

JRC SCIENTIFIC AND POLICY REPORTS

Index for Risk Management - INFORM



European Commission

Joint Research Centre Institute for the Protection and the Security of the Citizen

Contact information

Tom De Groeve Address: Joint Research Centre, Via Enrico Fermi 2749, TP 680, 21027 Ispra (VA), Italy E-mail: tom.de-groeve@jrc.ec.europa.eu Tel.: +39 0332786340 Fax: +39 0332785154

http://ipsc.jrc.ec.europa.eu/ http://www.jrc.ec.europa.eu/

This publication is a Reference Report by the Joint Research Centre of the European Commission.

Legal Notice

Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use which might be made of this publication.

Europe Direct is a service to help you find answers to your questions about the European Union Freephone number (*): 00 800 6 7 8 9 10 11

(*) Certain mobile telephone operators do not allow access to 00 800 numbers or these calls may be billed.

A great deal of additional information on the European Union is available on the Internet. It can be accessed through the Europa server http://europa.eu/.

JRC87617

EUR 26528 EN

ISBN 978-92-79-33669-0 (pdf)

ISSN 1831-9424 (online)

doi: 10.2788/78658

Luxembourg: Publications Office of the European Union, 2014

© European Union, 2014

Reproduction is authorised provided the source is acknowledged.

Printed in Italy

Version	Date	Description, Modification, Authors
V0.1	15/12/2013	Draft version for core INFORM partners
V1.0	20/01/2014	First version of INFORM methodology (2014)
V2.0	17/11/2014	Updated methodology and data (2015); Revised text to reflect progress of 2014

ABSTRACT

This report describes the concept and methodology of the composite Index For Risk Management (INFORM). The INFORM initiative began in 2012 as a convergence of interests of UN agencies, donors, NGOs and research institutions to establish a common evidence-base for global humanitarian risk analysis. An initial version (version 2014) was completed and a first report published in January 2014, and was used in a 10 month process of peer review, user consultation and methodological improvements. The current report is an updated version (version 2015), reflecting the outcome of that process.

INFORM identifies the countries at a high risk of humanitarian crisis that are more likely to require international assistance. The INFORM model is based on risk concepts published in scientific literature and envisages three dimensions of risk: Hazards & Exposure, Vulnerability and Lack of Coping Capacity. The INFORM model is split into different levels to provide a quick overview of the underlying factors leading to humanitarian risk.

The INFORM index supports a proactive crisis and disaster management framework. It will be helpful for an objective allocation of resources for disaster management as well as for coordinated actions focused on anticipating, mitigating, and preparing for humanitarian emergencies.

ACKNOWLEDGEMENTS

The authors would like to acknowledge the contributions of all partners in INFORM. The various dimensions and categories of INFORM are based on expert input from individuals during the workshops and during the editing process. In particular, we would like to thank Andy Thow, Luke Caley, Craig Williams, Guillaume Simonian, Yves Horent, Michel Le Pechoux, Anthony Craig, Kevin Wyjad, Mario Zappacosta, Nicole Benson, Pascal Peduzzi, Fred Spielberg and Ian Clark. At the JRC, we are particularly grateful for the contributions of Michaela Saisana with her expertise on composite indicators and Peter Hachemer and Daniel Mandrella for their editing work. This work has been financially supported by the European Commission DG Humanitarian Aid & Civil Protection, DG Joint Research Centre and the UK Department for International Development.

