



International Recovery Forum 2020

**Resilient Infrastructure Recovery and Building
Back Better**

**ACTIVITIES TOWARDS BBB FROM
CYCLONE IDAI, IN MOZAMBIQUE**

Kobe, January 2020

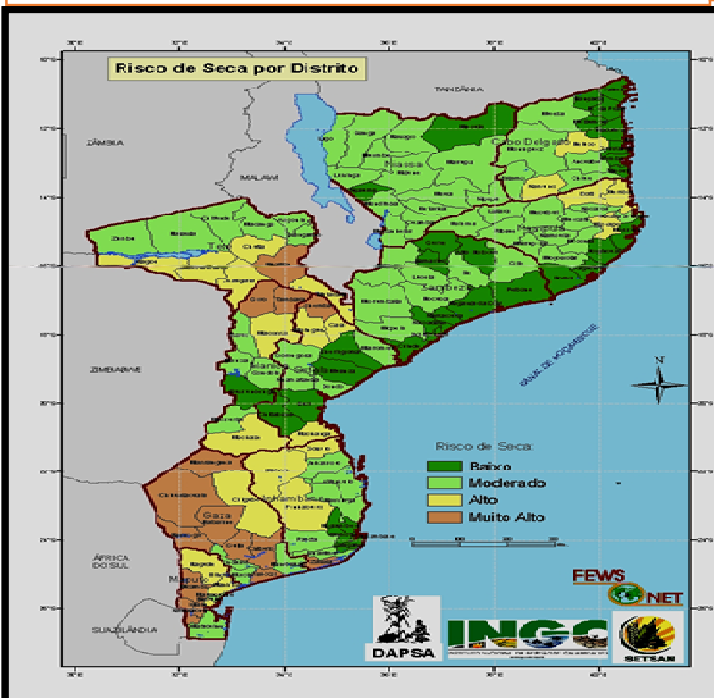




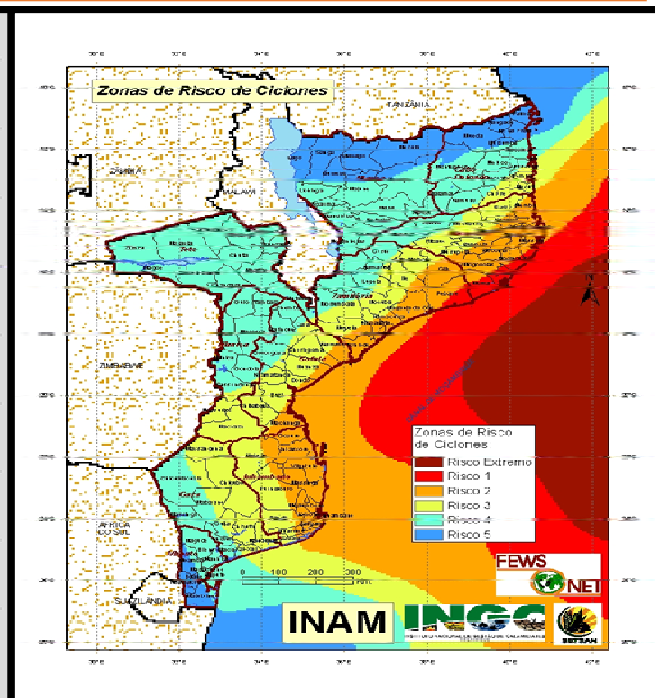
1. Mozambique context in the face of natural disasters and climate change
2. The Damage and loss caused by Cyclone Idai and Cyclone Kenneth
3. Measures for Resilience of Infrastructures
 - Non Infrastructure Measures
 - Infrastructure Measures
4. Challenges in the recovery process and Next Steps



Droughts



Floods



Tropical Cyclones



Downstream 9 of the 15 major river basins in Southern Africa;

50% of the territory covered by international rivers;

40% of topography less than 200 m above sea level;

Coastline of 2700 km in the South West Indian Ocean;

Since 1990, Mozambique was affected by 10 cyclones, in 2019 – 3 cyclones, Idai, Kenneth and Desmond



Human Impact

- About 650 people died;
- **CHILDREN:** It is estimated that 6.1 million households are headed by children (12-14 years). There are about 2 million orphans and vulnerable children;
- **OLDER PEOPLE:** There are estimates that over 75% of affected older people require urgent assistance in Sofala and Manica;
- **DISABILITIES:** 111.000 of people with disabilities have been directly affected by the disaster (Light for the World);
- **IDPs:** About 400.000 of people have been displaced and face complete destitution

