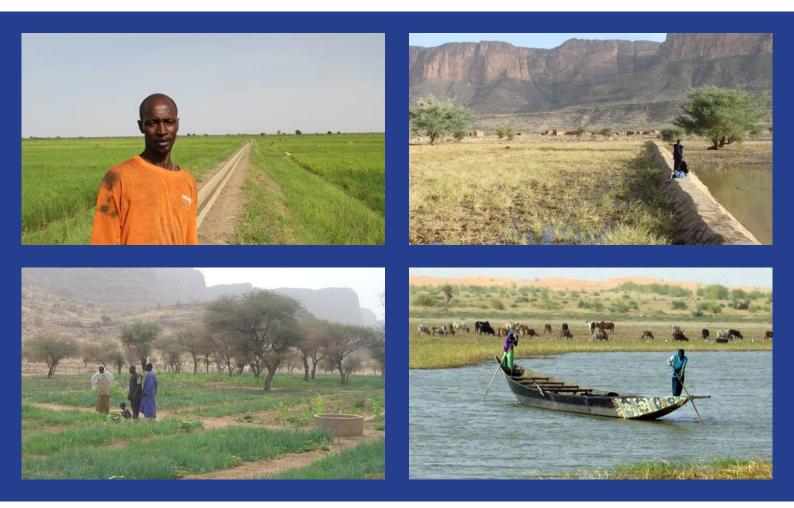


Programme Development Report #2 Climate Finance Landscape: Mali and Senegal



Prepared by the NEF/IIED/IED-Afrique Consortium July 2014





International Institute for Environment and Development



Climate Finance Landscape: Mali and Senegal

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Cover Photos: Near East Foundation

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1. Introduction to Climate Finance

To help meet the growing challenges posed by climate change, the international community has begun to steer their efforts towards channelling climate finance for global mitigation and adaptation. As climate finance spreads it becomes ever more important to track how resources will be allocated and distributed. Past evidence has shown a trend towards the concentration of climate finance at the central (or national) level in some developing countries; with little recognition of climate finance needs at sub-national and local levels (Puppim de Oliveira, 2009). Finance channelled to developing countries is often based on an assumption that funds disbursed to national accounts will finally 'trickle down' to all levels. In reality, this goal is not always being met (Christensen et al., 2012): Better established and more concerted mechanisms are needed in order to channel finance towards the local levels for supporting climate adaptation.

In Kenya the Adaptation Consortium, led by the National Drought Management Authority (NDMA) and supported by the International Institute for Environment and Development (IIED), has piloted the creation of a County Adaptation Fund (CAF). The CAF is a decentralised model for creating access to national or global finance for meeting the climate finance needs expressed by local governments and communities. This decentralized financing model is now being considered for scale-up in two countries in the Sahel: Mali and Senegal. The CAF approach adopted in Kenya will seek to build capacity in local governments of Mali and Senegal for effective planning and delivery of climate adaptation measures.

In designing a pilot project for local governments in West Africa, the issue of scale is important: For example there are over 700 *communes* in Mali and 570 *communates rurales* in Senegal that will each require access to decentralised financing at levels broadly similar to those proposed under the County Adaptation Fund in Kenya. Local governments in both Mali and Senegal have significantly devolved powers for managing natural resources, and have long term mandates to address local adaptation challenges, but as yet global climate finance is concentrated within central government with limited provision for decentralising it to local government.

A fundamental issue that needs to be considered in planning a decentralised model of climate funding is how much funding each country could expect to access from the international pool of available climate funding? This purpose of this briefing paper is to explore to what extent sufficient global funds would be available to offer decentralised financing to all 700 communes in Mali and 570 in Senegal, at the level of £500,000 per commune, as is proposed within the Kenyan County Adaptation Fund pilot. The paper explores four main questions in order to analyse how much funding could potentially be available for Mali and Senegal in different scenarios by 2020:

- 1) What is the scale of climate finance globally, as well as in Sub-Saharan Africa?
- 2) How much finance is currently received by Mali and Senegal?
- 3) What are the main sources of finance (channels), which are the main contributing countries (sources), and how is the money being used (use)?
- 4) How much finance could potentially be available for Mali and Senegal?

In order to understand the landscape in each country, we have used a diagnostic approach that analyses interactions and linkages between sources of finance, channels of delivery, and the use of funds in country. This approach is adapted from the SEI climate finance framework (Atteridge, et.al (2009); Person et al. (2009)) and the two-dimensional climate finance landscape framework of Buchner et al, 2012 (Buchner et al., 2012).

The diagnostic lens used is focused on three related questions:

- 1) How much finance is available?
- 2) What is the money allocated for?
- 3) How is the money used in country?

Once the climate finance landscape in Mali and Senegal has been sketched out, we assess the likely ability of these countries to access climate finance in future. The analysis is further used to forecast available global funding for the two countries within three different scenarios:

- 1) **Business as usual (BAU): The** BAU scenario explores how much finance will be available for both Mali and Senegal if both countries continue to follow their baseline trajectory whereby Mali receives 0.23% and Senegal receives 0.17% of total international finance, as observed between 2003 and 2013.
- 2) **Low Increase Scenario:** The Low increase scenario explores how much finance will be available to Mali and Senegal if global commitment increases up to half (50%) of \$100 billion per year, with 50% of funds coming from the public sector (\$25 billion/year by 2018).
- 3) **Optimistic Scenario:** The optimistic scenario explores how much finance will be available to Mali and Senegal if global commitment to climate finance increases up to \$100 billion per year with 50% coming from public sector (\$50 billion/ year by 2020).

These projections are based on a relatively sparse amount of data collected at the country level, and data gathered from the Climate Funds Update (CFU)¹ database, which comprises multilaterally governed climate funds. Most of the data is cumulative data until 2012/2013, and doesn't reflect patterns of changes in climate finance over a time series. Funding from national sources towards climate change and funding from private investments are not included in this assessment.

Due to inadequate publically available longitudinal data, the projections and analysis is also based on assumed scenarios and is not a robust statistical analysis. These assumptions are therefore a fair approximation—based on the available secondary information and not on calculations of accurate primary data collected for estimating climate finance in the two countries.

¹ CFU database provide an overview of climate funds governed multilaterally. Bilateral initiatives are also tracked but it is still a work in progress and not entirely complete.

2. The Scale of Climate Finance

Developing countries need significant amounts of climate finance to both reduce greenhouse gas emissions and to cope with a changing climate. To address these two global needs the Copenhagen Accord (2009) proposed that developed countries would provide \$100 billon of 'new and additional' climate finance to developing countries annually by 2020. Since then, countries have committed \$30 billion between 2010–2012 as Fast Start Finance (FSF) with most developed nations managing to exceed their funding targets. The onset of the global financial crisis however has challenged efforts to ensure adequate finance, and the availability and commitments for long-term climate finance remain uncertain. Contributing countries have pledged varying amounts towards meeting adaptation and mitigation needs, but the approval and disbursal of dedicated finance remain slow. The distribution of available global finance also varies geographically within the focus areas of mitigation and adaptation projects. The section below sketches out the scale of public finance available for addressing climate change issues and narrates how the money has been spent to date.