CONTENT

ABSTRACT		
ACKNOWLED	CKNOWLEDGEMENTS	
CONTENT		
ANNEX A:	FACT SHEETS OF CORE INDICATORS	

ANNEX A: FACT SHEETS OF CORE INDICATORS

N.	Name of core indicator	Position in the INFORM m	odel	
1	Physical exposure to earthquake MMI VI (absolute)			
2	Physical exposure to earthquake MMI VI (relative)			
3	Physical exposure to earthquake MMI VIII (absolute)			
4	Physical exposure to earthquake MMI VIII (relative)			
5	Physical exposure to tsunamis (absolute)			
6	Physical exposure to tsunamis (relative)	Isunami		
7	Physical exposure to flood (absolute)	The set		
8	Physical exposure to flood (relative)	F1000		อ
9	Physical exposure to surge from tropical cyclone (absolute)		Natural	sul
10	Physical exposure to surge from tropical cyclone (relative)		Naturai	Ő
11	Physical exposure to tropical cyclone of SS 1 (absolute)	Tropical Cyclope		Ě
12	Physical exposure to tropical cyclone of SS 1 (relative)	Tropical Cyclone		જ
13	Physical exposure to tropical cyclone of SS 3 (absolute)			rd
14	Physical exposure to tropical cyclone of SS 3 (relative)			eze
15	People affected by droughts (absolute)			Ï
16	People affected by droughts (relative)	Drought		
1/	Agriculture Drought probability			
18	Agriculture Drought probability			
19	GCRI Violent Internal Conflict probability	Projected Conflict Risk		
20	GCRI High Violent Internal Conflict probability		Human	
21	Current National Power Conflict Intensity	Current Conflicts		
22	Current Subnational Conflict Intensity	Intensity		
23	Human Development Index	Poverty & Development		
24	Multidimensional Poverty Index		Socio-	
25	Gender Inequality Index Inequality		Economic	
26	Bublic Aid per capita	Vulnerability		
27	Net ODA Received (% of GNI)	Aid Dependency		
20	Total Persons of Concern (absolute)			
30	Total Persons of Concern (relative)	Uprooted people		4
31	Children Underweight	Other Vulnerable Groups		bili
32	Child Mortality	Children under-5		la l
33	Prevalence of HIV-AIDS above 15 years			ne
34	Tuberculosis prevalence	Other Vulnerable Groups	Mulaevahla	L L
35	Malaria mortality rate	Health Conditions	Vuinerable	
26	Relative number of affected population by natural disasters	Other Vulnerable Groups	Groups	
50	in the last three years	Recent Shocks		
37	Prevalence of undernourishment			
38	Average dietary supply adequacy	Other Vulnerable Groups		
39	Domestic Food Price Level Index	Food Security		
40	Domestic Food Price Volatility Index			
41	Hyogo Framework for Action	DRR implementation		
42	Government effectiveness	Governance	Institutional	~
43	Corruption Perception Index			ity
44	Access to electricity (% of population)			Jac
45	Internet Users (per 100 people)	Communication		Ga Ca
46	Nobile cellular subscriptions (per 100 people)			8
47	Adult literacy rate Road density (km of road nor 100 cg, km of land area)			pin
48	Access to Improved water source (% of non with access)	ater source (% of pop with access) nitation facilities (% of pop with Physical Connectivity		S
49	Access to Improved sanitation facilities (% of non with			of
50	access)			×
51	Physicians density			Lag
52	Health expenditure per capita	Access to health system		
53	Measles immunization coverage			

Index for Risk Management: Concept and Methodology

Dimension:	Hazards & Exposure
Category:	Natural Hazard
Component:	Earthquake

	Indicator:	Physical exposure to earthquakes MMI VI (absolute)
	INFORM Code:	HA.NAT.EQ.MMI6-ABS
	Long Name:	Physical exposure to earthquakes of MMI VI - average annual population exposed (inhabitants)
INDICATOR	Description:	The indicator is based on the estimated number of people exposed to earthquakes of Modified Mercalli Intensity MMI 6 per year. It results from the combination of the hazard zones and the total population living in the spatial unit. It thus indicates the expected number of people exposed in the hazard zone in one year.
	Relevance:	Earthquake is one of the rapid on-set hazards considered in the natural hazard category. The MMI 6 is considered as low intensity level.
	Validity / Limitation	The indicator is dependent on quality of population estimates and the
	of indicator:	seismic hazard map.

res	Unit of Measure:	Average annual po	Average annual population exposed per country				
	Indicator Creation	For each country,	or each country, the physical exposure, which is an expected average				
	Method:	annual population (year of reference 2011) exposed, was derived by					
<u> </u>		calculating the zo	culating the zonal statistic (sum of each raster values within the				
R L		bounds of each zo	unds of each zonal polygon) within each national level.				
ΛTC		This product was compiled by EC/JRC for INFORM.					
NDICA	Additional notes:	The conversion from the ground shaking (pga) to intensity (MMI) is					
		based on the USG	S ShakeMaps scale.				
	Pre-processing:	Transformation:	Log	Min:	1		
		Normalisation:	MIN-MAX	Max:	5		