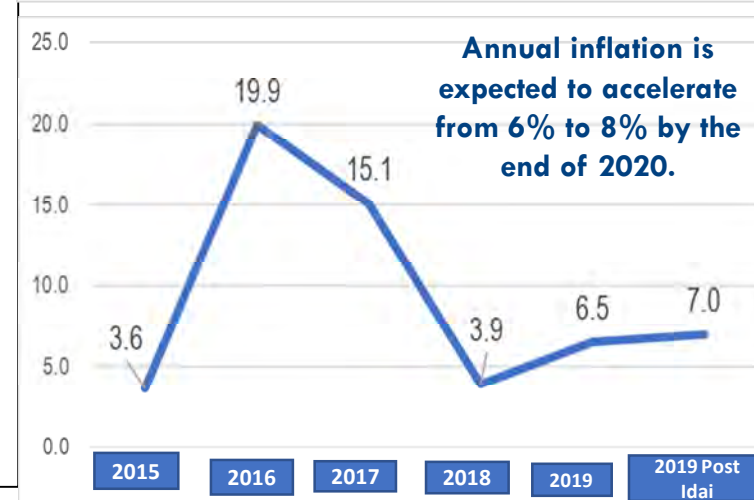
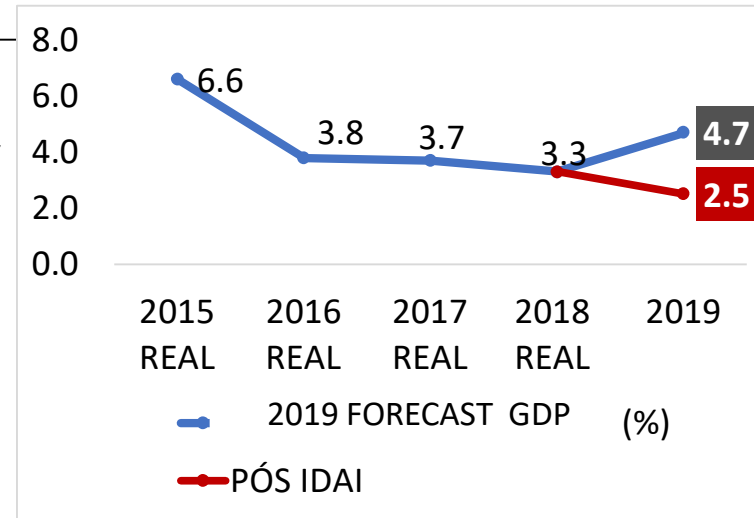
Impact of Cyclones - Socioeconomic

Social Sector - 300,000 Houses were partially or totally destroyed;

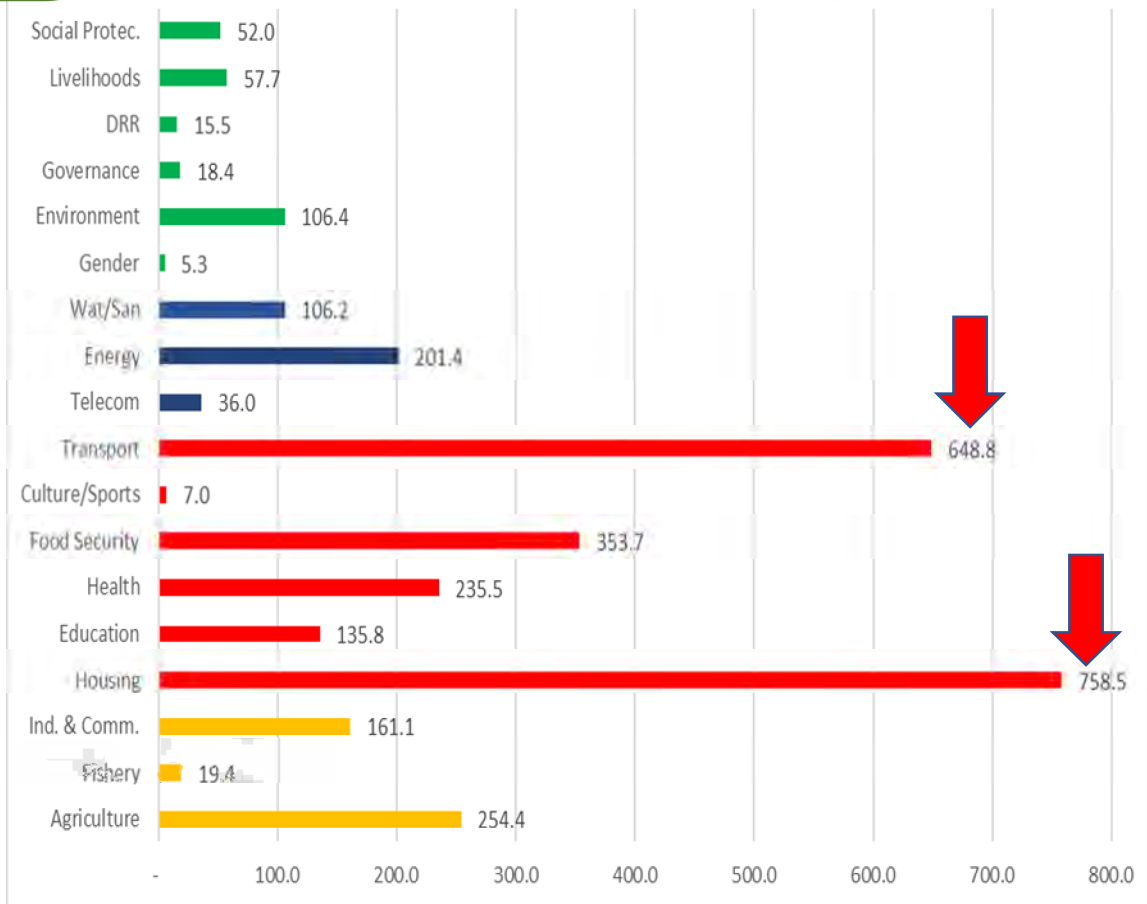
In the Productive sector - loss of stocks and agricultural production- up to 80%

