

First workshop on addressing loss and damage in the context of decisions 2/CP.27 and 2/CMA.4

29 - 30 Apr. 2023

Notes Max Schmidt, Perspectives Climate Research, schmidt@perspectives.cc

DAY 1 – 29 April – Actions to address loss and damage and current gaps and challenges related to existing landscape of institutions providing support – online: [First workshop on addressing loss and damage in the context of decisions 2/CP.27 and 2/CMA.4- YouTube](#)

Guiding questions:

What are the different existing approaches for addressing extreme weather events taken by different countries, regions, and communities, and by the international humanitarian community (from response to recovery, reconstruction and rehabilitation as well as issues related to displacement and relocation)? What forms of support are required?

What are the gaps, challenges and constraints? What are the lessons learned?

Are there specific actions to respond to and address extreme weather events for which funding has been particularly difficult to secure?

Opening and welcome remarks/Introduction to the workshop (9:00-9:15)

- Co-Chairs: Richard Sheerman (online) & Outi Honkatukia
- Transitional Committee (TC): 24 members: 10 developed countries, 14 developing countries
- First Meeting: End of March
- Presents core mandate of the TC





Transitional Committee - Mandate

The Transitional Committee will be informed by, inter alia:

1



Current landscape of institutions funding activities related to addressing loss and damage, and how to enhance coherence, coordination, and synergies among them

2



The gaps within that landscape, including types of gap (e.g. related to speed, eligibility, adequacy, access), noting that these may vary depending on the challenge

3



Priority gaps for which solutions should be explored

4



Most effective ways to address the gaps, especially for most vulnerable populations and ecosystems on which they depend

5



Potential sources of funding, recognizing need for support from wide variety of sources, including innovative sources



2023 Milestones



27-29 March

First Transitional Committee Meeting; Luxor, Egypt



10-16 April

Spring Meetings of the World Bank and IMF



29-30 April

First workshop



24-27 May

Second Transitional Committee Meeting



8-10 June

Second Glasgow Dialogue; Bonn, Germany



30 Nov – 12 Dec

COP 28/ CMA 5; Dubai, UAE



17-20 October

Fourth meeting of the Transitional Committee



Pre-COP 28 (date TBC)

Ministerial consultations by COP 27 and COP 28 Presidents



29 August – 1 September

Third Transitional Committee Meeting



22-23 July

Second workshop

Members nominated to the TC:

Member	Country	Constituency
Mr. Mohamed Nasr	Egypt	Developing country Parties Africa, representative of the President of COP 27
Mr. Richard Sherman	South Africa	Developing country Parties Africa
Ms. Sumaya Zakieldeen	Sudan	Developing country Parties Africa
Ms. Hana AlHashimi	United Arab Emirates	Developing country Parties Asia and the Pacific, representative of the incoming President of COP 28

Mr. Kunal Satyarthi (first meeting) Ms. Rosa Perez (second meeting) Mr. Abdelrahman M. Al-Gwaiz (third meeting)	India Philippines Saudi Arabia	Developing country Parties Asia and the Pacific
Mr. Yingzhi Liu (first meeting) Ms. Kyunghhee Kim (second meeting) Mr. Ali Waqas Malik (third meeting)	China Republic of Korea Pakistan	Developing country Parties Asia and the Pacific
Mr. Jaime Tramón (January to June 2023) Ms. Angela Rivera Galvis (July to December 2023)	Chile Colombia	Developing country Parties Latin America and the Caribbean

Ms. Milagros De Camps (January to June 2023) Mr. Matheus Bastos (July to December 2023)	Dominican Republic Brazil	Developing country Parties Latin America and the Caribbean
Mr. Carlos Méndez (January to June 2023) Mr. Avinash Persaud (July to December 2023)	Venezuela Barbados	Developing country Parties Latin America and the Caribbean
Ms. Diann Black- Layne	Antigua and Barbuda	Developing country Parties Small island developing States

Ms. Khadeeja Naseem	Maldives	Developing country Parties Small island developing States
Mr. Adao Soares Barbosa	Timor-Leste	Developing country Parties Least developed countries
Mr. Sonam Phuntsho Wangdi	Bhutan	Developing country Parties Least developed countries
Ms. Gayane Gabrielyan	Armenia	Developing country Parties Developing country Party not included in the categories listed above

Mr. Georg Børsting	Norway	Developed country Parties
Ms. Christina Chan	United States of America	Developed country Parties
Mr. Jean-Christophe Donnellier	France	Developed country Parties
Mr. David Higgins	Australia	Developed country Parties
Ms. Outi Honkatukia	Finland	Developed country Parties
Mr. Steven Kuhn	Canada	Developed country Parties
Ms. Lotte Machon (first and second meeting) Ms. Kitty van der Heijden (third meeting)	Denmark Netherlands	Developed country Parties

Ms. Debbie Palmer	United Kingdom of Great Britain and Northern Ireland	Developed country Parties
Ms. Sinead Walsh (first meeting) Ms. Heike Henn (second and third meeting)	Ireland Germany	Developed country Parties
Mr. Jun Yamazaki	Japan	Developed country Parties

Daniele Violetti, UNFCCC Secretariat:

- Thanks for the very short-term organisation & logistics

Outi Honkatukia, TC:

- All input will be compiled and forwarded to the TC members

Session 1- Addressing extreme weather events (9:15-10:45)

Ms. Erica Allis, World Meteorological Organization (online)

- Disaster Risk Reduction Branch of the WMO
- Statistics of most recent WMO report: last 8 were 8 warmest years of record; WHO: 15,000 excessive deaths in Europe related to heat last summer
- Early Warning Systems (EWS) proof to be a highly feasible adaptation measure
- EWS only in ½ of WMO member states, many more gaps

- Executive Action Plan at COP27 highly appreciated: organised around the 4 pillars of risk assessments (see slides below)



Early Warnings for All

The UN Global Early Warning Initiative for the Implementation of Climate Adaptation

- Major **gaps in early warning** systems remain, especially in developing countries.
- There is a global **incapacity** to translate early warnings into early action.
- The Executive Action Plan on EW4All was launched at COP27



WMO, 2022



Early Warnings for All: Pillar Leads & Partners

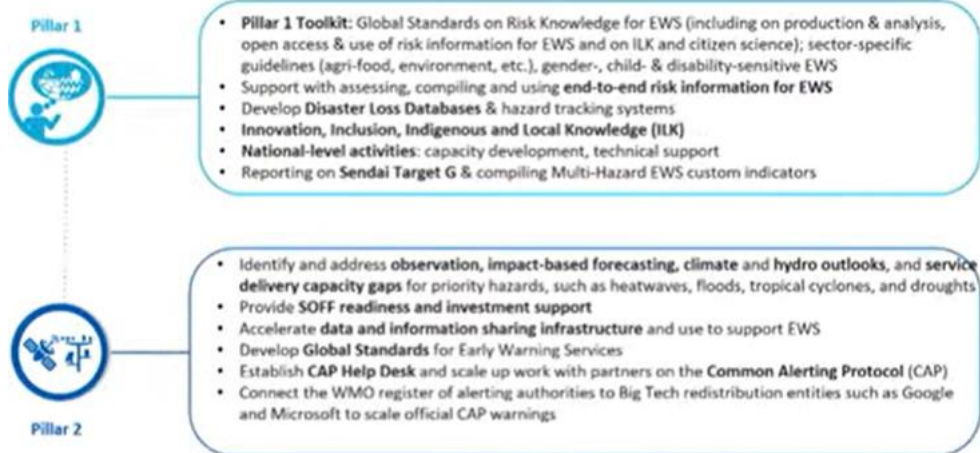


Early Warnings for All: Planning & Programmatic Approach



- High-level **Executive Action Plan** published
- 5-year **Implementation Plan**, including pillar and cross-cutting objectives, outcomes & indicators
- **Advisory Panel** for SG's EW4All initiative
- **Monitoring & Evaluation Framework**: Theory of Change, maturity index, global dashboard on country progress, annual progress report at the Conference of the Parties (COP)
- Initial **roll-out strategy**, both global and in-country
- 18-month **work plans & budget** per pillar
- Communications strategy

EW4All: Roll-Out Workplan Pillars 1 & 2



Early Warnings for All: Country Roll Out



Mr. Malvern Chirume, African Risk Capacity (online)

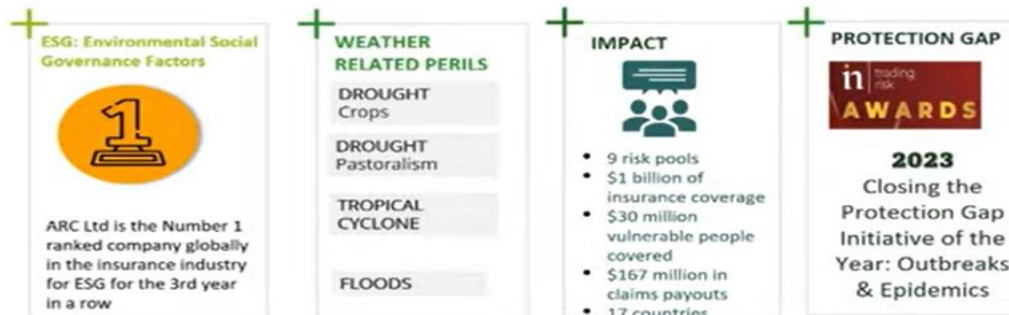
- Chief Underwriting Officer
- Equivalent organisation to the CCRIF
- Specialized agency to the African Union (AU)
- Mandate: strengthen AU member state preparedness; political process
- Provide coverage for tropical cyclones, flood responses (still in 2023)
- Paid out > USD 160 million on claims payouts so far
- Value proposition: Holistic approach to disaster risk management (early warning, contingency planning, financing, response)
- Problematic: Critical gap for funded instruments
- Insurance covers only 10% of population – 90% missing; actual protection gap: 97% - only 3% of population actually insured against extreme weather events
- Aim: start providing premium subsidies to member states
- L&D Fund should provide funding for activities below the insurance layer

ARC OVERVIEW



ARC LTD OVERVIEW

Our Institutional setting



ARC Disaster Risk Management Concept



Value proposition: Holistic approach

To bring a complete disaster risk management solutions to governments through a holistic approach that takes into account:



Financial Instruments for Disaster Response



Loss and Damage Fund: Gaps, Challenges & Opportunities



Mr. Isaac Anthony, Caribbean Climate Risk Insurance Facility (CCRIF; online)

- CCRIF prompted by major hurricane event in 2004: over 200% GDP lost in 2 countries
- Facilitated quick liquidity via parametric insurance – necessary in case of e.g. tropical hurricane events, also earthquakes and other natural disasters
- Now also operating in Central America
- Offer products NOT readily available in traditional insurance markets
- Payments ALWAYS made within 14 days of the event
- Focus on low probability, high-impact events
- Key issue: limited availability of concessional financing
- Some donors very strong, e.g., EU
- Need: we-capitalised base to insure more people



How we Started

- Prompted by Hurricane Ivan in 2004 which caused over \$6.0 billion in losses across the Caribbean (200% of GDP in Grenada and Cayman Islands)
- Following Ivan, Caribbean governments requested support from the World Bank to establish a disaster risk financing mechanism that could provide quick liquidity to governments post disaster.
- This led to the creation in 2007 of the Caribbean Catastrophe Risk Insurance Facility (CCRIF), the world first multi-country risk pool, based on parametric insurance
- Parametric insurance was deemed the best approach for providing quick liquidity to governments of small island states in the Caribbean through a risk pool – offers predefined payouts quickly based on triggered events.
- Originally designed to limit the financial impact of catastrophic hurricanes and earthquakes
- Provides short-term funding to support relief in the immediate aftermath of a natural disaster

We are the Caribbean and Central America Parametric Insurance Facility and Development Insurance Company

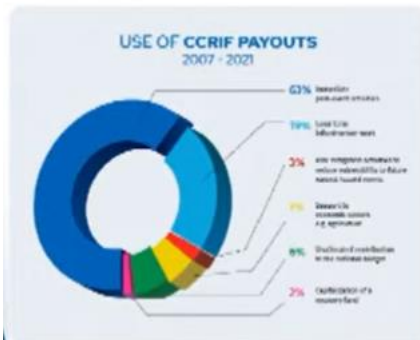
- Provides parametric catastrophe insurance for Caribbean and Central American governments; as well as electric utility companies for transmission and distribution
- Provides quick liquidity within 14 days of an event, following a natural disaster helping governments to reduce budget volatility, respond to their most pressing needs post disaster, including providing support to the most vulnerable
- Has 24 members – 19 Caribbean governments, 3 Central American governments and 2 Caribbean electric utility companies
- Offers products not readily available in traditional insurance markets and is key to closing the liquidity gap
- CCRIF has emerged as an important vehicle to help countries in those two regions strengthen climate resilience

Our Footprint and Impact

Since 2007:

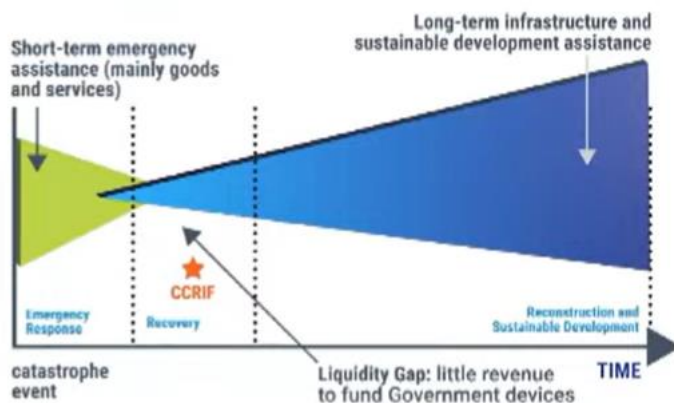
- Our membership has increased to 24 up from 16 and since 2014 we began providing coverage for Central America and in 2020 for electric utility companies
- We now offer 5 parametric insurance products – tropical cyclone, earthquake, excess rainfall, and for the electric utilities and fisheries sectors, compared to 2 when we started
- We became a segregated portfolio company in 2014 which has allowed us to provide coverage to other geographic regions outside the Caribbean and to offer new products to cover additional perils.
- We continue provide considerably more coverage, over US\$1 billion in the last two years compared to US\$500 million when we first began operations.
- We have continued to improve our models – in 2007, we started with an off-the-shelf model – today our members own these models that continue to be strengthened to enable model losses to more accurately reflect actual losses from a hazard event.

Payouts and Use of Payouts



- Since 2007, CCRIF SPC has made 58 payouts to 16 member governments totalling US\$260 million
- All payouts made within 14 days of the event, with several governments receiving portions of their payouts before the 14 days to begin recovery
- Single Largest Payout: Haiti – US\$ 39,953,272 for August 14, 2021, earthquake
- Members receiving the largest number of payouts – Barbados and Nicaragua – 6 each in total
- Member receiving the largest value in payouts – Haiti – US\$78.3 million

These payouts help to close the sovereign liquidity gap...



Positioning of CCRIF Among other DRF Instruments



Risk Layers and Corresponding Disaster Risk Management Instruments

Gaps and Challenges

- Limited fiscal space of governments, reducing their ability to make the required investments in ex-ante DRF instruments such as parametric insurance which in part continues to widen the protection gap
- Limited availability of concessional financial - Multilateral financial institutions need to rethink their approaches to concessional financing - many SIDS are non-ODA recipient countries
- Inadequate understanding of how insurance works with the concept of parametric insurance not widely understood, so members sometimes still expect their 'insurance policy' to cover all losses on the ground. Despite model improvements, basis risk remains inherent in insurance (both indemnity and parametric)
- High deductible means that we cover mainly major catastrophe events in which national economies are severely impacted
- We have the methodologies to develop new models for additional perils but are constrained by limited historical data in countries.

Lessons Learned

- Keep premiums low - Risk pooling; providing discounts and bundling products when possible, bearing in mind fiscal constraints of members
- Be flexible and responsive to members' needs - developing new products, providing preferable policy options (e.g. lower attachment points)
- Pursue a multi-disciplinary decision-making approach to disaster risk financing
- Donor support is invaluable - COVID-19 dealt a hard blow to our members but with the support of donors, we were able to access financing for premium support to both maintain and grow coverage. Coverage amount in PY 2022-23 was \$1.2 billion – which is a 24% increase compared to PY 2019-20
- Success depends heavily on the relevant knowledge and experience of decision makers – building capacity is key. Build capacity of key stakeholders through training, technical assistance programmes to enhance understanding of CCRIF, DRM and risk transfer in general
- Stakeholder engagement must always be a top priority to foster trust
- Importance of effective Partnerships

Resources and Actions Needed:

- Support for the subsidization of member premiums particularly in this economic climate that is juxtaposed by increasing frequency and intensity of hydrometeorological events
- Support for countries to improve their insurance coverage levels as many of them, due to fiscal constraints purchase less than adequate coverage
- Contributing to CCRIF's and other risk pools capital base so that members can benefit from lower premiums and new products.
- Support the development of new parametric insurance products to cover additional perils in the case of the Caribbean for run-off/flooding, drought, public sector assets and infrastructure including housing stock – and for sectors such as tourism, health, agriculture
- Support and scale the rehabilitation of ecosystems (mangroves, watersheds) which are critical to building resilience to natural hazards and are important climate change adaptation strategies that we have not been able to capitalize from

Closing... CCRIF's Promise

- We are committed to improving the resilience of the Caribbean and Central America to climate change and natural hazards.
- By this we mean increasing the ability of governments to reduce the negative impacts of natural hazards on their economies and societies.
- We view comprehensive disaster risk management (CDRM) as an integral component of regional development our parametric insurance products as a critical part of countries' CDRM strategies... and key to financially protecting economies
- This commitment is explicit in CCRIF's vision statement, which is:

A leading global development insurer, providing disaster risk financing products and services to member countries to improve lives and livelihoods, building resilience and advancing sustainable development agendas.

Ms. Michelle Yonetani, UNHCR (in-person)

- 3 ideas: displacement as a consequence of L&D; d. as a form of L&D in itself with its very own, specific challenges (also non-economic loss and damage [NELD]); d. as a situation of vulnerability to further L&D
- Vast majority of refugees and IDPs interrelated with L&D
- Example of Mozambique particularly telling (see below)
- When UNHCR declares a crisis situation, emergency fund activated
- Continued underfunding across the board

Session 1: Addressing extreme weather events

First workshop on addressing loss and damage funding arrangements
29-30 April 2023



Michelle Yonetani, UNHCR Office of the Special Advisor for Climate Action

Displacement in the context of extreme weather events



What does “loss and damage” mean with regards to displacement?

1. Displacement as a consequence of loss and damage

- Extreme weather events as threats to safety, triggers for flight
- Impacts on conditions for life - basic needs and rights – food, water, health, livelihoods..
- and exacerbated social tensions/risk of conflict
- Relocation when safe and dignified return

2. Displacement as a form of loss and damage in itself

- Bringing specific challenges over short to long term
- Experienced differently – age, gender, diversity (AGD), IDPs/refugees/others displaced across borders
- Non-economic loss

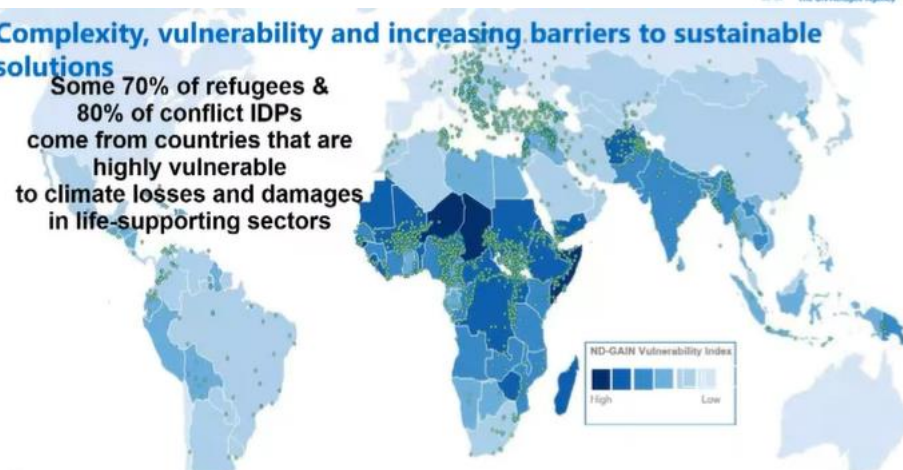
3. Displacement as a situation of vulnerability to (further) loss and damage

- in protracted or chronic displacement situations
- in marginalized, fragile and conflict-affected contexts
- Experienced differently – AGD, IDPs/refugees/other cross-border displaced



Complexity, vulnerability and increasing barriers to sustainable solutions

Some 70% of refugees & 80% of conflict IDPs come from countries that are highly vulnerable to climate losses and damages in life-supporting sectors



Sources:
• UNHCR Operational Data Portal 2021
• ND-GAIN Vulnerability Index 2017
• ND-GAIN Vulnerability Index 2017

ND-GAIN Vulnerability measures a country's exposure, sensitivity and ability to adapt to the negative impact of climate change. ND-GAIN measures the overall vulnerability by considering vulnerability in the following sectors: food, water, health, ecosystem services, human habitat and infrastructure.



Example: Mozambique – Compounded vulnerability and displacement

More than **1 million people** are **internally displaced** by conflict and/or recurrent climate shocks.

More than **31,000 refugees and asylum seekers** are hosted

Many **hit repeatedly** by cyclones and floods in places of refuge, damaging and destroying houses, schools, clinics, infrastructure.

Physical, material and legal needs for protection and assistance have surged for displaced and their hosts.



Houses damaged by Cyclone Gombe in Nampula, Mozambique. © UNHCR/Agnes Medziwa

UNHCR's approach to addressing the impacts of extreme weather events

- **Integrated approach (Strategic Framework)**
 - *Enabling preparedness* for probable impacts and response by and for displaced people in vulnerable situations
 - *Strengthening resilience/reducing further risk* as essential to sustainable solutions to their displacement.
 - *Advising and advocating* for the relevant application of refugee law, and for human rights-based and inclusive law and policy frameworks to protect people displaced
- **Emergency risk management** with governments and partners based on scenario analyses and monitoring, contingency planning and emergency declarations that trigger access to reserves and simplified procedures to mobilize people and partners



Funding gaps and constraints to address displacement as loss and damage in the context of extreme weather impacts, for

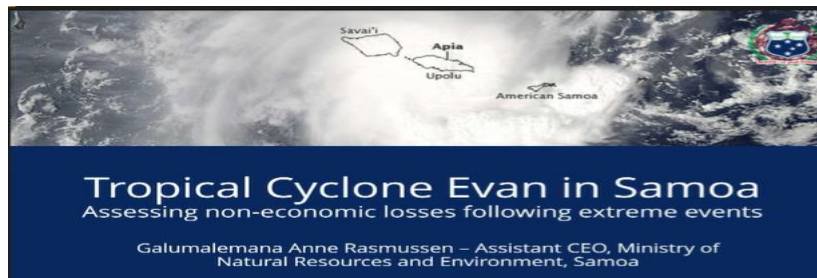
1. **Conflict-affected and fragile contexts**, reaching vulnerable populations including refugees and other cross-border displaced people and IDPs displaced by and/or being hit hard by extreme weather events
2. **Emergency preparedness and anticipatory action** for displacement situations, within and across borders
3. **Durable solutions** to protracted, recurrent and onward displacement
4. **Local actors increased access** to funding and funding that enables space for the **participation and leadership of displaced** people and host communities
5. **Flexible (non-earmarked)** funding to enable balanced direction of resources to situations neglected in spite of high needs

Case study presentations

Ms. Anne Rasmussen, Samoa, on Addressing non-economic loss and damage caused by tropical cyclone Evan

- Worst cyclone affecting Samoa in 20 years
- Damaged, e.g., Museum of Samoa – destroying cultural heritage
- Relocation not considered as part of recovery costs/ignored by donors
- NELD's not explicitly included in donors' plans

- Slow-onset events continue in parallel to natural disasters; can compound
- Intangible assets severely underestimated



Tropical Cyclone Evan in Samoa

- Category 3 cyclone - struck Samoa on 13th December 2012
- Wind speeds of 230 km/hour
- At least five lives lost
- 7,500 people displaced
- Economic loss and damage estimated to be US 210 million
 - approximately 30% of Samoa's GDP in 2011



Response to TC Evan



- Government of Samoa declared a State of Emergency
- Humanitarian assistance sought from development partners
- Post-Disaster Needs Assessment undertaken
- Loss and damage was quantified using the Disaster Loss and Damage (DALA) Methodology

Post-Disaster Needs Assessment

- Focused on economic losses and damages
- Attempted to quantify some non-economic losses and damages such as
 - Cultural heritage
 - Environmental services
 - Psycho-social health
- The Post-Disaster Needs Assessment (PDNA) formed the basis of the Recovery Plan



TC Evan Recovery Plan



- Recovery plan provided medium to long term recovery and rehabilitation support
- Funding for the recovery plan was contributed by bilateral and multilateral donors
- Modalities included budget support and programmatic approaches
- The recovery plan emphasized a 'Build back better' approach

Relocation following TC Evan

- People expressed interest in relocating to less disaster-prone locations during the PDNA
 - "Yes, I would like to relocate, but I am not sure where to go" - Male resident, Falefa
 - "We can't relocate—this is our land from our ancestors" - Male resident, Siumu West
- Funding for relocation was not included in the recovery plan—the complex social challenge of relocation may contribute to the difficulty to secure funding



Gaps highlighted by TC Evan response



- The recovery funding focused only on physical assets
 - intangible losses or non-economic damages and losses were not funded under the recovery plan
- Policies and funding were not available for communities interested in relocation to reduce future vulnerability
- The compounding impact of slow onset events and extreme events are not captured in a PDNA

Ms. Elena Pereira, Honduras, on Hurricanes Eta and Iota

- Honduras historically ranked among most climate-vulnerable states (TOP10)
- GDP growth constantly affected by extreme weather events/hurricanes
- Both hurricanes confounded each other
- Private/Productive sector (families, agriculture) most heavily affected
- Human dimension: people lost (all) their sources of income
- Humanitarian assistance started coming in only 3-4 weeks after the event(s)
- Demonstrates the 'debt trap' related to the climate crisis



Case Study:

Effects of Hurricanes Eta and Iota in Honduras

First workshop on addressing loss and damage
29 April 2023
Bonn, Germany

Elena Pereira
Climate Finance Advisor



Honduras

- Honduras is located in Central America, surrounded by the Caribbean Sea (Atlantic) to the north and east, and the Gulf of Fonseca (Pacific) to the south.
- Between 1998 and 2017, Honduras was in the top 3 most affected and vulnerable countries to extreme weather events by the Global Climate Risk Index¹.
- In 2019, 52.1% of the Honduran population was living in poverty, out of which 19.9% were in extreme poverty².
- For 2020, a 7.4% drop in GDP was expected due to the effects of the COVID-19 pandemic.



