## **CLIMATE CHANGE ADAPTATION BULLETIN**

A Quarterly Update of Activities

**United Nations Development Programme** 



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This bulletin is produced by the UNDP-GEF Unit and provides an overview of UNDP-GEF's support to countries to affect policy and institutional change for climate change adaptation at the national, sub-national and community levels. It includes updates on a range of topics including the status of ongoing projects, new project approvals, performance indicators, project impacts and results, and noteworthy announcements. To contribute to future issues, please write to: adaptation@undp.org

## Supporting Climate Change Adaptation in Small Island Developing States (SIDS)

UNDP supports a substantial portfolio of projects in Small Island Developing States (SIDS) focused on climate change adaptation. We are pleased to highlight the impacts of several of these initiatives in this

### 20,000 Mangroves Strong: Planting Roots and **Securing a More Resilient Future in Mauritius**

The coast of Mauritius is increasingly vulnerable and exposed to the



Residents of Grand Sable village plant mangroves along the Mauritius coastline. Photo: UNDP

risks of climate change, leaving its societies and economies at risk. Coastal communities are already impacted: bearing witness to land erosion and changes in fish stock that threaten their livelihoods. Faced with the "new" reality of sealevel rise and frequent tidal surges, residents of coastal areas are taking matters into their own hands by implementing strategies to adapt and to establish new, climate-resilient approaches to safe-

guard their future. With financing from the Adaptation Fund (AF), UNDP is assisting inhabitants of the village of Grand Sable, a small planters' community, with planting 20,000 mangroves, which serve as natural coastal defence to protect from rising water, flood and lagoon siltation.

View the full photo essay here.

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# Providing a Safe Haven: Climate Proofing Mangaia Harbour in the Cook Islands



Minor adjustments to Mangaia Harbour dramatically improved its resilience to natural disasters Photo: Andrea Egan

The second largest of the Cook Islands was stripped of a vital source of trade and economic prosperity in 2005 when tropical cyclones Meena and Nancy destroyed Mangaia Harbour. The transfer of goods to the island was cut off by the natural disasters, leaving the community vulnerable and hindering economic development. These events further isolated the island from foreign and

domestic markets and put livelihoods at stake.

In April 2014, Mangaia Harbour was given a second chance: Avarua Landing, as the locals call Mangaia Harbour, could start operating for full again after nine years of reduced capacity. With financial support from the AF, UNDP was able to support a team of scientists and engineers partnered to design a more climate-resilient harbour infrastructure with improved ability to withstand rough seas, providing a more prosperous future for generations to come.

View the full photo essay here

# Protecting drinking water from droughts and sea level rise in the Marshall Islands



The 2013 drought took a toll on the ecosystems of the Marshall Islands atoll, leaving a trail of damage that will last several years. Photo: UNDP

With climate change causing more extreme weather events, the Marshall Islands finds itself with too much sea water rising and not enough fresh water falling. The 34 islands that make up the atoll nation are only an average of 3-4 metres above sea level, and will be heavily inundated with a 1-metre rise in sea level. Coupled with changes in rainfall patterns, the country's already limited fresh water is at risk. In 2013, the Marshall Islands suffered an extreme drought that threatened drinking

water and crops. Twenty per cent of the population was affected.

With support from UNDP and the Secretariat of the Pacific Regional Environment Programme (SPREP), the Government has improved rainwater collection in the capital city of Majuro and installed solar-powered water purifiers in more remote areas. This initiative, part of the Government of Australia and Special Climate Change Fund (SCCF)-financed 'Pacific Adaptation to Climate Change' programme, has increased Majuro's freshwater stores, which can now last the city 3 to 4 months in an emergency.

Read the full story here.

### **Transforming Nyabihu District in Rwanda**



Communities participate in the construction of graded terraces in the steep hillsides in Nyabihu, allowing excess rainwater to run off without damaging the structural integrity of the soil or contributing to erosion Photo: Rik Moors/One UN Rwanda

The hills of Rwanda's Nyabihu district, famous for their fertility and potential for high agricultural yields, are vulnerable to the effects of climate variability which result in unpredictable rainfall and can lead to floods or droughts. In order to address the risks posed by climate change, activities have been implemented via a UNDP supported initiative financed by the Least Developed Countries Fund (LDCF), in Nyabihu and three other districts

(Rubavu, Ngororero and Rutsiro) which promote and demonstrate integrated watershed management practices by increasing ecosystem resilience against climate shocks. In Nyabihu, community members participate in the construction of graded terraces in the steep hillsides which allow excess rainwater to run off without damaging the structural integrity of the soil or contributing to erosion. Through this practice crops receive the right amount of water and nutrients, and the entire area has a decreased risk of landslides and flooding.