	Variable:	GSHAP Seismic hazard map (475-return period, 10% probability of
		exceedance in 50-year of exposure)
	Citation:	Global Seismic Hazard Assessment Program
СЕ	Date of publication:	1999
UR	Reference time:	Up to 1997
SO	Periodicity:	
	URL:	http://www.seismo.ethz.ch/GSHAP/
	Data Type:	ASCII
	Country coverage:	191/191 (100%)

	Variable:	ORNL LandScan population density
	Citation:	Oak Ridge National Laboratory
ш	Date of publication:	2012
RC	Reference time:	2011
sou	Periodicity:	Annual
	URL:	http://www.ornl.gov/sci/landscan/
	Data Type:	Raster (ESRI/GRID)
	Country coverage:	191/191 (100%)



Dimension:	Hazards & Exposure
Category:	Natural Hazard
Component:	Earthquake

	Indicator:	Physical exposure to earthquakes MMI VI (relative)
	INFORM Code:	HA.NAT.EQ.MMI6-REL
	Long Name:	Physical exposure to earthquakes of MMI VI - average annual
		population exposed (percentage of the total population)
ĸ	Description:	The indicator is based on the estimated number of people exposed to
TO		earthquakes of Modified Mercalli Intensity MMI 6 per year. It results
ICA		from the combination of the hazard zones and the total population
ND		living in the spatial unit. It thus indicates the percentage of expected
=		average annual population potentially at risk.
	Relevance:	Earthquake is one of the rapid on-set hazards considered in the natural
		hazard category. The MMI 6 is considered as low intensity level.
	Validity / Limitation	The indicator is dependent on quality of population estimates and the
	of indicator:	seismic hazard map.

	Unit of Measure:	Percentage of expe country	cted average annual popu	ulation exp	osed per
DICATOR NOTES	Indicator Creation Method:	 For each country average annual pop derived by calculatin within the bounds of The exposed pop population, in order to This product was con 	 For each country, the physical exposure, which is an expected average annual population (year of reference 2011) exposed, was derived by calculating the zonal statistic (sum of each raster values within the bounds of each zonal polygon) within each national level. The exposed population was summed up and divided by total population, in order to obtain one exposure index per country. This product was compiled by EC/JRC for INFORM. 		
IN	Additional notes:	The conversion from based on the USGS S	the ground shaking (PGA) hakeMaps scale.	to intensity	r (MMI) is
	Pre-processing:	Transformation:		Min:	0%
		Normalisation:	MIN-MAX	Max:	0.2%

	Variable:	GSHAP Seismic hazard map (475-return period, 10% probability of
		exceedance in 50-year of exposure)
	Citation:	Global Seismic Hazard Assessment Program
CE	Date of publication:	1999
UR	Reference time:	Up to 1997
SO	Periodicity:	
	URL:	http://www.seismo.ethz.ch/GSHAP/
	Data Type:	ASCII
	Country coverage:	191/191 (100%)

	Variable:	ORNL LandScan population density
	Citation:	Oak Ridge National Laboratory
ш	Date of publication:	2012
IRC	Reference time:	2011
no	Periodicity:	Annual
S	URL:	http://www.ornl.gov/sci/landscan/
	Data Type:	Raster (ESRI/GRID)
	Country coverage:	191/191 (100%)



Dimension:	Hazards & Exposure
Category:	Natural Hazard
Component:	Earthquake

	Indicator:	Physical exposure to earthquakes MMI VIII (absolute)
	INFORM Code:	HA.NAT.EQ.MMI8-ABS
	Long Name:	Physical exposure to earthquakes of MMI VIII - average annual population exposed (inhabitants)
INDICATOR	Description:	The indicator is based on the estimated number of people exposed to earthquakes of Modified Mercalli Intensity MMI 8 per year. It results from the combination of the hazard zones and the total population living in the spatial unit. It thus indicates the expected number of people exposed in the hazard zone in one year.
	Relevance:	Earthquake is one of the rapid on-set hazards considered in the natural hazard category. The MMI 8 is considered as high intensity level.
	Validity / Limitation of indicator:	