Infrastructure Sector - equivalent to 39% of the national road network were affected

MACRO-ECONOMIC IMPACT



Recovery Needs : USD 3.2 MIL MILHÕES



	Productive	InfraEstruture	Social	Cross Cutting	Total
	%	%	%	%	mM USD
Demanges	15	42	36	7	1.51
Needs	15	31	47	8	3.2

Recovery Needs include associated costs:

- Recovery Needs include associated costs: **Human Tissue Recovery;**
- Replenishment or reconstruction** of miscellaneous **infrastructure and physical assets;**
- Build Back Better** measures with **significant disaster risk reduction** to ensure resilience to future cyclones / floods of equal or slightly greater magnitude;
- Recovery of the production** of goods and services;
- Restoration of people's **access to basic products and services.**
- Reestablishment of governance** (rehabilitate public buildings, training to facilitate the management of the recovery process, etc.)
- Recovery also include a **budget line for disaster risk reduction** to repair damage to dykes, meteorological and hydrological stations, early warning systems, among other



Recovery and reconstruction Needs	USD 3.2 Billion
Financial Resources Pledged to respond PDNA	USD 1.4 Billion
Confirmed resources by Partners	USD 1.03 Billion
Available Funds with financing agreements signed, some under realization.	USD 468 Million (Including Assistance from JICA USD 500,000)
GAP	USD 1.8 Billion

A. Non Infrastructural

- Institutional Arrangements - **The Cabinet for Post Idai Reconstruction was created by Decree 26/2019 of April 11, extended to cover damage to Kenneth through Decree 45/2019 of May 22.**
- Use, adapting and design of tools such as Land Use Plan, Evacuation Plan and Legal Instruments - **with JICA we are implementing the Cyclone Affected Areas Resilience Strengthening Project** (Product 1: Disaster Risk Analysis and Product and Risk Mapping 2: BMRRP Risk Map Formulation)
- Adoption of a new DRR Master Plan for 2017-2030 focused on strengthening disaster preparedness, response, recovery and reconstruction, aligned with SENDAI Framework, National Climate Change Adaptation and Mitigation Strategy (ENAMMC) 2013-2025 aligned with Paris Agreement, Land Use and Other Risk Maps More Related to Droughts and Floods, Evacuation and Refuge Plans and Knowledge Generation

B. Infrastructural

- Infrastructure Development Programs
- **Replenishment or reconstruction** of miscellaneous infrastructure and physical assets to ensure resilience to future cyclones

