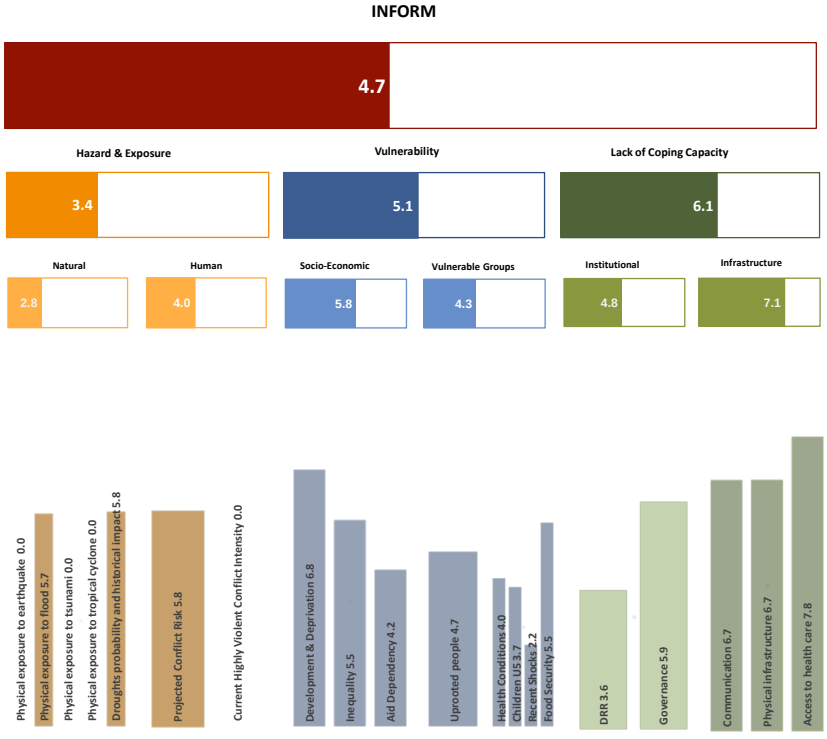
*INFORM Country Risk Profile*

*VERSION 2015*

| | Value | Rank | Trend (3 years) |
|---|---|---|---|
| INFORM Risk | 4.7 | 43 | ⇨ |
| Hazard & Exposure | 3.4 | 71 | ⇨ |
| Vulnerability | 5.1 | 45 | ⇨ |
| Lack of Coping Capacity | 6.1 | 59 | ⇩ |



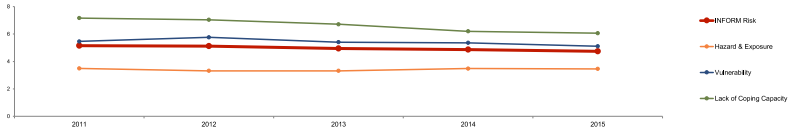

## RISK PROFILE

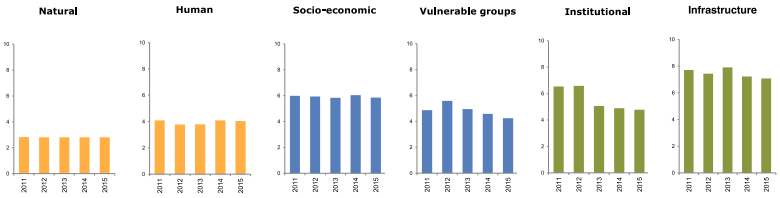


## RISK INDICATORS

| | Indicator | Component | Index | Value | Unit |
|---|---|---|---|---|---|
| HIGHEST 5 RISK INDICATORS | Phisicians Density | Access to health care | **9.9** | 0.60 | per 10,000 people |
| | Health expenditure per capita | Access to health care | **9.8** | 96.49 | current int USD PPP |
| | Road density | Physical Connectivity | **9.6** | 7.52 | km of road per 100 sq.km |
| | Adult liteacy rate | Communication | **8.3** | 49.70 | % |
| | Internet users | Communication | **8.1** | 19.20 | % |
| LOWEST 5 RISK INDICATORS | Current High Violent Conflict Intensity Score | Current Conflicts Intensity | **0.0** | 0.00 | Index |
| | Physical exposure to Cyclone Surge | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS3 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS1 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Tsunami | Tsunami | **0.0** | 0.00 | Average annual population exposed per country |