2.1 How much climate finance is available?

Up until 2013 developed countries have pledged approximately 37 billion USD of total climate finance, of which around 57% has been approved for spending and 13% disbursed. Figure 1 shows the amount of climate finance pledged, approved, and disbursed to date.

Pledged funds comprise verbal or signed commitments from contributing countries towards a particular fund.

Approved figures comprise funds that have been set aside and approved to a specific project or programmes.

Disbursed funds are those that have been released and spent on different projects.



Figure 1: Total Climate finance landscape at 2013 (in \$ million dollars)

Source: Climate Funds Update, ODI²

2.2 Where is the money spent?

The emerging economies of Asia (50%) and Latin America (13%) have received the largest approvals for mitigation finance.

Sub Saharan Africa (SSA) is one of the lowest recipients of climate finance when compared to the rest of the world. According to World Bank estimates, addressing climate change in the Sub Saharan Africa (SSA) region will require annual expenditure of approximately 18 billion dollars between now and 2050, which is far from being met currently (Nakhooda et al., 2011). So far around \$3 billion USD of climate finance has been approved for SSA, while only \$454 million has been disbursed.

2 Source for each graph is CFU database, ODI and therefore not repeated under each graph or table.

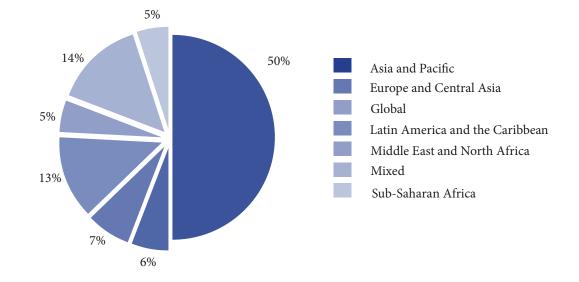
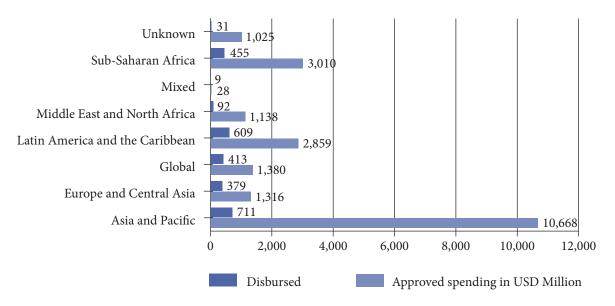


Figure 2: Geographical distribution of approved climate finance (In \$ million dollars)

Figure 3: Approved and disbursed funds by region (In \$ million)



Given these trends, the Green Climate Fund (GCF) aims to ensure geographical balance in access to finance. Least Developed Countries see country limits as a way of protecting their interests, but large developing nations have opposed the proposal. To bridge divided opinions, the GCF Board has agreed to set guidelines and assess risks of resources being concentrated unfairly (Rai, 2014).

Green Climate Fund

The Green Climate Fund was established as a functional entity of the financial mechanism of UNFCCC, with a wider goal to bring a paradigm shift towards low-emissions and climate resilient development. The decision to establish the GCF was an outcome of the 16th session of the COP UNFCCC held in Cancun 2010. Until 2013, contributing countries have pledged \$35 million dollars under the GCF.

One argument in the past has been that the allocation of money to SSA has been understandably lower due to its lower population levels, but this argument is unjustifiable due to their extreme vulnerability to climate change. With rainfall projected to reduce further by 20%, the effects of climate change will have strong implications on Sub Saharan Africa where more than 60% of the population is employed in and 40% of the Gross Domestic Product is derived from the agriculture sector (UNEP, 2006). The SSA countries also need additional financing for building readiness at both national and sub national levels so that approved money can be more effectively disbursed at both central and local levels.

2.3 How is the money being spent? Adaptation vs Mitigation

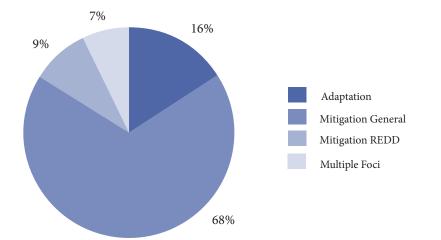


Figure 4: Use of climate finance by focus areas (approved spending in \$ million)

Mitigation projects are the major recipients of climate finance across the developing countries, and even more so in emerging economies. Around 68% of finance for mitigation is used for general mitigation projects such as renewables, cleaner development mechanism, etc., while 9% is approved for forestry and REDD (Reducing Emissions from Deforestation and Forest Degradation) projects. Financing for Adaptation is less than a quarter of total approved funds.

With mitigation projects significantly concentrated in Asia and Latin America, the total available finance in Sub Saharan Africa and Small Island States, which have great adaptation needs, is low. For example, only 2% of the total Clean Development Mechanism projects were registered in SSA (most in South Africa).

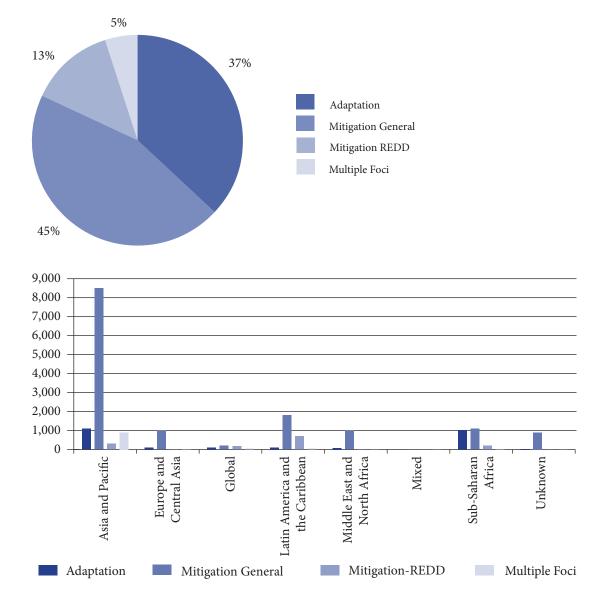


Figure 5: Climate finance by focus areas in Sub Saharan Africa (Approved spending in \$ million)

There is also a wide gap in the distribution of finance within the Sub Saharan Africa region. South Africa (\$520 million), Kenya (\$458 million) and Tanzania (\$198 million) were the largest recipients of climate finance in SSA up until 2013. These three countries are also the largest recipients of mitigation finance in the region. Most of the adaptation finance is approved for spending in Mozambique (\$105 million), Niger (\$120 million) and Zambia (\$94 million), whilst Mali (\$22 million) and Senegal (\$29 million) receive low levels of finance for adaptation as illustrated in Figure 6.

