



PROSPERITY

Country Presentation Morocco

Solidarity Fund against
Catastrophic Events



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Academy



Rationale for Introducing the Fund

-  **To have 100% physical integrity coverage of people and their primary residences following a catastrophic event, whilst penetration rates are less than 3% for residential and 60% for bodily injury**
-  **To secure Insurance Companies**
-  **To address the problem of uninsured people**
-  **To set the compensation scale**
-  **To secure capacities for Insurance Companies**

Fund Design Specifics – Scope and Coverage



Scope of the fund

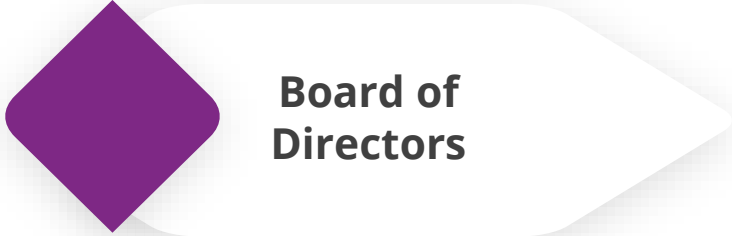
- The FSEC « **Fonds de Solidarité contre les Evénements Catastrophiques** » is a Public Administrative Establishment under State supervision, with financial autonomy;
- It complements private insurance by providing compensation to poor, uninsured households for bodily injury and the loss of their principal residence upon the occurrence of a catastrophic event.



How is the fund triggered?

- Disaster is declared by a Decree of the Head of the Government

Fund Design Specifics – Management



Chairman :
Head of Government of the Kingdom of Morocco
Who delegates authority to another Department (Ministry of Finance)

Audit and Risk Committee

Strategy and Investment Committee



2 representatives of the Ministry of Finance
1 representative of the Ministry of Interior
1 representative of the Ministry of Health
1 representative of the Ministry of Housing
2 representatives of the Insurance Federation
1 Representative of the Insurance Authority

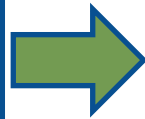


- The Fund’s revenues comes from the proceeds of 1% parafiscal tax levied on all non-life contracts (except Workman Compensation)
- Approximately 26MUSD annually
- A financial stability provision is funded by the technical balance of each financial year to offset technical and financial losses at the end of a given FY

FSEC Action Plan

Risk Knowledge:

- Risk knowledge and modeling:
- MNHPRA: Morocco Natural Hazards Probabilistic Risk Analysis: Multi-peril Probabilistic Model
- ICAT: Floods. Probabilistic and Deterministic Model



Risk Transfer:

- Parametric Cover for EQ (275 MUSD – PGA)
- Parametric Cover FI (Expected 4th Q 2025)
- Cat Bond Issuance (Upper layer - expected July 25)



Disaster Declaration:

- NRT Platform, partnership with CRTS and ICEYE (in progress)



Indemnity:

- Digital Compensation Platform

Deployment of Fund – Al Haouz

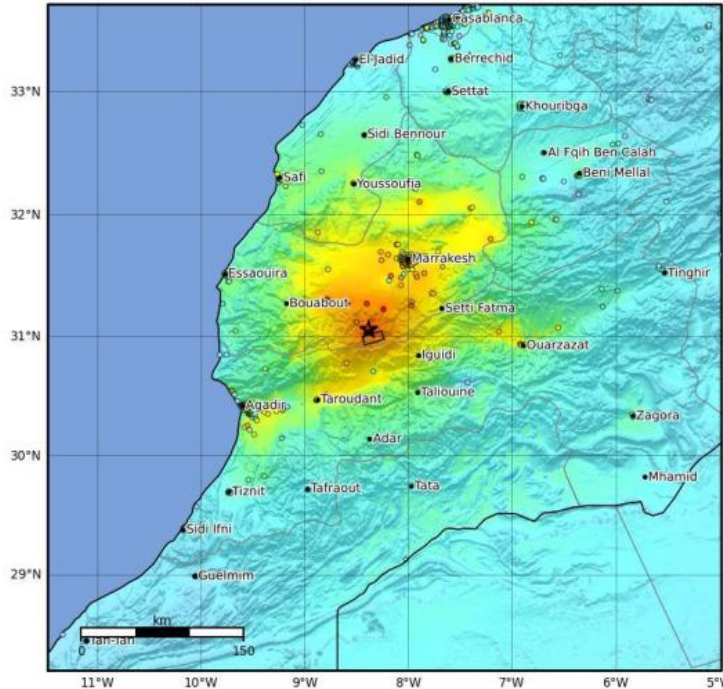
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Damage Rates for Max MMI per Commune

MMI start	MMI end	Loss Rates
0.00	5.00	0.000%
5.00	5.50	0.070%
5.50	6.00	0.350%
6.00	6.50	0.975%
6.50	7.00	2.750%
7.00	7.50	7.500%
7.50	8.00	12.500%
8.00	8.50	17.500%
8.50	9.00	22.500%
9.00	9.50	27.500%
9.50	10.00	32.500%
10.00	12.00	38.950%

- Damage rates are applied to each commune above 5.0 MMI.
- Each commune has an assigned Max MMI based on the v11 USGS ShakeMap (right)

Macroseismic Intensity Map USGS
ShakeMap: 53 km WSW of Oukaimedene, Marrakesh-Safi, MA
Sep 08, 2023 22:11:01 UTC M6.8 N31.05 W8.39 Depth: 19.0km ID:us7000kufc



SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
DAMAGE	None	None	Very light	Light	Moderate	Moderate/heavy	Heavy	Very heavy	
PGA(%g)	<0.0464	0.297	2.76	6.2	11.5	21.5	40.1	74.7	>139
PGV(cm/s)	<0.0215	0.135	1.41	4.65	9.64	20	41.4	85.8	>178
INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X

Scale based on Worden et al. (2012) Version 11: Processed 2023-09-16T04:15:11Z
 △ Seismic Instrument ○ Reported Intensity ★ Epicenter □ Rupture

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Exposures per commune

*The below table has a sample of the Losses per commune with the largest losses

Commune	Exposure (USD)	Maximum MMI	Damage Rate	Loss (USD)
Menara (AR)	997,499,070	6.57	2.750%	27,431,224
M'Zouda	84,792,146	8.23	17.500%	14,838,626
Tassoultante	188,923,591	7.24	7.500%	14,169,269
Saada	177,112,047	7.05	7.500%	13,283,404
Amizmiz (M)	55,931,477	8.36	17.500%	9,788,009
Ourika	126,624,192	7.00	7.500%	9,496,814
Asni	67,403,985	7.55	12.500%	8,425,498
Tameslohte	107,721,202	7.11	7.500%	8,079,090
Marrakech Medina (AR)	291,751,526	6.55	2.750%	8,023,167
Aghouatim	104,829,324	7.20	7.500%	7,862,199

- The calculation of the parametric loss in the occurrence of an event
- Exposure * Loss rate = Parametric Loss

Total Parametric Index Loss: **395,225,998**

E.g. $997,499,070 * 2.75\% = 27,451,224$

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Calculation of Coverage

Total Parametric Loss:
395.23m (USD)

Total Claim Payment Amount:
275m (USD)

The sum of each commune's parametric loss is total parametric loss for an event

*the cover is 275m xs 25m



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