## TRENDS

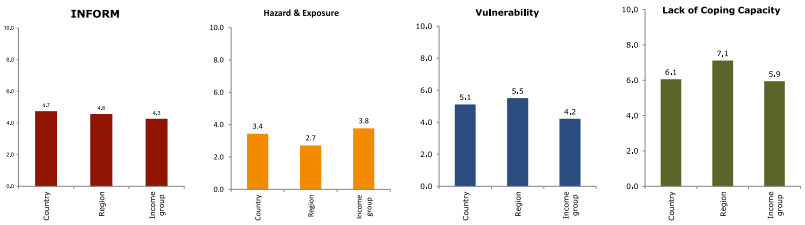



## GLOBAL PEERS

| Country | INFORM | Hazards & Exposure | Vulnerability | Lack of Coping Capacity |
|---|---|---|---|---|
| Madagascar | 4.8 | 3.6 | 4.0 | 7.7 |
| Angola | 4.8 | 3.5 | 4.7 | 6.8 |
| Lebanon | 4.8 | 3.9 | 6.3 | 4.5 |
| **Senegal** | **4.7** | **3.4** | **5.1** | **6.1** |
| Timor-Leste | 4.7 | 3.0 | 4.8 | 7.4 |
| Turkey | 4.7 | 6.1 | 4.6 | 3.7 |
| Egypt | 4.6 | 6.4 | 3.3 | 4.7 |