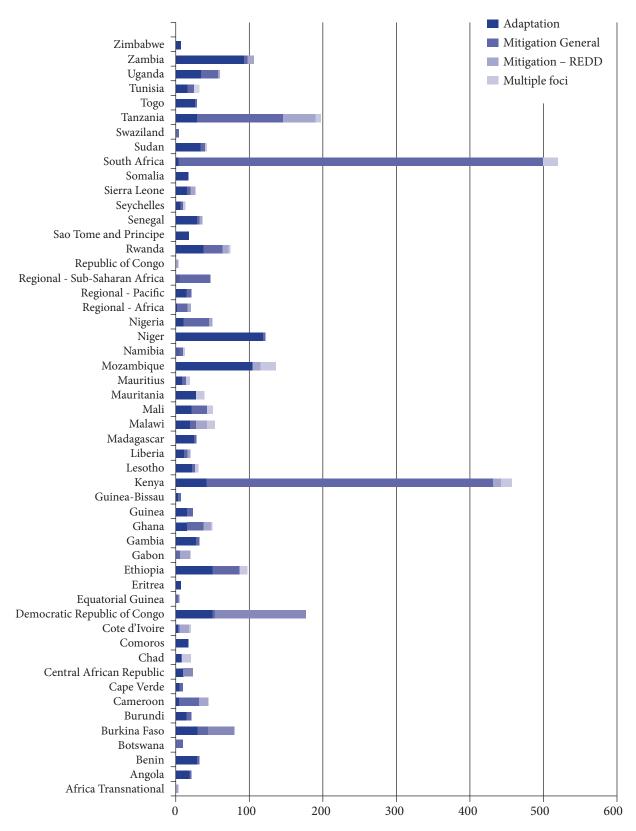


Figure 6: Approved spending across countries (in \$ million)

2.4 Funds and funders of adaptation finance

Although the Sub Saharan Africa region has received approvals for the second largest amount of adaptation finance (32%), see figure 3, the disbursal of this funding to the region has taken considerable time. So far, SSA has received disbursements worth \$183 million, which is 16% of the total approved finance for adaptation (\$1347 million).

The main sources for adaptation finance in Sub Saharan Africa are:

- A) The Least Developed Countries Fund (2001) Around 65% of the LDCF fund (\$644 million) has been approved for spending in Sub Saharan Africa to help the region prepare and develop their National Adaptation Programmes of Action (NAPA) and towards building resilience in the agriculture sector.
- B) The Pilot Programme for Climate Resilience (2008) is a World Bank administered Climate Investment Fund that focuses on building climate resilience in LDCs. Almost 37% (\$255 million) of the total PPCR money (\$695 million) is approved for three countries in the SSA region–Niger, Mozambique and Zambia.
- C) Japan's Fast Start Finance (2010) is the third largest contributor in the Sub Saharan Africa region, with a cumulative approved allocation of \$207 million until 2013. Although overall figures are high, most of Japan's FSF has gone to mitigation projects; only 2% of the total FSFs finance is allocated to adaptation.

In addition to these three sources, the Adaptation Fund (AF), the Special Climate Change Fund (SCCF), and European Union's Global Climate Change Alliance (GCCA) are the next major contributors to Adaptation projects in the SSA region, with approvals of \$58.6 million (28% of total AF funding), \$50 million (27% of total), \$74 million (19% of total), respectively.

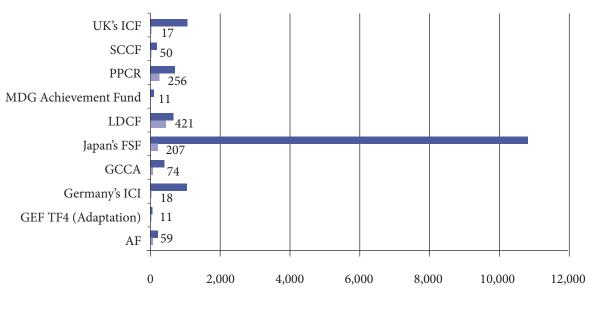


Figure 7: Financing by various climate funds

Total Sub-Saharan Africa

Main funds	Main funders (contribution to the total fund)	Main recipients of this fund in SSA
LDCF	Germany (221 ³), Sweden (76), Netherlands (75), USA (80), UK (60), Belgium (50), Australia (43), Finland (29), Norway (28), Others (Canada, France, etc.)	Total recipients in SSA – 33 countries Main recipients: Burkina Faso (23), Angola (19.15), Congo (19), Gambia (18), Lesotho (18), Niger (18), Uganda (15), Zambia (18), Malawi (17), Mali (13), Rwanda (18), Senegal (9), Others.
PPCR	UK (527), USA (290), Japan (105), Canada (84), Germany (66), Australia (33), Others (Denmark, Norway, Spain)	Total recipients in SSA – 3 countries Mozambique (81), Niger (98), Zambia (76)
Japan's FSF	Japan	Total recipients in SSA – 32 countries
		Main recipients:
		Kenya (32), Congo (31), Sudan (24), Togo (13), Ethiopia (11), Nigeria (10.), Somalia (8), Burkina Faso (6), Senegal (6), Ghana (6), Mali (4), Others
Adaptation Fund	Germany (54), Spain (57), Sweden	Total recipients in SSA – 8 countries
	(59), Switzerland (14), and UK (16).	Main recipients:
		Mauritius (9), Rwanda (10), Senegal (9), Seychelles (6), Mauritania (8), Eretria (6), Madagascar (5), Tanzania (5)
SCCF	Germany (120), Belgium (41),	Total recipients in SSA – 12 countries
	Norway (32.7), USA (40), UK (18),	Main recipients: 21
	Others (Canada, Denmark, Finland, Ireland, Italy, Switzerland, etc.)	Regional pacific (13), Kenya (6), Zimbabwe (5), Tunisia (5), Ghana (4), Cameroon (4), others.
GCCA	EC (178), EC Fast Track finance	Total recipients in SSA – 21 countries
	(97), Ireland (40), Others (Sweden,	Main recipients:
	Estonia, Czech Republic)	Mozambique (21), Uganda (14), Tanzania (14), Ethiopia (14), Congo (18), Burkina Faso (10), Benin (11), Malawi (11), Mali (7), Senegal (5), Others.

Table 1: Main contributors and recipients of the funds listed above

3 All in \$ million.

3. Climate finance in Mali

Mali Factsheet	
Population of the country	14 million
Climate finance approved (total 2003–2013)	\$50 million
Climate finance disbursed (2003-2013)	\$11 million
Uses of Climate finance:	44% (\$22 million)
Adaptation	40% (\$18 million)
Mitigation – General	16% (\$8million)
Multiple foci	
Fund, funders and uses:	Funds:
Adaptation focussed	Germany's International Climate Change Initiative
	Least Developed Country Fund
	Japan's Fast Start Finance (FSF)
	Global Climate Change Alliance
	Uses:
	Building resilience in the agriculture sector and pastoral management.
	Strengthening adaptation policies and development planning for climate change adaptation.
	Enhancing capacities to cope with climate induced disasters.
	Key Contributing countries:
	Germany, Japan, EC, Sweden, the Netherlands
Mitigation focussed	GEF Trust Fund facility-4
	Scaling up Renewable Energy Programme (SREP).
	Uses:
	Renewables – Mini micro hydro, solar photovoltaic, rural electrification.
	Key Contributing countries:
	UK, USA, Japan, Netherlands, Norway, etc.

