

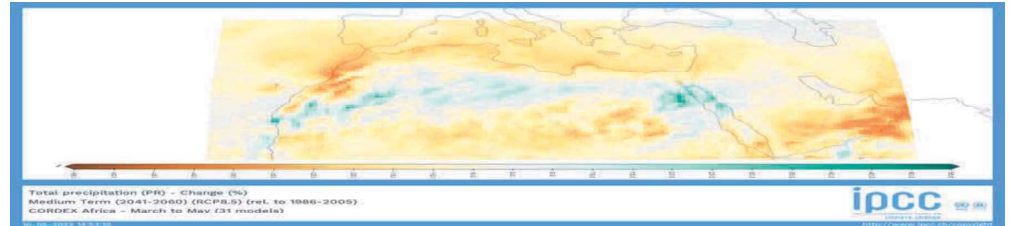


Morocco's National Catastrophe Risk Insurance Programme



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- **Introduction**
 - **Private Insurance Scheme**
CAT & SCR Reinsurance companies
 - **Public Solidarity Fund**
Solidarity Fund FSEC

Climate change impact



- **Morocco is exposed to geological and climate-related hazards.** The country suffers an annual average loss from natural catastrophes of over **US\$800 million, or 0.8 percent of Morocco's GDP**:
 - Due to its geographical position, high rainfall variability, and topography, Morocco is regularly prone to **flooding** with estimations of **over US\$400 million** in losses each year
 - **Earthquakes** affect two specific areas of the country: the North, which is experiencing strong economic growth, and the Agadir Region, one of Morocco's main touristic centers. Earthquakes have an average impact **of US\$90 million per year**
 - **Droughts** affect the agricultural sector, with an estimated annual loss on crop yields of approximately **US\$300 million** – *explicitly excluded from the Catastrophe Insurance Program for the moment.*
- **Climate projection according to the IPCC RCP4.5 scenario by 2060:**
 - **The precipitation** over Morocco will experience with significant confidence a decrease in precipitation that can exceed **20%**.
 - **Temperatures** will with significant confidence see an increase of up to **2°C** in places
- **Climate projection according to the pessimistic scenario of the IPCC RCP8.5 horizon 2060:**
 - **Precipitation** over Morocco will experience, with high confidence, a decrease in precipitation that may exceed **40%**.
 - **Temperatures** will with significant confidence see an increase of up to **4°C** in places