View the full photo essay here.

### **Events**

# LDC Experiences Ensuring Food Security in a Changing Climate: Side Event at the 5<sup>th</sup> GEF Assembly



Photo: UNDP

This side event at the 5<sup>th</sup> GEF Assembly in Cancun highlighted the importance of the UNDP-Canada Partnership to the countries that are receiving finance for adaptation including scaling up results that had been achieved through LDCF resources. Citing examples from Niger, Sudan and Cambodia, the following points were highlighted: (1) the role that technol-

ogy can have in effecting a transformative change in rural settings in not only adaptation to climate change but also in terms of other multiplier benefits such as mitigation as well as health benefits (e.g. introduction of PV based water pumps for irrigation in Cambodia and Sudan); (2) the role of women as champions and agents of change at the community level including the diffusion and adoption of technologies; and (3) the impact of public policy in creating the enabling environment for Small Medium Enterprises to safeguard businesses and/or pursue alternative enterprises that succeed under changing climate conditions. An active discussion took place between the panelists and the audience on different ways in which public policy can pave the way to direct or redirect private investment towards climate resilient practices. Evidence based results tracking was also highlighted as important in order to guide future adaptation programmes.

For a full summary of this side event, please click <u>here</u>. More about the UNDP-Canada Climate Change Adaptation Facility can be found <u>here</u>.

(continued from page 2 - Events)

# Roundtable on Strengthening Development of Weather, Climate and Hydrology related Early Warning Systems in Africa



Photo: UNDP

On 20 & 21 May 2014 a roundtable event was held in Nairobi on strengthening the development of early warning systems in Africa. Participants from development banks, various agencies, and meteorological services assembled to share information on their Early Warning Systems (EWS) activities, learn lessons from similar work

elsewhere, and to identify key entry points to catalyse greater programme coordination across Africa. Chaired by the World Meteorological Organization (WMO) and hosted by UNEP and UNDP, this roundtable provided an informal opportunity to raise awareness of the myriad of programmes focusing on, or supporting, the use of climate information and early warning systems across the continent.

More information on this event can be found here.

The 'Multi Country Programme to Strengthen Climate Information for Resilient Development and Adaptation to Climate Change in Africa' (CIRDA) will enable vulnerable countries in Africa to strengthen national climate information systems as well as to benefit from regional coordination and draw upon a platform of knowledge management.

For additional information on the CIRDA, please click here.

## **Recent Concept and Project Approvals**

Recent Concept and Project Approvals		
Country & Project Title	Source of Funds & Grant	Concept/Project & Approval Date
Gambia		
Strengthening Climate Services and	LDCF	Project
EWS in West & Central Africa for Climate Resilient Development and Adaptation to Climate Change	3.00	Jul-14
Malawi		
Climate proofing local development	LDCF	Project
gains in rural and urban areas of Machinga and Mangochi Districts	5.32	Jul-14
Timor Leste		
Building shoreline resilience of Timor Leste to protect local commu-	LDCF	Concept
nities and their livelihoods	7.00	Jul-14

### **Featured Resources**

New Videos Available

### **Cambodia: Weathering the Storm**



This video showcases the efforts made and results achieved to mitigate and adapt to climate change impacts in Cambodia. It highlights various UNDP-supported initiatives, financed by the LDCF and other sources, and aims to raise awareness on how these climate change re-

lated efforts contribute to improving the lives and resilience of communities in Cambodia's rural areas. Click <u>here</u> to view the video.

# Honduras: Addressing climate risk in water resources management



This video highlights the achievements, as of May 2014, of the AF financed and UNDP supported project in Honduras. Click <u>here</u> to view the video. More information on this project can be found on <u>facebook</u> and the <u>UNDP-ALM</u> platform.

### **Bhutan: A Deluge of Consequences**



This video features a UNDP-supported LDCF financed initiative which involved the manual excavation of Lake Thorthormi, one of the 20+ Himalayan glacial lakes that had been considered at critical risk of bursting because of the rapid in-

crease of glacial melting due to climate change. Click <u>here</u> to view the video. Additional information on the featured project is available on the <u>UNDP-ALM</u> platform.