Source : Climate Funds Update data base : http://www.climatefundsupdate.org/data

Mali is located within the sub-tropical Sahel belt of West Africa with the Sahara desert in the North. The country's economy is strongly dependent on natural resources that are greatly affected by climate change. The country is taking various steps to address its climate related issues. The greening of its Strategic Framework for Growth and Poverty Reduction is one such effort. Mali has also developed a National Strategy on Climate Change (SNCC), which led to the establishment of an institutional framework for Climate Change in 2011.

To achieve its strategic vision (2012–2017), Mali (supported by Sweden) has established a Multi-Donor Trust Fund to ensure there is adequate access to finance from bilateral, multilateral, public and private sources. Within Sub Saharan Africa, Mali is the first country to set up a National Climate Fund (UNDP, 2013). The total amount of finance needed for addressing climate change issues, as per the strategic vision, is estimated to be \$250 million for the period 2012–2017. The first coordination round under the Mali Climate Fund (MCF) was financed through the LDCF and the BMU. The sections below provide an overview of the climate finance landscape in Mali, including the main sources and the main uses of climate finance in Mali.

3.1 How much finance is available for Mali?

CFU data suggests a total approval of \$50 million in climate finance for Mali since 2003, which represents 1.6% of the total climate finance approved in Sub Saharan Africa; with \$10.9 million disbursed to date, which represents nearly 3% of total climate finance disbursed in this region (Table 2).

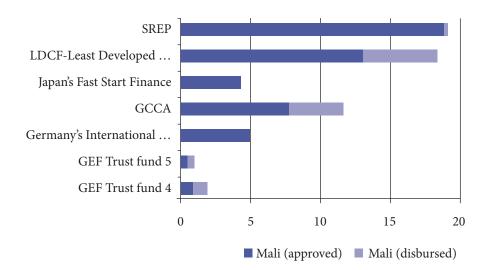
	Pledged	Approved	Disbursed
Total	37473	21424	2690
SSA		3010	454
% of total		14.1	16.9
Mali		50.02	10.86
% of total		0.23	0.40
% of SSA		1.66	2.39

Table 2: Proportion of approved and disbursed funding received by SSA and Mali (in million dollars)

The table below highlights the main funds that have allocated dedicated finance to address climate change issues in Mali. It is important to note that aid was frozen in response to the coup in 2012, when a number of areas were no longer under direct government control.

	Mali	Total funding: SSA	Total worldwide
GEF Trust Fund-4	0.95	127.41	955.56
GEF Trust Fund 5	0.5	67.43	668.54
Germany's International climate initiative	4.84	109.59	1,037.79
GCCA	7.68	179.47	390.77
Japan's FSF	4.35	865.28	420.73
LDCF	12.94	420.73	644.25
SREP	18.76	49.96	78.68

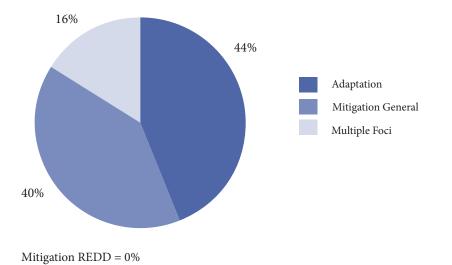
Table 3: Dedicated funds to address climate change in Mali (in USD mill dollars) and % received by Mali



3.2 What is the money allocated for in Mali?

The majority of climate finance that has been approved for Mali is dedicated to adaptation (\$22 million), although Mali has recently seen an increase in dedicated climate funding for mitigation. Around 95% of the total mitigation finance (\$19.71 million) is contributed by the Scaling up Renewable Energy Programme of the Climate Investment Funds (CIFs). This has increased the total share of mitigation finance in Mali to 40% of total climate funding (Figure 8).

Mali	Approved	Disbursed	Total SSA	Total All
Adaptation	22.13	5.31	1122	3426
Mitigation General	19.71	1.15	1359	14566
Mitigation – Red			389	1826
Multiple Foci	8.18	4.4	139	1590
	50.02	10.86	3010	21410





There is a wide gap in access to adaptation finance in Mali vis-à-vis other countries in the Sub Saharan Region. Mali receives only 2% of the available adaptation finance in the SSA region. The largest recipients are Mozambique, Zambia, and Niger as depicted in Figure 9 below.

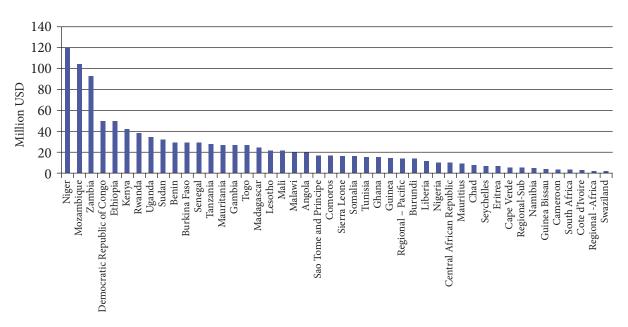


Figure 9: Distribution of adaptation finance across SSA (\$ million)

Mali continues to be one of the lowest recipients of **adaptation** finance amongst the Sahel countries. Sahel countries receive 28% (\$311 million) of the total adaptation finance in SSA (\$1116 million), and of that, Mali receives just 7% (see figure 10).

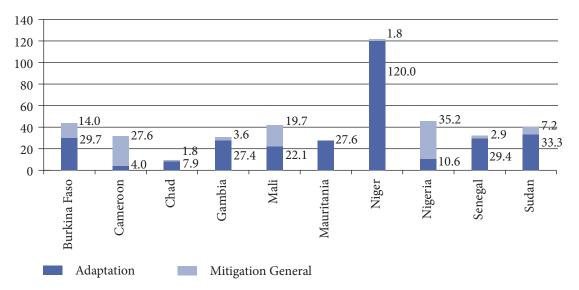


Figure 10: Distribution of climate finance across Sahelian countries (\$ million)

Mali (17%) is however one of the main recipients of climate funds that focus on **mitigation** projects in the Sahel, after Nigeria (\$35 million) and Cameroon (\$27 million). Amongst SSA countries as a whole the total amount of mitigation finance received by Mali is a meagre (1.5%), with top recipients remaining as South Africa, Kenya and Tanzania.