A strong, cross-sectoral risk management framework

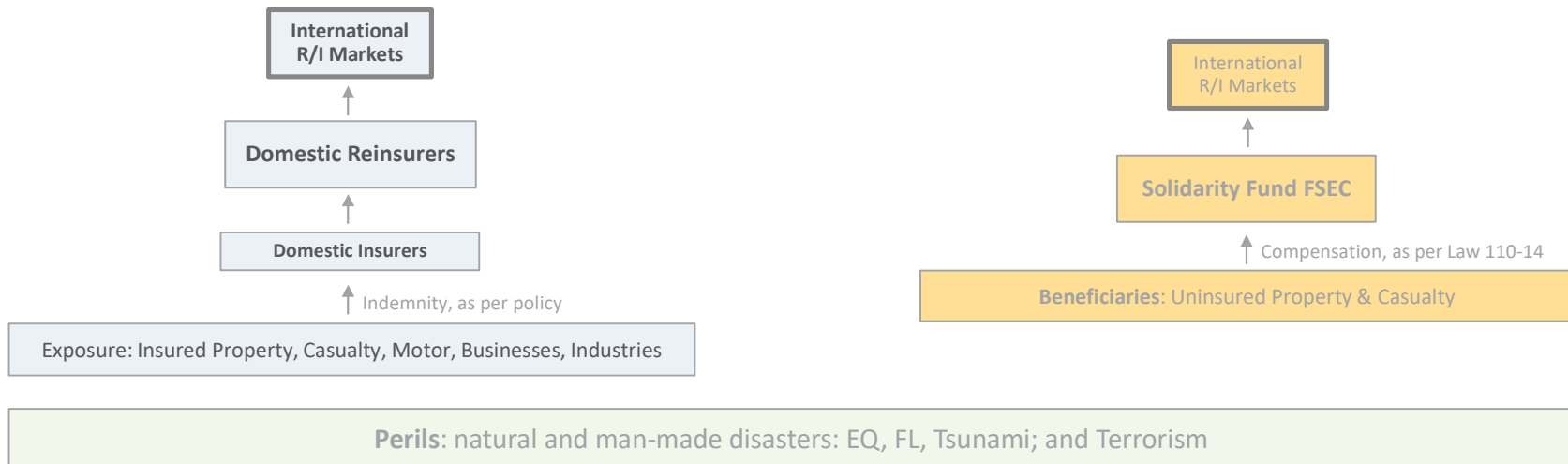
- **As a result, over the past two decades**, the GoM has developed a strong, cross-sectoral, disaster risk management and financing, and climate change adaptation policy framework:
 - 2002-2030: **National Water Management Plan**, with 7 large dams planned, and ambitious North-South pipelines strengthening the drainage and irrigation capability around densely populated urban areas (Rabat/Sale, Casablanca, Marrakech).
 - 2004: **New seismic code** implemented, improving the standard resilience of newly built constructions (*Règlement de construction Parasismique RPS 2000*), and revised in 2011
 - 2010-2012: development of a **preliminary probabilistic risk assessment** for natural catastrophe risk in Morocco
 - 2012-2015: upgrade of model into a full-fledge **cat risk model for Morocco** (100,000 EQ and 10,000 FL events catalogue)
 - 2016-2021: in 2016, the Government passed **Law 110-14**, a comprehensive law that mandates a national catastrophe risk insurance program (through a **dual private-public** compensation mechanism). It has been adopted by 01.01.2020.