DICATOR NOTES	Unit of Measure:	Average annual popu	llation exposed per country		
	Indicator Creation Method:	For each country, the annual population (y calculating the zona bounds of each zona This product was con	For each country, the physical exposure, which is an expected average annual population (year of reference 2011) exposed, was derived by calculating the zonal statistic (sum of each raster values within the bounds of each zonal polygon) within each national level. This product was compiled by EC/IRC for INFORM.		
	Additional notes:	•	. , .		
Z	Pre-processing:	Transformation:	Log	Min:	1
		Normalisation:	MIN-MAX	Max:	4

	Variable:	GSHAP Seismic hazard map (475-return period, 10% probability of
		exceedance in 50-year of exposure)
	Citation:	Global Seismic Hazard Assessment Program
СЕ	Date of publication:	1999
UR	Reference time:	Up to 1997
SO	Periodicity:	
	URL:	http://www.seismo.ethz.ch/GSHAP/
	Data Type:	ASCII
	Country coverage:	191/191 (100%)

	Variable:	ORNL LandScan population density
	Citation:	Oak Ridge National Laboratory
ш	Date of publication:	2012
SOURCI	Reference time:	2011
	Periodicity:	Annual
	URL:	http://www.ornl.gov/sci/landscan/
	Data Type:	Raster (ESRI/GRID)
	Country coverage:	191/191 (100%)



Dimension:	Hazards & Exposure
Category:	Natural Hazard
Component:	Earthquake

	Indicator:	Physical exposure to earthquakes MMI VIII (relative)
	INFORM Code:	HA.NAT.EQ.MMI8-REL
	Long Name:	Physical exposure to earthquakes of MMI IX - average annual
		population exposed (percentage of the total population)
2	Description:	The indicator is based on the estimated number of people exposed to
TO		earthquakes of Modified Mercalli Intensity MMI 8 per year. It results
NDICA		from the combination of the hazard zones and the total population
		living in the spatial unit. It thus indicates the percentage of expected
		average annual population potentially at risk.
	Relevance:	Earthquake is one of the rapid on-set hazards considered in the natural
		hazard category. The MMI 8 is considered as high intensity level.
	Validity / Limitation	
	of indicator:	

	Unit of Measure:	Percentage of expe	cted average annual populat	ion expo	sed per
		country			
	Indicator Creation	1. For each country	, the physical exposure, whic	h is an e	expected
LES	Method:	average annual pop	ulation (year of reference 20	11) expos	ed, was
r not		derived by calculatir within the bounds of	ng the zonal statistic (sum of e each zonal polygon) within eac	each raste h national	r values level.
TO		2. The exposed pop	pulation was summed up and	divided	by total
ICA		population, in order to obtain one exposure index per country.			
ND		This product was con	npiled by EC/JRC for INFORM.		
	Additional notes:				
	Pre-processing:	Transformation:		Min:	0%
		Normalisation:	MIN-MAX	Max:	0.1%

	Variable:	GSHAP Seismic hazard map (475-return period, 10% probability of
		exceedance in 50-year of exposure)
	Citation:	Global Seismic Hazard Assessment Program
СЕ	Date of publication:	1999
UR	Reference time:	Up to 1997
SO	Periodicity:	
	URL:	http://www.seismo.ethz.ch/GSHAP/
	Data Type:	ASCII
	Country coverage:	191/191 (100%)

	Variable:	ORNL LandScan population density
	Citation:	Oak Ridge National Laboratory
ш	Date of publication:	2012
RC	Reference time:	2011
no	Periodicity:	Annual
S	URL:	http://www.ornl.gov/sci/landscan/
	Data Type:	Raster (ESRI/GRID)
	Country coverage:	191/191 (100%)



Dimension:	Hazards & Exposure
Category:	Natural Hazard
Component:	Tsunami

	Indicator:	Physical exposure to Tsunamis (absolute)
	INFORM Code:	HA.NAT.TS-ABS
	Long Name:	Physical exposure to tsunamis - average annual population exposed
		(inhabitants)
	Description:	The indicator is based on the estimated number of people exposed to
TOR		tsunamis per year. It results from the combination of the hazard zones
		and the total population living in the spatial unit. It thus indicates the
ICA		expected number of people exposed in the hazard zone in one year.
ND	Relevance:	Tsunami is one of the rapid on-set hazards considered in the natural
		hazard category.
	Validity / Limitation	The indicator is based on the estimated number of people exposed to
	of indicator:	tsunamis per year per country. It results from the combination of the
		(annual) frequency of tsunamis and the total population living in the
		country unit exposed for each event. It thus indicates how many people
		per year are potentially at risk.