## REGION AND INCOME GROUP CONTEXT



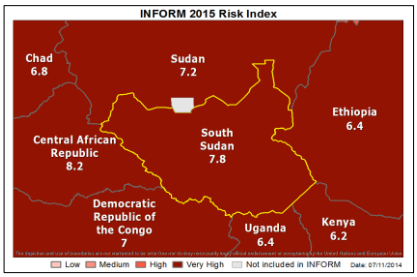
# SOUTH SUDAN

Eastern Africa
Low income

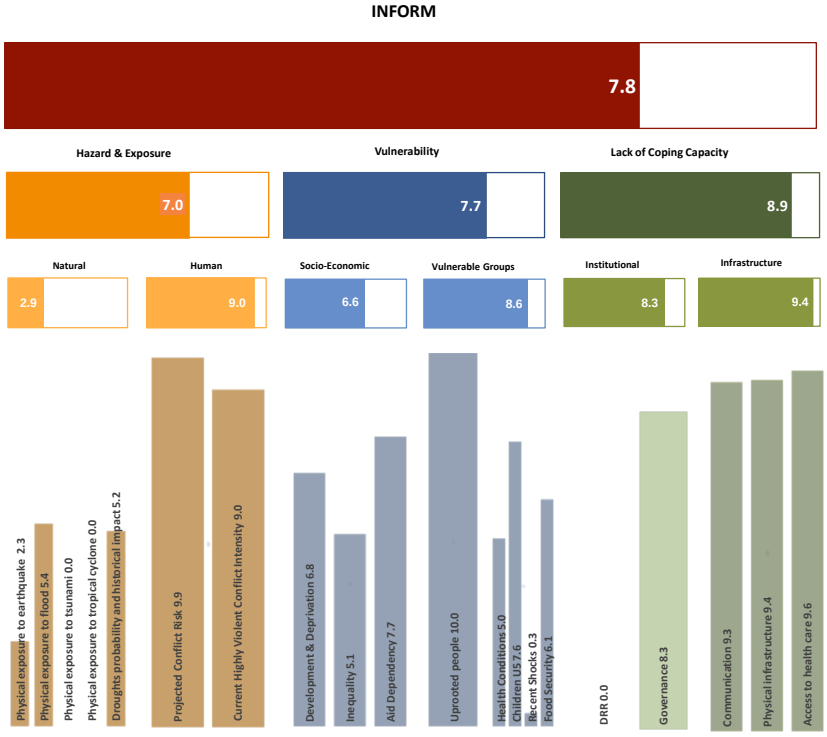
*INFORM Country Risk Profile*

*VERSION 2015*

| | Value | Rank | Trend (3 years) |
|---|---|---|---|
| INFORM Risk | 7.8 | 4 | ⇧ |
| Hazard & Exposure | 7.0 | 17 | ⇨ |
| Vulnerability | 7.7 | 4 | ⇧ |
| Lack of Coping Capacity | 8.9 | 3 | ⇧ |



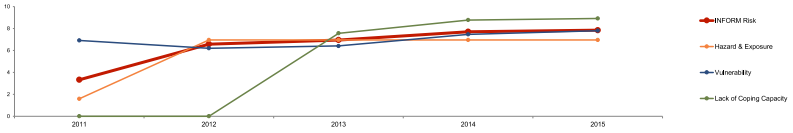

## RISK PROFILE

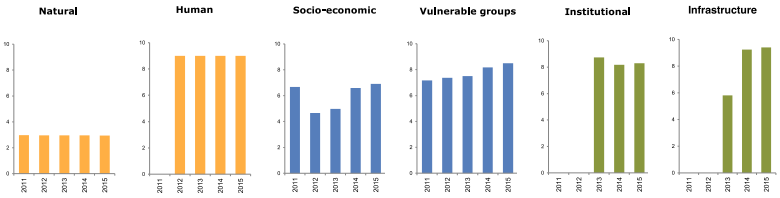


## RISK INDICATORS

| | Indicator | Component | Index | Value | Unit |
|---|---|---|---|---|---|
| HIGHEST 5 RISK INDICATORS | Total affected by Drought | Drought | **10.0** | 820000.00 | Average annual population affected per country |
| | Net ODA received (% of GNI) | Economical Dependency | **10.0** | 16.42 | % of GNI |
| | Total persons of concern | Uprooted people | **10.0** | 1657147.00 | Number |
| | Improved sanitation facilities (% of population with access) | Physical Connectivity | **10.0** | 8.90 | % |
| | Health expenditure per capita | Access to health care | **10.0** | 32.67 | current int USD PPP |
| LOWEST 5 RISK INDICATORS | Physical exposure to Cyclone Surge | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS3 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS1 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Tsunami | Tsunami | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to earthquake MMI VIII | Earthquake | **0.0** | 0.00 | Average annual population exposed per country |

## TRENDS

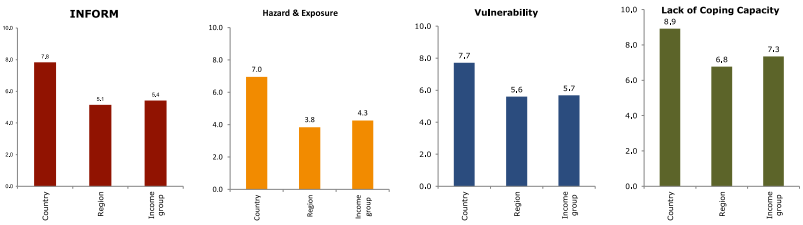



## GLOBAL PEERS

| Country | INFORM | Hazards & Exposure | Vulnerability | Lack of Coping Capacity |
|---|---|---|---|---|
| Somalia | 8.8 | 8.6 | 8.4 | 9.6 |
| Central African Republic | 8.2 | 7.8 | 8.1 | 8.6 |
| Afghanistan | 7.9 | 8.7 | 6.9 | 8.2 |
| **South Sudan** | **7.8** | **7.0** | **7.7** | **8.9** |
| Sudan | 7.2 | 7.3 | 7.2 | 7.3 |
| Yemen | 7.2 | 7.9 | 5.6 | 8.2 |
| Iraq | 7.0 | 8.2 | 6.0 | 7.0 |