Hurricanes Eta and Iota

- In 2020, the region experienced the most active hurricane season in history, recording 30 storms, more than double the annual average. Of the 30 storms, 13 were hurricanes, with 6 being classified as major hurricanes.
- In November 2020, Honduras was hit by hurricanes Eta and Iota within a span of two weeks.
- **Eta**: reached category 4, weakened to tropical storm. Left an estimated 380 to 635 mm of rain nationwide.
- **Iota**: reached category 4 and 5, weakened to tropical storm. Left an estimated 500 to 750 mm of rain in the northern part of the country.



Effects of Eta and Iota in Honduras

- ECLAC carried out a study estimating effects of both Eta and Iota in Honduras (DALA)
- Total estimated effects caused by tropical storm Eta and hurricane Iota were approximately **USD 2.1 billion**.
- Damages** represented 44% of total effects; **losses**, 52%; **additional costs**, 4%.
- Private sector** suffered 69% of the damages and 97% of total losses.

Total Effects of Eta and Iota (in millions of USD)			
	Public	Private	Total
Damages	282.34	633.68	916.02
Losses	31.95	1,062.01	1,093.97
Additional Costs	51.26	43.43	94.69
Total	365.56	1,739.12	2,104.67

Source: ECLAC (2021)

Effects of Eta and Iota in Honduras

- Productive sector**: 93% of losses; 44% of damages.
- Commerce and industry**: 78% of productive damages; 62% of productive losses.
- Agriculture and livestock**: 18% of productive damages; 27% of productive losses.
- Losses and damages in these subsectors were from **private sector**.
- Social sector**: housing represented 74% of damages.

Total Effects of Eta and Iota by Subsectors (in millions of USD)						
Sectors / Subsectors	Damages	Losses 2020	Losses 2021	Total Losses	Additional Costs	Total
Social	318.54	1.01	0.89	1.70	58.50	378.73
Education	32.92	0.00	0.00	0.00	22.30	55.22
Health	50.62	0.89	0.44	1.33	5.82	57.77
Housing	234.99	0.12	0.34	0.36	26.22	261.67
Cost of the emergency	0.00	0.00	0.00	0.00	4.18	4.18
Productive	399.61	791.63	226.02	1,017.66	17.21	1,434.48
Agriculture and livestock	70.78	204.41	69.12	273.63	12.60	358.91
Tourism	19.11	78.98	29.21	108.18	0.00	127.29
Commerce and industry	309.73	508.24	127.70	635.94	4.61	950.27
Infrastructure	134.56	34.42	32.24	66.66	18.95	220.17
Electricity	4.40	5.00	0.00	5.90	0.24	10.54
Water and sanitation	48.94	0.32	0.00	0.32	0.40	49.67
Transportation	82.77	27.31	32.24	59.55	18.30	160.62
Telecommunications	0.44	0.89	0.00	0.89	0.00	1.33
Environment	63.30	8.00	0.00	8.00	0.00	71.30
Total	916.02	835.06	258.95	1,094.01	94.65	2,104.67

Source: ECLAC (2021)

Impacts of Eta and Iota in Honduras

- Impacts of both events **directly and indirectly affected 3.9 million people** (more than 40% of the population).
- Primary affected population**: 95 deceased, 24 injured, 10 missing, 437,212 evacuated, and 96,640 sheltered.
- ECLAC report details impacts in each sector and subsector.
- ECLAC estimated the drop in GDP at 8.2%, attributing 0.8 percentage points to the effects of Eta and Iota



International Assistance and Humanitarian Aid

- By 1 December 2020, Honduras had received USD 7 million in international aid by several countries and organizations.
- A further USD 11.4 million had been pledged by other countries and organizations.
- Resources were channeled through different institutions and programs, such as the World Food Programme and the Red Cross, aiding with emergency shelters, food, supplies of critical assistance and protection for most vulnerable communities.

Summary of International Aid Received and Pledged By 1 December 2020	
Status	USD
Received	7,058,433.50
Pledged	11,426,465.44
Total International Aid by 1 December 2020	18,484,898.94

Source: ECLAC, 2021 citing data from the Ministry of Finance

Financing Post-Disasters

- Government made efforts to seek financial resources from various sources and financial instruments.
- Between 2020-2022, the Government expended USD 124.91 million from its National Treasury to aid in recovery, rehabilitation and reconstruction, representing 49% of accrued figures.
- Domestic credit represented 29% of financing.
- External credit represented 16% of financing.

Source	Budgeted	Accrued
External Credit	51.91	42.32
National Treasury	154.24	124.91
Donations	4.28	3.69
Domestic Credit	76.50	75.19
Budget Support	10.56	10.48
Total	297.49	256.60

Source: Ministry of Finance

Financing Post-Disasters

- Resources within the public budget were allocated to address various aspects of the emergency.
- Between 2020-2022, financial assistance to families affected represented 44% of the resources for emergency attention.
- Rehabilitation and repair of infrastructure damage represented 30% of the resources.
- Resources allocated to the emergency by the government only represent 12% of estimated losses and damages at the national level, leaving an 88% gap in financing.

Category	Total
Rehabilitation and Repair of Infrastructure Damage	21.34
Financial Assistance	31.30
Housing Cleaning and Restoration	1.91
Food Supply	9.03
Rescue and Evacuation Activities	4.24
Support for Farmers	2.66
Total	70.48

Source: Ministry of Finance

Lessons learned

- Housing, commerce and industry, and agriculture and livestock reported the highest damages and losses. Integrally, this comes to mean that the sources of income of families and the places where they live were the most affected. This placed an additional economic burden to families, 52.1% of which live in poverty.
- Continued impacts in the agriculture and livestock sectors by extreme weather events like Eta and Iota become an economic burden for the State, as this leads to agricultural subsidy policies.

Lessons learned

- The government had to redefine the purpose and prioritized areas of the loans that were planned with MDBs (WB, IDB). Loans that were initially planned to go towards other sustainable development areas had to be redirected to address the emergency, rehabilitation, recovery and reconstruction after both Eta and Iota. Clear example of how a country like Honduras is forced into climate-induced debt.
- Given Honduras' geographical location, the country will always be in the pathway of extreme weather events. The effects of these events have a negative impact on the country's development. Creating true adaptive capacities and climatic resilience becomes increasingly harder as these extreme weather events become more frequent and more intense. Increased funding that does not lead to further debt is necessary to create these adaptive capacities, and to be able rehabilitate, recover and reconstruct in a truly resilient manner.

Stella Brožek Everaert (European Commission – DG Climate Action), on Forest fires in Europe (Spain, Romania, Portugal, Italy, Greece, France)

- 2022: highest number of fires in 1.5 decades; in 26/27 EU countries
- EU: different strategies worked together to limit damage, including new reserve of firefighters

Challenge of forest fires

- Wildfires detected in many parts of Europe
- Affected areas are expanding
- Fire season is getting longer, beyond summer months
- Observed characteristics: rapid fire spread, intense burning, long-range fire spotting and unpredictable shifts
- Occur not only in Europe, Middle East and North Africa, but across the globe

Forest fires in Europe in 2022

- EU experienced the highest number of fires since 2006, fires were mapped in 26 of the EU27 countries, most affected: Spain, Romania, Portugal
- 2022 expected to be recorded as the most severe drought in Europe in 500 years
- Area burnt by wildfires remarkably extensive (8372 km²), BUT the number of victims was limited
- Preliminary analysis of economic damage by fires in the EU estimate losses of around 2.5 Billion Euro
- Natura2000 network sites particularly affected (44% of total burnt areas)

Action taken

- Protection of forests in the EU falls primarily under the competence of its member states however common EU approach introduced through:
 - EU Strategy on Adaption to Climate Change (2021)
 - EU Forest Strategy
 - EU reinforced the Union Civil Protection Mechanism (UCPM) with Emergency Response Coordination Centre
 - National and European monitoring services, including the European Forest Fire Information System (EFFIS)

 Creation of rescEU

Lessons learned and experiences

- Comprehensive and coordinated approach to prevent and mitigate wildfires required to
 - Ensure that practice of fire management and its associated governance are making full use of science-based findings and innovations
 - Improve knowledge transfer to and exchange with practitioners and decision-makers
 - Step up prevention measures and focus on raising the awareness of key stakeholders - including rural actors
 - Ensure adequate evaluation of risk and timely communication through the development of early-warning systems

 Swedish Presidency

Session 1 continued (11:00-12:30)

Mr. Greg Puley, UN Office for the Coordination of Humanitarian Affairs (UN-OCHA)

- Philippines & Nepal examples to be presented
- OCHA to coordinate global humanitarian crisis response
- Funding gap increasing due to ever-increasing costs, both for climate-related and non-climate-related hazards (e.g., earthquake in Turkey and Syria) – climate hazards add/compound severity of impacts
- Reconstruction intended to also increase resilience & adaptation (e.g., water management, livelihood diversification)
- Philippines: several revisions of initial response plan; second cyclone only 4 months later compounded disaster and increase severity of humanitarian need
- Nepal: high likelihood of event (70%) triggered anticipatory action



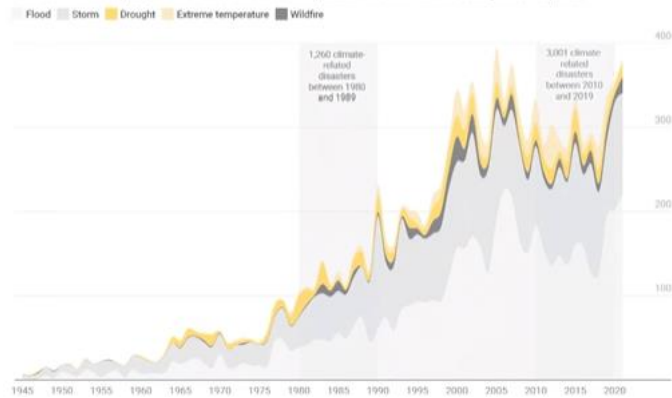
Humanitarian Action

OCHA coordinates the global emergency response to save lives and protect people in humanitarian crises

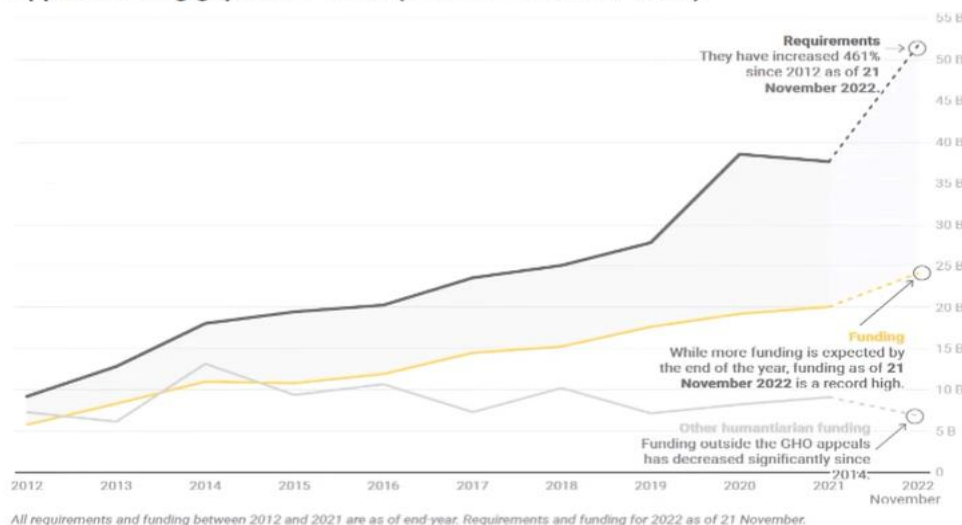


Climate-related disasters almost tripled in current decade compared to 1980s

Flood occurrences tripled, while the number of extreme-temperature was six times more during the same period.



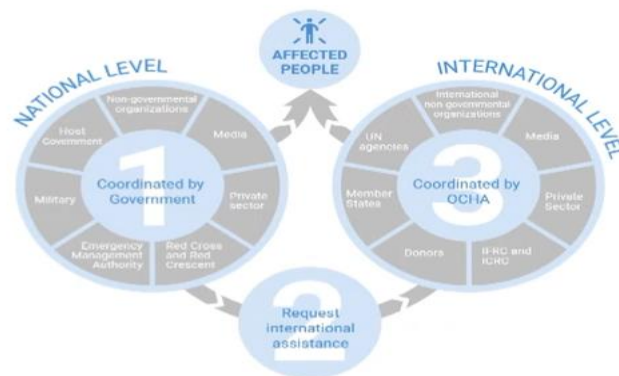
Appeal funding gap 2012 - 2022 (as of 21 November 2022)



All requirements and funding between 2012 and 2021 are as of end-year. Requirements and funding for 2022 as of 21 November.

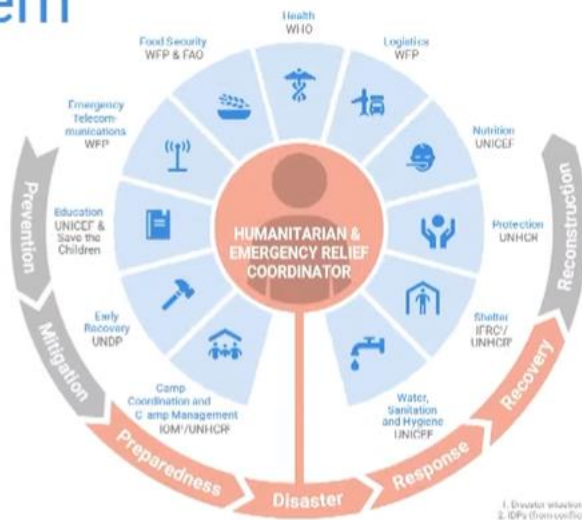
Key Actors

Humanitarian actors assist Governments in mobilizing international assistance when the scale of a disaster exceeds the national capacity for response.



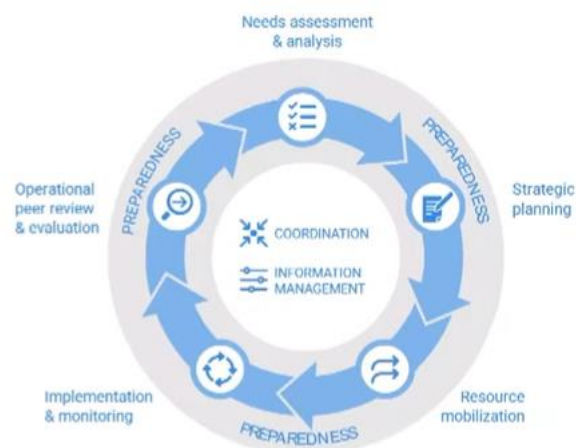
The Cluster System

The cluster system aims to strengthen humanitarian assistance in emergencies by clarifying the division of labour among aid organizations.



Humanitarian Programme Cycle

The Humanitarian Programme Cycle sets out the sequence of actions that should be taken to prepare for, plan, manage, deliver and monitor collective humanitarian responses.

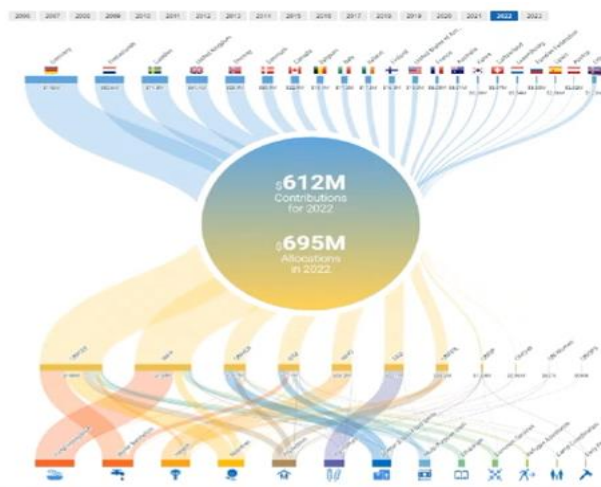


Humanitarian Financing

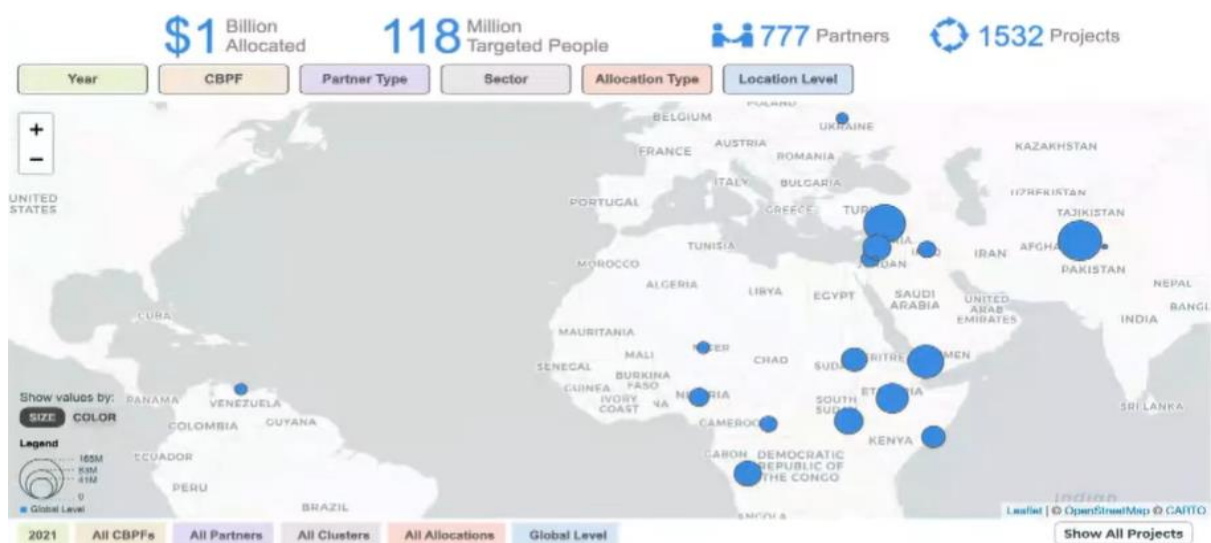


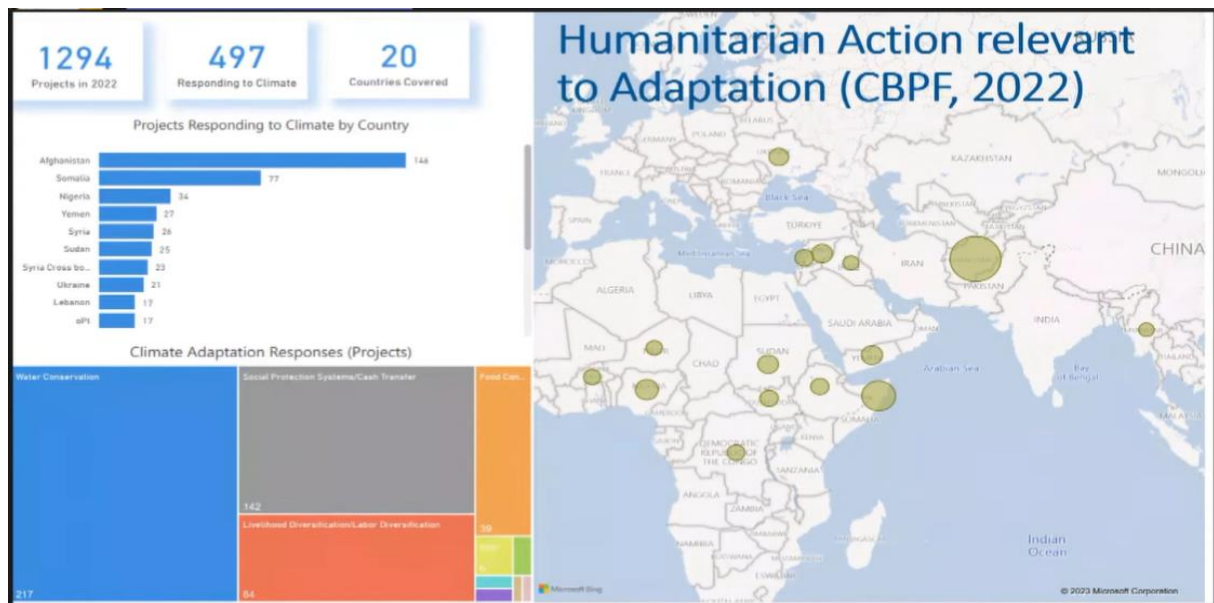
Central Emergencies Response Fund

- \$695m allocations 2022
- Focus on life saving, “activities that remedy, mitigate and avert harm”
- prioritize most vulnerable, using principles of humanity, neutrality and impartiality
- Can be fast
- Multisectoral

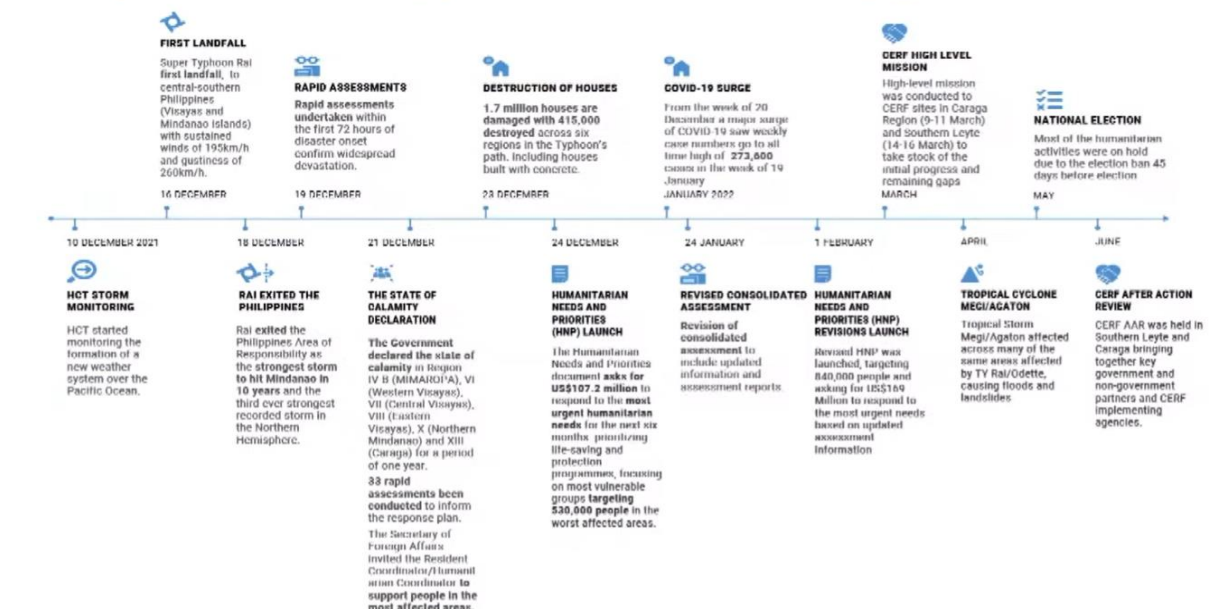


Country-based Pooled Funds - 2021

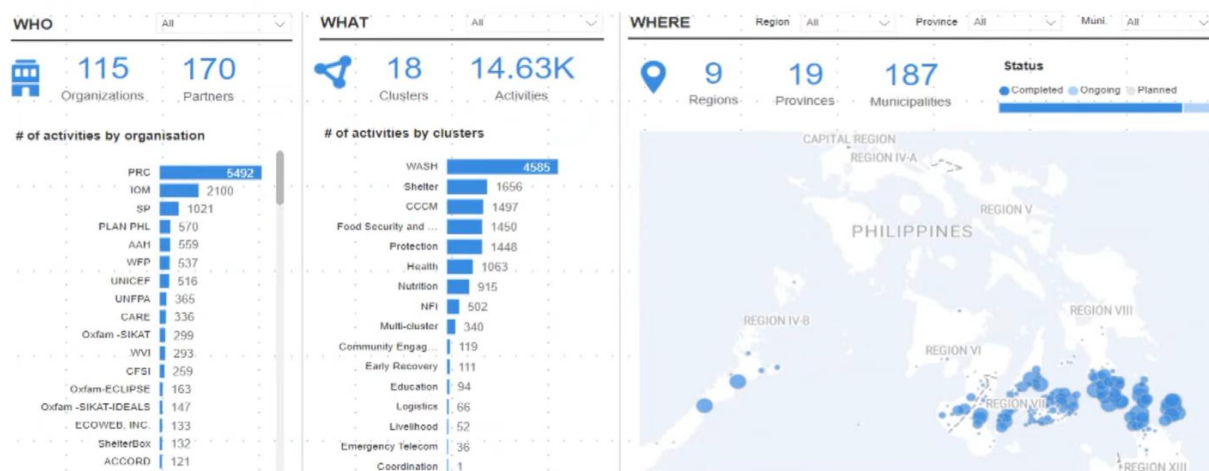




Response to Typhoon Rai Philippines



Typhoon Rai Who What Where

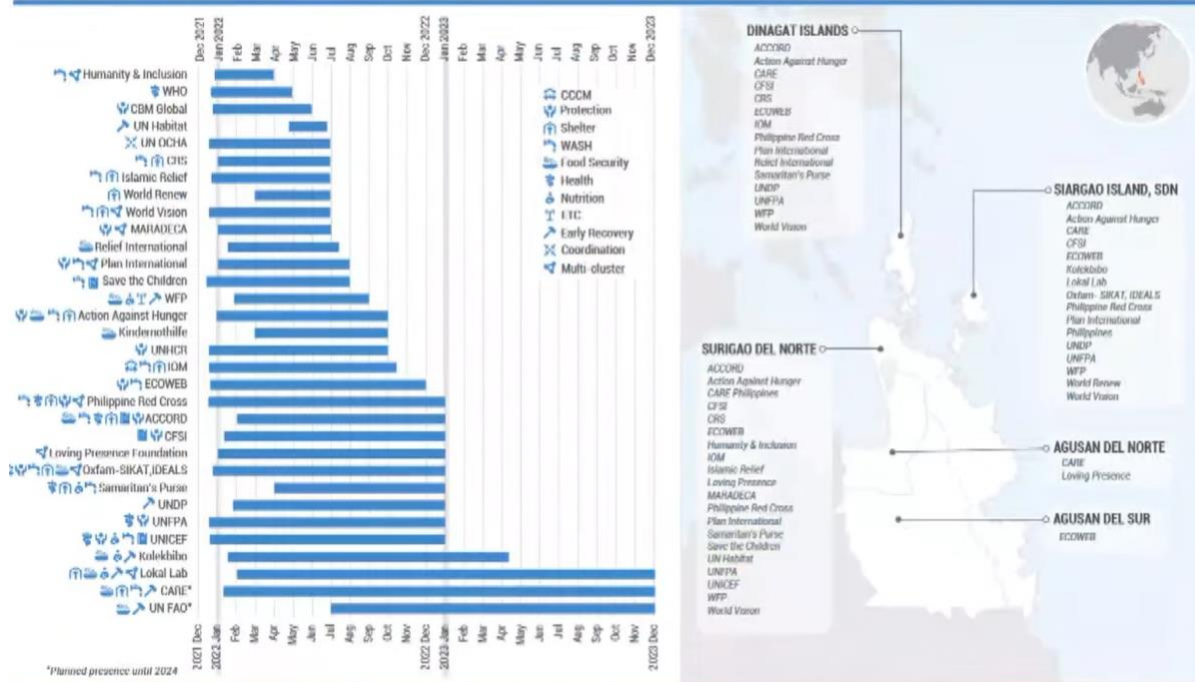




PHILIPPINES

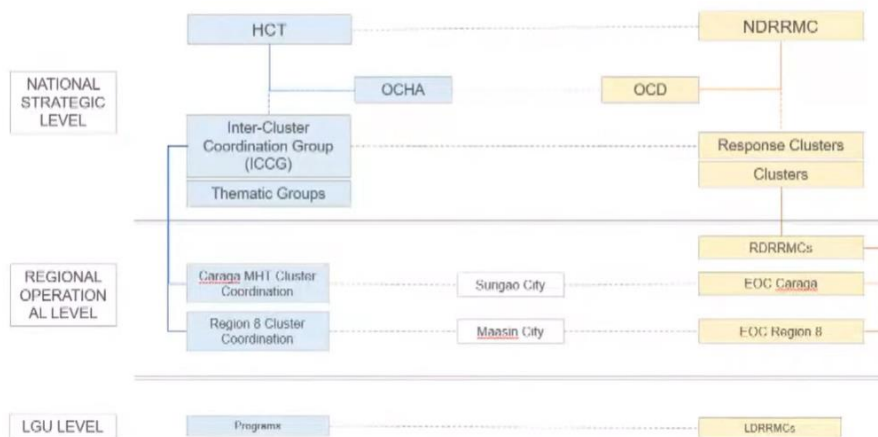
Organizations' Operational Presence in Caraga for Typhoon Rai/Odette Response

As of 14 June 2022



OVERVIEW OF COORDINATION ARRANGEMENTS

The HCT is supporting Government capacity in Caraga (Surigao City) and in Region VIII (Maasin City).