Law 110-14: a dual regulatory framework

Law 110-14 was passed in August 2016 and is planned on being implemented by 01 January 2020. It sets up a dual mechanism against natural and man-made disasters:

a) **Private insurance scheme**: making catastrophe risk insurance coverage compulsory for **insured** people, households and firms (i.e. automatic extension of guarantee to CAT risks)

b) **Public compensation scheme**: providing basic compensation for **uninsured** people and households, through the FSEC Solidarity Fund (*Fonds de Solidarité contre les Evénements Catastrophiques*), which includes close to 5 million people below the poverty line



Covered perils according to law 110-14



Natural Events

- Earthquake.
- Floods.
- Tsunami.

The limit per event is US\$300 million

The annual aggregate limit is US\$900 million



Human violent actions

- Terrorism,
- Riots or
- Civil commotions.

The limit per event is US\$30 million

The annual aggregate limit is US\$60 million



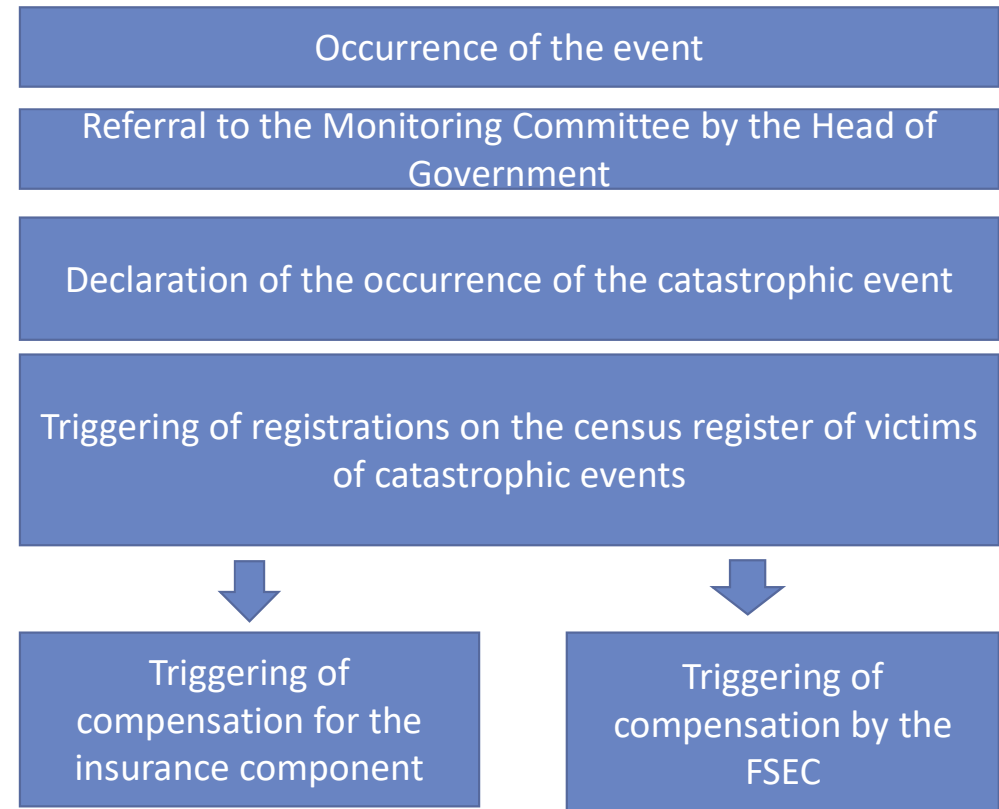
- The payouts due under this cover are proportionally **reduced** according to global limits.
- The **terms** and **conditions** of this reduction are fixed by the **State**.



