MOROCCO

Middle East and North Africa


Map Sources: UNCS, ESRI
The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Map created in Aug 2015.

HFA progress

Priority 1
Priority 2
Priority 3
Priority 4
Priority 5

■ 2011-2013 ■ 2009-2011

BASIC COUNTRY STATISTICS AND INDICATORS

Population (million people)[1]	(2013)	33	
Population density (People/km^2)[1]	(2013)	74,0	
GDP-Gross Domestic Product (million US$)[1]	(2013)	104.374	
GDP per capita (US$)[1]	(2013)	3.093	
Capital stock (million US$)[2]	(2014)	374.846	

GFCF - Gross Fixed Capital Formation (million US$)[1]	(2012)	32.728
Social expenditure (million US$)[3]		12.472
Gross savings (million US$)[1]	(2012)	24.188
Total reserves (million US$)[1]	(2013)	18.404

Risk drivers

Hazard Exposure

Population growth (annual %)[1]	(2013)	1,49
GFCF (% GDP)[1]	(2012)	31,4

Poverty and inequality

GINI Index (0 - 100)[1]	(2007)	40,9
Life expentancy at birth (years)[1]	(2012)	70,6
Pov gap at national poverty lines (%)[1]	( )	0,00
Social expenditure (% GDP)[3]		11,95

Governance indicators

Rule of law (-2.5 - 2.5)[4]	(2013)	-0,25
Government effectiveness (-2.5 - 2.5)[4]	(2013)	-0,07
Voice and accountability (-2.5 - 2.5)[4]	(2013)	-0,72
Control of corruption (-2.5 - 2.5)[4]	(2013)	-0,36

Urbanization

Urban population growth (%)[1]	(2013)	2,3
Pop living in slums (% of urban pop)[5]	(2005)	13,1
Urban population (%)[1]	(2013)	59,2

Environment

Ecological footprint (global hectares per capita)[6]	(2007)	1,22
Environmental performance index (0 - 100)[7]	(2014)	51,9
Forest change (% - 2000-2012)[7]	(2012)	0,1
Freshwater withdrawals (% of internal resources)[1]	(2002)	43,5

Climate change

Electiricty production from renewable energy (% total)[1]	(2011)	2,78
CO2 emissions (metric tons per capita)[1]	(2010)	1,60
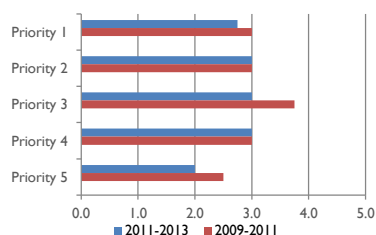
DISASTER RISK[8]

Average Annual Loss (AAL)[9] by hazard

45.60%
54.32%
0.08%
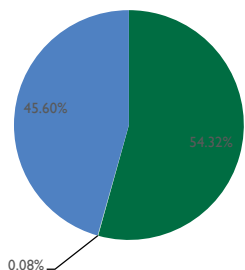
Hazard	Value	AAL/Capital stock	AAL/GFCF	AAL/Social expenditure	AAL/Total reserves	AAL/Gross savings
	[million US$]	[%]	[%]	[%]	[%]	[%]
Earthquake	157,28	0,04	0,48	1,26	0,85	0,65
Cyclonic Wind	0,00	0,00	0,00	0,00	0,00	0,00
Storm Surge	0,00	0,00	0,00	0,00	0,00	0,00
Tsunami	0,23	0,00	0,00	0,00	0,00	0,00
Volcano	0,00	0,00	---	---	---	---
Flood[10]	132,04	0,04	0,40	1,06	0,72	0,55
TOTAL	**290**	**0,1**	**0,9**	**2,3**	**1,6**	**1,2**

Risk and Development Implications[11]

Economic implications (Capital stock - savings)
43,5

Growth and financial implications (GFCF - Reserves)
45,1

Social Implications (Social expenditure)
51,4

46,7

DEVELOPMENT IMPLICATIONS
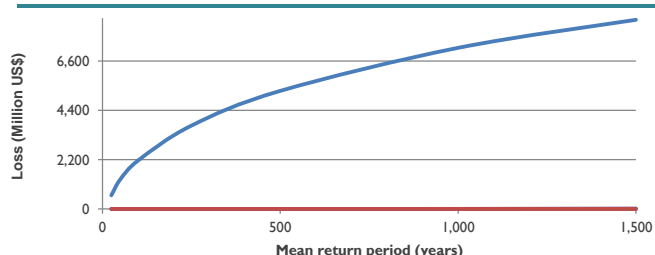
Ranking
127
out of 213
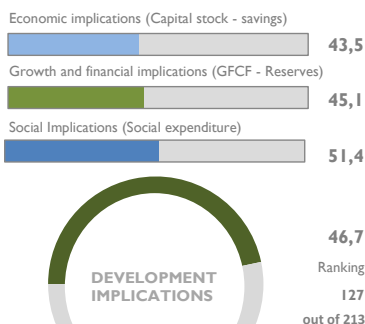
Multihazard AAL results by sector (Earthquake and cyclonic wind)