B. Infrastructural Measures

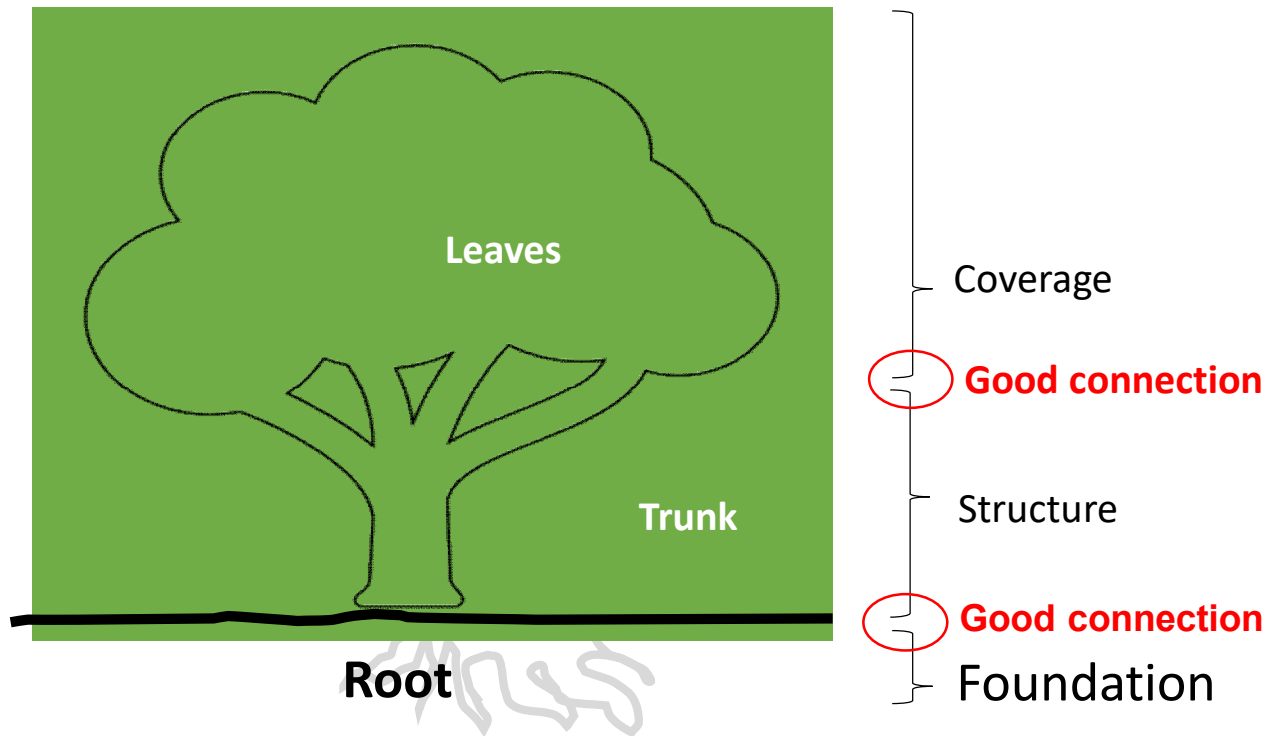
Housing

Transport Infrastructure

Our buildings are like a tree.

The higher the tree, the deeper the roots will be.

The more open the canopy the more open the roots will be.



Resilient Houses

1.

Adapted to
Climate Change

2

Culturally appropriate to
the local Context

3

Affordable costs and
technologies

Housing Destruction Scenario - Cyclone Idai

Informal areas of high density: damage percentage is always above 50%



The peri-urban informal areas: most affected, have damage up to 90%.



Urban area: partial impacts (concentrated in roof structures)



1. Community engagement - Encourage community participation;
2. Ensure that investment in housing reconstruction is resilient;
3. Compliance with territorial planning instruments in rural and urban areas; Integrated intervention (land, water, sanitation, streets, drainage, spaces for social equipment (education, health, safety))
4. Ownership of the process by government, involving different actors (**signed memorandum of understanding between GREPOC, Eduardo Mondlane University and UN HABITAT**);
5. Institutional training and Design of solutions / training; Generation of employment / food for work;
6. Technical assistance/Technical support;
7. Supervision, monitoring





Challenges:

- a) Incorrect application of standards and construction procedure;
- b) Use of construction materials with non-recommended specifications;
- c) Lack of construction Ethics by contractors;
- d) Implementation of Infrastructure without observation of certain levels and risks magnitude;
- e) Incorrect Supervision in the Process of Implementation of Works
- f) Insufficiency of Financial Resources for Construction, Repair and replacement of Damaged Infrastructures.

Reflections:

- a) Review of the Inspection process of construction works;
- b) Prohibition of the production and marketing of construction materials with unacceptable technical specifications or greater control by the competent authority over local importation of such materials by suppliers;
- c) Need for further studies on the adequacy of risk maps to reduce infrastructure vulnerability conditioned by increasing intensity and magnitude of climate events;
- d) Strengthening legal measures on the liability of contractors Increasing national public investments for the infrastructure component, in 2019 Mozambique allocated the Budget structure 14.8% (6.3% of roads, 7.2% of water and 1.4% of energy).



- a) **Build back better – and ensure resilience to future disasters;**
- b) **Build on international experiences;**
- c) Give priority to the defense of life and vulnerable people;
- d) Improve the living conditions of peripheral neighborhoods;
- e) Link with territorial and local plans for development and adaptation;
- f) Reconstruction process takes their time – approach the rainy season we need accelerate the process;
- g) **Collect recovery projects of NGOs and private sector;**
- h) Develop guidelines for reporting recovery progress and Develop information system for monitoring and Evaluation;
- i) **Implement the studies and other technical requirements for infrastructure projects; and**
- j) **Mobilizing resources to cover the reconstruction deficit.**



For a Fast, Resilient and
Comprehensive Post Idai
Reconstruction



Thank You Very Much
Arigato Gozaimashita
Muito Obrigado