Typhoon Rai HNP funding (in US\$)

\$169M

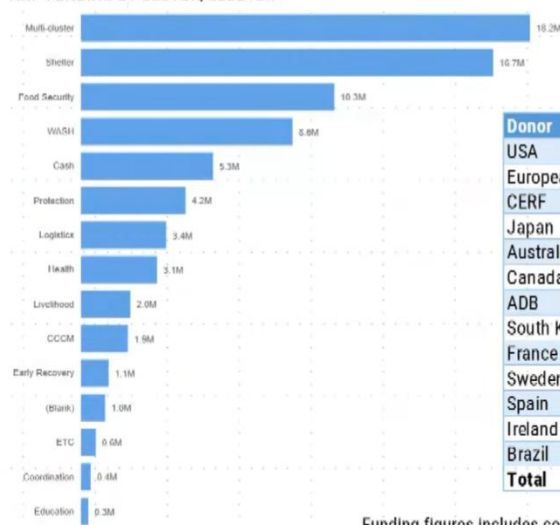
FUNDING REQUIREMENTS

\$77.1M

FUNDING IDENTIFIED WITHIN HNP



HNP FUNDING BY SECTOR/CLUSTER



Donor	Funding for HNP (USD)
USA	28,600,000
European Union	13,220,244
CERF	12,000,000
Japan	11,000,000
Australia	3,585,800
Canada	2,964,000
ADB	2,000,000
South Korea	1,300,000
France	1,130,000
Sweden	502,000
Spain	372,900
Ireland	282,500
Brazil	100,000
Total	77,057,444

Funding figures includes commitments and pledges from Donors

OCHA-facilitated anticipatory action portfolio

Framework

- Activated
- Endorsed
- In development



* Multi-country cholera pilot covers DRC, Mozambique and Yemen

** DRC: Democratic Republic of the Congo

United Nations
CERF
Central Emergency Response Fund

Anticipatory Action in Western Nepal

BACKGROUND:

- The framework for floods in Nepal was endorsed by the ERC in October 2021 for a period of two years.
- The framework covers flood-prone areas in the West and East independently:
 - Trigger thresholds are monitored and can activate independently
 - Split funding envelope: \$3.2m for the West | \$3.35 for the East
 - Tailored – and thus slightly different – activity packages

Western Nepal

READINESS:



STAGE I: READINESS TRIGGER

The GloFAS 7-day forecast predicts a 70% likelihood of water levels exceeding 6,300 m³/s

- On **02 October**, the pre-determined waterflow threshold to activate the **readiness** trigger is met.
- The Resident Coordinator informs stakeholders of the trigger activation
- CERF immediately releases \$3.2 million for three pre-approved projects by UNFPA, WFP and UN Women
- As per the framework, agencies are initially only authorized to spend a small portion of the funds for critical readiness activities

Western Nepal

ACTIVATION:



STAGE II: ACTION TRIGGER

Either the GloFAS 3-day forecast predicts a 70% likelihood of water levels exceeding 6,300 m³/s or water levels exceed the government-defined *danger level* **AND** DHM issues a flood warning bulletin for the affected area

- On **07 October**, the pre-agreed conditions to activate the action trigger are met.
- The Resident Coordinator informs stakeholders of the trigger activation
- Agencies are authorized to use the entire funding amount to implement a pre-agreed action plan
- Agencies distribute cash, hygiene, dignity and health kits, communicate early warning messages and facilitate access to critical health and protection services

Open discussion including through Mentimeter

- **Ephraim Shitima (Zambia):** unfortunate that presentation on Malawi could not take place, important example for/in Africa; Africa Risk Capacity shows that coverage very insufficient;
- **Manuel Marques Pereira (IOM):** 'no disaster is natural'; we have to reduce and break the cycle of L&D; with significant investments, anticipatory response could be scaled up a lot – and humanitarian response needs reduced; significant gap on how we move from reconstruction back to preparedness; special allocations such as on climate should be prioritised
- **Robert Philipp (Consultant):** Insurance gap: What is the average cost of the premium, e.g. under ARC? How much would the premium cost for a country – actual finance cost of risk-pooling initiatives?
- **Debbie Palmer (TC Member):** Insurance gaps: clear lack of finance, but also lack of funded instruments for different layers; is there a consensus among the insurance market about the gap? (products, funding, etc.) – or completely new architecture needed, considering new types of events?
- [Name could not be seen] **(UN-DRR):** let's not use the misleading term 'natural disasters'; have to bridge the gap between development and humanitarian interventions/responses; need to understand the current risk spectrum better; need for data – starts with how much we are losing, but clearly significant challenge; 155+ countries reporting on L&D through international mechanism already, 65 reported NELDs so far;
- **Christina Chan (TC Member):**
@Erika/WMO: What makes the Early Warning for All-Initiative different from others?
@ARC:
@Michelle/UNHCR: What are the funds for displacement for exactly? (internal vs. cross-border, etc.)
@Anne: PDNA, challenges of NELDs, how to better include NELDs?
@Greg: NELDs more considered, e.g., mental health? Can the health sector pick up the mental health issues as part of crisis response?
- **Mohammad Ayoub (Saudi Arabia):** Middle East and North Africa also experiencing L&Ds;
- **David Kaluba (TC Advisor):** Aftermath of fires in EU – nature of interventions, financial instruments?
- **Sven Harmeling (CAN International):** CCRIF, ARC severe lack of finance, need USD billions more, especially grant-based financed; ARC at forefront of gender considerations; who exactly is receiving the money for L&D? Often paid out through existing social coverage instruments – not benefitting the most affected; @ARC: Best way to immediately expand to support to countries in case of a single, large injection? Localisation debate/role of local actors?
- **Vincente Paolo Yu (Bolivia):** Analysis/studies on links between communities/countries and capacity and existence of adequate infrastructure in terms of economic livelihoods, administrative capacity, economic development WITH level of risk, vulnerability to extreme events AND impact of finance needed?; rationale of question: find out need to scale up either development or humanitarian funding (or both), in terms of efficiency to reduce L&D impacts
- **Adao Soares Barbosa (TC Member):** discussion more on preparedness so far; nothing on long-term planning processes so far (except for EU); how to fill the funding gap? Who is going to subsidize the insurance premiums? EU to share experiences with LDCs
- **Philipp Brunet (Switzerland):** @UN-OCHA: Gaps in the architecture? Or more funding fine?

- **Isatou Camara (Senegal):** @CCRIF: Data limitations? Big challenge for ARC, e.g., The Gambia – prevents some countries from joining the risk pool?
- [Name could not be seen] (**Climate Analytics**): Cost categories useful? different funding needs, e.g. Pakistan flooding; @WMO: pillar 2, 18 months of funding secured, but what about in 5 years? Funding to be extended?
- **Kajsa Fernström Nåtby (Sweden obo EU):** lack of humanitarian funding at scale the key issue; glad to hear about the anticipatory approach; @UN-OCHA: More details on how – in practice – focused on the most vulnerable? @Samo: Ways to enhance PDNA, to include NELDs?
- **Zaheer Fakir (South Africa):** one of potentially best practices – EU fight of wildfires; reserve capacity, resources astonishing – and that still not enough; USD 2 billion in Honduras lost means much more than USD 2 billions in the EU lost (in terms of %-GDP); how to bring Honduras to a position to lose only as little in %-GDP as the EU?; do we need another fund?
- **Christopher Bartlett (Vanuatu):** Are the financial gaps REALLY financial gaps? People and financial sector filling them (e.g., Honduras); Transitional Committee to look into this unacknowledged donors
- Tessa [Name could not be seen] (**Australia**): @UN-OCHA: How does the climate finance architecture complement the humanitarian ad one? @CCRIF: Insurance clearly an important piece of the puzzle, but what are feasible solutions for high-frequency but low-impact events? (including NELDs?);
- Kelly [Name could not be seen] (**Canada**): @all humanitarian actors: Role of women across the response chain?
- [Name could not be seen] (**Colombia**): Biodiversity-specific aspects in L&D?
- [Name could not be seen] (**Egypt**): All presentations showed that un-insuredness big inadequacy here; humanitarianism charity-based; CCRIF provides quick liquidity (e.g., Dominica); insurance only works well for events spread over space & time; IPCC: insurance premia will increase, thus more need for other financial instruments
- [Name could not be seen]: Synthesis report to be structured as: 1. Process, 2. Insurance, 3. Gaps; differentiate by short- and medium-term, slow-onset and extreme event; insurance very limited; governments not to be overburdened with more debt; presentations so far not dealing with the exact same questions
- Vasita [Name could not be seen] (**Sri Lanka**): Existing insurance schemes: how can they be scaled up? How to use regional and in-country mechanisms in parallel?
- Regina [Name could not be seen]: Presentations so far only on direct-impact responses and economic assessments – what about indirect ones, e.g. destruction of infrastructure and knock-on effects?; countries at highest risk also with highest reconstruction and adaptation burden – have to be aware of this nexus in L&D considerations
- **Harjeet Singh (CAN International):** Scale of funding the key question – new fund to meet it; initiative on Early Warning systems useful, but flipside: not enough attention given to reconstruction; how can this initiative increase attention to post-disaster needs?
- **Mr. Sonam Phuntsho Wangdi (TC Member):** Do we talk about GEF or GEFs in terms of institutions needed?

Responses:

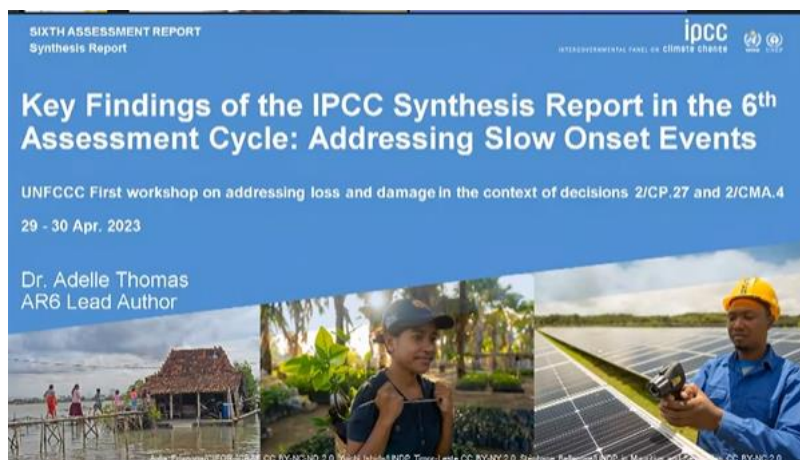
- **Greg Puley/UN-OCHA:** NELDs clearly important part of humanitarian response; mental health actually growing in importance and funding available; the way needs are assessed incredibly important for getting funding; of course, by far not meeting all climate-related humanitarian response needs; fundable package: translating preparedness into practical action;

- **Early Warning for All:** key questions, e.g.: tracking the right hazards, communities acting on the information provided? Early warning systems work as a value chain – only as strong as the weakest link – then L&Ds occur; COP27-Action Plan: by 2027, ALL countries have a multi-hazard forewarning system; initiative will develop a new index to show how far countries have proceeded so far;
- **Lorraine Njue/ARC, CCRIF:** rely heavily on re-insurance organisations; frequent change of decisionmakers on African continent – a key barrier for continuous insurance solutions; funding needed for contingency fund; need to diversify risks much more; need to work with agencies that are already in countries to save resources; data limitations: need to bring in more indices and data sources;
- **Michelle Yonetani/UNHCR:** complementary instruments for refugee response plans nationally and regionally; [Refuge Funding Tracker](#);
- **Helena Pereira/Honduras:** Honduras clearly does not want to be forever dependent on international humanitarian aid; biodiversity: baselines difficult, therefore often underestimated
- **Stella Brožek Everaert:** novelty: mainstreaming of climate change-related spending up to 2027 as well as of do-no-harm-principle; to date, 25 EU countries contribute to the pool; European Climate Risk Assessment new tool, based on existing data and knowledge – available as of 2024;

Session 2 – Addressing slow onset events (13:30-15:00)

Ms. Adelle Thomas, IPCC Working Group II (online)

- Slow-onset and extreme events interact; e.g., sea-level rise & storm surge – overall risks of funding confounded
- E.g., sustainable urban water management needed
- Feasibility of many response options DECREASES with increasing global temperature
- Climate finance critical; key barriers: lack of private and civic sector engagement, lack of political will, etc.
- Concepts of fairness and equity key



- Slow onset events refer to the risks and impacts associated with e.g.:

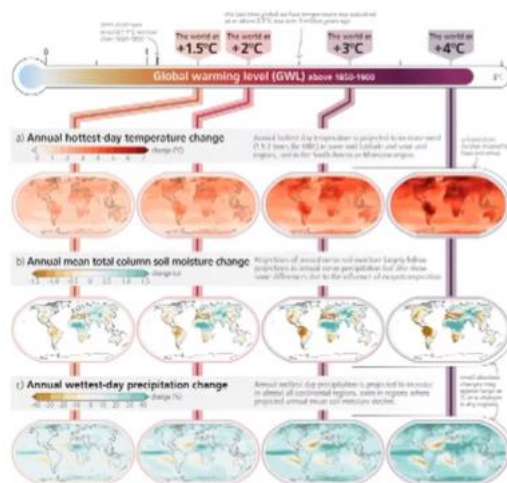
- increasing temperature means,
- desertification,
- decreasing precipitation,
- loss of biodiversity,
- land and forest degradation,
- glacial retreat and related impacts,
- ocean acidification,
- sea level rise and salinization

Impacts of climate change are caused by slow onset and extreme events

- Complex risks result from **multiple climate hazards occurring concurrently**, and from multiple risks interacting, **compounding overall risk** and resulting in risks transmitting through interconnected systems and across regions.
- **Concurrent and repeated climate hazards occur in all regions**, increasing impacts and risks to health, ecosystems, infrastructure, livelihoods and food
- **Multiple risks interact**, generating new sources of vulnerability to climate hazards, and compounding overall risk
- E.g. Future sea level rise **combined** with storm surge and heavy rainfall will increase compound flood risks

Complex risks: slow onset and extreme events **interact**

SIXTH ASSESSMENT REPORT Synthesis Report



With every increment of global warming, regional changes in mean climate and extremes become more widespread and pronounced

Adverse impacts from human-caused climate change will continue to intensify

Observed widespread and substantial impacts and related losses and damages attributed to climate change

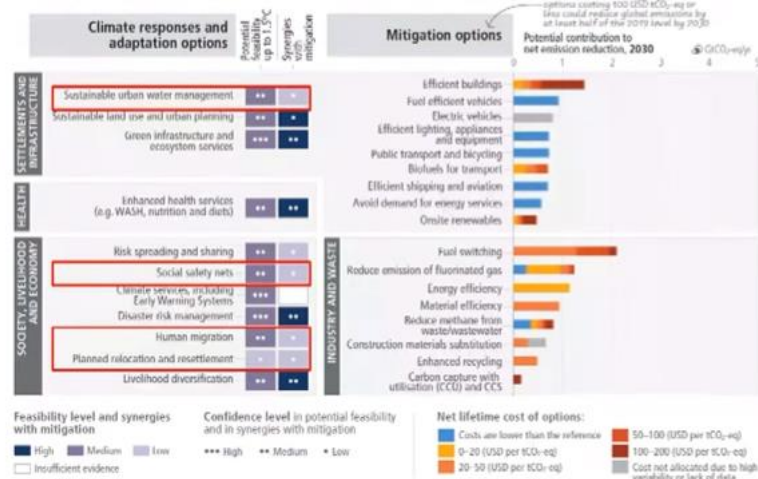


SIXTH ASSESSMENT REPORT
Synthesis Report

ipcc

There are multiple opportunities for scaling up climate action

Feasibility of climate responses and adaptation, and potential of mitigation options in the near-term



IPCC AR6 SYR Figure SPM.2c

Mr. Sanny Ramos Jegillos, UNDP (online)



Both palaeoclimate and modern observations suggest that the strongest El Niño and La Niña events since the pre-industrial period have occurred during the last fifty years (medium confidence). There have been three occurrences of extreme El Niño events during the modern observational period (1982–1983, 1997–1998, 2015–2016), all characterised by pronounced rainfall in the normally dry equatorial East Pacific. There have been two occurrences of extreme La Niña (1988–1989, 1998–1999). El Niño and La Niña variability during the last 50 years is unusually high compared with average variability during the last millennium.

- [Chapter 6: Extremes, Abrupt Changes and Managing Risks – Special Report on the Ocean and Cryosphere in a Changing Climate \(srcc.ch\)](#)

El Nino Hazards and Impacts

- The most concerning societal and environmental consequences of the meteorological conditions produced by an El Niño event tend to be droughts, floods, flash floods, heatwaves, and forest fires. Significantly, each of these upshots has its own secondary effects that tend to ripple even more deeply through societies and ecosystems. Effects such as food insecurity and forced migration, loss of biodiversity for example can have devastating consequences, both spatially and temporally.
- The 1997–1998 El Niño caused 23,000 fatalities from El Niño induced disasters, increased poverty rates by about 15 percent in many countries, and cost governments up to USD 45 billion from impacts of severe droughts, storms, and other related hazards. (de facto baseline for standard in impact, risk management and responses)
- The 2015–2016 El Niño (strongest since 1950) triggered weather extremes, from severe drought in South and Southeast Asia to intense rainfall in the Pacific. The event affected 60 million people globally and in at least 40 countries around the world were affected by floods, droughts, storms, wildfires, frosts, and diseases.

Enhanced capabilities minimize and address consequences

As bad as these impacts were, however, they could have been much worse had communities and countries not prepared to varying degrees for the event, taking mitigative and sometimes even preventive actions that likely saved countless lives and livelihoods:

1. Regional and national climate outlook forums from which were developed improved strategies and tactics for responding to future events.
2. Improved impact based forecasting
3. Risk assessment – Bio physical, Socio Economic Impacts (context and territorial)
4. Global, regional, national, sectoral and community responses
5. Communicating Risk
6. UN interagency contingency planning: building resilience, anticipatory actions for each sector at risk, response and recovery

Sector	Impact	Remarks
Agriculture	Severe damage to crops, reduced (garden) yields	Loss of major income source for subsistence farmers
Food Security	Food shortages Low water levels affect food supply routes	Reduced food consumption, and consequently health issues
Water	Dried up rivers - lack of drinking and household water	People walked long distances to get water
Power	Low water level in dam caused serious damages in hydro-power supply to seven provinces	
Mining	Low water level halting processing of raw ore Low water levels hindered transportation of copper ore and diesel	Mines shut down operation affecting at least 15% of local and 30% of expatriate workers

Enhanced capabilities minimize and address consequences

UN interagency contingency planning: building resilience, anticipatory actions for each sector at risk, response and recovery

[PNG El Niño Early Action Plan \(31 Jul 2017\) | HumanitarianResponse](#)

IASC Sectoral Activities- high risk humanitarian sectors

Early Action

Preparedness

Response Actions

Recovery Actions

UNDP: Lessons Learned and Challenges

ENSO capabilities apply usable science for minimizing and addressing climate loss and damages

Blind spots: event vis vulnerabilities (attribution); changes in risk patterns- exposure of biodiversity, irreversible loss and damages

Theories of attribution with climate change and application increasing

Unpredictability and uncertainty with seasonal and short term forecast (onset, process, behavior)

Inadequate granularity of vulnerabilities- poor risk communication- exacerbating conditions of those who are left behind

UNDP: Lessons Learned and Challenges

Short term capacity

Limits to minimizing, preparedness, and anticipatory actions- considerable residual risks, loss and damage amplified- economic and non economic

Interconnected risks, consequences require integrated approaches- pre- during, short term, medium term, long term

Siloes (temporal, sectoral, spatial)

1. Governance
2. Financing sources: humanitarian, DRR, Recovery and Development
3. Risk Management approaches

Financing:

1. Development, DRR, Humanitarian Response and Recovery: unpredictable, insufficient.
2. Development aid based on bilateral relationships
3. Insignificant domestic and international funding in LDCs and SIDs

Mr Barron Orr, UN Convention to Combat Desertification

- As much as 75% of arable land is already used by humans – burning the candle from both sides

- Return of investment difficult to estimate for every single piece of land, BUT all SDGs compete for land
- Land-use planning community detached from climate space, and vice versa

Addressing slow onset events: Responses to land degradation, desertification and drought

First workshop on addressing loss and damage in the context of decisions 2/CP.27 and 2/CMA.4

Actions to address loss and damage and current gaps and challenges related to existing landscape of institutions providing support



United Nations
Climate Change



United Nations
Convention to Combat
Desertification

United for land

Barron Joseph Orr | Chief Scientist
Bonn, Germany | 29 April 2023



What land degradation is not.

Examples of two land conditions mistakenly associated with the concept of desertification; (a–c) the 'spreading desert'; (d–f) cracked, bare soil surfaces.

Photo credits: (a) UNCCD (b) Lao ; (c) Brooks ; (d) UNHCR ; (e) United Nations ; (f) UNCCD

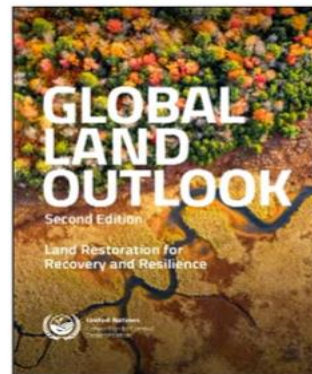
Land degradation is...



- Land degradation means reduction of the biological or economic productivity and complexity of land.
- It includes processes arising from human activities and habitation patterns such as: soil erosion caused by wind and/or water; deterioration of the physical, chemical and biological or economic properties of soil; and long-term loss of natural vegetation.
- Desertification is land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors, including climatic variations and human activities.

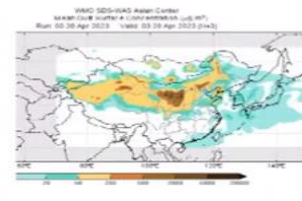
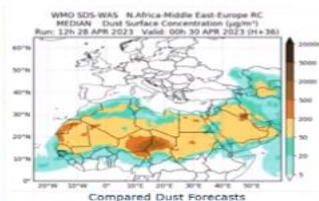
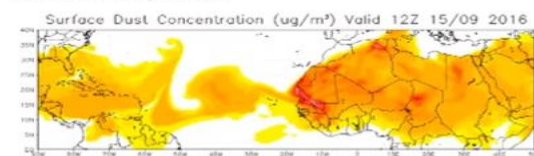
How significant is land degradation?

- Over **70%** of ice-free **terrestrial ecosystems** have been **transformed from their natural state for human use**.
- Governments have reported that **1 in 5 of those hectares** is no longer productive, undermining the well-being of **3.2 billion people**
- **\$US 44 trillion** – roughly half the world's annual economic output – **is being put at risk by the ongoing degradation**
- If business as usual continues through 2050, GLO2 projects the **further degradation of 16 million square km** – an area the size of South America.



Land degradation can be a transboundary challenge. Consider sand and dust storms...

CIMH DAFC 7-Day Forecast



SDS leads to both on-site and off-site loss & damage



On-site costs are usually in the form of loss of soil and sand and, in turn, the loss of soil nutrients and organic matter, including soil carbon.

Specific areas of **off-site cost** include transport, health, household cleaning, commerce and manufacturing, and agriculture.