The catastrophe risk event must be recognised by **State** released in the Official Bulletin within **3 months of the occurrence date**

Law 110-14: Loss Triggering Process

- As per Law 110-14, the triggering of the schemes is based on a **declaration of natural or man-made catastrophe by the Head of Government**. This is based on technical advice by the technical commission in charge of evaluating the eligibility of the event. The declaration of a catastrophe state act specifies the affected areas, as well as the date and duration of the catastrophic event.
- This is common to both private and public schemes and will be a pre-requisite to the claims and compensations processes.
- Then, two separate processes apply (with specific loss notification and handling constraints).

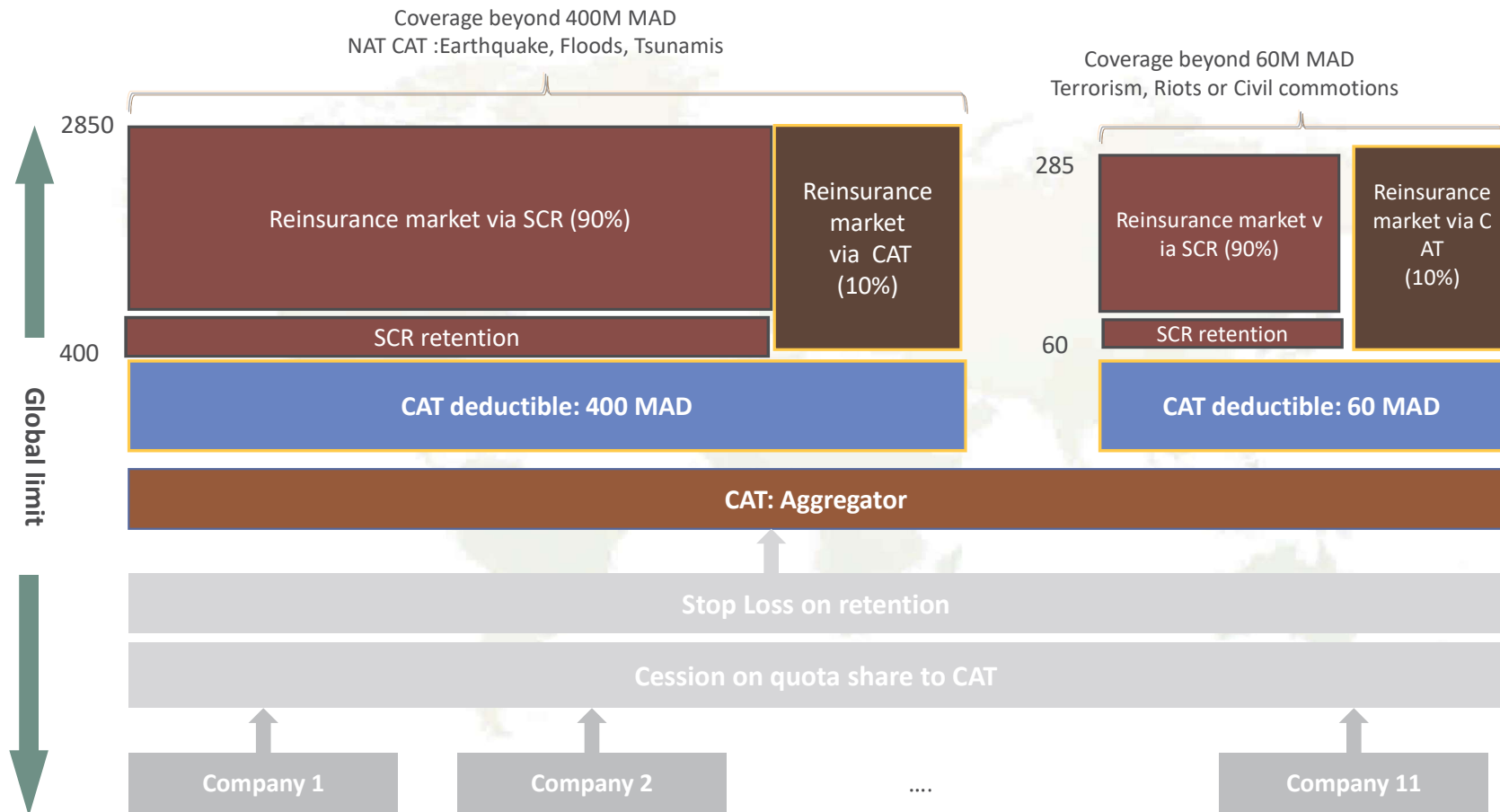


And sustainable funding mechanisms

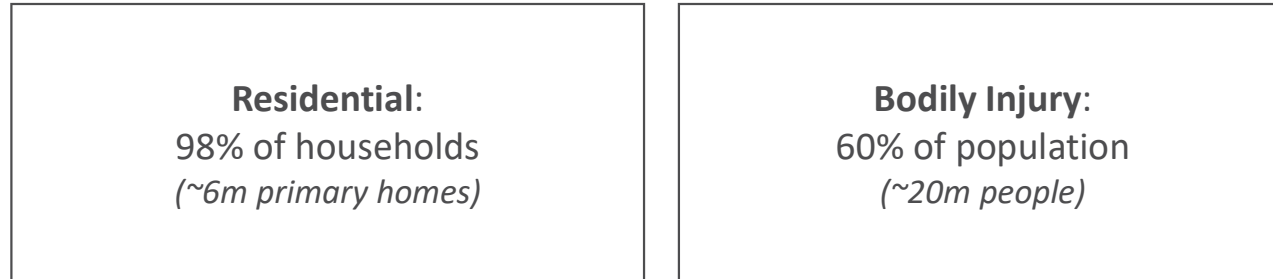
- **On the private scheme, mandatory additional premium** (for each policyholder concerned, and set by law) will generate an annual revenue expected to cover domestic insurance, reinsurance and international reinsurance premiums and fees
- **On the public Solidarity Fund:** average annual losses and running costs are covered by an **annual parafiscal tax** (approx. \$20m/year)