	Unit of Measure:	Average annual popu	Average annual population exposed per country		
CATOR NOTES	Indicator Creation Method:	For each country, the physical exposure, which is an expected average annual population (year of reference 2011) exposed, was derived by calculating the zonal statistic (sum of each raster values within the bounds of each zonal polygon) within each national level. This product was compiled by EC/JRC for INFORM.			
DIO	Additional notes:				
Z	Pre-processing:	Transformation:	Log	Min:	1
		Normalisation:	MIN-MAX	Max:	5

	Variable:	Physical exposure to tsunamis
	Citation:	Preview database of UNEP Global Risk Data Platform (GRID)
ш	Date of publication:	05/05/2011
IRC	Reference time:	2011
OU	Periodicity:	
S	URL:	http://preview.grid.unep.ch
	Data Type:	Raster (tif)
	Country coverage:	191/191 (100%)

	Variable:	ORNL LandScan population density
	Citation:	Oak Ridge National Laboratory
ш	Date of publication:	2012
RC	Reference time:	2011
OO	Periodicity:	Annual
S	URL:	http://www.ornl.gov/sci/landscan/
	Data Type:	Raster (ESRI/GRID)
	Country coverage:	191/191 (100%)



Dimension:	Hazards & Exposure
Category:	Natural Hazard
Component:	Tsunami

	Indicator:	Physical exposure to Tsunamis (relative)
	INFORM Code:	HA.NAT.TS-REL
	Long Name:	Physical exposure to tsunamis - average annual population exposed
		(percentage of the total population)
	Description:	The indicator is based on the estimated number of people exposed to
TOR		tsunamis per year. It results from the combination of the hazard zones
		and the total population living in the spatial unit. It thus indicates the
ICA		percentage of expected average annual population potentially at risk.
ND	Relevance:	Tsunami is one of the rapid on-set hazards considered in the natural
		hazard category.
	Validity / Limitation	The indicator is based on the estimated number of people exposed to
	of indicator:	tsunamis per year per country. It results from the combination of the
		(annual) frequency of tsunamis and the total population living in the
		Country unit exposed for each event. It thus indicates how many people
		per year are potentially at risk.

VDICATOR NOTES	Unit of Measure:	Percentage of expe country	ercentage of expected average annual population exposed per country			
	Indicator Creation Method:	 For each country average annual pop derived by calculatin within the bounds of The exposed pop population, in order to This product was con 	 For each country, the physical exposure, which is an expected average annual population (year of reference 2011) exposed, was derived by calculating the zonal statistic (sum of each raster values within the bounds of each zonal polygon) within each national level. The exposed population was summed up and divided by total population, in order to obtain one exposure index per country. This product was compiled by EC/JRC for INFORM. 			
	Additional notes:					
	Pre-processing:	Transformation:		Min:	0%	
		Normalisation:	MIN-MAX	Max:	0.5%	

	Variable:	Physical exposure to tsunamis
	Citation:	Preview database of UNEP Global Risk Data Platform (GRID)
ш	Date of publication:	05/05/2011
RC	Reference time:	2011
OO	Periodicity:	
S	URL:	http://preview.grid.unep.ch
	Data Type:	Raster (tif)
	Country coverage:	191/191 (100%)

	Variable:	ORNL LandScan population density
	Citation:	Oak Ridge National Laboratory
ш	Date of publication:	2012
RC	Reference time:	2011
no	Periodicity:	Annual
S	URL:	http://www.ornl.gov/sci/landscan/
	Data Type:	Raster (ESRI/GRID)
	Country coverage:	191/191 (100%)