WMO's assessment of mortality and the economic losses of climate disasters shows that the largest human losses during 1970 – 2019 have been due to droughts



Take the example of drought



Drought impacts



Over 1.4 billion people were affected by drought in the period of 2000 to 2019. This makes drought the disaster affecting the second-highest number of people, after flooding

By 2050, between 4.8 and 5.7 billion people will live in areas that are water-scarce for at least one month each year, up from 3.6 billion today (UN Water, 2021)

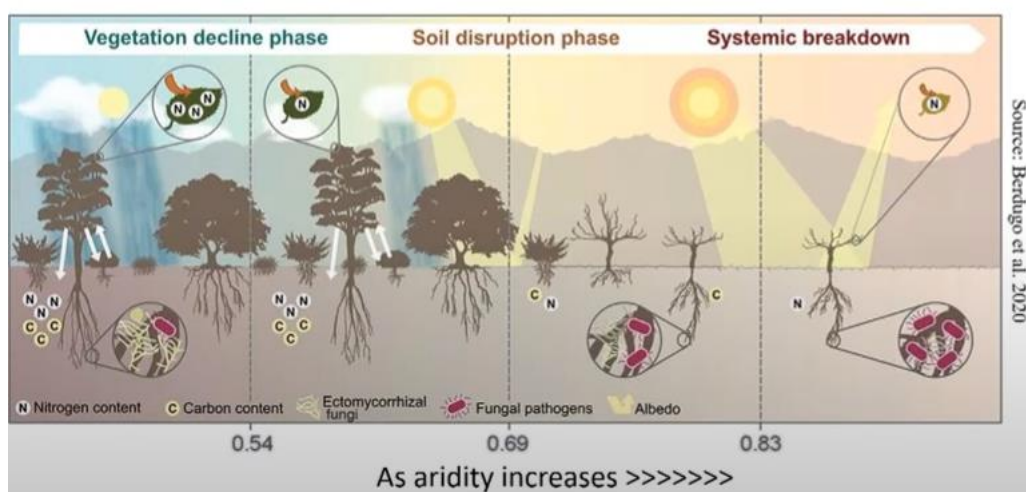
What do these aridity trends portend for drylands?



- **Drylands** are vital ecosystems which cover **46% of the Earth's surface**, hosting **39% of the global population**.
- Dryland areas are **highly sensitive to climatic changes**.
- **The drylands could increase by an additional 7% of the global land surface by 2100.**
- With rapid climate change and population growth, anthropogenic **water demand in drylands is projected to increase by ~270% by the 2090s**, exacerbating current water resource scarcity.
- Up to **1.9 billion people could avoid living in drylands by keeping to 1.5 °C vs 4 °C.**

Sources: Koutroulis 2019 and Xu Lian, Shilong Piao et al. 2021

This will mean significant loss & damage



Land is the substrate

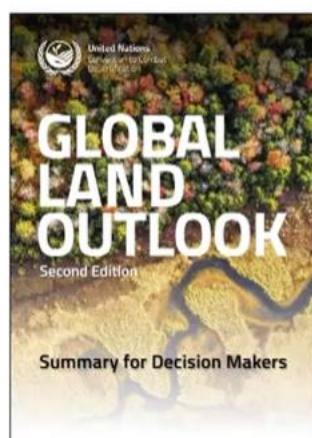
Published in May, the *Global Land Outlook*, 2nd Edition warns that **four of the nine planetary boundaries**, which define a “safe operating space for humanity” – **climate change, biodiversity loss, land use change, and geochemical cycles** – have already been **exceeded**. Land is the foundation for all of these.

We cannot stop the climate crisis today, biodiversity loss tomorrow, and land degradation the day after. We need to tackle all these issues together.



— UNCCD Executive Secretary Ibrahim Thiaw

Does it pay to reverse land degradation?



- The **economic returns** of restoring land and reducing degradation, greenhouse gas emissions and biodiversity loss are estimated at **\$US 125-140 trillion every year** - as much as 1.5 times global GDP in 2021 (\$93 trillion).
- Nations have pledged to **restore 1 billion degraded hectares** (10 million square km – an area the size of the USA or China) by 2030.
- **Land is the substrate**. Bringing it back into balance can bring food, water, climate, energy and nature back into balance.

Land is an integrator and accelerator

By bringing together different forms of capital, **land restoration can create millions of green jobs** and other economic opportunities for a growing and youthful population.

The **restoration economy** can reach well beyond the agriculture, forestry, or conservation sectors to encompass **new business models and emerging technologies**.



A balanced approach is needed.

- One that **anticipates new land degradation** even as we plan to reverse past degradation
- One that **considers tradeoffs** among competing interests across the landscape

LDN provides the framework for this.



Land Degradation Neutrality

- LDN seeks to **maintain natural capital** and the **ecosystem services** that flow from it;
- LDN is about keeping **land in balance**;
- Keeping land in balance provides the basis for **keeping food, water, carbon and biodiversity in balance** as well;
- LDN is about achieving **multiple benefits**;
- LDN provides a framework with **multiple entry points** which facilitate **optimizing the synergies** among the Rio Conventions (Climate Change, Biodiversity, Land Degradation).

<https://knowledge.unccd.int/publication/ldn-scientific-conceptual-framework-land-degradation-neutrality-report-science-policy>



D



Land Degradation Neutrality

Prevention is better than cure



Avoid: Land degradation can be avoided by addressing drivers of degradation and through proactive measures to prevent adverse change in land quality of non-degraded land and confer resilience, via appropriate regulation, planning and management practices.

Reduce: Land degradation can be reduced or mitigated on agricultural and forest land through application of sustainable management practices (sustainable land management, sustainable forest management).

Reverse: Where (feasible, some (but rarely all) of the productive potential and ecological services of degraded land can be restored or rehabilitated through actively assisting the recovery of ecosystem functions.



Solutions need to include different options for different contexts.

<https://www.ipcc.ch/srccel/>

Response options based on land management		Mitigation	Adaptation	Desertification	Land Degradation	Food Security	Cost
Agriculture	Increased food productivity	L	M	L	M	M	---
	Agro-forestry	M	M	M	M	M	---
	Improved cropland management	M	L	L	L	M	---
	Improved livestock management	M	L	L	M	M	---
	Agricultural diversification	L	L	L	L	M	---
Forests	Improved grazing land management	M	L	L	L	M	---
	Integrated water management	L	L	L	L	M	---
	Reduced grassland conversion to cropland	L	L	L	L	M	---
	Forest management	M	L	L	M	M	---
	Reduced desertification and forest degradation	M	L	L	M	M	---
Soils	Increased soil organic carbon content	M	L	L	M	M	---
	Reduced soil erosion	L	L	L	M	M	---
	Reduced soil salinization	L	L	L	L	M	---
	Reduced soil compaction	L	L	L	L	M	---
	Fire management	M	M	M	M	M	---
Other measures	Reduced landfills and natural hazards	L	L	L	L	M	---
	Reduced pollution including acidification	M	M	M	L	M	---
	Restoration & reduced conversion of coastal wetlands	M	L	M	M	M	---
	Restoration & reduced conversion of peatlands	M	L	M	M	M	---
	Restoration & reduced conversion of peatlands	M	L	M	M	M	---
Response options based on value chain management		Mitigation	Adaptation	Desertification	Land Degradation	Food Security	Cost
Demand	Reduced post-harvest losses	M	M	L	L	M	---
	Dietary change	M	M	L	M	M	---
	Reduced food waste (consumer or retailer)	M	M	L	M	M	---
Supply	Sustainable sourcing	L	L	L	L	M	---
	Improved food processing and retailing	L	L	L	L	M	---
	Improved energy use in food systems	L	L	L	L	M	---
Response options based on risk management		Mitigation	Adaptation	Desertification	Land Degradation	Food Security	Cost
Risk	Livelihood diversification	L	L	L	L	M	---
	Management of urban sprawl	L	L	L	L	M	---
	Risk sharing instruments	L	L	L	L	M	---

Integrated response options are needed to achieve multiple benefits

- Several response options deliver for multiple challenges, including climate change and sustainable development goals.
- **Enhanced biodiversity and conserved habitats** (supporting the 2020 Biodiversity Framework)
- **Reduce impacts of drought and flood** (disaster risk reduction)
- **Close, at least in part, the agricultural yield gap** leading to additional agricultural production (food security);
- **Minimize the adverse drivers of irregular migration and conflict over access to land and water resources in degradation “hot-spots”** by scaling up job creation and improving community livelihoods (peace and security, rural development and decent jobs for youth);

Its more than planting trees



- While planting trees would seem to have clear, unmitigated benefits, the reality is not so simple.
- A recent global synthesis found that **native forests consistently delivered better performance than plantations** in the provision of ecosystem services, with additional benefits for biodiversity.

RESEARCH

FOREST ECOLOGY

The biodiversity and ecosystem service contributions and trade-offs of forest restoration approaches

Fangyuan Huo^{1,2}, L. Adrian Bruijnzeel^{3,4}, Paula Mei^{5,6}, Philip A. Martin⁷, Jun Zhang^{8,9}, Shinichi Nakagawa², Xinran Miao², Woyi Wang², Christopher McEvoy², Jorge Luis Peña-Arancibia¹⁰, Pedro H. S. Brancalion², Pete Smith¹¹, David P. Edwards¹², Andrew Balmford²

Forest restoration is being scaled up globally to deliver critical ecosystem services and biodiversity benefits; however, there is a lack of rigorous comparison of cobenefit delivery across different restoration approaches. Through global synthesis, we used 25,950 matched data pairs from 264 studies in 53 countries to assess how delivery of climate, soil, water, and wood production services, in addition to biodiversity, compares across a range of tree plantations and native forests. Benefits of aboveground carbon storage, water provisioning, and especially soil erosion control and biodiversity are better delivered by native forests, with compositionally simpler, younger plantations in drier regions performing particularly poorly. However, plantations exhibit an advantage in wood production. These results underscore important trade-offs among environmental and production goals that policy-makers must navigate in meeting forest restoration commitments.

Huo et al., *Science* 376, 839–844 (2022) 20 May 2022

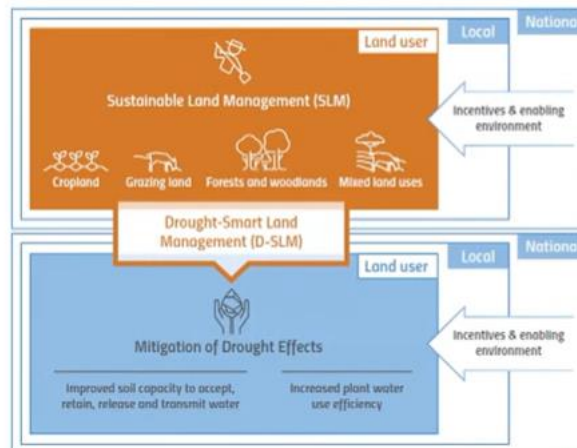
Integration needs to occur across the urban-rural continuum

PLACE	 Cities/urban areas	 Urban-rural interface	 Rural/agricultural landscapes	 Natural ecosystems/protected areas
APPROACHES	Green spaces and water management	Sustainable territorial development	Regenerative food and commodity production	Conservation and restoration of nature
ENABLERS	Rights (tenure security) / Rewards (incentives/investments) / Responsibilities (long term planning)			
ACTIONS	- Community gardens and urban farming - Tree planting and wetland restoration - Green belts and buildings (roofs/walls)	- Land use planning - Protect watersheds and fertile farmland - Manage urbanization - Sectoral coordination for green infrastructure and supply chains	- Integrated farming (crops/trees/livestock) - Rangeland management - Sustainable intensification and agroecological practices	- Ecological restoration - Wildlife corridors and buffer zones - Indigenous/ community management - Sustainable harvesting in protected areas
BENEFITS	- Human health (quality of life) - Clean air and water - Flood control and wastewater management - Parks and recreation - Cooler temperatures	- Water availability for urban residents - Local and regional food security - Biodiversity conservation - Reduced urban sprawl	- Food security and rural livelihoods - Healthy soils and ecosystem functions - Reduced emissions - Water storage/recharge - Biodiversity conservation	- Nature's contribution to people - Global public goods (climate stability/biodiversity) - Ecotourism and cultural landscapes

Drought-smart land management



Reichhuber et al. 2018



Drought-smart land management measures: impacts, costs and benefits, synergies, trade-offs and constraints



Reichhuber et al. 2018

Land Use	D-SLM Category	LDN Category	Upfront Costs	Net Economic Returns	Food Security and Poverty Reduction	Trade-Offs and Constraints
Croplands	Controlling soil erosion	+	+	Neutral and negative in the short term, positive in the long term	+	Labor availability could be a constraint
	Minimizing soil disturbance	+	+	Often, but not always, positive already in the short term	+	Competition between uses of plant residues for mulching or for livestock feeding
	Integrated soil fertility management	+	++	Usually already positive in the short term	4-5	Competition between uses of livestock manure as soil amendment and energy source
	Improved water management	+	++ to +	Usually already positive in the short term, especially in arid environments or where water is priced	+	Lack of water markets and pricing can limit incentives for their adoption
Grazing lands	Improved vegetation management	+	++ to +	Usually already positive in the short term	+	May require technical adaptation for their adoption by farmers
	Fencing pasture management	+	+	Usually already positive in the short term	+	In some areas competition with expanding crop production
	Water management	+	+	Limited evidence	+	Limited evidence
Forests/ Woodlands	Vegetation management	+	++ to +	Usually already positive in the short term	+	Limited evidence
	Sustainable forest management, afforestation, reforestation, and/or reducing deforestation	+	+	Neutral and negative in the short term, positive in the long term	+	Limited evidence
Mixed land uses	Adapting agro-forestry and agro-pastoralism	+	++ to +	Neutral and negative in the short term, positive in the long term	+	Takes relatively long time for implementation
	Water management	+	++ to +	Usually already positive in the short term	+	Lack of water markets and pricing can limit incentives for their adoption
	Integrated watershed management	+	++ to +	Positive in the long term	+	Takes relatively long time for implementation
	Urban green infrastructure	+	++ to +	Positive	+	Requires considerable technical capacities for planning and implementation

Solutions need to encompass all dimensions of the restoration process



Source: Gitz et al. 2020, adapted from Meine van Noordwijk in I' TA/PIM/WLE (2018), van Noordwijk et al. (2020)

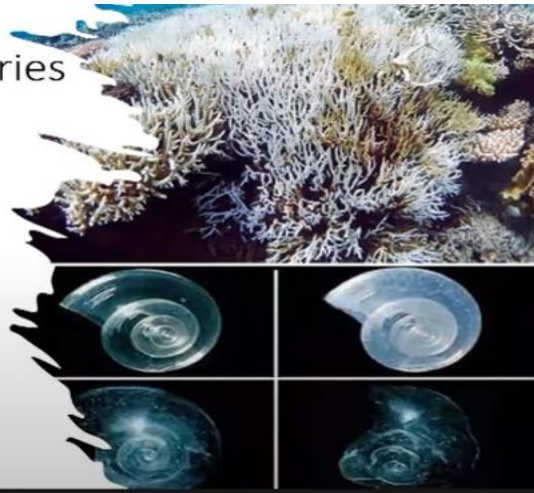
Case studies:

Mr. Christopher Bartlett, Vanuatu, on Assessing Vanuatu's Coral Reef: The importance of accounting for NELD in loss and damage financing

- Measure climate change right now in terms of L&D
- Coral reef by far the most important ecosystems in the country – most are already dead
- 15% of Vanuatu's budget going into L&D – for 6th year in a row
- Vanuatu Blockchain programme working highly effective – high faith in disbursement programme; can be easily replicated by the L&D Fund
- L&D Fund MUST be based on justice approaches – funding & disbursement
- 'Early warning' also needed for what is coming in the next few years and decades, not just next week, in terms of climate impacts

Slow Onset Impacts on Vanuatu Coastal Fisheries

- RCP 8.5 scenario for tropical Pacific
 - **Temperature** will rise by ≥ 3 °C by 2100
 - Increasing frequency of bleaching events (annual)
 - + or - Recruitment
 - Increase stratification preventing nutrients upwelling
 - Declines in net primary production
 - Declines in dissolved oxygen
 - **Ocean Acidification** – pH
 - Coral / Shell calcification
 - Fish sensory perception and behavior change
 - **Sea Level Rise**



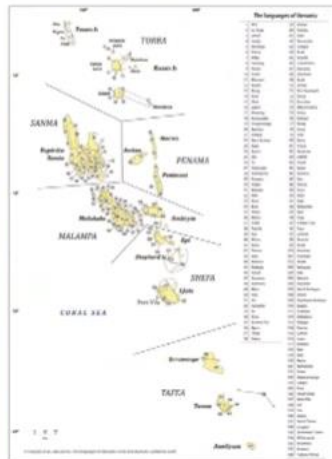
“Sea level rise is degrading the reef flats where I collect shells. Its harder to get to the shells. Mud from the land is completely killing some species. I have to spend many extra hours fishing and collecting shells.”

Transitional Committee:

“I would like to see **funding** for **rehabilitating reefs** that have been damaged, and for **documenting** and our **traditional knowledge** about the ocean that has been lost.”

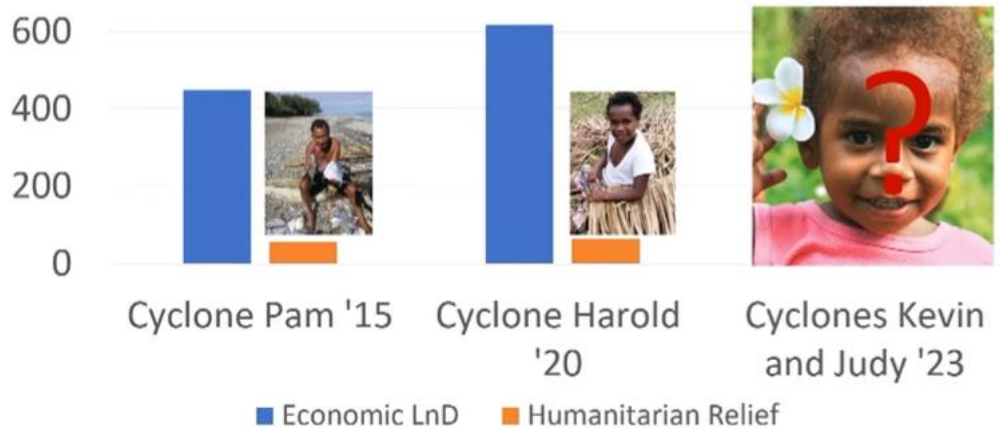
“Now I am telling stories to my children and grandchildren about the reef with this traditional knowledge,
but this isn't enough.”

Example of SoE NELD: Loss of Indigenous Language



Message 1: Vanuatu is already facing existential threats from climate change and urgently requires new financing to address loss and damage, including non-economic loss and damage in coastal ecosystems and to the indigenous communities that depend on them.

Failure of Humanitarian Systems to Address LnD from extreme events, **none for SOE LnD**



Insurance Payments for Slow Onset LnD?

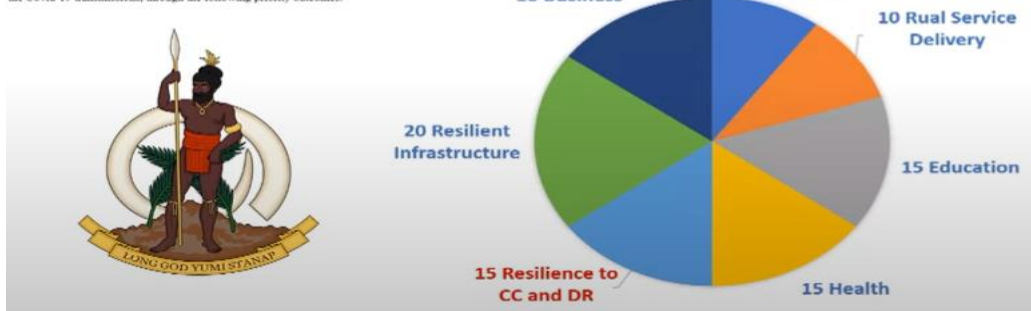
- SOEs typically have no trigger for payouts
- Premiums are beyond Vanuatu's per capita GNI of \$3,240 USD.
- Widespread distrust of the insurance industry
- In Vanuatu < 5% of people with any kind of coverage
- The UN Capital Development Fund (UNCDF) launched in 2022 a micro-insurance product for a quick injection of relief funds within 10-14 days following a natural disaster, aimed at Vanuatu's smallholder farmers, fishers, MSMEs, women-headed households, and people with disabilities.
- Nothing for thousands of families losing their coral reef livelihoods from SOEs

Message 2: The current funding gaps for addressing loss and damage are massive and inadequately reported. Neither humanitarian nor insurance mechanisms are able or suited to meet the needs of Vanuatu's most vulnerable.

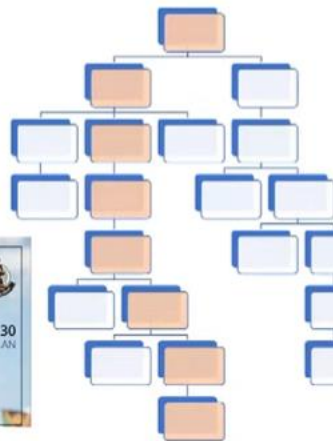
Vanuatu Government Budget Policy Statement 2023

Core Policy Priorities Analysis and Justification for support in 2023

The current Government remains committed to public sector reforms to deliver the People's Plan 2030 while promoting capabilities for resilience and prosperity taking into considerations the Covid-19 transmissions, through the following priority outcomes:



Utilize existing government financial systems for disbursement and delivery of funds to address LnD



- ✓ Local Ownership
- ✓ Strengthens National Systems and Processes
- ✓ Tracked by existing M&E
- ✓ Linked into Govt Budgeting and Disbursement
- ✓ Includes cross-sectoral approaches
- ✓ Brings funds to subnational and island governments
- ✓ Built on Programs not Projects
- ✓ Can address SoEs and Rapid Onset LnD

Vanuatu's Blockchain-powered Cash Transfer Programme

Puts cash and decision-making for addressing loss and damage in the hands of those who need it
Transparency through blockchain
Implemented by trusted local private sector stakeholders
Enabled by trusted local NGOs
Successfully rolled out in the most remote island communities in Vanuatu
Can work for Rapid and Slow Onset LnD



Message 4: Systems of financing response to climate loss and damage already exist at subnational and national levels. The Loss & Damage Fund should consider operational modalities that make use of and enhance these existing structures, and targeted financing mechanisms to address the disproportionate climate burdens on women and girls.



"After a season of prolonged rainfall, a landslide buried our village.

Today my reef is dead. It has been wiped out because of climate change. It is lost, along with our identity.

There is no money available to help us remember, document, write the stories of the marine totems.

We now have to leave. Who will pay for this loss and damage to my villages lives and livelihoods?"

Message 3: The injustice of climate loss and damage must be addressed by the Loss & Damage Fund as it plays a global catalytic and coordinating role for new, additional, adequate, predictable, precautionary, and accessible finance to address loss and damage.

Message 5: Vanuatu finds itself in a seemingly inescapable cycle of increasing climate loss and damage, exacerbated by compounding, cascading and intensifying climate and non-climate events, requiring urgent and tailored loss and damage funding

Transitional Committee:

"Had I known in advance, we would have spent time taking pictures of the reef, moving some of the huge giant clams to other, safer areas, and telling our kids the stories of each stone and coral patch before it was taken from us.

There are things that can help us grieve, if they are done before it is too late.

To our government, please give us better advice about what is coming for us.

For those who are responsible, you must pay for the harm you have caused to my home, my family, to our reef, and to my soul as an indigenous Molpoi woman."



Vanuatu
Loss & Damage
Contact Points

Mr. Mike Sam Waiwai
Mr. Sylvain Kalsakau
Mr. Christopher Bartlett
Ms. Florence Iautu

VanuatuClimateChange@gmail.com

Mr. Manjeet Dhakal, Nepal and/or Bhutan, on Melting glaciers and changing snow cover

- World's fastest temperature increase
- ¼ of glaciers already lost; next major glacier burst just a question of time
- Hydropower destruction not uncommon anymore, decreases electricity production

First workshop on addressing loss and damage in the context of decisions 2/CP.27 and 2/CMA.4 29-30 April 2023

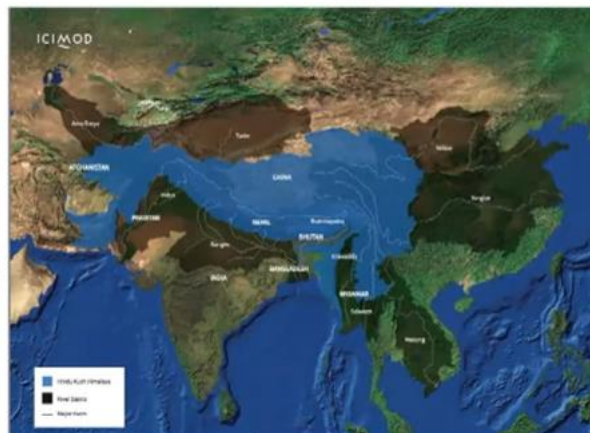
Session 2 – Addressing slow onset events Melting Glaciers and Changing Snow Cover Bhutan and Nepal Case Study

Manjeet Dhakal

The HKH is an integral part of the identity and economy of Bhutan and Nepal

Hindu Kush Himalaya (HKH) Region:

- Home to 4 global biodiversity hotspots
- Origin of 10 major river basins in Asia
- Home to 240 million people living in the mountains and hills, and 1.9 bn people living in the river basins downstream
- Provides essential ecosystem services including freshwater resources and fertile soil for agriculture
- Population and economy highly dependent on the services provided by the mountains – drinking water, agriculture, pastoral farming, hydropower, tourism

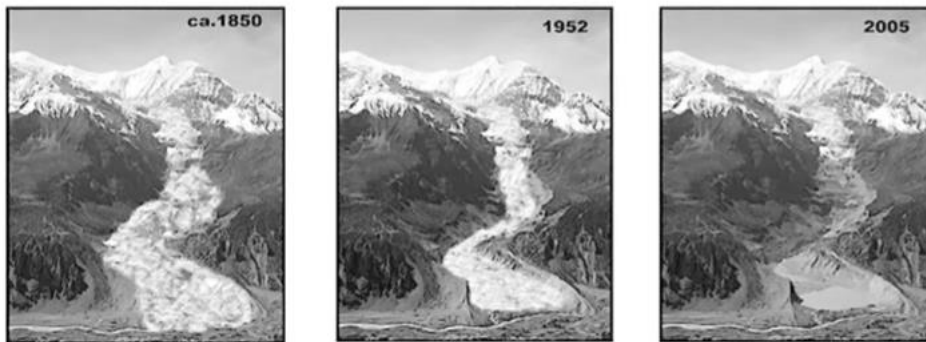


HKH warmed at an average rate of 0.2°C per decade in the last 50 years

- HKH warming much higher than the average global rate of warming - 0.18°C per decade since 1981
- At 1.5°C, warming is expected be at least 0.3°C higher in the HKH.
- Increase glacier melt, change in snow cover and permafrost, precipitation extremes have been observed over the years.
- HKH lost about a fourth of glacier area within 30 years. Between 1980 and 2010, Bhutan lost around 23% of its glaciers and Nepal lost 25%.
- Over 50 GLOF events have been recorded in the HKH, including in Nepal and Bhutan.
- 47 lakes identified as potentially dangerous in Nepal and 24 identified potentially dangerous in Bhutan
- HKH could lose upto 60% of their glacier volume if emission do not go down and will still lose 33% of their volume at 1.5°C



Photos of the glacier at Gangrinchemzoe La in Lunana Village in Bhutan
Source: Nishi et al. (2006)



Retreat of Gangapurna glacier, Manang Valley, Nepal. Left (1850): reconstruction on basis of terminal glacier; middle (1952): reconstruction after photo by Toni Hagen; right: picture from 2005

A global assessment on GLOF's societal impact found that Nepal and Bhutan had the greatest economic consequences from GLOFs

- Between 1985-2014, economic losses in mountain regions was highest in HKH region 45 billion USD, followed by European Alps at 7 billion and Andes at 3 billion.
- *Dudhi Koshi* sub-basin in Nepal and *Pho chu* sub-basin in Bhutan are among the global hotspot of glacial activities, recording several destructive GLOF event over the years.
- Recorded deaths, destroyed crucial infrastructures such as hydropower plants, roads, bridges, river protection walls, cultural monuments, houses, etc.
- Impacted freshwater availability, loss of soil moisture, drying up of water sources, biodiversity, etc.
- Impacted lives and livelihoods, hydropower production, agriculture productions, etc.
- Reduced snow cover has also exacerbated impacts on agriculture by reducing soil moisture, drying up of water sources.
- Impacts on agriculture productivity has caused mountain communities to adopt costly farming practices, relocation of settlements.