## REGION AND INCOME GROUP CONTEXT



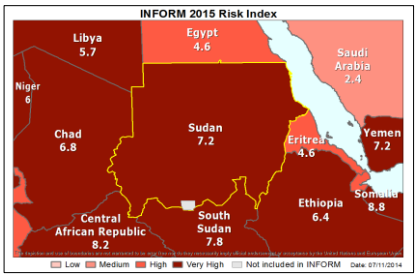
# SUDAN

Northern Africa
Lower middle income

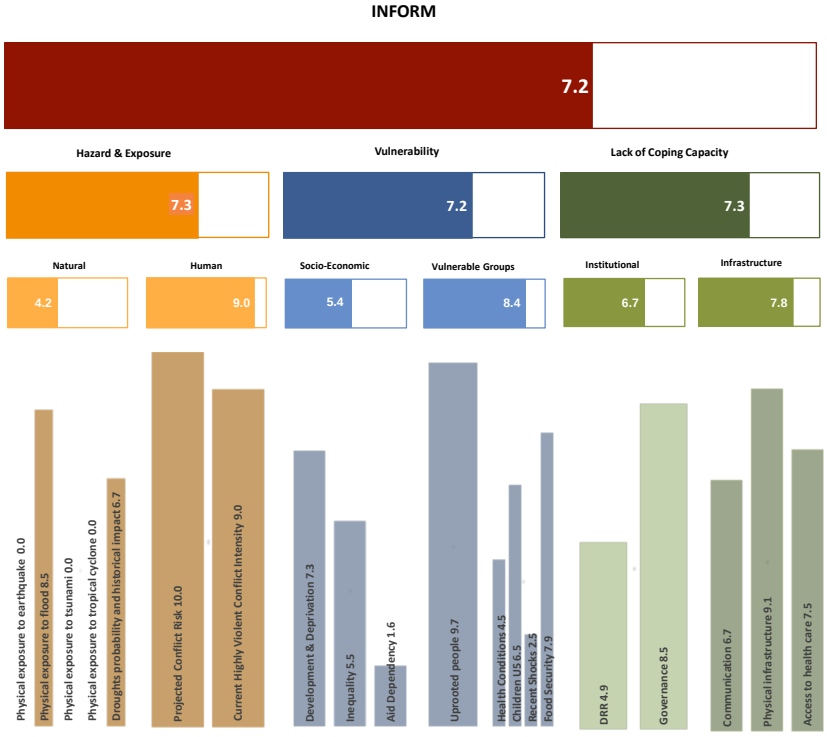
*INFORM Country Risk Profile*

*VERSION 2015*

| | Value | Rank | Trend (3 years) |
|---|---|---|---|
| INFORM Risk | 7.2 | 5 | ⇨ |
| Hazard & Exposure | 7.3 | 13 | ⇨ |
| Vulnerability | 7.2 | 6 | ⇨ |
| Lack of Coping Capacity | 7.3 | 25 | ⇩ |