### **World Environment Day**



As people around the globe commemorated World Environment Day on 5 June 2014, which focuses this year on Small Island Developing States (SIDS) and their particular vulnerability to the effects of climate change, UNDP renewed its call for a fresh approach to environmental

protection, one which recognizes the intricate and deep connection between protecting the environment and human development. This video features footage from several UNDP-supported adaptation initiatives in SIDS and also highlights the importance of supporting vulnerable nations to achieve the "triple win" of sustainable growth, poverty alleviation and environmental protection. Click <a href="here">here</a> to view the video.

## **Status of UNDP-supported Adaptation Initiatives**

Region	Country	Source of Funds	Grant (US\$M)
1.Concept Preparation (by Country with UNDP support)			
Africa	Burundi	LDCF	5.00
Asia	Myanmar	LDCF	10.20
	Nepal	LDCF	7.00
Europe & Central Asia	Montenegro	SCCF	3.00
		aiting Approval Cor AFBSEC)	
	Benin	LDCF	8.00
	Mali	LDCF	8.93
Africa	Senegal	LDCF	5.46
	Sierra Leone	LDCF	9.98
Asia	Bhutan	LDCF	10.50
	Global	LDCF	3.80
Global	Global	BMUB	9.52
	Global	ВМИВ	13.64
Latin America & Caribbean	Costa Rica	SCCF	5.00
	Suriname	SCCF	4.51
3. C		ject Preparation Under h UNDP support)	way
	Angola	LDCF	9.20
	Benin	LDCF	8.00
	DRC (2)	LDCF	10.09
	Guinea	LDCF	8.00
	Lesotho	LDCF	8.40
Africa	Madagascar	LDCF	5.88
	Mali (2)	BMUB/LDCF	10.46
	Namibia	SCCF	3.05
	Sao Tome and Principe	LDCF	4.00
	Senegal	LDCF	4.10
	Zambia	LDCF	3.89
Arab States	Somalia	LDCF	8.00
, was states	Yemen	LDCF	4.92

Region	Country	Source of Funds	Grant (US\$M)
3. Concep		reparation Underway - ( h UNDP support)	(continued)
	Cambodia (2)	LDCF	9.48
Asia	Global	SCCF	2.25
	Timor Leste (2)	LDCF	12.25
Europe & Central Asia	Bosnia Hertzegovina	SCCF	5.00
Latin America & Caribbean	Haiti	LDCF	5.38
	Kiribati	LDCF	4.45
Pacific	Samoa	LDCF	12.32
	Vanuatu	LDCF	8.03
		iting Approval Cor AFBSEC)	
	Burundi	LDCF	8.72
	Ghana	AF	7.64
Africa	Malawi	LDCF	4.50
	Mali	AF	7.86
Arab States	Djibouti	LDCF	5.38
Arab States	Tunisia	SCCF	5.50
Global	Global—supporting LDCs with NAPs	LDCF	2.00
Pacific	Fiji	AF	5.28
<b>5. Project Approved; Awaiting ProDoc Signature</b> (by UNDP and Country)			
	Burkina Faso	LDCF	7.00
	Gambia	LDCF	3.00
Africa	Malawi	LDCF	5.32
	Niger	LDCF	3.75
	Seychelles	AF	5.95
Arab States	Sudan	LDCF	5.70
Asia	Bangladesh	LDCF	5.65
	Myanmar	AF	7.29
	Sri Lanka	SCCF	3.12
Latin America &	Cuba	AF	5.59
Caribbean	Guatemala	AF	5.00
Pacific	Solomon Islands	LDCF	6.85

## **Status of UNDP-supported Adaptation Initiatives**

(continued)

Region	Country	Source of Funds	Grant (US\$M)
6. Under Implementation (by Country with UNDP support)			
	Benin (2)	LDCF	7.41
	Burkina Faso (2)	LDCF	6.50
	Cape Verde (2)	DFATD/LDCF	4.80
	Central African Republic	LDCF	2.78
	Comoros (3)	GOF/LDCF	11.75
	DRC	LDCF	3.00
	Equatorial Guinea	LDCF	0.20
	Eritrea	AF	6.01
	Ethiopia (2)	LDCF	9.81
	Gambia	LDCF	8.90
	Ghana	SCCF	1.72
	Guinea (2)	LDCF	6.69
	Guinea Bissau	LDCF	4.00
Africa	Kenya (2)	GOF/SCCF	1.14
	Liberia (3)	LDCF	11.35
	Malawi	LDCF	3.60
	Mali	DFATD/LDCF	4.29
	Mauritius	AF	8.40
	Mozambique	LDCF	4.43
	Namibia	BMUB	0.30
	Niger (2)	DFATD/LDCF	5.90
	Regional	SPA	3.30
	Regional	LDCF	3.76
	Rwanda	LDCF	3.49
	Sao Tome and Principe	LDCF	3.60
	Sierra Leone (2)	LDCF	6.54
	South Africa	SCCF	3.54
	Swaziland	SCCF	1.67