Best Practices

- Addressing these impacts mostly focus on adaptation and early recovery activities
 - For e.g., water resource management, climate resilient agriculture and food security, disaster risk reduction, etc are mainstreamed in the NAPs, NAPAs, national policies, plans and programmes with significant national budget allocation
- In 2008, Bhutan implemented a project with GEF-LDCF and UNDP to reduce risk from GLOF from *Thorthomi* lake through artificial lowering of the lake and establishment of GLOF EWS, evacuation centers, among others
- In 2013, Nepal implemented project with GEF-LDCF and UNDP at high mountains and low-lying flatlands to reduce risk from GLOF and floods through construction of open channel, installed sensors, automated EWS, bioengineering, drainage system and built evacuation centers.
- The project was co-financed by the government of Bhutan and Nepal.

Lessons Learned

- Most of these projects focused mostly on ex-ante adaptation measures that reduce risk.
- Support for ongoing and ex-post activities, crucial elements for holistic response, not available under the current UNFCCC financial mechanism.
- International support for immediate response, relief, intermediate recovery and long-term reconstruction comes in the form of disaster, humanitarian, development aid and is voluntary.
- Climate change induced loss and damage in the HKH is difficult to quantify as they are cross-sectoral, spatially and temporally extensive.
 - Quantifying non-economic losses such as loss of life, biodiversity, social and cultural disruption is also complex and challenging.
 - Assessment of loss and damage and associated costs will require significant resources from the new Fund.

Lessons Learned

- Both countries have invested significant resources to meet the cost of climate change induced loss and damage, diverting national resources from development. As such both countries economies are setback and cannot afford to go into further debt to meet the costs of loss and damage.
 - funding to address loss and damage should be grant based.
- For both countries accessing funding from existing fund is challenging due to complex funding criteria including extensive data requirements. Further, the scale of funding is not commensurate with the scale of challenges.
 - the new fund should be designed to improve accessibility, scale and predictability.
- Triggers that activate funding flows as soon as a country is hit with an extreme events should be a key features of the new fund.
- Need to ensure that both, early response and recovery is covered, with recovery costs often far exceeding response costs

Mr. Bouzekri Razi and Mr. Iskander Vernoit, Morocco, on Morocco's experience with loss and damage, notably from drought



Morocco's experience of loss and damage management and finance: The case of drought

Ministry of Energy Transition and Sustainable Development of Morocco

Energy Transition

Renewables major programs between 2016 and 2030
Achieving 10100 MW of additional capacity in renewable energy (Solar 20%, Wind 20%, Hydro 10%)

Sustainable Development

Implementing the foundations of a green and inclusive economy in Morocco by 2030, including NDC and National Adaptation Plan

Ministry of Agriculture, Marine Fisheries, Rural Development, and Water and Forestry of Morocco

Develop and implement the government's policy in the agricultural sector



Plan Maroc Vert 2008-2020

Based on two pillars:

- the development of a modern agriculture with high added value production meeting international standards, and
- the development of small-scale agriculture through a solidarity-based approach aimed at fighting poverty and diversifying sources of income for the



Green Generation 2020-2030

Based on two foundational principles:

- putting human element at the center of its concerns and
- ensuring the sustainability of agricultural development

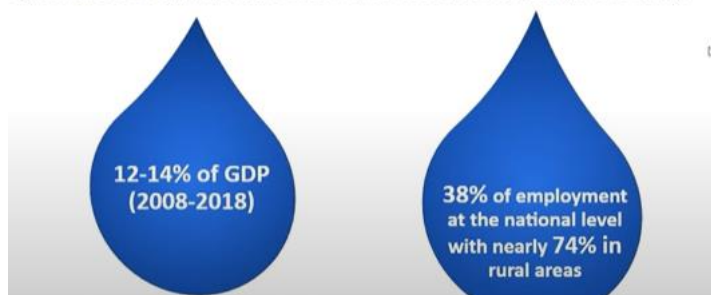
Further relevant ministries relevant to management and finance of loss and damage in Morocco

- Ministry of Interior
- Ministry of Economy and Finance
- Ministry of Solidarity, Social Integration and Family



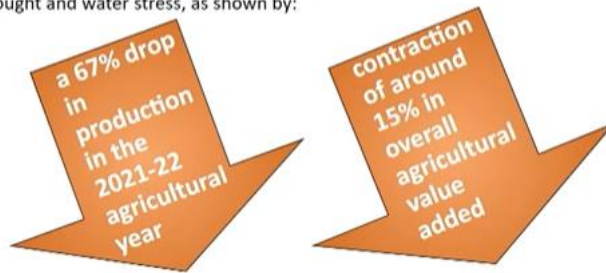
Economic and social vulnerability to agricultural losses in droughts

Agriculture is a very important sector in Morocco, economically and socially.



Economic losses resulting from drought

Despite Morocco's agricultural strategies, cereal production remains vulnerable to drought and water stress, as shown by:



as well as increased dependence on imported cereals

(Ministry of Agriculture, Maritime Fisheries, Rural Development and Water and

Job losses and labour market losses resulting from drought

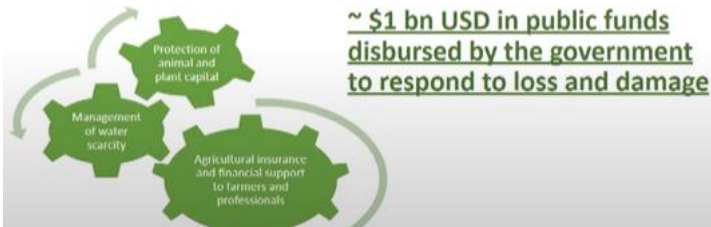
Droughts severely impact agricultural production and employment, as seen in the 1994-1995 drought in Morocco which caused a significant 80% decrease in production, resulting in a loss of 60% of working days and a decrease in rural employment (IRES, 2014).

According to the World Bank, lack of rainfall is once again causing job losses in rural areas. According to data from the High Commission on Planning (Haut Commissariat au Plan, HCP), 174,000 jobs were lost in rural areas in 2022, coinciding with the worst drought in 40 years.



Recent policies and expenditures by Morocco to manage losses and damages from drought

In response to the worst drought in 40 years, the Ministry of Agriculture launched the PRIDP with a budget of 10 billion dirhams (1 billion USD) to mitigate the effects on the 2021-22 agricultural season. This program aims to provide support to farmers and breeders, and address the impact of the rain delay on different sectors of the agricultural industry. It focuses on three areas:



Potential national channels for international funding to address loss and damage

The current channels used by the Moroccan government to cope with losses and damages from the 2021-22 drought suggest various possible channels for international finance:



Conclusion

- Morocco welcomes the decision at COP27 to create a loss and damage fund in light of the drought-related loss and damages to its agricultural yields, financial value, labour market and livelihoods.
- The UNFCCC loss and damage fund represents an opportunity to support and enhance existing national financing measures already established to cope with loss and damage.
- Further work is needed to study, support, and enhance existing national financing schemes based on domestic public resources in developing countries.

Ms. Outi Honkatukia, on Indigenous Sami people's traditional knowledge, reindeer husbandry & cultural consequences

- Possible solutions: World's first Indigenous People's Climate Council being established in Finland right now

Impact of climate change on the Sámi

Case study - First workshop on addressing loss and damage in the context of decisions 2/CP.27 and 2/CMA.4

29 April 2023, Bonn

The Sámi – the context

- Indigenous people living in regions warming more than 3 times faster than global average in Finland, Sweden, Norway & Russia.
- Total Sámi population is over 75.000. Majority living in Norway; about 10.000 in Finland
- Climate change impacts amplified by close relationship with nature & dependence on reindeer husbandry

The Sámi in Finland

- The Sámi have, as an indigenous people, the right to maintain and develop their own language, culture and traditional livelihoods
- Have constitutional self-government in the Sámi Homeland in the spheres of language and culture
- Self-government is managed by the Sámi Parliament
- Legally defined Sámi Homeland and reindeer-herding district

Challenges and constraints

- Over 60 % of the Sámi now live outside the Sámi Homeland
 - Brings new challenges for provision of education, services and communications in the Sámi language.
- Traditional Sámi livelihoods are fishing, gathering, handicrafts, hunting and reindeer herding
 - Modern ways of practising them demonstrates the Sámi's ability to adapt to changing societal structures and environment
 - But notable cultural consequences (such as traditional knowledge)

Lessons learned and experiences 1/2

- The Sámi have managed to maintain the traditional way of reindeer herding while developing it as economically sustainable livelihood
- Climate change has direct & indirect impacts on feasibility of relying on reindeer herding as a main source of income
- This affects the culture, languages and traditional knowledge of the Sámi in negative ways
- Traditional knowledge and languages are transmitted by practicing traditional livelihoods and occupations
- Frozen and moulting grazing lands are concrete challenges for reindeer herders already today
- Extreme snow conditions have severe consequences both for reindeer and reindeer herders
- For example, thousands of reindeer died due to hard winter in 2019-2020.
- Most reindeer herders had to start to drive supplementary nutrition for reindeer to their winter grazing lands
- This increased expenses radically

- **Guiding questions:**
- What are the different existing approaches for addressing slow-onset events taken by different countries, regions, and communities? What forms of support are required?
- What are the challenges, gaps and constraints? What are the lessons learned?
- Are there specific measures or actions to respond to and address slow onset events for which funding is particularly difficult to secure?

Session 2 continued/Open discussion including through Mentimeter (15:15-16:45)

- **Kelly (Canada):** @Chris Bartlett: Suggestions for best practice in addition to working with governments, e.g., local level, indigenous people, etc.?
- **Liane Schalatek:** local ownership, subsidiarity key – e.g., Vanuatu; intergenerational elements of L&D; social safety systems have to be extended in the face of increasing L&D needs; cash-transfer-programmes: so far huge gender differences
- **Sonam (Bhutan):** limits of adaptation have been reached; Bhutan already lost 1/3 of glaciers; hydropower 25% of GDP, agriculture similar – massive losses expected; insurance not the way to go – what to ensure in Bhutan? Who to repay the loans? Currently no instruments
- **Saleem Huq:** @Chris Bartlett: people on the ground as first respondents, using all the (human) resources they have; ‘locally-led adaptation’ growing community around the world;
- **Michael Ivenso (Nigeria):** Lake Chad: shrunk by more than 90% in last few decades; ‘climate-resilient debt clause’ – UN system should get involved in sovereign ratings;
- **Mohammed Ayoub (Saudi Arabia):** @Barron Orr, Adelle Thomas: What is the economic impact of extreme sandstorm events? In Arab region already regions that are no longer habitable – for every degree of global warming, 1.4-1.8 degrees in the Arab region;
- **Barron Orr:** soil degradation has affects across the board
- **Christopher Bartlett (Vanuatu):** arrived at the conclusion that multiple modalities needed; central governments provide coordinating role; cash-transfer key (rolled out by NGOs); national L&D fund currently set up, to be applied for decentrally (e.g., churches, civil society); ‘pre-arranged finance’ (instead of insurance) system being set up

- **Manjeet Dhakal (Bhutan/Tibet):** extreme events garner much more attention than slow-onset; the more important to secure predictable finance for the latter
- **Christina Chan (USA):** @Chris: What are the specific issues with slow-onset events and climate information? (obviously harder to communicate than extreme events); limits of adaptation – what have Nepal and Bhutan done?;
- **Manuel Pereira (IOM):** slow-onset-induced mobility underrepresented in data – key challenge of future planning; concern with coastal areas – 260 million people live only 2 metres above sea level;
- [Name could not be seen] Santos (Brazil): L&D resources tend to drift to extreme events
- **Vincente Paolo Yu: @Christopher & Manjeet:** slow-onset events not a risk anymore BUT a certainty; impact will be much greater than what insurance can pay for; efforts of developing countries will necessarily be insufficient to pay for occurring L&Ds; insights: 1. grant-based, simplified, direct access to government funds absolutely necessary; 2. No one-size-fits-all-approach; 3. Need an integrated & comprehensive approach: linking development & humanitarian finance considerations; 4. Time scales are important: 3-4 years not sufficient – we know that they will constantly increase over the next decades; What are the tools to increase grant-based financing to developing countries? How to decrease outflows from developing countries (e.g., debt payments)? How to increase internal fund generation (domestically): tighter link between sustainable development, adaptation and L&D policies?
- **Brittany Young (Australia):** key to think about complementarity for the L&D fund; where national approaches do not yet exist, how could the funding arrangements help with their installation (e.g., Santiago Network)?;
- **Adao Soares Barbosa (Timor-Leste):** countries need more direct access to climate data from the IPCC on slow-onset events, to allow for national L&D projections; territorial loss going on in most developing countries – need specific analysis by the IPCC Assessment Report
- **Harjeet Singh:** nature of slow onset-events very difficult for policymaking; large-scale migration going on in Indian mangrove area – loss of 110 km² in last 2 decades due to sea-level rising;
- **Claire (UK):** conversation clearly moving forward from the Glasgow Dialogue
- **Ernesta (South Africa):** flood and drought both happening regularly in South Africa; droughts as slow-onset emergency; for a very long time countries have raised L&D to the UNFCCC;
- **Jean-Christophe Donnellier (TC Member):** Which financial institutions already working on L&D and already making a difference?
- **Philippe Brunet (Switzerland):** glacial loss huge issues, already cooperating internationally; mountains included as new thematic area of the Nairobi Programme; GEF, Adaptation Fund both working on slow-onset events: how to build on their experience in the landscape of actors?
- **Christopher Bartlett (Vanuatu):** Vanuatu knows that L&D will occur, BUT we don't know how long it will take – and how, when to relocate; 20-30 year time scales to take actions with dignity, 'locally-led L&D actions'; France gave EUR 40 millions to Vanuatu unconditionally – was used for 2015 cyclone response; ICJ Advisory Opinion – we should all make submissions (until October) to get a clear outcome; let's continue discussion where money should come from - in the run to and way beyond COP28
- **Manjeet (Bhutan/Tibet):** Without a clear assessment, how can the fund be designed? But no time to lose, we can't wait any longer – time is not on our side;
- **Sanny (UNDP):** need to break up silos; more than 30 countries put L&D in their NDCs; need to take a systems lens;

Wrap-up and overview of day 2 (16:45-17:00)

- Key aim for tomorrow: Everyone to provide their 3 key messages for the TC

DAY 2 – 30 April – Sources and instruments of loss and damage funding – online: [First workshop on addressing loss and damage in the context of decisions 2/CP.27 and 2/CMA.4- YouTube](#)

Session 3 – Insights from existing work under the UNFCCC: Existing efforts and opportunities to further strengthen coordination for responding to loss and damage: (9:00-10:00)

Guiding questions:

Drawing on work undertaken to date, what are the challenges, gaps, and constraints related to responding to and addressing loss and damage? What are the lessons learned? How might these inform the development of the new funding arrangements and fund?
What are the key opportunities to strengthen coordination for responding to and addressing loss and damage within the UNFCCC system and beyond?

Ms. Kajsa Fernström Nåtby, Member, Executive Committee of the Warsaw International Mechanism for Loss and Damage (in person)

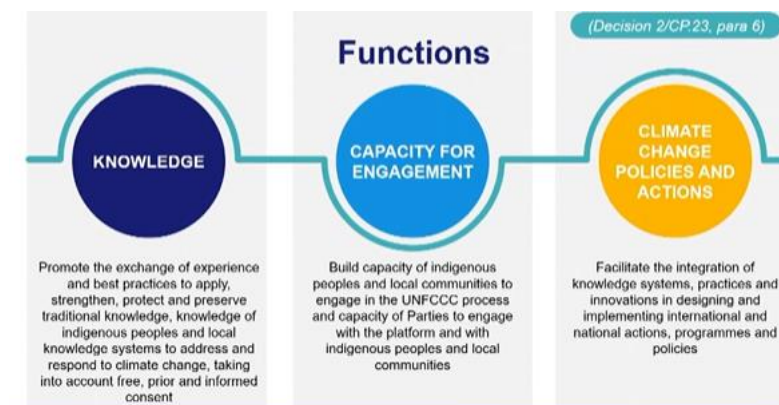
- General: Recalls history of WIM-ExCOM: 20 representatives; functions: enhance knowledge and understanding risk management approaches; synergies among stakeholders; enhance action and support
- Different expert groups, e.g., on Comprehensive Risk Management
- WIM-Review in 2019: decision to establish 3 more expert groups: slow-onset events, NELDs, action & support
- Santiago Network: contributes to functions of WIM as well
- Specific (responding to guiding questions of today): technical products so far: various analyses done, but still varying understandings of relevant actions to respond to L&D; thus, technical guides started to work on: e.g., NELDs in the context of human mobility, cluster of technical guides on slow-onset events in the pipeline; also technical guide on: unpack support landscape; financial instruments: submissions reg. existing financial instruments, e.g. risk transfer/pooling, disaster relief plans, micro bonds, etc. (1st work plan) – lessons learnt: enabling environments necessary BUT also require risk assessments AND have to be combined meaningfully AND PPPs can enhance effectiveness; recent: how L&D is included in national adaptation plans; overall, engaged over 50 different people across expert groups – some also in the Technical Support Unit to the TC

Mr. Adao Soares Barbosa, Vice-Chair, Least Developed Countries Expert Group (online)

- Est. in 2001; mandate to provide assistance for national adaptation, later also technical guidance for NDCs
- Specific (responding to guiding questions of today): NAPs differ significantly in terms of country's knowledge regarding adaptation options; contributed to WIM-ExCOM technical guidance on human mobility; technical training workshops provided to get financial support from the GCF; need for more comprehensive assessments on the risks of climate impacts, factoring in risk-based approaches and losses; need for concrete adaptation goals to measure adaptation actions against it; [Paris Agreement Alignment tool](#) to facilitate coordination issues and implement the convention;

Ms. Natasha Banda, Co-chair of the Facilitative Working Group of the Local Communities and Indigenous Peoples Platform (online)

- FWG one of the most unique constituted body – the ‘microcosm’ of the world
- Function: reach out to all indigenous representations and hear from them
- 5 key challenges: climate impacts goes way beyond what can be heard, seen and counted – e.g., sources of knowledge; L&D planning must be a long-term approach – intergenerational thinking; too often go just back to how it was before an extreme event – e.g., re-building – need a focus to understand that we are one with nature; Paris Agreement highlights ‘best available knowledge’ – not distinguishing scientific from traditional knowledge; people rendered vulnerable by surrounding systems – recognition of local leadership needed



Challenges & Gaps

Focus on the Obvious Gap: A holistic view of the impact of climate change.	Short-term Thinking and Planning Gap: Intergenerational Equity (LT) mindset	Priority on Economic-Centered Values Gap: Oneness with Nature	Bias on Scientific Knowledge Gap: Recognition of the importance of indigenous knowledge and local knowledge	Everyone At the local Level is <i>just</i> Vulnerable Gap: Recognition of the leadership roles of local communities and indigenous peoples
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Ariesta Ningrum, UNFCCC, *on behalf of the* Technology Executive Committee (online)

- One arm of the mechanism, besides CDM as implementation arm
- Published policy brief on: (traditional) knowledge as social technology, governance technologies, etc.
- Specific (responding to guiding questions of today): LDCs and SIDS in particular have limited knowledge of existing technologies to respond to L&D, their application in coherent manner; very limited access to application of such technologies and relevant data; many developing countries cannot ensure effective governance with regard to adaptation and L&D; early warning and early action one of most cost-effective actions BUT especially SIDS and LDCs often uncovered; recent stream of work set up in line with '[Early Warnings for All](#)' initiative; close coordination with different funds to foster access;

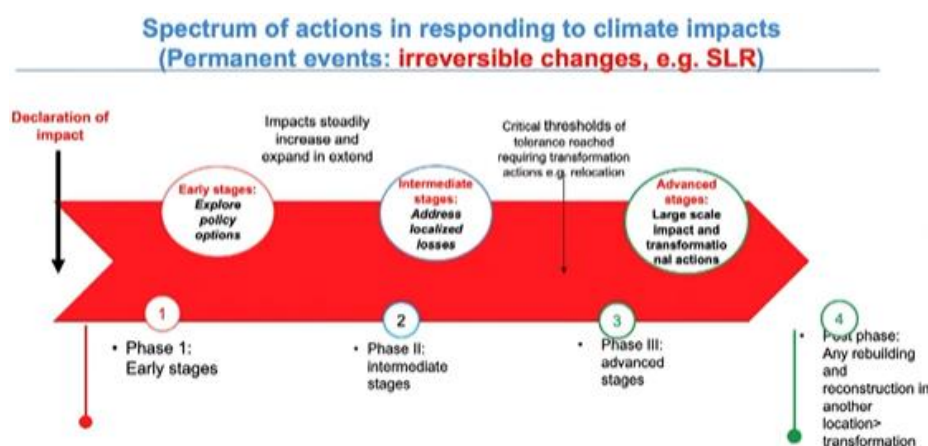
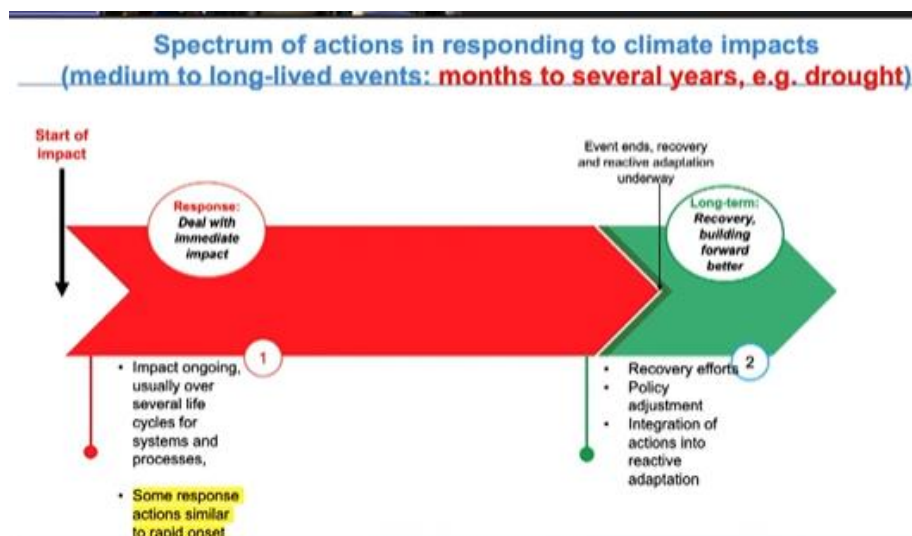
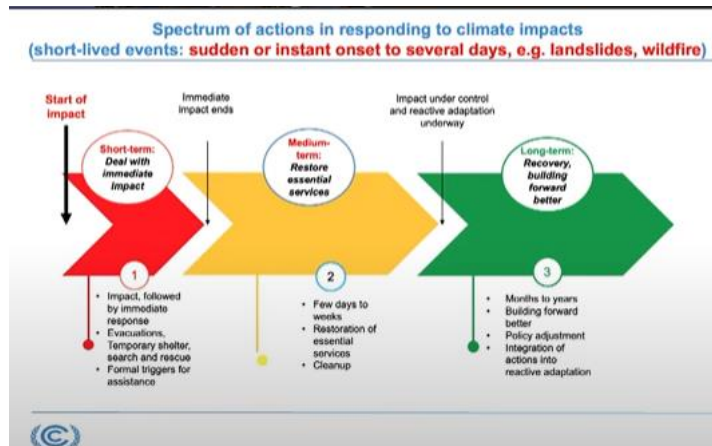
Ms. Mariam Allam, Co-Chair of the Adaptation Committee

- Mandate: promote action on adaptation under the UNFCCC, Paris Agreement and overall coordination
- Clearly more adaptation action needed to prevent more L&D – have to start addressing the underfunding of adaptation
- 'Finance is not matching the clarity of science'; access to adaptation funding still too difficult
- Climate observation infrastructure and technical capacity to interpret data an ongoing issue
- Access to finance in context of multilateral funds an ongoing issue; fast tracking of direct access needed
- Comprehensive risk management could be moved from adaptation to L&D – many countries really struggling to identify adaptation component of projects funded by multilateral funds
- Returns of investment huge issue for L&D, also for adaptation – in the way of long-term planning
- Compare monetary values with non-monetary values difficult: USD 1 for adaptation saves many more USD in the medium- to long-term BUT not always easy to quantify in detail
- Most adaptation action designed so far very short-term, small-scale
- AC plans: meeting with all constituted bodies – on formulating and implementing NAPs

- Lot of fragmentation in addressing adaptation as well as for L&D – backed by best-available science

Ms. Mimansa Joshi, UNFCCC, on the Santiago Network Regional Scoping Workshop- Latin America and Caribbean regions

- Floods: National policy key player in rapid response to extreme events
- Tropical cyclones: response action usually as soon as President announced state of emergency
- More assessments available in the slide deck, e.g., on wildfires



FLOODS

Synthesis of Bolivia, Costa Rica, Ecuador, Haiti, Peru, Panama

DURATION OF EVENT: Weeks

DURATION OF EFFECTS OF THE EVENT: Months

ANTICIPATORY ARRANGEMENTS

- Most of the countries mentioned that there is no insurance/ preparatory/ anticipation funds for floods. There is evacuation if necessary. Only Peru mentioned about payment of bonus of USD 134 following Cyclone Yaku.
- In Peru, National Emergency Operations Center is activated in Phase 3 of anticipatory arrangement to respond with evacuation, rescue food, temporary camps
- Most countries have general risk management guidelines and monitoring to issue early warning alerts, but no rescue protocols for livestock and farm animals

RESPONSE ACTION

Phase 1 – triggered after infrastructure damages and declaration of emergency. 2 – 5 days after disaster

- Depending on severity, there are L&D evaluation, search and rescue, supply provisions, clearing of affected areas, removal of garbage, shelter provision.
- Most countries main response is from national civil protection system and national police. Haiti is an exception with NGOs and UN intervening in Phase 1.