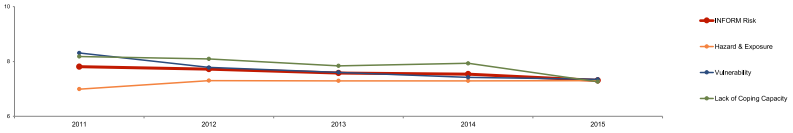

## RISK PROFILE

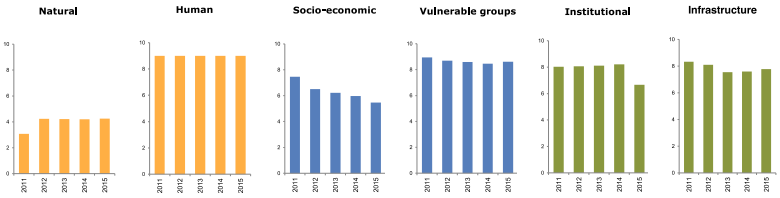


## RISK INDICATORS

| | Indicator | Component | Index | Value | Unit |
|---|---|---|---|---|---|
| HIGHEST 5 RISK INDICATORS | GCRI Internal Conflict Score | Projected Conflict Risk | **10.0** | 0.96 | Index |
| | Prevalence of Undernourishment | Other Vulnerable Groups | **10.0** | 38.90 | % |
| | Road density | Physical Connectivity | **10.0** | 1.00 | km of road per 100 sq.km |
| | Total persons of concern | Uprooted people | **9.7** | 3163861.00 | Number |
| | Health expenditure per capita | Access to health care | **9.6** | 159.10 | current int USD PPP |
| LOWEST 5 RISK INDICATORS | Physical exposure to Cyclone Surge | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS3 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS1 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Tsunami | Tsunami | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to earthquake MMI VIII | Earthquake | **0.0** | 0.00 | Average annual population exposed per country |

## TRENDS

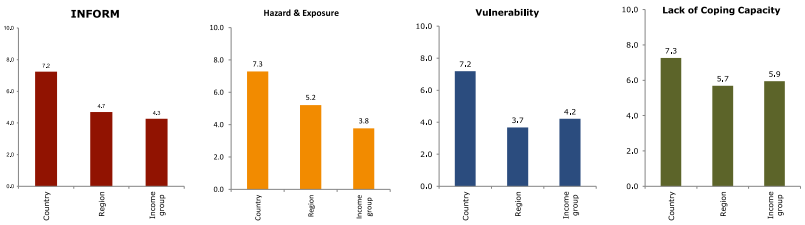



## GLOBAL PEERS

| Country | INFORM | Hazards & Exposure | Vulnerability | Lack of Coping Capacity |
|---|---|---|---|---|
| Central African Republic | 8.2 | 7.8 | 8.1 | 8.6 |
| Afghanistan | 7.9 | 8.7 | 6.9 | 8.2 |
| South Sudan | 7.8 | 7.0 | 7.7 | 8.9 |
| **Sudan** | **7.2** | **7.3** | **7.2** | **7.3** |
| Yemen | 7.2 | 7.9 | 5.6 | 8.2 |
| Iraq | 7.0 | 8.2 | 6.0 | 7.0 |
| Congo DR | 7.0 | 5.4 | 7.6 | 8.3 |