Region	Country	Source of Funds	Grant (US\$M)
<b>6. Under Implementation</b> - (continued) (by Country with UNDP support)			
	Tanzania	LDCF	3.60
Africa	Uganda	LDCF	4.00
	Zambia	LDCF	3.80
	Djibouti	AF	4.29
Arab States	Egypt	SCCF	4.00
And States	Somalia	LDCF	0.20
	Sudan (2)	DFATD/LDCF	6.10
	Afghanistan	LDCF	9.00
·	Bangladesh	LDCF	3.30
·	Bhutan	LDCF	11.49
·	Cambodia	DFATD	2.24
,	India	SPA	5.76
·	Indonesia	SCCF	5.00
·	Lao (2)	LDCF	9.15
Asia	Maldives (3)	AF/LDCF	14.43
	Mongolia	AF	5.07
	Nepal	LDCF	6.30
	Pakistan	AF	3.60
	Philippines	SCCF	1.05
	Thailand	SCCF	0.87
	Timor Leste	LDCF	4.60
	Vietnam	SCCF	1.40
Europe and Central Asia	Azerbaijan	SCCF	2.70
	Georgia	AF	4.90
	Tajikistan	SPA	1.90
	Turkmenistan	AF	2.70
	Uzbekistan	AF	5.08
	Global - with WHO (7 countries)	SCCF	4.50
Global	Global - CCA Facility (6 countries)	DFATD	1.06
	Global— supporting LDCs with NAPs	LDCF	1.00

## Status of UNDP-supported Adaptation **Initiatives** (continued)

Region	Country	Source of Funds	Grant (US\$M)
<b>6. Under Implementation</b> - (continued) (by Country with UNDP support)			
	Colombia	AF	7.85
	Ecuador	SCCF	3.00
	Grenada	Non-GEF	2.90
Latin America & Caribbean	Haiti (2)	DFATD/LDCF	6.20
	Honduras	AF	5.18
	Nicaragua	AF	5.70
	Uruguay	SPA	0.98
	Cook Islands	AF	4.96
	Papua New Guinea	AF	6.02
5 ·c	Regional	DFAT/SCCF	20.99
Pacific	Samoa (4)	AF/LDCF	14.40
	Solomon Islands	AF	5.10
	Tuvalu	DFAT/LDCF	8.57
7. Completed			
	Ethiopia	SCCF	1.00
	Mozambique	SCCF	0.96
Africa	Namibia	SPA	0.96
	Tanzania	SCCF	1.00
	Zimbabwe	SCCF	0.98
Asia	Bhutan	LDCF	3.45
	Cambodia	LDCF	1.85
Europe & Central Asia	Albania	SPA	0.98
	Armenia	SPA	0.90
	Hungary	SPA	0.99
Global	Global (ALM platform)	SPA	0.72

\*Note: This table does not include the 20 projects under the Africa Adaptation Programme (AAP) funded by the Government of Japan (GOJ). The completed AAP projects are reflected in the graph on page 1.

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### **Acronyms**

AF	Adaptation Fund
AFBSEC	Adaptation Fund Board Secretariat
BMUB	Germany's Federal Ministry for the Environment, Nature Conservation, Building, and Nuclear Safety
DFAT	Department of Foreign Affairs and Trade - Government of Australia
DFATD	Foreign Affairs, Trade and Development - Government of Canada
EWS	Early Warning Systems
GEF	Global Environment Facility
GEFSEC	Global Environment Facility Secretariat
GOF	Government of Flanders
GOJ	Government of Japan
LDC	Least Developed Country
LDCF	Least Developed Countries Fund
NAP	National Adaptation Plan
SCCF	Special Climate Change Fund
SIDS	Small Island Developing States
SPA	GEF Trust Fund's Strategic Priority on Adaptation
SPREP	Secretariat of the Pacific Regional Environment Programme
UNDP	United Nations Development Programme
UNDP-ALM	UNDP Adaptation Learning Mechanism platform
UNEP	United Nations Environment Programme
WHO	World Health Organization
WMO	World Meteorological Organisation

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