3.3 How has the money been used by Mali?

Main adaptation focused funds and uses in Mali

So far, most funds have used grant based funding instruments to finance adaptation projects. Although approved, the majority of these funds are yet to be disbursed. Only the Least Developed Country Fund (LDCF) has disbursed 40% of the total funds approved for Mali. Table 4 below provides an overview of the main projects currently financed in Mali.

Table 4: Main adaptation focused funds, projects and their status in Mali

Fund	Approved	Disbursed	Contributing countries	Main projects	Implementer	Approved	Disbursed					
Germany's International climate	4.84	0	Germany	Innovative development planning for climate change adaptation.	GIZ, UNDP	3.86	0					
initiative				Strengthening National Climate Policy and Strategies for Adapting to Climate Change	GIZ, UNDP	0.98	0					
Japan's FSF	4.35	0	Japan	Programme for the Improvement of Capabilities to Cope with Natural Disasters Caused by Climate Change		4.35	0					
LDCF	12.94	5.31	Germany, Sweden Netherlands,	Enhancing Adaptive Capacity and Resilience to Climate Change in the Agriculture Sector in Mali	UNDP	3	3					
		Bel Au	USA, UK, Belgium, Australia	Belgium, Australia	Belgium, Australia	Belgium, Australia	Belgium,	Belgium, Australia Integrating Climate Resilience inte Agricultural Production for Food Security in Rural Areas	-	UNDP	2.11	2.11
			Norway	Preparation of a NAPA in Mali	FAO	0.2	0.2					
			Others (Canada, France, etc.)	Strengthening Resilience to Climate Change through Integrated Agricultural and Pastoral Management in the Sahelian zone in the Framework of the Sustainable Land Management Approach	FAO	2.17	0					
				Strengthening the Resilience of Women Producer Groups and Vulnerable Communities	UNDP	5.46	0					

As shown above, building resilience in the agriculture sector has been the main focus of the **LDCF**, with one project specifically focused on strengthening resilience through pastoral management in the Sahel region (UNFAO). The LDCF is under the Global Environment Facility and has implementation support from the UNFAO, which has also supported the development of National Adaptation Programmes of Action (NAPA) in Mali. UNFAO and UNDP are the main entities (intermediaries) implementing LDCF projects. Germany's International Climate Initiative is the second largest funding source for adaptation projects in Mali. It is implemented through GIZ and UNDP with a focus on strengthening adaptation policies and development planning for climate change adaptation. Japan's fast Start Finance (FSF) is the third largest contributing fund with primary focus on strengthening capacities to cope with climate-induced disasters.

Main mitigation focused funds in Mali

Rural electrification and renewables are the main focus of mitigation projects, which are primarily implemented through multi-lateral development banks such as the African Development Bank and the World Bank group. These programmes are yet to disburse funds for full implementation of projects, although some money under the Scaling up Renewable Energy Programme has been disbursed for investment plan preparation.

Fund	Approved	Disbursed	Contributing countries	Main projects	Implementer	Approved	Disbursed	
GEF Trust Fund-4	0.95	0.95	USA, Japan, UK, Germany, France, Canada, Netherlands, Italy, Belgium, Switzerland, Denmark, Finland, Norway, Others	Promotion of the Use of Agro fuels from the Production and Use of Jatropha Oil in Mali	UNDP	0.95	0.95	
SREP	18.76	0.2	UKs ICF, Norway, The Netherlands, USA, Sweden, Japan's FSF,	Investment Plan Preparation Grant & Implementation Grant		0.2	0.2	
			Switzerland, Others.		Micro and Mini Hydro Power Plants Development (project preparation grant)	AfDB	2.21	0
				Rural Electrification Hybrid Systems (project preparation grant	IBRD	0.5	0	
				Rural Electrification Hybrid Systems		14.9	0	
				Solar Photovoltaic	AfDB	0.95	0	

Table 5: Main mitigation focused funds, projects and their status in Mali

Some projects funded within Mali have multiple foci: For example, the European Commission (EC) managed GCCA focuses on climate change integration into development strategies, as well management of the forestry sector.

Apart from various funds listed above, Mali also receives bilateral finance from individual countries that has not been entirely captured from the CFU database. Based on the information gathered from countries, sometimes it has also been difficult to distinguish between general environment and development related projects and those with climate specific funding. Details of projects funded by bilateral sources are attached in the annex.

Some multi and bi-lateral channels have dedicated projects aimed at building resilience and ensuring low carbon pathways at the local level. The forestry project supported by Global Climate Change Alliance (GCCA) in Mali is specifically implemented by local authorities in collaboration with the NGOs (\notin 6.215 million).

Conclusion

The observations above reflect on broad financial allocations for Mali based on the value of actual approvals and spending within the country. These values will be carried forward in the subsequent sections to calculate Mali's future possible "allocation".

4. Climate finance in Senegal

Senegal Factsheet	
Population of the country	13.5 million
Climate finance approved (total 2004–2013)	\$37 million
Climate finance disbursed (2004-2013)	\$20 million
Uses of Climate finance:	81% (\$30 million)
Adaptation	8% (\$2.92 million)
Mitigation – General	11% (\$4 million)
Mitigation – RED	
Fund, funders and uses:	Adaptation Fund
Adaptation focused	Global Climate Change Alliance
	Japan's Fast Start Finance
	Least Developed Country Fund
	Uses: Coastal adaptation projects.
Mitigation focussed	GEF Trust Fund facility-4
	Uses: Energy efficiency and technology transfer projects
	Key contributing countries: USA, Japan, UK, Germany, France, Canada, Netherlands.

Source : Climate Funds Update data base : http://www.climatefundsupdate.org/data

Climate change is affecting Senegal through decreasing precipitation rates that are causing droughts and saline intrusion. Changes in the intensity of rainfall and sea level rises are adding further stress in coastal areas and challenging the development of the country. Climate adaptation needs in Senegal clearly demand investments in rural and coastal areas, with concerted actions and financing towards building resilience. The sections below provide an overview of the climate finance landscape in Senegal.

4.1 How much finance is available for Senegal?

Climate Funds Update (CFU) data suggests a total approval of \$36.37 million in climate finance for Senegal since 2003, which represents 1.20% of the total climate finance approved in Sub Saharan Africa. \$19.56 million has been disbursed cumulatively by 2013, which represents nearly 4.30% of total climate finance disbursed in the region up until this date.