Private Reinsurance Scheme

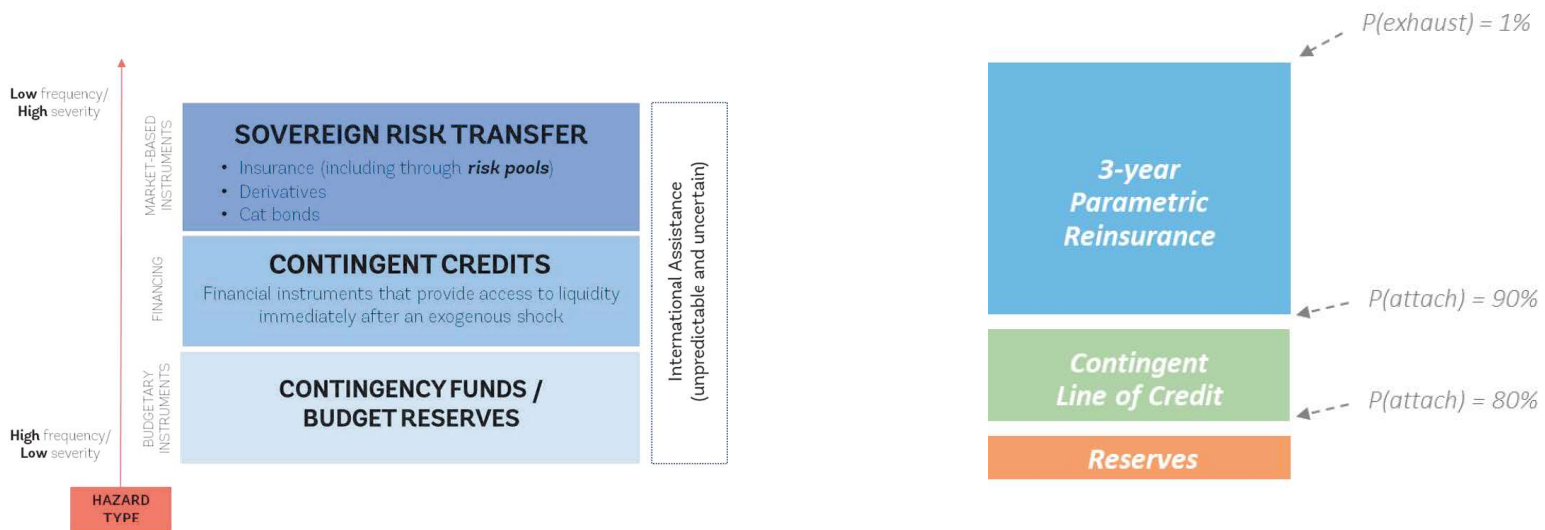
State guarantee : Failure of placement or default of international reinsurers.



Solidarity Fund FSEC: Exposure



Disaster Risk Financing Strategy



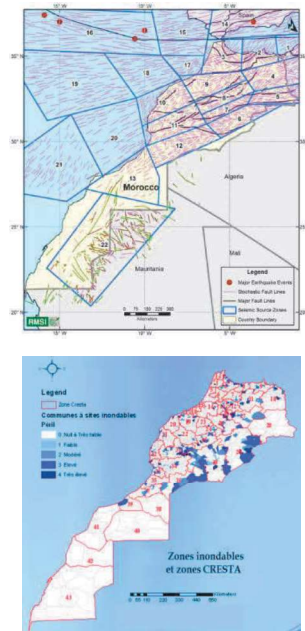
State-of-the-art risk modelling

Exposure

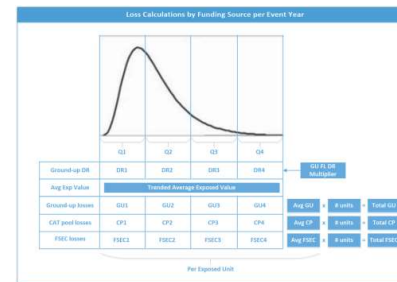


Example of High-resolution Financial Exposure Mapping of Rabat-Sale

Hazard

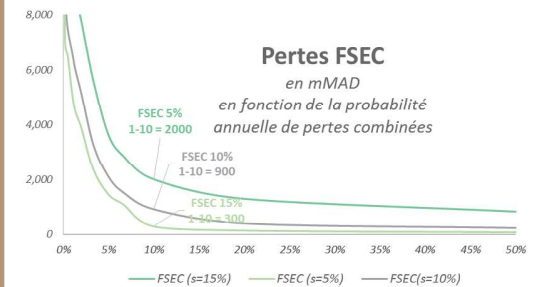


Vulnerability



Illustrating high sensitivity of payouts to franchise, deductibles and uninhabitability threshold

Financial



Stressing need for thorough sensitivity analyses to understand most impactful parameters