Sector	Sub Sector	Capital stock [million US$]	Average Annual Loss (AAL) [million US$]
Residential (income)[12]	Low	12.928	4,69
	Middle low	96.310	39,60
	Middle high	23.246	8,95
	High	0	0,00
Services	Commercial	68.749	29,46
	Industrial	68.901	29,57
Education	Private	6.170	1,91
	Public	80.652	34,86
Health	Private	202	0,03
	Public	116	0,02
Public buildings		18.966	7,15
National		376.240	156,25
Fiscal[13]		112.661	46,72

Distribution by sector
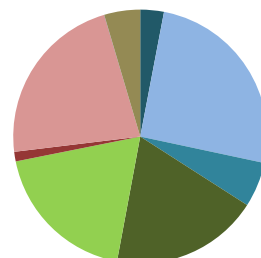
Probable Maximum Loss - PML[14] (million US$)

Loss (Million US$)
6,600
4,400
2,200
0
0   500   1,000   1,500
Mean return period (years)

Hazard	Mean return period (years)[15]				
	100	250	500	1000	1500
Earthquake	2.160	3.716	5.265	7.183	8.432
Cyclonic Wind	0	0	0	0	0
Storm Surge	0	0	0	0	0
Tsunami	0	0	0	7	23

— Earthquake — Storm Surge — Tsunami — Cyclonic wind
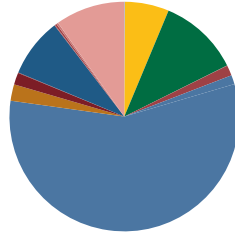
DISASTER LOSSES[17]

INTERNATIONALLY REPORTED LOSSES

Mortality
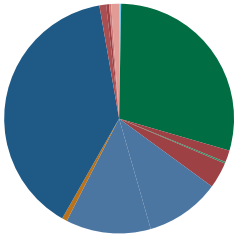
- Alluvion
- Avalanche
- Earthquake
- Electric Storm
- Eruption
- Fire
- Flash Flood
- Flood
- Forest Fire

Total damages ('000 US$)

- Avalanche
- Coastal erosion
- Cyclone
- Drought
- Earthquake
- Electric Storm
- Erosion
- Eruption
- Fire

10-year moving average

2005 - 2014

DataCards	28
Deaths	1.831
Economic Losses	2.046.059

1 World Bank Development indicators. http://data.worldbank.org/ More information can be found in "Indicators definitions and sources".

2 Global Exposure Database 2014. Di Bono (2014)

3 International Labour Organisation, ILO: Total Social Protection expenditure   (2010),   Public Health Care expenditure   (2010),   World Bank Development indicators, Public Education expenditure (2009)

4 World Bank Governance indicators. http://data.worldbank.org/

5 Indicadores de los Objetivos del Desarrollo del Milenio http://mdgs.un.org/unsd/mdg/SeriesDetail.aspx?srid=710

6 Global Footprint Network www.footprintnetwork.org

7 Environmental Performance Index, Yale Center for Environmental Law and Policy, Yale University and Center for International Earth Science Information Network (CIESIN), Columbia University http://epi.yale.edu

8 UNISDR Global Risk Assessment 2015. This section is based on technical countries risk profiles : World summarized catastrophe risk profiles: summary by country on the results from the Global Risk Model, CIMNE&INGENIAR (2015).

9 AAL: The Average Annual Loss is the expected loss per annum associated to the occurrence of future perils assuming a very long observation timeframe. It considers the damage caused on the exposed elements by small, moderate and extreme events and results a useful and robust metric for risk ranking and comparisons.

10 AAL Flood results are provisional. These results give an overview of the risk associated with river flooding. Factors other than the deth of the water also have a considerable influence on loss, which means that there is greater uncertainty compared with other hazards.

11 Risk and development implications index. This index is useful to provide a ranking of the countries based on the ratio of the expected Average Annual Loss (AAL) with relation to a set of relevant macroeconomic, financial, and social development variables. It attempts to reveal the weight of the AAL with respect to the social expenditure, the capital formation (domestic investment) and reserves (financial capacity), and the produced capital or capital stock (assets at risk) and savings (treasury) of each country. It reflects, in adverse conditions, growth and social constraints for the country as a result of potential future disasters.

12 The fiscal portfolio is composed by the government buildings, public education and health buildings, and low income residential private buildings.

13 PML: The Probable Maximum Loss (PML) is a risk metric that represents the maximum loss that could be expected, on average, within a given number of years. PML is widely used to establish limits related to the size of reserves that, for example, insurance companies or a government should have available to buffer losses: the higher the return period, the higher the expected loss. PML always have associated a mean return period.

14 Mean return period of 100, 250, 500, 1000 and 1500 years means the 5%, 2%, 1%, 0.5% and 0.3% probability respectively of exceeding those losses in 5 years.

15 Residential buildings are classified according to the population by income level, using the GINI curve for income distribution and the countries classification limits from the World Bank. See CIMNE et al. 2013a

16 Source: OCHA/ReliefWeb. ochavisual@un.org

17 D. Guha-Sapir, R. Below, Ph. Hoyois - EM-DAT: International Disaster Database – www.emdat.be – Université Catholique de Louvain – Brussels – Belgium.