Dimension:	Hazards & Exposure
Category:	Natural Hazard
Component:	Flood

	Indicator:	Physical exposure to Floods (absolute)
	INFORM Code:	HA.NAT.FL-ABS
	Long Name:	Physical exposure to floods - average annual population exposed
		(inhabitants)
	Description:	The indicator is based on the estimated number of people exposed to
TOR		floods per year. It results from the combination of the hazard zones and
		the total population living in the spatial unit. It thus indicates the
ICA		expected number of people exposed in the hazard zone in one year.
ND	Relevance:	Flood is one of the rapid on-set hazards considered in the natural
		hazard category.
	Validity / Limitation	The indicator is based on the estimated number of people exposed to
	of indicator:	floods per year per country. It results from the combination of the
		(annual) frequency of floods and the total population living in the
		country unit exposed for each event. It thus indicates how many people
		per year are potentially at risk.

	Unit of Measure:	Average annual popu	Average annual population exposed per country		
ATOR NOTES	Indicator Creation Method:	For each country, the physical exposure, which is an expected average annual population (year of reference 2011) exposed, was derived by calculating the zonal statistic (sum of each raster values within the bounds of each zonal polygon) within each national level. This product was compiled by EC/JRC for INFORM.			
DIG	Additional notes:				
Z	Pre-processing:	Transformation:	Log	Min:	1
		Normalisation:	MIN-MAX	Max:	5

	Variable:	Physical exposure to floods
	Citation:	Preview database of UNEP Global Risk Data Platform (GRID)
ш	Date of publication:	05/05/2011
IRC	Reference time:	1999-2007
SOU	Periodicity:	
	URL:	http://preview.grid.unep.ch
	Data Type:	Raster (tif)
	Country coverage:	191/191 (100%)

	Variable:	ORNL LandScan population density
	Citation:	Oak Ridge National Laboratory
ш	Date of publication:	2012
SOURCI	Reference time:	2011
	Periodicity:	Annual
	URL:	http://www.ornl.gov/sci/landscan/
	Data Type:	Raster (ESRI/GRID)
	Country coverage:	191/191 (100%)



Dimension:	Hazards & Exposure
Category:	Natural Hazard
Component:	Flood

	Indicator:	Physical exposure to Floods (relative)
	INFORM Code:	HA.NAT.FL-REL
	Long Name:	Physical exposure to floods - average annual population exposed
		(percentage of the total population)
	Description:	The indicator is based on the estimated number of people exposed to
ĸ		floods per year. It results from the combination of the hazard zones and
10		the total population living in the spatial unit. It thus indicates the
ICA		percentage of expected average annual population potentially at risk.
ND	Relevance:	Flood is one of the rapid on-set hazards considered in the natural
		hazard category.
	Validity / Limitation	The indicator is based on the estimated number of people exposed to
	of indicator:	floods per year per country. It results from the combination of the
		(annual) frequency of floods and the total population living in the
		country unit exposed for each event. It thus indicates how many people
		per year are potentially at risk.

NDICATOR NOTES	Unit of Measure:	Percentage of expe country	cted average annual populat	ion expose	ed per
	Indicator Creation Method:	 For each country average annual pop derived by calculatin within the bounds of The exposed pop population, in order to This product was con 	1. For each country, the physical exposure, which is an expected average annual population (year of reference 2011) exposed, was derived by calculating the zonal statistic (sum of each raster values within the bounds of each zonal polygon) within each national level. 2. The exposed population was summed up and divided by total population, in order to obtain one exposure index per country. This product was compiled by EC/JRC for INFORM.		
	Additional notes:				
	Pre-processing:	Transformation:		Min:	0%
		Normalisation:	MIN-MAX	Max:	0.7%

	Variable:	Physical exposure to floods
	Citation:	Preview database of UNEP Global Risk Data Platform (GRID)
ш	Date of publication:	05/05/2011
SOURCI	Reference time:	1999-2007
	Periodicity:	
	URL:	http://preview.grid.unep.ch
	Data Type:	Raster (tif)
	Country coverage:	191/191 (100%)