Phase 2 – 5 days to 3 months.

- Phase 2 is focused on reestablishment of key essential services like electricity, water pipes, roads, homes and cleaning sewerage
- Focus for other phases include restoration of natural vegetation

RECOVERY ACTION

Phase 1. Duration: 1 – 2 years

- Rebuild the affected houses based on territorial plans and construction standards, maintenance of sewers, protection of rivers and streams,

Phase 2. Duration: 2 – 5 years

- Improvement of DRR strategies, capacity building and sensitization

TECHNICAL ASSISTANCE NEEDS, GAPS AND SUPPORT

Support

- Staffing at ministries and capacities for coordination
- Instruments and tools to evaluate the intensity of the events
- Capacity development, climate and finance literacy
- Tangible projects for implementation
- Early warning needs to include other indicators than just climate components.

Gaps

- Relocation support is missing in most countries (except Costa Rica)
- Special challenges with indigenous population
- Anticipatory action plans and contingency plans are missing in Bolivia
- Proper evacuation plans

Needs

- Involvement of private sector and finance sectors for insurance
- Context and sector specific insurance (eg. urban vs rural)
- Inclusion of indigenous knowledge in pre-action plans
- Coordination between different levels at the government
- Gender mainstreaming and gender-related payments

TROPICAL CYCLONES

DURATION OF EVENT: 6 hours – 1 day

Duration of effects: 5 days – 6 months

Synthesis from Dominican Republic, El Salvador, Honduras, Mexico, Panama, Saint Lucia, Trinidad & Tobago and Haiti

ANTICIPATORY ARRANGEMENTS (pre-phase 1)

- Continuous monitoring of risk atlas and communication with risk management departments (Civil Defense Office)
- Warnings from authorities with info on shelters, emergency numbers
- Parametric Insurance, SRSP mechanisms, grants for damaged appliances, house repairs, agricultural losses
- Tours and identification of vulnerable population
- Education and trainings on forecasting, response for military personnel

ANTICIPATORY ARRANGEMENTS (phase 1, 2)

- Depending on threat, budget preparation is done with fund allocation through dedicated funds; food aid packages; humanitarian aid activated for food support, violence prevention, child care, info dissemination
- Activation of the relief phase of the existing risk management plans
- Relocation of population in flood risk areas
- Press conferences
- Cabinet exercises and drills

TRIGGERS FOR RESPONSE (48 hours - 2 weeks)

- Level 1: Local government reps receive reports from communities on extent of impacts
- Level 2: If event is forecasted to cause long-term impacts based on report of losses and damages, emergency declared. Eg. 9 lives lost, 3 missing in Mexico.
- Level 3: high impact, all hands on deck with request for help at international level

RESPONSE ACTION (Phase 1, 2)

- Search and rescue – saving lives is first priority
- Dispatch of emergency services, food, water, medicine
- Shelter for affected families in schools, hotels, churches, temporary shelters; damage assessment, provision of essential goods
- Aerial surveillance for initial damage assessment of infrastructures to ensure roads are stable for movement
- Sectoral damage assessments

RECOVERY ACTION (duration of recovery depends on level of damage)

- Recovery triggered based on damage assessment reports and submission of evidence of the impact
- Prioritize transport infrastructure rebuilding
- Emergency funds can be used for recovery, which is usually 1% of national budget
- Special projects for livelihood recovery with economic incentives, cooperation, etc. with procurement of contractors, supplies and goods to build back

TECHNICAL ASSISTANCE NEEDS, GAPS AND SUPPORT

Support

- Support with risk management tools development and methodologies for resilient building construction and infrastructures
- Support with development of products that guide on how to target funding to most vulnerable
- Support for local level assessments along with tools and guides to assist operating in a data-poor environment (eg. old census)
- Best practice sharing on legislation

Gaps

- Transmission of scientific and technical information as citizens don't know how to translate info to action.
- Communication of hazard-related information needs to be enhanced especially at community levels
- Localized risk assessments as most assessments are manifested at national levels.
- Evidence-based relocation
- Recovery and reconstruction are usually not complete as country lacks essential services

Needs

- Improved coordination between ministries and agencies on how relocation should be approached and where it could be done
- Improved trust in science and reduce the uncertainty with forecasts eg. the difference between probability and prediction is not always understood
- Need for local government involvement
- Improved understanding of assets
- Technologies and AI use
- Enhancement and enforcement of building codes

SEA LEVEL RISE

DURATION OF PROCESS: long-term
Duration of effects: Incremental, permanent

Group consisting of St Lucia, Belize, Trinidad & Tobago

TRIGGERS FOR DIFFERENT LEVELS OF ACTION (over years to decades)

- Level 1: Localized impacts associated with coastal erosion and flooding, saltwater intrusion threatening freshwater resources, inundation of low-lying coastal areas to the displacement of communities, loss of potable water sources, and the loss of agricultural land
- Level 2: More widespread impacts requiring scaled up responses
- Level 3: High impact, requiring relocation

RESPONSE ACTION (Phase 1)

- Actions for associated impacts such as to address coastal erosion, flooding, etc.
- Legal frameworks to consider options for the future when impacts severe and transformational actions needed including large-scale relocations, e.g. – identifying suitable relocation sites, securing land rights, providing adequate infrastructure, housing, education, healthcare, etc.

LONGTERM ACTION (Transformational actions to permanent impacts)

- Planned relocation – within national boundaries
- Planned relocation – internationally

TECHNICAL ASSISTANCE NEEDS, GAPS AND SUPPORT

Support

- Support with risk management tools development and methodologies for resilient building construction and infrastructures
- Support with development of products that guide on how to target funding to most vulnerable
- Support for local level assessments along with tools and guides to assist operating in a data-poor environment (eg. old census)
- Best practice sharing on legislation

Gaps

- Lack of detailed studies on the impact of sea level rise regarding groundwater infiltration, salinisation of arable land, effects on wildlife, livelihoods, coastal infrastructure.
- Lack of economic appraisals of adaptation options

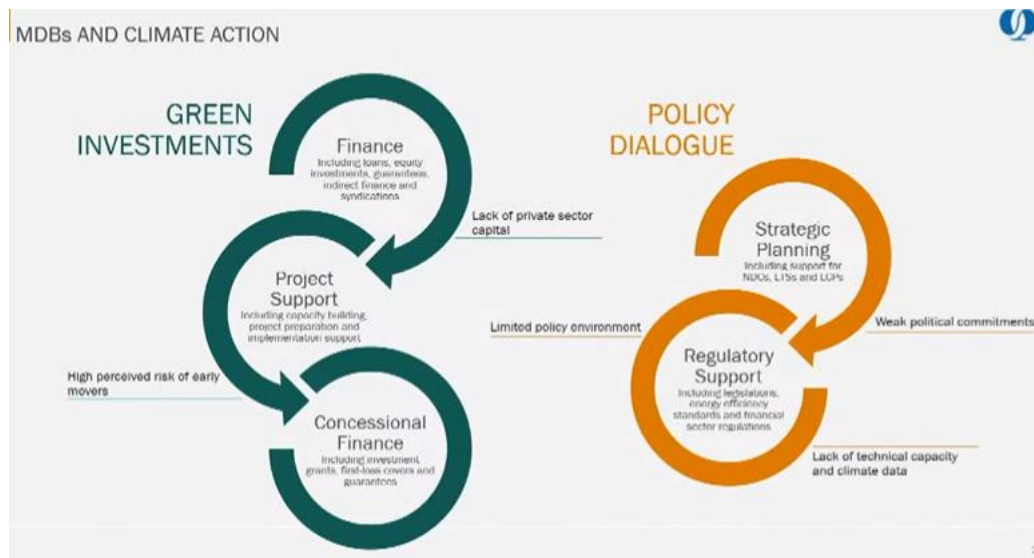
Needs

- Need for EWS taking into account sea level rise
- Need for proper insurance with the right triggers,
- Need for forward looking land zoning regulations
- Need of enforced legislation
- Need to change of agricultural practices
- Need to carry out systematic climate risk assessment
- Need to align investments

Session 4 – Current landscape of sources and instruments (10:15-12:30)

Mr. Jan-Willem van de Ven, European Bank for Reconstruction and Development (in person)

- General presentation of the EBRD
- EBRD coordinates MDB Group as of now; Islamic Development Bank next; coordinate among Climate Finance Heads



MDBs VALUE ADDED IN THE LOW CARBON AND RESILIENT TRANSITION

1 **Long-term investment perspectives** aligned to countries' LTS/NDC time horizons.

4 Converting climate policy to **implementation plans, project preparation and finance**.

2 **Scaling-up** to increasing needs from countries.

5 **Established capacity to convene** national and local governments, civil society, the financial sector, project sponsors and the development community.

3 **Connecting climate with development objectives**, including through climate analytics and risk assessment.

6 **Access to international markets and finance**, including concessional, and ability to mobilise private sector, enabling strong leverage of MDB capital.

From capacity building and strategy...

...to finance and impact



JOINT MDB CLIMATE FINANCE DELIVERY: A KEY CONTRIBUTION TO GLOBAL CLIMATE ACTION

MDBs provided around US\$ 51 billion in climate finance to low- and middle-income economies in 2021

Climate finance commitments rose by **▲ 24%**

Total MDB climate finance commitments in 2021 surpassed the levels announced at the 2019 UN Climate Action Summit

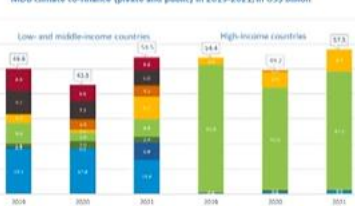
Total MDB climate activity finance continues upward trend

In 2021 MDBs have mobilised 21% more of climate co-finance both from private and public sources than the previous year

MDBs climate finance in 2021, in US\$ billion



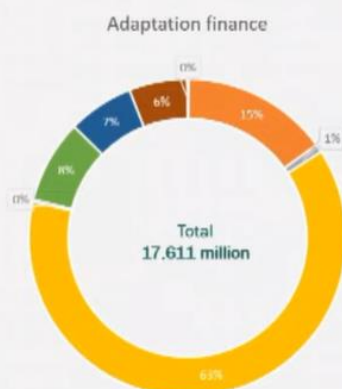
MDB climate co-finance (private and public) in 2019-2021, in US\$ billion



Sources: 2019-2021 Joint Report on Multilateral Development Banks Climate Finance / Note: NDB and CEB are in 2021 report but not yet in the aggregated figure.

MDB ADAPTATION FINANCE

35% of MDB climate finance to low- and middle-income economies in 2021 was committed to climate change adaptation finance



Adaptation finance	Type of instrument
22	Equity
2,631	Grant
145	Guarantee
11,055	Investment loan
40	Line of credit
1,490	Policy-based financing
1,179	Results-based financing
1,050	Other instruments

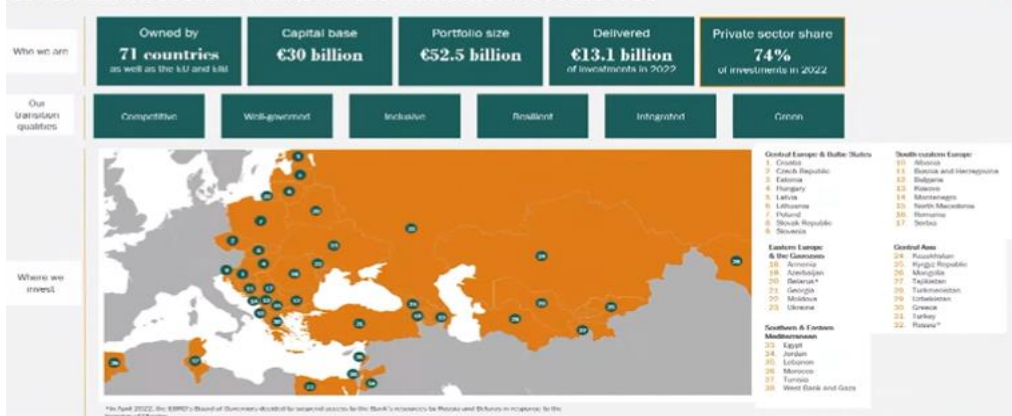


MDBs ability to provide grant and concessional finance depends on donor funding provided

JOINT MDB COORDINATION FRAMEWORK FOR CLIMATE ACTION



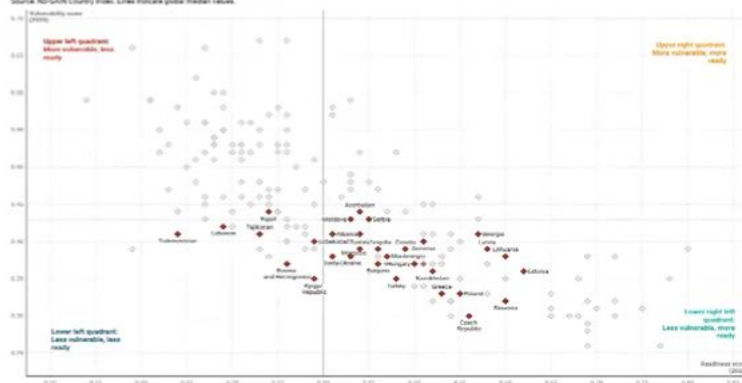
EBRD: PRIVATE SECTOR- MARKET-BASED TRANSITION FOCUSED MDB



EBRD REGION GENERALLY LESS VULNERABLE AND MORE PREPARED THAN GLOBAL AVERAGE

ND-GAIN: Vulnerability vs Readiness Scores, 2020

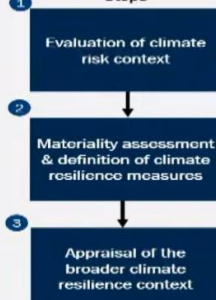
Source: ND-GAIN Country Index. Lines indicate global median values.



EBRD APPROACH TO ASSESSING PHYSICAL CLIMATE RISK

"EBRD's approach is phased into a screening and a deep assessment stage, integrates climate scenarios and model output data, applies both a climate risk to project and DNSH lens, and is used to deliver against several frameworks (PA adaptation, climate-related financial risk (TCFD reporting))"

Stops



Purpose + specific action

Purpose: Assess – indicatively – vulnerability of project (assets, operations, stakeholders) to physical climate risks. Identify and exclude low risk transactions.

Action: EBRD's proprietary screening tool assesses transaction against relevant, forward-looking climate data (on 10 hazards) & sensitivity heatmaps

Purpose: Validation of high-level screening tool results through deeper assessment: definition of resilience measures.

Action: EBRD climate specialists (less complex projects) or consultants (complex projects) appraise additional climate data/project information and develop resilience measures

Purpose: Assess whether project undermines the climate resilience of wider system/context in which it operates (DNSH)

Action: EBRD climate specialists (less complex projects) or consultants (complex projects) appraise project-related water abstraction, land-use change, intrusions on water bodies, and alignment with national adaptation policies

Climate data provider



Typical climate resilience measures

- Structural "hardening" of infrastructure assets
- Water-efficient technologies (e.g. drip irrigation)
- Climate information services
- Change in operational practices, low-till farming to avoid erosion

Mr. Stephen Hammer, World Bank (in person)

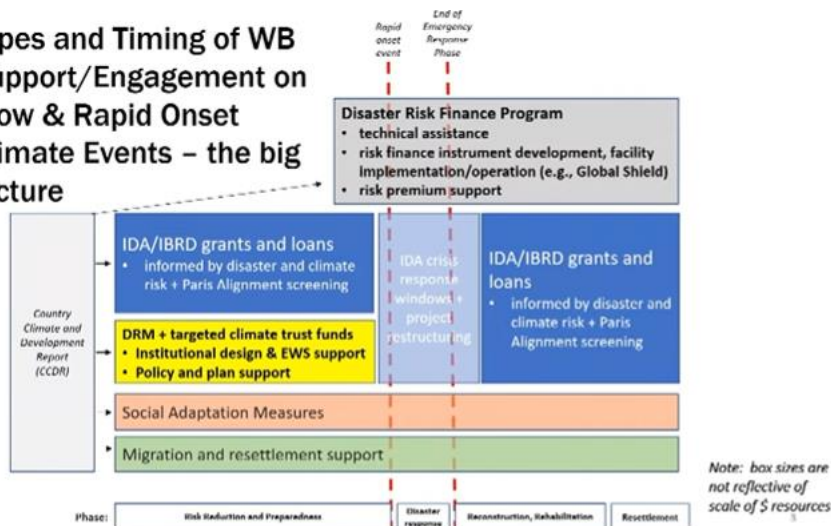
- Also presented at the TC Meeting in Luxor
- Aim: avoid all forms of maladaptation; IDA countries as poorest clients: USD 24bn in adaptation support – 1/3 of which grants, of which most vulnerable countries grants only (e.g., Vanuatu, Samoa, etc.);
- IDA crisis response windows: ‘flexible’ money, not pre-programmed, for when the need arises
- Small Island Economies Exemption, shifted over time, to include non-Islands (e.g., Bhutan)
- Latest IPCC data used to assess project feasibility
- Series of tools and databases developed, e.g., [Climate Change Knowledge Portal](#), for each of the clients – 2nd most visited page on entire WBG’s website
- In countries with clear devolution of governance, local climate finance projects work best
- Disaster risk finance team experiencing more and more requests from developing countries



Overview of Presentation

1. Comprehensive nature of the WB’s DRM & climate engagement
2. Eligibility for concessional resources -- Small Island Economies exemption
3. Addressing slow onset risks/impacts
4. Locally-led engagement on financing needs
5. Migration and resettlement engagement
6. Adaptive social protection strategies
7. Disaster risk financing and insurance program

1. Types and Timing of WB Support/Engagement on Slow & Rapid Onset Climate Events – the big picture

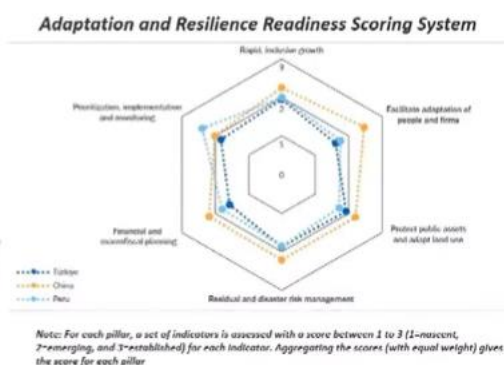


2. Small Island Economies Exemption

- In 1985 the WB's Board created the Small Island Economies Exception in recognition of small islands' special characteristics (size, remoteness, etc)
- Country eligibility has shifted over time, based on board decisions.
 - 24 IDA-eligible Small States Forum members currently eligible
 - 21 receive either Grants or the most concessional IDA lending terms (zero-interest, 40-year amortization, 10-year grace period)
 - As of IDA18 Small Economy Terms (originally only for Small Island Economies) were extended to four IDA-eligible small states that are not islands (Bhutan, Djibouti, Guyana, Timor-Leste)

3. Addressing Slow Onset Climate Impacts

- Screening informs project design of all WB lending projects:
 - Climate and disaster risk screening**
 - "Paris Alignment" assessment** requires projects to show all material climate risks have been assessed and reduced to an acceptable level.
- Country Climate and Development Reports (CCDRs)** utilize IPCC AR6 data to identify how climate affects a country's development trajectory
- Adaptation and Resilience Readiness Scoring System** uses quantitative and qualitative indicators to assess achievement, progress and gaps in a country's approach to managing rapid/slow onset climate impacts.
- Other analytic work** assesses slow onset vulnerability at household/firm/sector/country levels to inform client on how enhance resilience



Tools to Facilitate WB Task Team Focus on both Rapid and Slow Onset Events



The World Bank Group and Paris Alignment



Project Screening:

- 🔍 Agriculture In-Depth Screening Assessment
- 🔍 Energy In-Depth Screening Assessment
- 🔍 Health In-Depth Screening Assessment
- 🔍 Transportation In-Depth Screening Assessment
- 🔍 Water In Depth Screening Assessment

6

Financing Locally-Led Climate Action (FLLoCA) program – Kenya

- First national scale program of devolved climate finance that incentivizes local climate action through performance-based grants
- Uses national systems to transfer funds to the local level
- Financing = USD295 million:
 - US\$150 million IDA Credit
 - \$31.4 million in grant co-financing (Denmark, Sweden, Netherlands)
 - \$33.5 million from KfW (parallel but aligned funding)
 - \$80 million Govt of Kenya resources

Challenges

Less than 10% of climate finance is prioritized for local level

Social inequality and poverty drive vulnerability to climate change

Local experience and traditional knowledge are often invisible and undermined by outside actors

National policies and climate commitments not informed by realities on the ground, small scale efforts challenged to scale up

International climate finance fragmented and difficult to access – particularly for subnational entities

FLLoCA strategy

Channels climate finance through existing fiscal transfer mechanisms to local governments and communities

Targets most vulnerable areas and the most vulnerable within those areas

Strengthens local government capacity to collaborate in joint decisionmaking with their citizens and build on their capacities while informing decisions with latest climate science

National scale program that builds the vertical linkages between local govts and national entities for improved MRV on climate investments

National system serves as platform to crowd in other sources of climate finance, and approach for local entities to access GCF, etc.

4. Engaging Communities to Identify Climate Finance priorities

The WB is currently working to increase local engagement to help drive decisions on how to best channel climate finance.

What's needed

- Government policies promoting devolved/decentralized financing to connect national decision-making with local action
- Solid understanding of climate risks to inform local and national decision-making
- Processes of financing, designing and delivering programs that are transparent and accountable, including at local level

Other WB Engagement on Locally-Led Climate Action

Madagascar: Building decentralization systems for climate action

Madagascar: Support for Resilient Livelihoods in Southern Madagascar Project (\$200m, IDA grant)

- Supports the roll out of decentralization and strengthening capacity of local governments
- Improves community participation in their development planning and in access to structures for resilience, such as access to information, early warning systems
- Focuses on multi-sectoral adaptation and resilience to future shocks



Solomon Islands: strengthening sub-national institutions for investments in climate change adaptation, and mainstreaming climate and disaster resilient measures

Integrated Economic Development and Community Resilience Project (\$19m, IDA 0% interest loan and GFF grant)

- Integrates disaster preparedness and response planning into local planning and aligning with national budget cycle
- Strengthens the engagement between local governments and communities to support the provision of climate resilient infrastructure and services.
- Improves communities' adaptive capacity to climate change and disaster risks, reducing their overall exposure and vulnerability.

Guinea: using existing national systems for local climate action and building social cohesion and trust in institutions

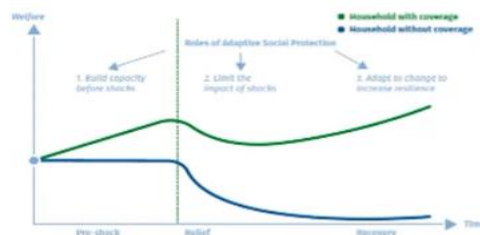
Support to Local Governance Project (\$81m, IDA 0% interest loan)

- Capacity building for national institutions and local governments to integrate climate mitigation and adaptation measures in local development investments
- Uses government systems to transfer funds from national to local level for prioritized investments for climate action
- Improves social cohesion and trust in institutions by strengthening citizen engagement in local governance and increasing participation of women, youth, and vulnerable groups in local development decisions



5. Adaptive Social Protection Programs

- *Helps build the resilience of poor and vulnerable households by investing in their capacities and livelihoods leading to better preparedness, supports coping with and adapting to shocks, ensuring that they do not fall (deeper) into poverty.*
- *Seeks to avoid damaging coping measures* with long-term consequences (e.g., cut-backs on consumption, taking children out of school, selling assets).



Four building blocks

- 1. Integrated and layered Programs
 - Regular and shock-responsive cash transfers
 - Livelihood training (to build long term resilience)
- 2. Data and information
 - Identification of climate hot-spots
 - Registries of vulnerable households and asset data
 - Identification of triggers (e.g., imagery of vegetation/drought/flooding)
 - Post disaster needs assessments
- 3. Pre-positioned risk finance
- 4. Institutional arrangements (cross-government coordination) and partnerships (humanitarian agencies, local groups)

Case study: Sahel Adaptive Social Protection Program (SASPP) (Burkina Faso, Chad, Mali, Mauritania, Niger, Senegal)

Program Focus

- Cash transfer programs that expand in times of shock and programs that help build households' resilience to climate change.
- Works to improve understanding of climate-induced shocks and household coping mechanisms, and to design systems that are inclusive and promote women's empowerment.