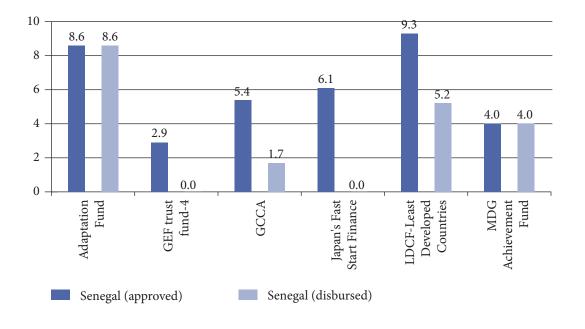
	Pledged	Approved	Disbursed
Total	37,473	21,424	2,690
SSA		3,010.176	454.73
% total		14.1	16.9
Senegal		36.37	19.56
% of total		0.17	0.73
% of SSA		1.21	4.30

Table 6: Status of funds approved and disbursed in Senegal (in \$ million)

The tables below highlight the main funds that have allocated dedicated finance towards address climate change issues in Senegal:

Table 7: Dedicated funds to address climate change in Senegal (in \$ million)

	Senegal	Total funding: SSA	Total worldwide
Adaptation Fund	8.62	58.6	211.57
GEF trust fund-4	2.92	127.41	955.5
GCCA	5.44	179.47	390.77
Japan's FSF	6.09	865.28	10826
LDCF	9.30	420.7	644.2
MDG Achievement Fund	4	20	89.52



As shown above, the Adaptation Fund, Japan's Fast Start Finance, Least Developed Country Fund (LDCF) and the EC funded GCCA are the main sources for adaptation funding in Senegal.

4.2 What is the money allocated for in Senegal?

Around 80% of the climate finance approved for Senegal is dedicated to Adaptation (\$29 million). General mitigation and forestry projects constitute a smaller share of total available finance (20%). In contrast to Mali, more than 50% of the adaptation finance is already disbursed in Senegal.

Senegal was able to unlock large amounts of adaptation finance directly through its National Implementing Entity (NIE). Within Sub Saharan Africa, Senegal is the first country to seek direct access to climate finance, by receiving accreditation for NIE status for a parastatal organisation working in the area of coastal management.

Senegal	Approved	Disbursed	Total SSA	Total All
Adaptation	29.45	15.56	1,122	3,426
Mitigation General	2.92	0	1,359	14,566
Mitigation – REDD	4	4	389	1,826
Multiple Foci			139	1,590
	36.37	19.56	3,010	21,410

Although disbursal in Senegal is high compared to other countries in SSA, the geographic distribution of funding for adaptation is quite disparate. Senegal receives less than 2% of adaptation finance received by the region. Within the Sahel, Senegal receives 10% of the total funding for adaptation.

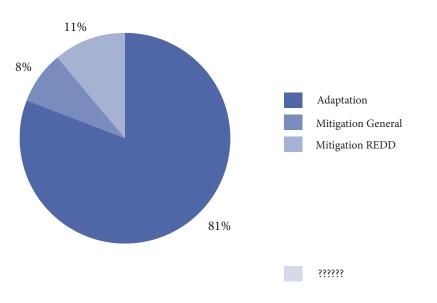


Figure 12: Approved and disbursed funding by focus areas (\$ million)

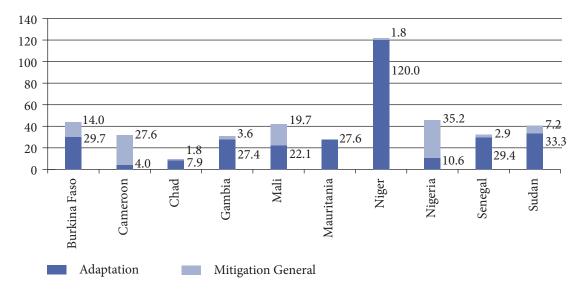


Figure 13: Senegal's position relatively to other Sahelian countries (\$ million)

As shown in Figure 13 above, financing for mitigation projects as a whole is fairly low to date (\$2.9 million).

4.3 How has the money been used by Senegal?

Main adaptation focused funds and uses in Senegal

So far, only the Adaptation fund has disbursed all of its allocated money to Senegal, while the LDCF and GCCA have disbursed more than 55% and 32% of their total allocated funds.

As shown by Table 8 below, reducing vulnerabilities in coastal areas has been the primary focus of the EC funded GCCA and the Adaptation Fund, and is being implemented by a parastatal entity or an NGO, the Centre De Suivi Ecologique (CSE). The accreditation of CSE as an NIE in Senegal has helped the country to directly access approximately \$8 million in climate funds for coastal adaptation projects.

Table 8: Main adaptation focused funds, projects and their status in Senegal (millions \$)

Fund	Approved	Disbursed	Contributing countries	Main projects	Implementer	Approved	Disbursed
Adaptation Fund	8.62	8.62		Adaptation to coastal erosion in vulnerable areas	Centre de Suivi Ecologique	8.62	8.62
GCCA	5.44	1.74		Management of coast areas	European Commission	5.44	1.74
Japan's FSF	6.09	0		Programme for the Improvement of Capabilities to Cope with Natural Disasters Caused by Climate Change		6.09	0
LDCF	9.3	5.2		Climate Change adaptation project in the areas of watershed management and water retention.	UNDP	5	5
				National Adaptation Program of Action	IFAD	0.2	0.2
				Strengthening Land & Ecosystem Management Under Conditions of CC in the Niayes and Casamance Regions	UNDP	4	0

Main mitigation focused funds in Senegal

Senegal has received a relatively small proportion of mitigation finance relative to other countries in the Sub Saharan Region. Even amongst the Sahel countries, the proportion of finance addressing mitigation remains fairly low.

Table 9: Main mitigation focused funds, projects and their status in Senegal (\$ million)

Fund	Approved	Dispersed	Contributing countries	Main projects	Implementer	Approved	Dispersed
GEF Trust Fund-4	2.92	0	USA, Japan, UK, Germany, France, Canada, Netherlands, Italy, Belgium,	National Greenhouse Gas Reduction Program through Energy Efficiency in the Built Environment – 1772	UNDP	0.92	0
			Switzerland, Denmark, Finland, Norway, Others	TT-Pilot (GEF-4): Technology Transfer: Typha-based Thermal Insulation Material Production in Senegal – 1711	UNDP	2	0

As shown above, energy efficiency and technology transfer projects financed by the Global Environment Facility's Trust Fund are two main projects approved for implementation by UNDP.

5. Conclusion: Climate finance projections for Mali and Senegal

Although Mali and Senegal are both acutely vulnerable to climate related changes, the scale of climate finance for adaptation available to both countries remains relatively low compared to other countries in Sub Saharan Africa. This is understandable given the low populations of these two countries, yet it is unjustifiable due to their extreme vulnerability to climate change. With rainfall projected to reduce by a further 20%, the effects of climate change will have strong implications on both countries where more than 60% of the population is employed in, and 40% of the Gross Domestic Product is derived from, the agriculture sector (UNEP, 2006). There is a strong justification for strengthening climate funds in these two countries.

Even where climate finance has been approved, the disbursal has been slow in Mali and Senegal. The current models of financing in these countries assume that governments will have absorptive capacity to use funds and implement projects once finance is approved. The slow disbursals of funds show that countries need the right type of finance that allows them to build readiness prior to implementing adaptation projects.