## REGION AND INCOME GROUP CONTEXT



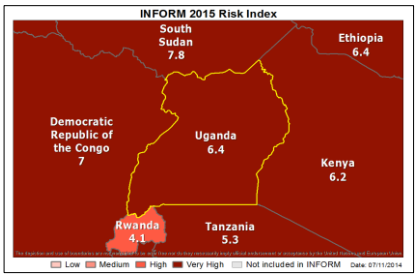
# UGANDA

Eastern Africa
Low income

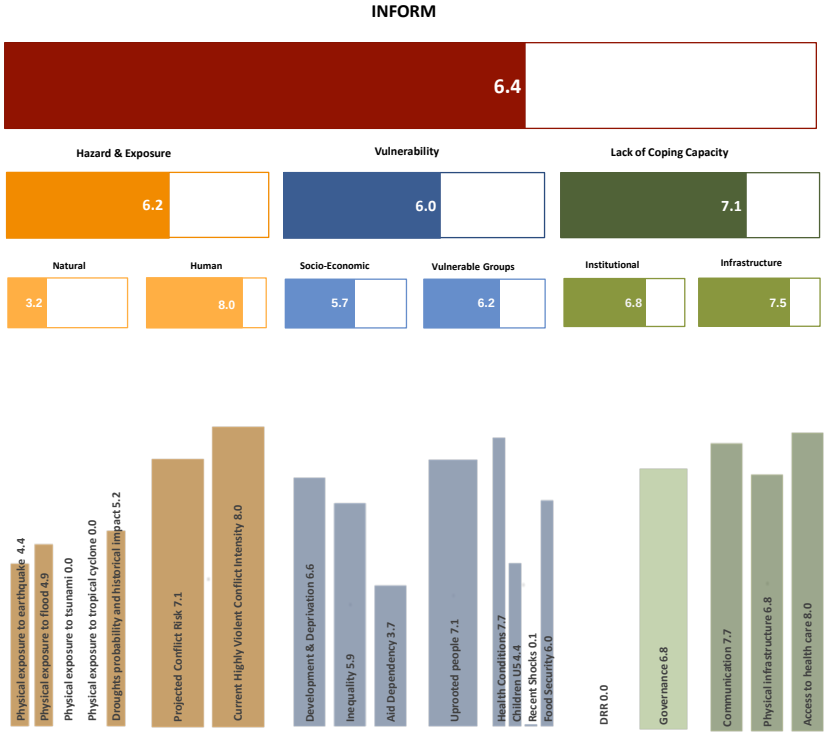
*INFORM Country Risk Profile*

*VERSION 2015*

| | Value | Rank | Trend (3 years) |
|---|---|---|---|
| INFORM Risk | 6.4 | 14 | ⇧ |
| Hazard & Exposure | 6.2 | 25 | ⇧ |
| Vulnerability | 6.0 | 22 | ⇨ |
| Lack of Coping Capacity | 7.1 | 29 | ⇩ |



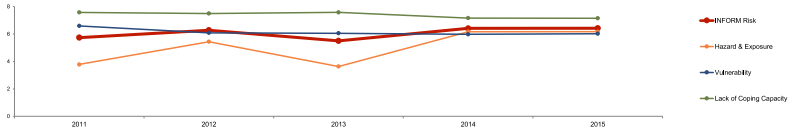

## RISK PROFILE

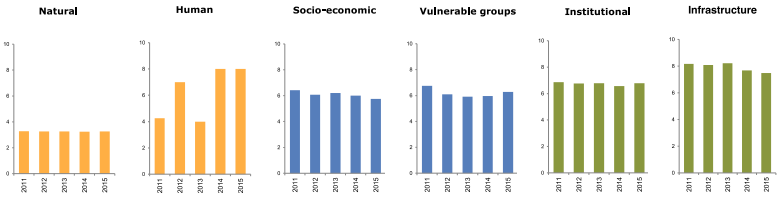


## RISK INDICATORS

| | Indicator | Component | Index | Value | Unit |
|---|---|---|---|---|---|
| HIGHEST 5 RISK INDICATORS | Estimated number of people living with HIV - Adult (>15) rate | Other Vulnerable Groups | **10.0** | 7.20 | % |
| | Malaria death rate | Other Vulnerable Groups | **10.0** | 149.00 | per 100,000 people |
| | Health expenditure per capita | Access to health care | **9.8** | 107.78 | current int USD PPP |
| | Phisicians Density | Access to health care | **9.7** | 1.20 | per 10,000 people |
| | Access to electricity | Communication | **9.2** | 8.50 | % |
| LOWEST 5 RISK INDICATORS | Physical exposure to Cyclone Surge | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS3 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Cyclone SS1 | Tropical Cyclone | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to Tsunami | Tsunami | **0.0** | 0.00 | Average annual population exposed per country |
| | Physical exposure to earthquake MMI VIII | Earthquake | **0.0** | 0.00 | Average annual population exposed per country |

## TRENDS




## GLOBAL PEERS

| Country | INFORM | Hazards & Exposure | Vulnerability | Lack of Coping Capacity |
|---|---|---|---|---|
| Mali | 6.7 | 6.0 | 6.5 | 7.8 |
| Syrian Arab Republic | 6.7 | 8.4 | 6.0 | 5.9 |
| Nigeria | 6.5 | 6.8 | 5.9 | 6.8 |
| **Uganda** | **6.4** | **6.2** | **6.0** | **7.1** |
| Ethiopia | 6.4 | 5.3 | 6.4 | 7.7 |
| Pakistan | 6.3 | 7.6 | 5.4 | 5.9 |
| Kenya | 6.2 | 5.8 | 6.3 | 6.6 |

## REGION AND INCOME GROUP CONTEXT