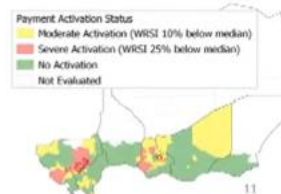
Results



Senegal: In 2020 there were severe floods in both urban and rural areas. Within a few days, social workers had assessed damages, surveyed households, crosschecking lists of beneficiaries with the registry containing information about the poorest and most vulnerable households. **Less than 2 weeks after the floods, over 10,000 recipients – mostly women – received \$300 into their mobile money account to help them rebuild or provide for basic needs.**



Niger: The Niger Adaptive Safety Net Project 2 supported expansion of the existing Unified Social Registry; digitalization of the payment system; improved data collection; and establishment of a disaster risk financing mechanism. **In November 2021, the Government of Niger used satellite early warning data to identify drought-affected areas and trigger early support to 15,400 drought-affected households using monthly cash transfers (see results of WRSI trigger, end October 2021).**



6. WB Engagement on Migration and Resettlement

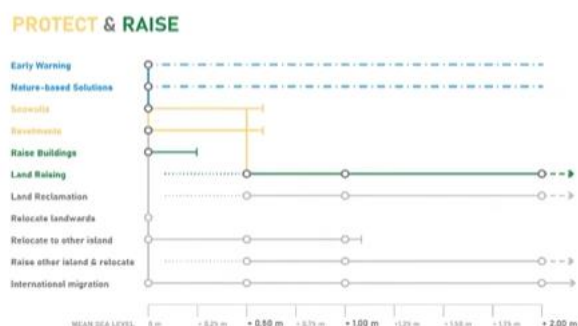
- 165 WB projects between 2006-2019 focused on support to receiving communities/countries or focused on actions (e.g., climate adaptation, safety nets) aimed at reducing the probability of migration
- Several recent CCDRs include focus on migration/resettlement linkages:
 - **Cameroon:** droughts and intense flooding in the Far North contribute to food insecurity, loss of livelihoods. **CCDR points to need to enhance climate resilience through a territorial approach aligning sectoral strategies, policies and investments** for structural transformation
 - **G-5 Sahel countries:** repeated droughts are driving rural migration, but cities can offer only limited economic opportunities to rural migrants. Climate change will cause further involuntary migration from rural to urban areas. **Potential solutions include migration as an adaptation measure but will require efforts promoting the inclusion of new migrants in cities.**
 - **Vietnam:** several models show that climate change could increase internal migration in the country (especially from Mekong and Red River Deltas). **Focus needed on investments in social services and infrastructure to accommodate population movement.**

Marshall Islands case study

- [Adapting to Rising Sea Levels in Marshall Islands](#) provides visual projections and adaptation options to assist the RMI government in tackling rising sea levels and inundation over the next 100 years. Work feeds into the RMI **National Adaptation Planning Process** currently underway.
- **Dynamic Adaptive Policy Pathways** approach helps account for deep uncertainties



The RMI study helps visualize multiple pathways enabling Marshallese to continue living on their land under various sea level rise intervals.



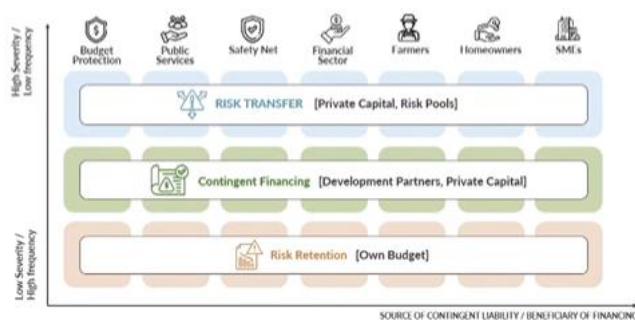
7. Disaster Risk Financing and Insurance (DRFI) Program

World Bank - Growing support on DRF

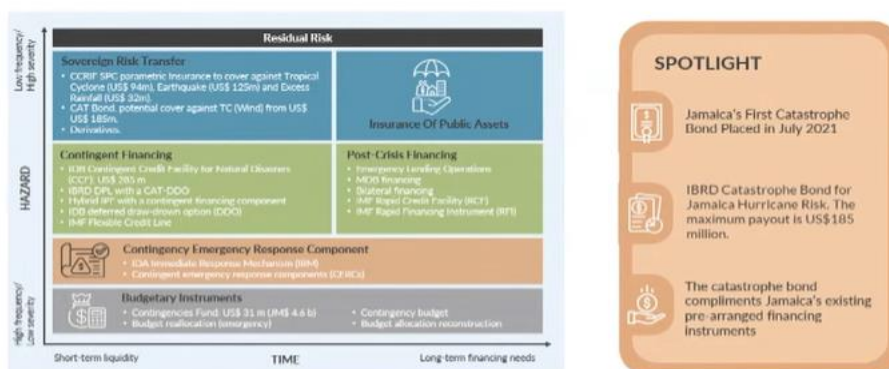
Combining concessional lending and private capital



General Approach – thinking strategies, not instruments

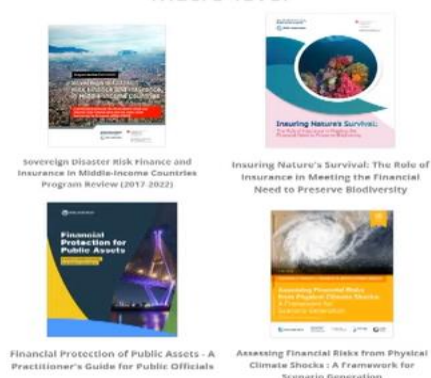


Example: Jamaica's Integrated Approach to Financial Resilience Building



Recent Disaster Risk Finance studies

Macro-level



Country-level



Ms. Sara Ahmed, V20 Secretariat

- V20 just founded right before COP21 in Paris
- External debt doubled in recent years
- 90-99% of coral reefs likely to be lost still this decade
- 'Climate Bretton Woods System' needed
- Art.2.1.c of the Paris Agreement, increased risk management one of key discussions points at WBG Spring Meeting
- G7 and V20 jointly set up the Global Shield – cooperation initiative, important starting point and trigger-based, predictable finance
- Global Shield does not put burden of proof on the most affected
- Next pipeline of Global Shield countries to be announced at COP28



Why we need a Global Shield against Climate Risks:

In V20 countries:

- ...climate change eliminated 20% of their wealth over the last 2 decades
- ...total debt climbed from \$464 billion in 2015 to \$570 billion in 2018 and \$686 billion in 2020. This comes at the same time that investments in sustainable infrastructure need to be scaled up by \$3.2 trillion per year to meet the UN 2030 Sustainable Development Goals and to limit global warming to 2°C (Bhattacharya et al. 2019).

Climate crisis perpetuates the debt crisis in climate vulnerable countries



New Pledges to the Global Shield



SELECTED PATHFINDER COUNTRIES/REGION



Draft Country Selection Framework

- A **systematic, data driven framework** for the prioritization of new GS countries is being developed at the moment in an inclusive, multi-stakeholder process.
- The framework focuses on outlining high-level guidelines for prioritization. It shall be complemented by a technical annex that provides detailed methodologies, data and a prioritization tool.
 - Key features include the **balancing criteria (readiness and economic country profiles)** and **prioritization criteria (vulnerability and poverty)**
- The InsuResilience High-Level Consultative Group (HLCG) will decide on the framework in their meeting in the margins of the **AfDB Annuals, 25 May 2023**.
- Given the high demand of vulnerable countries to receive GS protection packages, we are trying our best to mobilize more funding. We aim to announce the **next pipeline of GS countries at COP28**.

IN-COUNTRY DIALOGUE



- Inclusive, country-led process with wide range of participants
- Led by in-country coordinator working on behalf of the government
- Outputs: stocktake, gap analysis, and request for CDRFI support

Objective:

- Identify urgent financial protection needs
- Request tailored support from the Global Shield Financing Structure

INFORMED DECISION-MAKING ON CLOSING PROTECTION GAPS THROUGH STOCKTAKING AND GAP ANALYSIS



Stocktaking

Generates understanding on status of financial protection at national, sub-national, business, and household levels



Gap Analysis

Generates understanding on major climate and disaster risks, vulnerabilities and gaps in financial protection

Informed decision-making by the government on risk financing and financial protection gaps, and the support needed to close these gaps with a clear focus on poor and vulnerable people

REQUEST FOR CDRFI SUPPORT



Request for CDRFI Support enables countries to receive financial and technical support via Global Shield:

Country-led request sets out instruments, projects and support needed to address priority gaps identified in the Gap Analysis

Supported by Global Shield Quality Assurance service, will draw in global CDRFI expertise to provide recommendations

Flexible: Recognizing different country contexts, request can range from problem statements to detailed outlines of solutions

The **Request for CDRFI Support** is submitted to the Financing Structure, which mobilises multilateral, bilateral, private participation, and other non-state support to deliver needs-based financial protection

The Protection Package: Types of GS-Supported Instruments



- The Global Shield aims to support trigger-based and pre-arranged financial protection against climate and disaster-related losses with a focus

On the household-level:

- e.g. livelihood protection, social protection systems, livestock and crop insurance, property insurance, business liquidity protection, risk-sharing networks, and credit guarantees.

On the (sub)national-level integrated solutions for governments, humanitarian agencies, NGO's

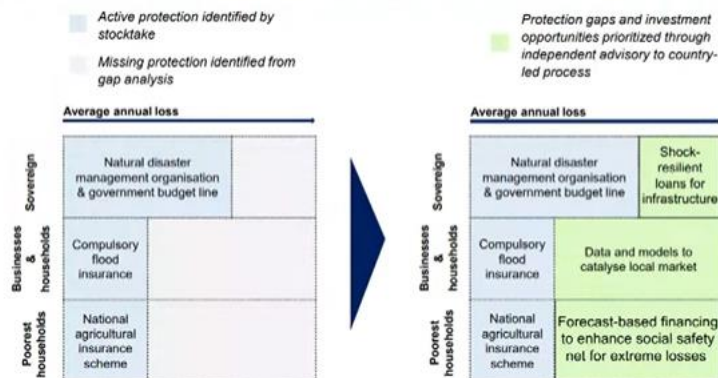
- Money-in:** risk transfer products (e.g. insurance via regional risk pools and development insurers), contingent credit and grant mechanisms, contingency funds, pre-arranged finance (incl. forecast-based, and with debt-clauses), or financial market instruments such as catastrophe bonds, where appropriate, etc. incl. premium support
- Money-out:** shock-responsive social protection, early and anticipatory action protocols, contingency plans (incl. for restoring critical infrastructure), cash transfers, etc.

The Protection Package: Range of Support of GS

Supporting activities financed and/or facilitated by the Global Shield:

- Support policy reforms**, integrated climate and disaster risk management strategies, and strengthened regulatory frameworks, incl. capacity building
- Foster investments**, incl. for but not limited to systems building and preparedness, developing local and regional risk markets, capitalization of risk carriers, **premium financing**, and the development and strengthening of distribution channels
- Leveraging risk industry engagement** especially for risk analytics
- Building early warning systems for anticipatory action
- Linkage and alignment of GS activities to sustainable development agenda and other climate agendas.**

Example: Building On & Scaling Up Solutions



Global Shield Financing Structure

Global Shield Financing Facility (GS-FF)

Hosted in World Bank

Will finance integrated financial packages, complement investments in climate adaptation and disaster risk reduction, IDA leveraging

Global Shield Solutions Platform (GS-SP)

Hosted in Frankfurt School

Will finance: research, capacity building, modelling and data support; concept and solutions development; and implementation support, e.g. premium financing



CVF-V20 Joint Multi Donor Fund

Hosted in UNOPS

Will finance priority programmes - [see next slide](#)



More information: Launch event of the GS-SP and interactive session with the GS Financing Structure on 9 June 2023, in the margins of the UNFCCC Subsidiary Body Meetings in Bonn.

CVF & V20 Joint Multi-Donor Fund Supported Priorities



The V20 Fund under JMDF will support the following programmes to manage climate risks:

1. Loss and Damage Funding Program
2. Premium Subsidies and Capital Support (operationalized with SMART Principles and their further evolution)
3. Off-balance sheet guarantees to reduce the cost of capital (Accelerated Financing Mechanism)
4. Distribution channels enhancement and climate-smart insurance for micro, small and medium-sized enterprises (Sustainable Insurance Facility)
5. Slow Onset Financial Protection Risk Pool (incl. sea level rise, displacement, etc.)

Focus of the V20 Loss & Damage Funding Program



Progress on Community Infrastructure & Private Assets Component



Community, infrastructure & private assets component:

- Engagement of CARE International to identify loss and damage projects and to implement the projects, resourced by Open Society Foundations
 - Agreement with CARE International is being finalized
 - Pilot projects identified in Malawi, Kenya and Bangladesh
 - Aim is to engage & empower communities to ensure quick recovery from climate-induced disasters

Adaptation component:

- Initial funding of USD 5.3 million from the Least Developed Countries Fund (LDCF) and Special Climate Change Fund (SCCF)
- USD 3.5 million co-financing to be mobilised
- At least 50 demonstration projects on adaptation are anticipated under this component

Mr. Arghya Sinha Roy, Asian Development Bank (online)

- ADB Strategy 2030: Climate and disaster resilience one of key priorities until 2030
- USD 80 bn by 2030 climate target; all operations aligned with Paris Agreement
- Series of instruments across 4 stages; but obviously no sharp line between them
- Ex-post instruments: Flexible use of funding; usual processing time only 12 weeks
- Ex-ante instruments: layered, triggered once pre-agreed soft trigger reached
- Much more investments needed upstream
- NELDs can be reduced drastically: investments in skills, health, etc. needed upfront

ADB Instruments and Sources of Financing Supporting Climate and Disaster Resilience

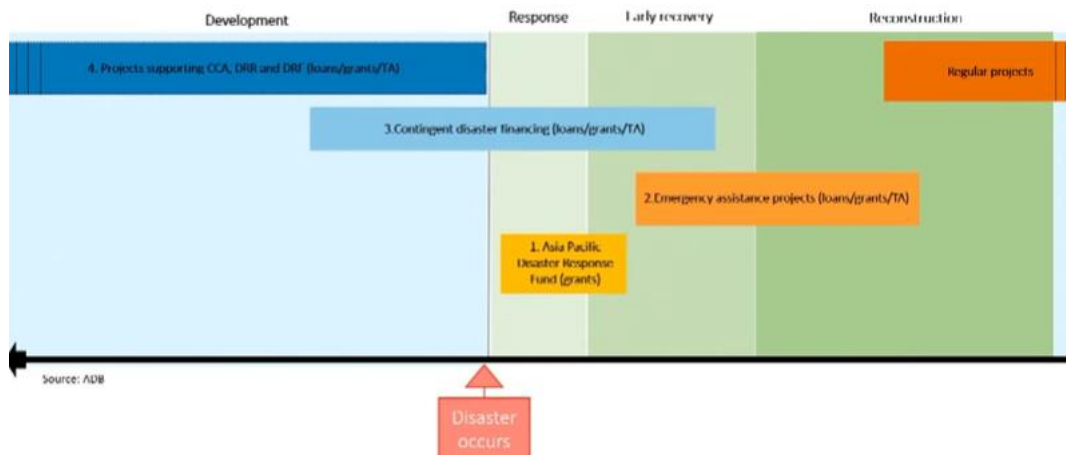
Session 4: Current Landscape of Sources and Instruments
10 April 2023
First Workshop on Addressing Loss and Damage in the context of decisions 2/CP.2.7 and 2/CMA.4

1. ADB **policies** guiding actions in climate and disaster resilience
2. ADB **financing instruments** in support of implementation of the policies
3. **Funding sources** for supporting such resilience-related actions

ADB Policies to Support of Climate and Disaster Resilience

1. **Strategy 2030:** Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and Pacific
 - Identifies climate and disaster resilience as one 7 operational priorities of Strategy 2030.
 - Establishes climate target of \$80 billion between 2019-2030; and 75% of operations climate-related.
 - Commitment to align ADB operations with Paris Agreement.
2. **Revised Disaster and Emergency Assistance Policy 2021**
 - Provides strategic guidance for ADB assistance for disasters, covering risk reduction, preparedness, and response.
 - Recognizes that timely, carefully planned, and well-designed relief, early recovery, and reconstruction interventions and solutions reduce the impacts of disasters and facilitate resilient recovery.
 - Recommends strong financial planning for disaster response requires a risk-layered approach to establish appropriate and adequate response plans for each later of loss.
3. **Revised Emergency Assistance Loan Policy 2021**
 - Emphasizes rapid approval of loans to help rebuild high-priority physical assets and restore economic, social, and governance activities after disasters and emergencies.
4. **Other relevant policies** to provide procedural flexibility in emergency (e.g., Procurement Policy)

ADB Instruments to Support Climate and Disaster Resilience



Ex-post Instruments for Supporting Post-Disaster Response

Asia Pacific Disaster Response Fund

- To provide fast-tracked support to all developing member countries in the immediate aftermath of major disasters.
- Two windows (i) grants of up to \$3 million for life-saving purposes; and (ii) support for PDNA and recovery planning.
- Following a government request, grants are processed within 72 hours of satisfaction of eligibility criteria.
- Flexible use of funding, use of country procurement system, up to 30% retroactive financing.

Emergency Assistance Projects

- Dedicated financing instrument for post-emergency assistance (loans/grants)
- Provides rapidly approved funding to help rebuild high-priority assets and restore economic and social activities.
- Fast track processing and approval usually 12 weeks and allows flexibility in procedures.
- Special financing terms.

Other Instruments

- Additional financing for ongoing projects.
- Small Expenditure Financing Facility

Ex-ante Instruments for Supporting Post-Disaster Response

Contingent Disaster Financing

- A form of policy-based loan or grant
- Eligibility to loan and grant proceeds is based on achievement of prior resilience-related policy actions
- Disbursement triggered as budget support based on pre-agreed soft trigger (e.g., emergency declaration)
- Predictable financing can lead to better preparedness
- TA support to achieve policy actions on long-term resilience



Information is available to ADB Management and staff. It may be shared outside ADB with appropriate permission.

CCA, DRR and DRF-related projects (loans, grants and TAs)

- All instruments and modalities are being used for supporting resilience building-related activities.
- Increasing use of policy-based lending and results-based financing for resilience. (e.g., Philippines CC PBL)
- Increasing use of non-sovereign financing modalities for adaptation. (e.g., working capital for agribusiness)
- TAs play a critical role in supporting climate actions in line with NDCs and NAPs.

Resources for Building (ex-ante) Resilience and Ex-post Support

- 1. Asian Development Fund (ADF) Enhanced Disaster and Pandemic Response Facility (grants and loans)**
 - Established under ADF to provide a more flexible, predictable, and systematic approach to emergency response and reduce the need for reprogramming.
 - Can be drawn on in response to disasters triggered by natural hazards, health emergencies and large-scale cross border movements of displaced persons.
 - Provides up to an additional 100% of annual country allocation or up to \$100 million (whichever is lower).
 - Can be used for relief, early recovery, and reconstruction and provided through any ADB financing instrument.
- 2. ADF 13 Thematic Pool (grant only facility)**
 - Provides additional grant financing for CCA and DRR projects.
 - Incentivizes uptake of explicit resilience measures, such as NBS, land use management, adaptive social protection.
- 3. Trust Funds Supporting Climate Resilience (grants and TAs)**
 - Community Resilience Partnership Program – e.g., support to grassroots women's group to scale up adaptation
 - Irish Trust Fund for Building Climate and Disaster Resilience - e.g., Support for Coalition for Atoll Nations on CC
 - Urban Resilience Trust Fund – e.g., city level disaster risk financing products
 - Asia Pacific Climate Finance Fund – e.g., coral reef financing and instruments

Lessons to Inform Loss and Damage

Understanding of current and future climate risk is the starting point for both adaptation and loss and damage.

Suite of **layered instruments needed** to demonstrate **adaptation and loss and damage continuum**.

Resources to support various instruments need to be **allocated programmatically** for efficiency and effectiveness.

Strengthening **country systems** (e.g., social protection, IT) is critical for delivery of adaptation and loss and damage outcome

Ex-ante investments in many sectors (e.g., health, aged-care, skills) can reduce **loss-economic losses**.

Ms. Lisa Kurbiel, Joint SDG Fund (online)

- Potential role of the fund: already 200 million people profit from new or extended social benefits, primarily through Green and Blue Bonds in 2022/2023; over USD 50 million alone for SIDS



REVIEW OF THE 2022 ANNUAL PROGRESS REPORT

Joint SDG Fund

- To date, the Fund has made US\$258 million in financial commitments to 119 UN country teams and multi-country offices, with 30 UN entity partners in the following portfolios:

Joint SDG Fund Portfolios	Committed funds	# Joint Programmes
Integrated Social Protection	\$69.1m	35
Building Resilience & Reducing Vulnerabilities in SIDS	\$30.0m	25
Development Emergency Modality	\$21.4m	85
SDG financing enabling environment (INFF)	\$62.3m	62
SDG catalytic investments	\$71.2m	9 (28 prep stage)

188m people

Accessed new or extended social benefits

US\$2.3bn

In additional financing catalyzed for the SDGs

325 policies

Piloted/implemented in relations to SDG financing strategies/INFFs

25 instruments

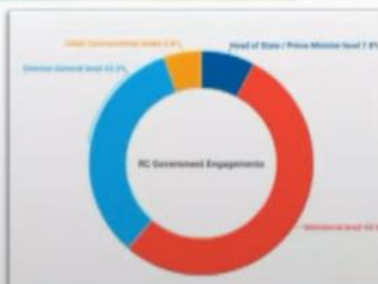
Being structured for blended financing (SDG bonds, impact funds, climate facilities)

93% of JPs

Have GEN2/3 mainstreaming gender equality

59% of funds

Allocated to LDCs, LLDCs and SIDS



BUILDING RESILIENCE IN THE SIDS

Joint SDG Fund

- The Fund started implementation of its SIDS portfolio of 25 joint programmes with a total budget of US\$54.1 million, including US\$24.1 million in agency co-funding, partnering with 23 UN entities across 42 SIDS.
- Most JPs are still in early days of implementation. With SIDS remoteness and limited capacities, the JPs require additional support from UN and RC system to ensure delivery and meet their full programmatic objectives.

Joint Programme Highlights

- Timor-Leste:** contributed to Gov decision to allocate US\$80m to a food basket programme.
- Dominican Republic:** piloted a local case policy project, which is informing development of a communities of care strategy at the national level.
- Maldives:** completed insurance diagnostic study with the central bank to identify risk transfer solutions for climate change/DRR.
- Trinidad & Tobago:** developed SDG database as digital public good and digitalized central statistical office to monitor SDGs and CFs.

SIDS portfolio contributions to SAMOA Pathway



FINANCING UN ACTIONS RESPONDING TO THE GLOBAL COST-OF-LIVING CRISIS

Joint SDG Fund

- In response to the global cost of living, the Fund provided over US\$21 million to 85 UNCTs, serving over 100 countries and territories, activating its Development Emergency Modality (fast-track mechanism) as part of the wider UNDS response in coordination with the GCRG.
- The Modality enabled the full activation of the RC system against the crisis and how pooled funds can rapidly bring together UNDS for development emergency response.

Joint Programme Highlights

- Palestine:** strengthened financing systems for shock-responsive social protection and response to rising costs of food systems actors, esp women/youth.
- Somalia:** piloted the use of invasive tree species for new sources of energy and income for communities and IDPs.
- Eswatini:** piloted a new scheme to switch water pumps to solar powered pumps in vulnerable communities.
- Mauritius:** piloted use of locally sourced seaweed to replace imported chemical fertilisers.
- Zimbabwe:** enhanced data collection and analysis to better target Gov humanitarian interventions for people in need.

Follow-up

- 83 JPs have been operational closed by Q1 2023 while 2 additional JPs (PNG, Vietnam) which started in Nov 2022 will close by Q2 2023.
- Following up with JP teams on final response and sustainability plans.
- Coordinating with GCRG/UNCTAD and Food systems hub to ensure sustainability and alignment with joint work especially in areas of food system development, climate and DRR.

Case study presentations

Ms. Susan S. Ekoh, German Institute of Development and Sustainability, on Funding human mobility in the context of loss and damage (in person)

- Currently research migration responses in West African cities
- Migration to cities often only after extreme events affecting rural regions; cities need to be equipped with necessary finance
- Migrants in cities particularly climate-vulnerable, but different dimensions if migration in-country or across borders
- Also trafficked (female) migrants following extreme events
- Possible responses: affordable and accessible housing, social protection – cash transfers, social service provision, livelihood support & economic integration
- E.g., Ghana, cash-transfer programme to vulnerable groups – migrants benefitting indirectly
- Main recommendations: local actors need direct access to funding

Funding Human Mobility in the Context of Loss and Damage

Dr. Susan S. Ekoh
UNFCCC, Transitional Committee Workshop
April 30, 2023



Human Mobility Scenarios and Loss and Damage



- Voluntary mobility
- Displacement
- Involuntary immobility i.e. trapped



Vulnerability of Migrants in Cities



- Exposure to climate risks - flooding, sea level rise, heat stress, drought
- Health risks
- Informal housing
- Gendered dimensions - female head porters
- Children – begging, out of school

Current Landscape of Sources and Instruments

- Networks e.g. Global Cities Fund for Migrants & Refugees (MMC)
- Bilateral, multilateral, international organizations
- NGOs, INGOs
- Private entities
- Religious institutions
- National government



Challenges

- ☐ Limited horizontal and vertical coordination on migration & climate change
- ☐ Emphasis on return migration and reintegration
- ☐ Difficulty in accessing global climate funds e.g. GCF
- ☐ Human mobility in local climate action plans are not prioritized
- ☐ Tedious reporting processes
- ☐ Lack of data
- ☐ Knowledge gaps

Recommendations

- Direct funding streams to sub-national governments
- Capacity building and knowledge exchange
- Strengthen horizontal and vertical coordination

Mr. Dennis Mombauer, SLYCAN Trust, on Public insurance mechanisms to address loss and damage in Sri Lanka (in person)

- Data on L&D already collected and exchanged in regular farmers' meetings
- Sri Lankan NDC dedicated section to L&D
-

Developing country financing on loss and damage: A case study on public risk transfer mechanisms to address loss and damage in Sri Lanka

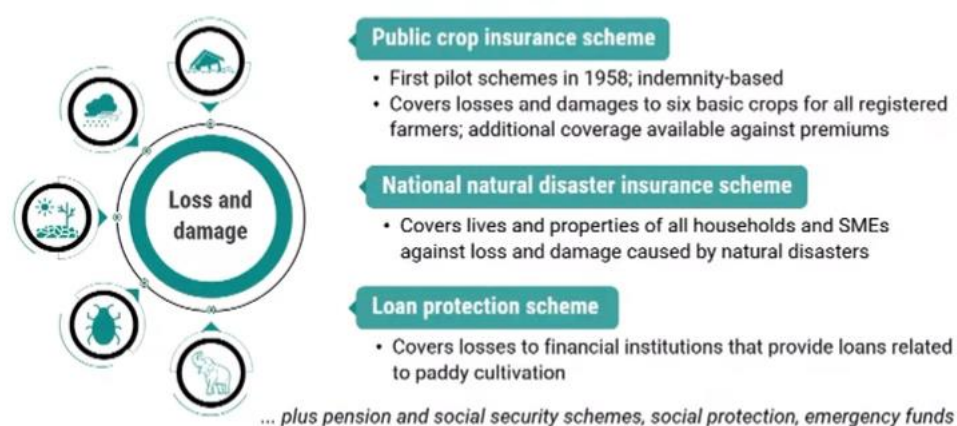
Presented by: Dennis Mombauer
Director: Research & Knowledge Management
SLYCAN Trust

First workshop on addressing loss and damage in the context of decisions 2/CP.27 and 2/CM.4

April 29th-30th, 2023



Loss and damage and public risk transfer in Sri Lanka



Current sources of finance

- National budget allocation
- Crop levy on all financial institutions in the country (1% of profit)
- Automatic premium collection from all insured farmers during purchase of subsidized fertilizer
- Reinsurance (internal and external)

Institutional architecture

- Agriculture and Agrarian Insurance Board (AAIB)
- Agrarian extension officers and local government authorities
- National Insurance Trust Fund (NITF) as national reinsurer
- Private sector

Policy environment

- NDCs (appropriate risk transfer), NAP (innovative risk transfer), CPP

Key challenges and needs

- Public risk transfer in developing countries can provide support to vulnerable groups and communities and build on existing institutional structures (extension officers, agro-advisory systems, databases, data collection mechanisms)
- However, access to external funding is needed to sustain them and respond to emerging needs in the face of increasing loss and damage
- Need for enhanced access to detailed weather data, projections, risk analytics etc.
- Challenges related to financial literacy and inclusion, establishing proof of land or livestock ownership
- Delay between impact and compensation payouts due to indemnity-based nature of the scheme

Opportunities for enhancement and expansion of L&D funding through public risk transfer

Technology transfer

- Invest in technology and digitization to increase speed, transparency, and reliability of assessments and payouts

Inclusive processes and distribution

- Improve distribution channels
- Strengthen inclusive and participatory processes that mainstream gender, youth, and intersectional vulnerabilities
- Include actors along the value chain



Innovative instruments

- Facilitate innovative product design and diversify available financial instruments

Local-level planning

- Connect loss and damage finance to local planning and entrepreneurship



Non-economic aspects and human mobility

Climate-related migration

- Climate-related migration and cultural loss
- Support for migrants and their families
- Interlinking livelihoods and social protection

Planned relocation

- Resettlement out of high-risk areas where resilience-building is not viable
- Case study on landslide risk

Building on national systems for innovative approaches



SLYCAN Trust

Thank you!