The sections above have sketched out the landscape of climate finance in Mali and Senegal, with the aim of understanding how much funding could potentially be available for Mali and Senegal. The analysis is now further used to forecast the available global funding for the two countries within three different scenarios, restated here:

- 1. Business as usual (BAU): BAU scenario explores how much finance will be available for Mali and Senegal if both the countries continue to follow their baseline trajectory, where Mali receives 0.23% and Senegal receives 0.17% of total international finance, as observed between 2003 and 2013.
- 2. Low Increase Scenario: Low increase scenarios explores how much finance will be available to Mali and Senegal if global commitment increases up to half (50%) of \$100 billion per year, with 50% of funds coming from the public sector (\$25 billion/year by 2018).
- **3. Optimistic Scenario:** The optimistic scenario explores how much finance will be available to Mali and Senegal if global commitment to climate finance increases up to \$100 billion per year, with 50% coming from the public sector (\$50 billion/ year by 2020).

As discussed earlier, these projections are based on the relatively sparse data available at the country level and also gathered from the CFU database. Most of the data is 'present data' total data and doesn't reflect patterns of changes in climate finance over time. National funding towards climate change and funding from private investments is also not available for this assessment. Our assumptions are therefore based on the information available and do not in any way reflect fully accurate calculations of climate finance projections in Mali and Senegal.

5.1 How much climate finance could Mali access?

Scenario 1: Business as usual scenario – If Mali continues to receive 0.17% of \$16 billion pledged by International finance

How much can Mali access from current financial flows?

Contributing countries have pledged around \$37.47 billion towards climate finance for developing countries. So far 57% (21.42 billion) of the funds have been approved for dedicated countries. This leaves 43% (\$16 billion) of the total pledged finance yet to be approved or disbursed for specific projects and countries.

Under the BAU scenario we provide a cumulative calculation of how much Mali can access from the \$16 billion pot, based on the present distribution in Mali:

- If the Sub Saharan Africa region continues to receive 14% of the total finance
- And Mali continues to receive 0.23% of total global finance and 1.23% of SSA finance

Mali can potentially access \$37 million from the pledged money that is yet to be approved.

	Pledged	Approved	Disbursed
Total	37,473	21,424	2,690
SSA		3,010	454
Mali		50.02	10.86
% of total		0.23	0.40
% of SSA		1.66	2.39

Past distribution (2004–2013) of \$21 billion

Projections from pledged financing

Mali's share	Mali (USD)		
Total Available	16b		
How much can SSA access?	2255m (14%)		
How much can Mali access?	37m (0.23%)		

How much can Mali access from the adaptation pool?

So far, 44% of climate finance in Mali is dedicated to adaptation projects, and around 40% is dedicated to general mitigation projects, with the rest to projects that have a multiple focus. If Mali receives 37 million dollars from the unallocated pledged money (16 billion), based on the existing trend:

Mali can potentially access \$16.28 million towards meeting adaptation needs using current financial sources.

These projections are merely based on the proportion of adaptation finance received by Mali to date. Actual allocation of finance could depend on donor country priorities to fund specific uses or focus areas.

Based on the present allocation trends, Mali can potentially access maximum funds from the Japan's fast start finance and the LDCF, provided both funding sources continue to fund Mali as they have done in

Fund	TotalPledged todate(until 2013)		Balance	Total approved for Mali (to date)	% of total approved	Projections = (Mali's Percentage of Balance)
Germany's International Climate Initiative	1,081.84	1,307.79	44.05	4.84	0.47	0.21
Japan's Fast Start Finance	15,000	420.73	14,579.27	4.35	1.03	150.74
Least Developed Countries Fund (LDCF)	781.46	644.25	137.21	12.94	2.01	2.76

the past. Japan's FSF and LDCF allocations to Mali are not assured however, and may not necessarily decide to fund Mali at the same level as in the past (1% and 2% of their total approved fund).

Both these funds have diverse focus areas: The FSF money, which is yet to be dispersed in Mali, is dedicated towards improving coping capacities to deal with climate induced disasters; while the LDCF largely focuses on establishing NAPA priorities and building resilience in the agricultural sector.

Amongst the LDCF funded projects, one specific project is dedicated to strengthening resilience to climate change through integrated agriculture and pastoral management in the Sahel region. LDCF has approved around \$2 million for this project, however the money is yet to be disbursed.

Scenario 2: Low increase scenario: Global financial allocation of \$25billion/year from public sources by 2018

The Copenhagen Accord proposed the establishment of a 'Green Climate Fund' that would seek to mobilise climate funds of up to \$100 billion a year by 2020. From recent developments at COP Warsaw (2013), it seems that the GCF will struggle to achieve its ambition. Considering these developments, if 50% of the target is met and 50% will come from the public domain, and the share for Mali remains 0.23%, the flow to Mali will amount to \$57 million/year.

How much could Mali access from the adaptation pool?

- (a) If Adaptation share remains at 44% (BAU): Under current financial arrangements adaptation receives 44% of total public finance. If funding for adaptation remains 44%, Mali can potentially receive \$25 million annually for adaptation actions.
- (b) If Adaptation share is 50%: If adaptation finance as a share of total finance globally increases in the near future, Mali will also see the benefits. Under the new GCF structure, adaptation will receive 50% of global climate finances. If Mali also chooses to allocate 50% of the total finance to adaptation needs, Mali can potentially receive \$29 million annually for adaptation projects.

Scenario 3: Optimistic scenario: Global financial allocation of \$50 billion/year from public sources by 2020

In a scenario where the world achieved the \$100bn/year target, how much money could Mali access? If we assume that 50% of the \$100 billion will come from public sources we can arrive at an assumption that Mali will access 0.23% of the total climate finance available from public sources (\$50billion/year). Based on the current allocation for Mali = **\$115 million available annually if GCF is fully funded and disbursed**

How much could Mali access from the adaptation pool?

- (a) If Adaptation share remains 44% (BAU): Under current financial arrangements adaptation receives 44% of total public finance. If funding for adaptation remains 44%, Mali can potentially receive \$50 million annually for adaptation actions.
- (b) If Adaptation share is 50%: If adaptation finance as a share of total finance globally increases in the near future, Mali will also see the benefits. Under the new GCF structure, adaptation will receive 50% of global climate finances. ⁴ If Mali also chooses to allocate 50% of the total finance to adaptation needs, Mali can potentially receive \$57 million annually for adaptation projects.

5.2 How much climate finance could Senegal access?

Scenario 1: Business as usual scenario: Senegal receives 0.17% of \$16 billion pledged money from contributing countries

Under the BAU scenario we provide a cumulative calculation of how much Senegal can access from the \$16 billion available globally, based on the present distributions:

- If the Sub Saharan Africa region continues to receive 14% of the total finance
- If Senegal continues to receive 0.17% of total global finance and 1.2% of SSA finances.

Senegal can potentially access \$27 million from the pledged money that is yet to be approved.