About SLYCAN Trust

SLYCAN Trust is an internationally recognised non-profit think tank focused on empowering climate action through evidence.

Main office
96, Kirula Road, Colombo 5, Sri Lanka
Telephone +94 117 446 238
Website www.slycantrust.org

Guiding questions:

What are the most appropriate sources of finance to support the different types of activities to address loss and damage?

What potential sources could fill in the gaps identified in Day 1?

What are the types of activities and financing instruments for which support is available under current funding arrangements?

How are funding decisions made in these institutions and what are the timelines for disbursement?

How can existing arrangements, activities, and instruments be better coordinated with one another to deliver support for responding to loss and damage?

- **Manuel Pereira (IOM):** Global non-binding agreement on migration; L&D needs to sit on the right of populations to mobility
- **Julius Mbatia (Kenya):** Experience with financing reconstruction & Recovery
- **Heike Henn (TC Member):** So much already there to build on – especially in humanitarian field; TC meeting during WBG Spring Meeting
- **Vasitha (Sri Lanka):** Importance of support to scale up existing processes;
- **Christina Chan (TC Member):** DRF – Disaster Response Fund, how does it deal with migration?;
- **Stephen Hammer (WBG):** macroeconomic framework need to be in place; usually simple declaration that an emergency happened – then rather quick start of money flow; IDB has utilised debt-for-climate clauses
- **Jan (EBRD):** all MDBs have different approaches to respond to extreme events, including earthquakes, landslides;
- **Arghya (ADB):** DR-facility: used for Rohingya crisis in Bangladesh in the past, e.g., not yet for L&D
- **Sara Ahmed (V20):** all V20 initiatives available for non-V20 countries, including Global Shield; Global Shield explicitly builds on existing national frameworks, to allow for quicker disbursement; aims to build regional risk markets – ‘pathfinder’ countries can then also be supported by regional financing tools
- **Susan (IDOS):** on city level, still huge gaps in funding; UNFPA and UNICEF projects, e.g., started targeting migrants in cities recently; Slum Dwellers International provided dedicated funding; some religious institutions also jumping in
- **Hamad Rajabi (Iran):** besides L&D, other requirement: technical assistance, capacity building etc. (Santiago Network); all climate-vulnerable countries should be able to access climate finance; international event in Teheran in September this year on dust and sandstorms related to L&D;
- **Madeleine Forster (C40 Cities):** How to promote devolution of governance WHILST increasing direct access to finance?
- **Sonam (Bhutan): @WBG:** Any work on cryosphere/glaciers? @SLYCAN Trust: In light of current crisis, how do financial models still work?
- **Adao (TC Member):** Disbursement by ADB (grant-based) very quick, but how can be scaled up?
- **Saleem Huq:** Climate Bridge Fund: for incoming climate migrants ending up in slums; has already become a L&D mechanism in its own right – people are displaced from their home regions
- **Sunanda Tiwari (LGMA):** [audio not working well]
- **Liane Schalatek (HBS DC)** Role of development policy loans; trust funds usually replenished?; overseeing role to coherently pool L&D
- **Irfan Ullah (UNICEF):** NELDs should be integral part of operationalising L&D Fund; @Natasha: How would the L&D Fund be operationalised to be as inclusive as possible?
- **Michelle** [name, institution not understood]: safeguards, respect for human rights;
- **Isatou Camara (Senegal):** slow-onset events: current debt-levels already at a 50-year high; debt distress should be considered as separate issue for operationalisation; LDCs still forced to take loans for measures in the capital city to adapt to sea-level rise, e.g., in The Gambia in 2001 – still paying back the loans in 2023;
- **TC Member from India:** not a lot of conversation about public finance grants; most presentations failed on key question of scale;

- **Stephen Hammer (WBG):** used to lead on cities and climate change for the WBG; access to IFC for borrowing purposes; expanding interest and engagement within client base regarding finance for local adaptation measures; WB as one of the key partners implementing the Global Shield; WB-safeguards protocol to do no harm on the ground (e.g., large-scale hydropower); debt distress: grants available only for a portion of funding, but aim to provide the lowest-cost arrangements for adaption projects for 23 countries
- **Dennis (SLYCAN TRUST):** in light of current debt crisis, some insurances had to be suspended in 2022 (e.g., housing); provincial adaptation plans can be incorporated into NAPs;

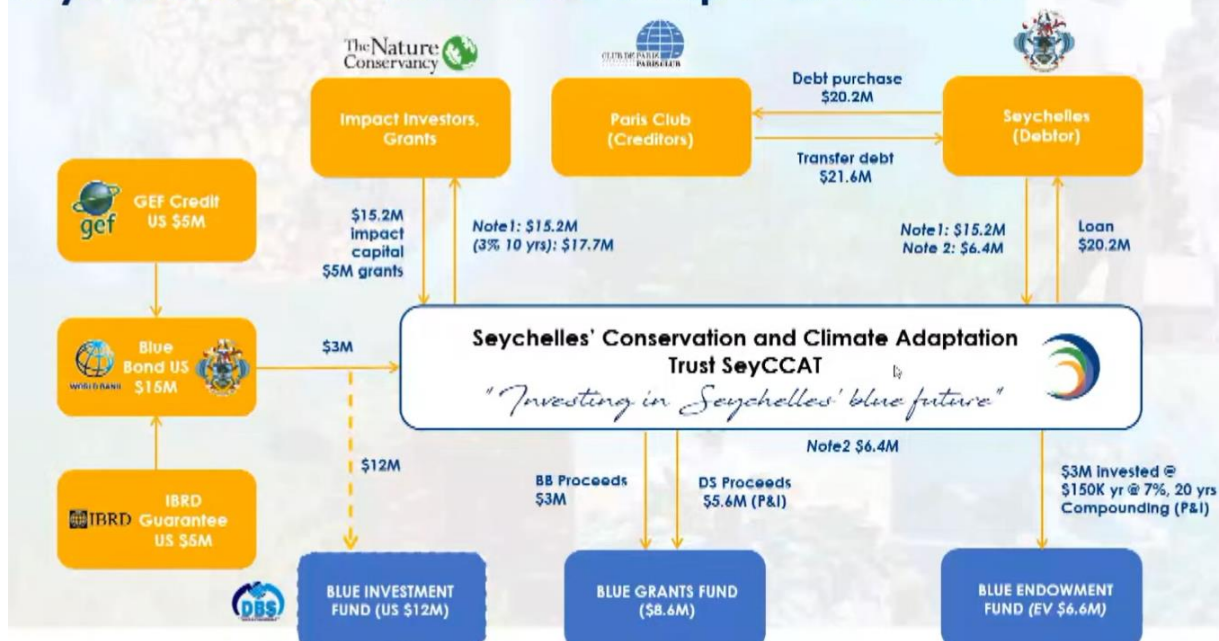
Session 5 - Innovative sources of funding (13:30- 15:30)

Ms. Angelique Pouponneau, Seychelles/AOSIS (online)

- Debt swaps: DFC swap after 2008 financial crisis when Seychelles were highly indebted (again during COVID-19 pandemic); procedure: Government bought back debt from creditors via Nature Conservancy who mobilised the USD 20 million; SPEC in the Seychelles (SeyCCAT) allowed for the deal; pure 'debt restructuring', on more favourable terms, no debt cancellation as such;
- Bond: interest rates were quite high, so GEF and World Bank had to provide partial guarantees – then became a more attractive investment
- Critical: DFC-swaps MUST have a discount element to channel grants financing; requires partnerships with multilateral banks & NGOs; costing exercise must not be an afterthought; on some occasion, there is conditionality to financing – inevitable;



Seychelles' debt-for-nature swap & Blue Bond



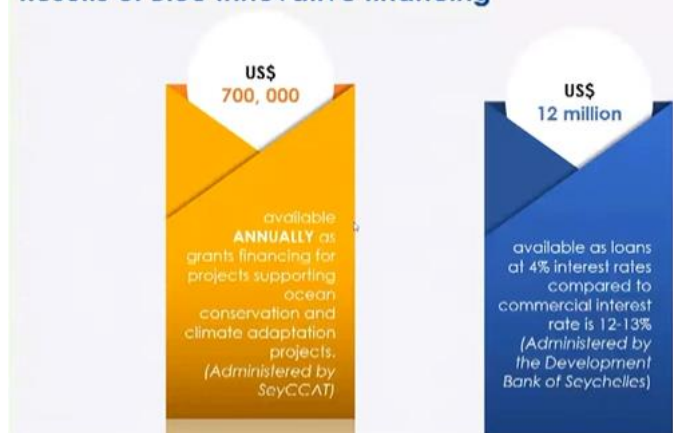
Benefits to Government



Outcomes from Seychelles Swap



Results of Blue Innovative financing



Strategic Objectives of the Blue Funds



Lessons Learned from the Seychelles' Experience

- Debt-for-nature swaps and blue bonds are debt instruments. So far, examples have included **debt buy-backs** and **debt restructuring** **not** the extinguishing of debt.
- Creditors must be willing to sell debt and sell debt at a discount.
- Risk reduction mechanisms were employed to drive interest costs down.
- May require partnership to support buy-back transaction.
- Must be at **scale**. Belize's 'super blue bond' is valued at more than US\$ 360 million.
- **Costing** exercise to meet the commitment and needs should not be an afterthought.
- Administrators (usually, public-private partnerships) of the proceeds are **nationally-based, efficient and responsive to the needs of local population**.
- Priorities are locally determined but unlocking funding may lead to some conditionality.

Innovative financing is not a silver bullet.

Mr. Benito Muller, Oxford Climate Policy (in person)

- Few adaptation spinoffs of the French idea
- International Climate Solidarity Levies as the 'Goldilocks Solution': simple to collect, to count, to quantify; levies can be combined, as in the case of France; don't have to wait for a treaty, but let some progressive countries start implementing this idea



International Climate Solidarity Levies

Innovative funding source for the new
Loss and Damage Response Fund

Professor Benito Müller

Managing Director Oxford Climate Policy,
Convener International Climate Policy Research, Environmental Change Institute, University of Oxford

THE LANDAU REPORT 2004



groupe de travail
sur les nouvelles
contributions financières
internationales



Instruments discussed include:

- Environmental taxes. Long-term prospects for a carbon tax are examined. In the short run, it is suggested to focus the reflection and debate on sectors not covered by the Kyoto Protocol and currently not subject to taxation, such as maritime and air transport.

December 2004

THE FRENCH SOLIDARITY LEVY 2006

The levy was a surcharge of €1 on economy class flights within Europe, €4 on long-haul economy class, €10 on business class within Europe and €40 on long-haul business class.

The levy is collected by the *Directorate General for Civil Aviation* which transfers it *not* to the general budget, but to a dedicated '**Solidarity Fund for Development**' managed by the French Development Agency earmarked for funding organisations working in global health such as UNITAID, combatting HIV/AIDS, malaria, and tuberculosis.



ADAPTATION SPIN-OFFS I: 2006-8



IATAL — an outline proposal
for an International Air Travel
Adaptation Levy

Bernd Müller and Cameron Hepburn



Oxford Institute for Energy Studies
15/16
October 2006

ADAPTATION SPIN-OFFS I: 2006-8

International Air Passenger Adaptation Levy (IAPAL)

A proposal by the
GROUP OF LEAST DEVELOPED COUNTRIES (LDCs)
within the framework of the BALI ACTION PLAN



Submitted to the UNFCCC AWC-LCA
on 12 December 2008



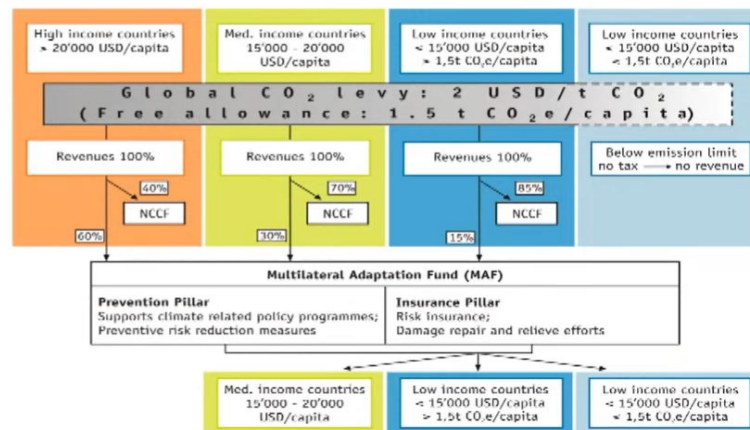
Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Global Solidarity in Financing Adaptation A Swiss Proposal for a Funding Scheme



COP 12
2006



THE REMIT PROBLEM

The UNFCCC does not have the remit to legislate on aviation

Alternatives for a global 'top down' levy?



Solidarity Tax

Air/sea and their passengers should not have to pay for social programmes that are not related to airport and aeronautical services

"An example of a discriminatory tax on the air transport industry was introduced by the French Government on 1 July 2006 with a "solidarity" tax designed to support aid to developing countries.

The Council of Economics and Finance Ministers of the European Union (ECOFIN) considered and ultimately rejected the idea of implementing such a tax on an EU-wide basis. Even the African Union has publicly expressed its opposition to the concept."

ADAPTATION SPIN-OFFS 2: BOTTOM-UP (2020)



French levy on airline tickets raises more than one billion euros for world's poor since 2006

By 2012, the levy has been raising between €162 million and €175 million per year, totalling one billion euros since its creation. According to the French government, "no impact has been observed on French air traffic or on tourism following the establishment of the airline-ticket levy."

ICSLs: THE GOLDILOCKS SOLUTION (2023)

International Air Passenger Adaptation Levy (IAPAL)



International Climate Solidarity Levies

Comprising different types of levies, e.g.:

- Air ticket levies (like the French Solidarity Levy)
- Maritime transport levies (€10 per container)

Scale: EU-wide application now – € 1 billion p.a. each

Case study presentations:

Mr. Dan Lund, Fiji, on Development of Fiji's National Planned Relocation Arrangements and Associated Financing Mechanisms (with inclusion of innovative multi-source financing)

- Fiji affected by confluence of slow-onset and extreme events; sea-level rise 2-3 times global average
- Trust Fund set up in 2019
- Environment and Climate Adaptation Levy for what is considered 'luxury goods'



Drivers of displacement and associated loss and damage in Fiji

(a) Climate Change driven slow onset events / incremental changes compounded by (b) increased exposure to (c) intensified (d) sudden onset events.

- Coastal inundation, coastal erosion, soil salinization, compromised water security, disruption to livelihoods, loss of nutritional security (reduced agricultural yields, degradation of fisheries etc.)
- Cyclones/extreme windspeed; heavy rainfall events; flooding, storm surge / inundation; landslides; strong winds
- The average rate of sea level in the southwestern Pacific is 2-3 times the global average
- 76% of Fiji's population lives within 5km of the coast and 27% within 1km.

6 Communities have been relocated to date, 676 communities have potential to require relocation in the future, 40-50 are of major concern, 17 communities/settlements currently assessed as being 'high priority' for relocation as soon as possible.

Selected Examples

1. **Vunidogola Village** – 160 Villagers relocated 2km inland to avoid constant exposure to storm surges and inundation events as well as the impact of saltwater intrusion on agriculture and breadfruit trees. The relocation was completed in 2014 following the initial assessment of relocation needs in 2006.
2. **Tukuraki Village** – Extreme rainfall causes a landslide that buries 50% of the village, 12 months later village is hit by a Cat 4 cyclone. Community members are displaced and living in temporary shelters. With community members living in temporary shelters Fiji is hit by Cat 5 cyclone Winston in 2016 (at the time – one of the strongest storms to make landfall anywhere on earth since modern records began). The community sheltered in caves. A new protected site for the community of Tukuraki was identified in 2017 and the community has been relocated.
3. **Narikoso Village** – Narikoso's original village site was inhabited for over 500 years. Sea level rise caused severe coastal erosion causing the shoreline to recede by over 15m over 2-3 decades. Constant flooding and damage to property led the community seek support to relocate.

Much more than damaged infrastructure..

Increasing non-economic loss

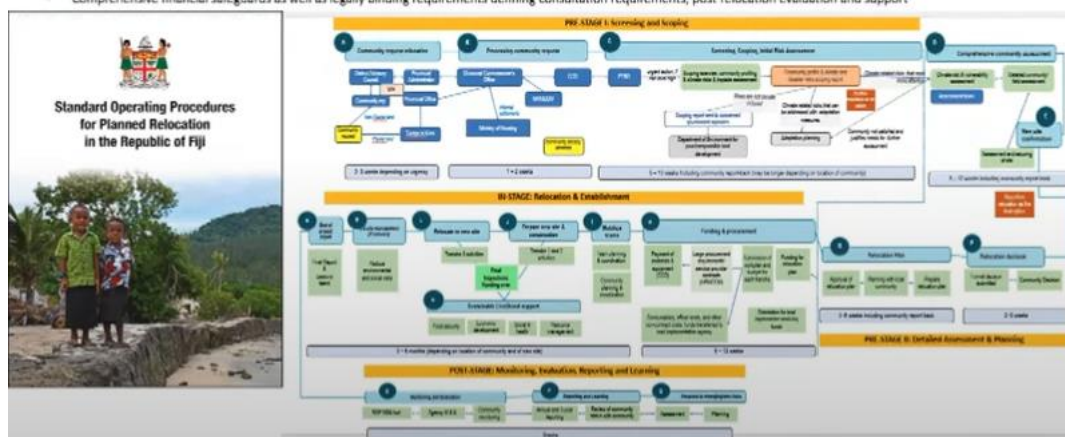
1. **Psychological trauma** from sudden onset events as well as **exacerbation of inequalities** due to loss of resources (increased SST impacting inshore shallow fisheries where women traditionally fish to create market income)
2. **Cultural erosion** - The iTaukei terms used to describe the months of the year and which are associated with long term seasonal trends (when fruits ripen, wind direction, prime planting) – no longer match reality. Loss of culturally significant sites, disruption to traditional practices intended to enable sustainability.
3. **Lost development gains** - Analysis used to contribute to voluntary national reporting on sustainable development goal progress shows trends of regression understood to be linked to climate change impacts
4. **Damage to public health** - climate-sensitive disease spikes – dengue fever, leptospirosis, typhoid
5. **Loss of 'adjacency'** - reduced access to resources as communities forced to relocate, internally migrate, or take up new livelihoods due to losses. Loss of adjacency to other communities, family members, shared resources, infrastructure.
6. **Forced behavioural shifts** - Urban drift. Increased urban poverty (The population Fiji's capital city Suva may have increased by as much as 20% following cyclone Winston in 2016). Increasing out-migration. Loss of expertise

Planned relocation as a measure of 'last resort'



Standard Operating Procedures for Planned Relocation

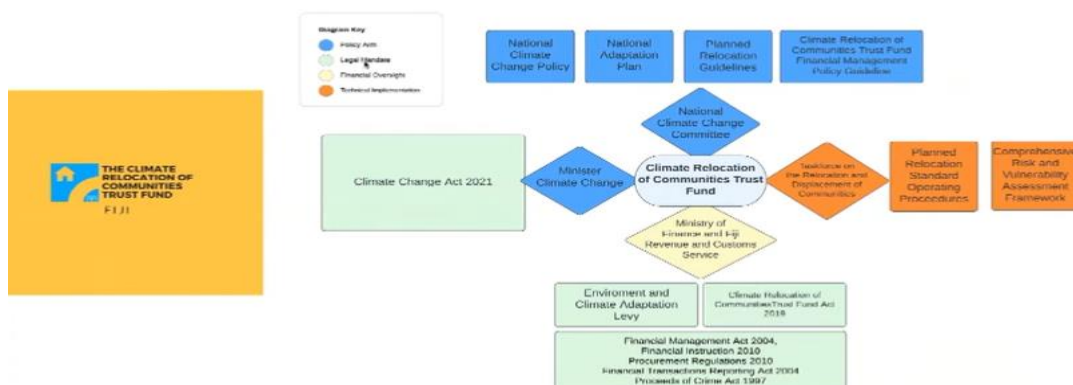
- Demand Driven / Community Led
- Different tracks based on different land/settlement types
- Indicative timeframes
- Roles and responsibilities
- Led by an inter-agency Taskforce mandated by law – almost all Ministries have a role.
- In development since 2019 – formally launched this month
- Comprehensive financial safeguards as well as legally binding requirements defining consultation requirements, post relocation evaluation and support



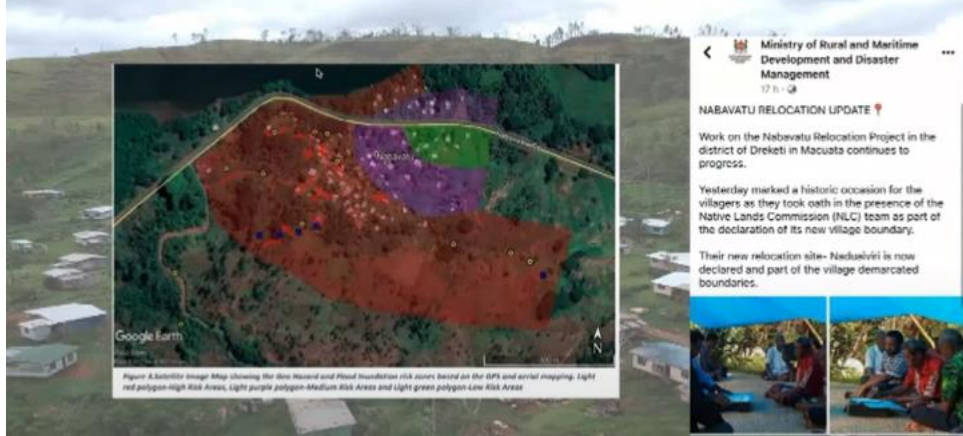
Sources of financing for the Climate Relocation of Communities Trust Fund

EXTERNAL CONTRIBUTIONS / FLOWS

- 1) 3% Contribution from Fiji's *Environment and Climate Adaptation Levy (ECAL)* on specific Goods and Services. Charged at the rate of 5% on the gross annual turnover of a prescribed service [however – a direct diversion from adaptation]
- 2) Required Community Contributions / MOUs
- 3) On-Budget Government Services
- 4) Cost-Sharing with NGOs



Urgent Needs – As we speak...



Gaps? in financing for loss and damage

1. Human mobility issues are sensitive and context specific and therefore difficult to align with safeguards of existing multi-lateral funds.
2. 100% of funds received by Fiji's trust fund to date have been through domestic sources while previous relocations were funded by a mixture of bilateral partnerships.
3. Climate change driven loss and damage arises from a confluence of factors limiting the potential to pre-determine a trigger or set of scenarios from which to design and apply traditional insurance products.
4. Humanitarian aid and Disaster Risk financing operates within a very specific part of the impact-continuum
5. Non-economic loss and damage is not addressed within current normative financing arrangement

[- biodiversity and climate stability are not priced or trade-able – full quantification in economic terms can not be carried out in a traditional way – instead, contexts must cost alternatives and seek support to offer those alternatives.]



Key Messages and Reflections



- Efforts to map or quantify loss and damage needs must recognize the connectivity between sudden/slow onset events, economic / non-economic loss – rather than seek to create over-simplified delineations.
- Climate change impacts are increasingly non-linear and do not fit the traditional disaster – response – recovery continuum. Event centric language (pre/post) creates an unrealistic representation.
- Situations in which loss and damage must be 'addressed' may often require measures of 'last resort' which include inherent trade offs and risks that national governments will be best placed to consider and shape from both a legal and ethical perspective.



- The 'fund' should avoid being a direct gatekeeper but instead find a means to deliver funds through national and regional arrangements that align with common intent / purpose.



- A focus on the case-by-case review of demand-driven national/regional arrangements would be a means to balance the interest of the range of stakeholders and contexts involved using a common set of conditions and indicators for approval. It would also avoid the issues involved with pre-determining eligibility.
- Loss and damage arising from climate change is experienced locally and requires responses that are developed for the user and context. Fiji's Climate Relocation of Communities Trust fund provides an example of the way that particular loss and damage issues can be targeted through a dedicated national fund, a legal and policy framework, a defined governance mechanism, and transparent set of applied procedures. This could be replicated for other targeted loss and damage priorities.

Kajsa Fernström Nåtby, Spanish Extraordinary Risk Insurance

- [could not attend]

Mr. Manu Gupta, SEEDS India, on Creation of e-disaster wallets

[could not attend]

Ms. Adrianna Hardaway, Mercy Corps/Zurich Flood Resilience Alliance, on Breaking the cycle: unlocking climate finance for fragile states

[could not attend]

Open discussion including through Mentimeter

Guiding questions:

What are the experiences and lessons learned from scaling up financing through innovative sources?

What are the potential innovative sources of funding applicable for addressing loss and damage?

Session 6 - Side events: (15:45-17:15)

Independently-run sessions on specific topics to promote incubation of ideas

[could not attend]

Wrap up and next steps (17:15-17:30)

[could not attend]