Past distribution (2004–2013) (in USD million)

	Pledged		Disbursed	
Total	37473	21,424	2,690	
SSA		3,010	454	
Senegal		36.37	19.56	
% of total		0.17	0.73	
% of SSA		1.21	4.30	

Projections: Senegal's % share of pledged financing

S	enegal's share	USD
Т	otal Available	16 billion
Н	low much can SSA access?	2255 million (14%)
	low much can Senegal ccess?	27.2 million (0.17%)

In the 6th GCF board meetings in Bali (2014), an important agreement was reached that aims to allocate equal funding to projects that help countries adapt to the impacts of climate change and those that help them mitigate. As a result of this decision the current global climate finance pie, which is split as 16% to adaptation and the 84% mitigation and multiple focussed projects, will significantly change.

How much can Senegal access from the adaptation pool?

Presently, 81% of climate finance in Senegal is dedicated to adaptation projects, and around 19% is dedicated to general mitigation projects and REDD projects. If Senegal receives \$27 million dollars from the unallocated pledged money (\$16 billion) in the future:

Senegal can potentially receive around \$22 million to meet its adaptation needs.

These projections are merely based on the proportion of adaptation finance received by Senegal cumulatively up to 2013; the actual allocation of finance will depend on donor country priorities to fund specific focus areas.

Based on the present allocation trends, Senegal can potentially access the most funding from Japan's Fast Start Finance and the LDCF, if both the funds continue to fund Senegal as they have done in the past. Although pledged, Japan's FSF and LDCF allocations to Senegal are not assured and Japan may decide to not fund Senegal at the same level as past allocations (around 1.5% of their total approved budget).

Senegal Funds	Pledged to date	Total approved (until 2013)	Balance	Total approved for Senegal (to date)	% of total approved	Projections = (Senegal's % of Balance)
Adaptation Fund				8.62		
Japan's Fast Start Finance	15,000	420.73	14,579.27	6.1	1.4	211.0
Least Developed Countries Fund (LDCF)	781.46	644.25	137.21	9.3	1.4	2.0

Scenario 2: Low increase scenario: Global financial allocation of \$25billion/year from public sources by 2018

As stated above, the Copenhagen Accord proposed the establishment of a 'Green Climate Fund' that would seek to mobilise climate funds of up to \$100 billion a year by 2020. From recent developments at COP Warsaw (2013), it seems that the GCF will struggle to achieve its ambition. Considering these developments, if 50% of the target is met and 50% will come from the public domain, and the share for Senegal remains 0.17%, the flow to Senegal will amount to \$42.5 million/year.

How much can Senegal access from the adaptation pool?

- (a) If Adaptation share remains 81.1% (BAU): Under current financial arrangements adaptation receives 81% of total public finance in Senegal. If funding for adaptation remains at 81%, Senegal can potentially receive \$35 million annually for adaptation actions.
- (b) If Adaptation share is 50%: If the GCF decides to allocate equal funding to adaptation and mitigation, this may result in a reduction in the percentage of total funds spent on adaptation in Senegal. If GCF disbursement were distributed evenly between mitigation and adaptation at country level, Senegal would receive \$21 million annually for adaptation.

Scenario 3: Optimistic scenario: Global financial allocation of \$50 billion/year from public sources by 2020

If we assume that 50% of the projected target of \$100 billion/year by 2020 will come from public sources we can arrive at an assumption that Senegal will access 0.17% of the total climate finance available from public sources (\$50billion/year). Based on the current allocation for Senegal = **\$85 million available annually if GCF is fully funded and disbursed**

How much could Senegal access from the adaptation pool?

- (c) If Adaptation share remains 81.1% (BAU): If 81% of the total finance in Senegal continues to be allocated to adaptation needs, **Senegal can potentially receive \$68 million annually for funding adaptation projects.**
- (d) If Adaptation share is 50%: If the GCF decides to allocate equal funding to adaptation and mitigation, this may result in a reduction in the percentage of total funds spent on adaptation in Senegal. If GCF disbursement were distributed evenly between mitigation and adaptation at country level, Senegal would receive \$42.5 million annually for adaptation.

The table below provides a summary of projections in Mali and Senegal based on 3 scenarios explained above

Projections under three scenarios: Summary sheet							
Scenario 1: Business As Usual (BAU) Scenario: If both the countries continue to follow their baseline trajectory where Mali receives 0.23% and Senegal receives 0.17% of total international finance as observed between 2003 and 2013							
Mali		Senegal					
Mali's total share could be – \$37m		Senegal's total share could be – \$27 million					
Mali's adaptation share – \$16.28 million		Senegal's adaptation share - \$22 million					
 Scenario 2: Low increase scenario: Global financial allocation of \$25billion/year from public sources by 2018 (a) Adaptation receives BAU (44% – Mali; 81% – Senegal) (b) Adaptation receives 50% 							
Total: = \$57.5 million annually		Total: = \$42million annually					
Existing adaptation share (44:56 split) = \$25 million annually		Existing adaptation share (80:20)= \$34 million annually					
Increased adaptation shared (50:50) = \$29 million		Reduced adaptation share (50:50) = \$21 million annually.					
Scenario 3: Optimistic scenario: Global financial alloca	ation	of \$50 billion/year from public sources by 2020					
■ If global commitment to climate finance increases u sector (\$50 billion/ year by 2020) and	p to S	\$100 billion per year with 50% coming from public					
Adaptation receives BAU (44% – Mali; 81% – Seneg	al)						
Adaptation receives 50%							
Total: = \$ 115 million annually		Total: = \$85million annually					
Existing adaptation share (44:56 split)= \$50 million annually		Existing adaptation share (80:20)= \$68million annually					
Increased adaptation shared (50:50)=\$57million		Reduced adaptation share (50:50) = \$42.5 million annually.					

Evidence from the above analysis suggests a model of decentralised climate finance suggested by the CAF model in Kenya could go to scale across the whole of Mali and Senegal, under the current expectations of the level of funding for adaptation that each country might receive in future from global climate finance.

Does Mali and Senegal's CAF finance needs match available funds? (in USD million)						
	Mali	Senegal				
No of communes	703	370				
Total USD needed if BRACED funding levels applied to all communes=	75,000,000	34,000,000				
Scenario 1: Current funding available in Senegal – BAU	16,280,000	22,000,000				
Scenario 2a: If global finance reaches \$50 billion and 44% allocated to adaptation in Mali and 81% to Senegal	25,000,000	34,000,000				
Scenario 2b: If global finance reaches \$50 billion and 50% allocated to adaptation in Mali and Senegal	29,000,000	21,000,000				
Scenario 3a: If global finance reaches \$100 billion nd 44% allocated to adaptation in Mali and 81% to Senegal	50,000,000	68,000,000				
Scenario 3b: If global finance reaches \$100 billion and 50% allocated to adaptation in Mali and Senegal	57,000,000	42,000,000				
%	76	124				
Conclusion	Little below the required level even in the best scenario	In the correct ballpark				

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