	Variable:	ORNL LandScan population density
	Citation:	Oak Ridge National Laboratory
ш	Date of publication:	2012
SOURCI	Reference time:	2011
	Periodicity:	Annual
	URL:	http://www.ornl.gov/sci/landscan/
	Data Type:	Raster (ESRI/GRID)
	Country coverage:	191/191 (100%)



Dimension:	Hazards & Exposure
Category:	Natural Hazard
Component:	Tropical Cyclone

	Indicator:	Physical exposure to Storm Surges (absolute)
	INFORM Code:	HA.NAT.TC.CS-ABS
	Long Name:	Physical exposure to storm surges of Saffir-Simpson category 1 -
		average annual population exposed (inhabitants)
JR	Description:	The indicator is based on the estimated number of people exposed to
NDICATO		storm surges of Saffir-Simpson category 1 per year. It results from the
		combination of the hazard zones and the total population living in the
		spatial unit. It thus indicates the expected number of people exposed
		in the hazard zone in one year.
	Relevance:	Tropical cyclone is one of the rapid on-set hazards considered in the
		natural hazard category.
	Validity / Limitation	
	of indicator:	

DICATOR NOTES	Unit of Measure:	Average annual popu	llation exposed per country		
	Indicator Creation Method:	For each country, the physical exposure, which is an expected average annual population (year of reference 2011) exposed, was derived by calculating the zonal statistic (sum of each raster values within the bounds of each zonal polygon) within each national level. This product was compiled by EC/IBC for INEORM			
	Additional notes:				
Z	Pre-processing:	Transformation:	Log	Min:	1
		Normalisation:	MIN-MAX	Max:	4

	Variable:	Physical exposure to surge from tropical cyclone of Saffir-Simpson
		category 1
	Citation:	Preview database of UNEP Global Risk Data Platform (GRID)
CE	Date of publication:	03/04/2012
SOUR	Reference time:	1975-2007
	Periodicity:	
	URL:	http://preview.grid.unep.ch
	Data Type:	Raster (tif)
	Country coverage:	191/191 (100%)

	Variable:	ORNL LandScan population density
	Citation:	Oak Ridge National Laboratory
ш	Date of publication:	2012
SOURCI	Reference time:	2011
	Periodicity:	Annual
	URL:	http://www.ornl.gov/sci/landscan/
	Data Type:	Raster (ESRI/GRID)
	Country coverage:	191/191 (100%)



Dimension:	Hazards & Exposure
Category:	Natural Hazard
Component:	Tropical Cyclone

INDICATOR	Indicator:	Physical exposure to Storm Surge (relative)
	INFORM Code:	HA.NAT.TC.CS-REL
	Long Name:	Physical exposure to storm surges of Saffir-Simpson category 1 -
		population)
	Description:	The indicator is based on the estimated number of people exposed to storm surges of Saffir-Simpson category 1 per year. It results from the combination of the hazard zones and the total population living in the spatial unit. It thus indicates the percentage of expected average annual population potentially at risk.
	Relevance:	Tropical cyclone is one of the rapid on-set hazards considered in the natural hazard category.
	Validity / Limitation of indicator:	

	Unit of Measure:	Percentage of expe	cted average annual populat	ion expo	sed per
INDICATOR NOTES	Indicator Creation Method:	1. For each country average annual pop derived by calculatin within the bounds of 2. The exposed pop population, in order to This product was con	r, the physical exposure, whic ulation (year of reference 202 ng the zonal statistic (sum of e each zonal polygon) within each pulation was summed up and to obtain one exposure index pen ppiled by EC/JRC for INFORM.	h is an e 11) expos ach raste national divided r country	expected ed, was r values level. by total
	Additional notes:				
	Pre-processing:	Transformation:		Min:	0%
		Normalisation:	MIN-MAX	Max:	0.03%

	Variable:	Physical exposure to surge from tropical cyclone of Saffir-Simpson
		category 1
	Citation:	Preview database of UNEP Global Risk Data Platform (GRID)
CE	Date of publication:	03/04/2012
UR	Reference time:	1975-2007
SO	Periodicity:	
	URL:	http://preview.grid.unep.ch
	Data Type:	Raster (tif)
	Country coverage:	191/191 (100%)

	Variable:	ORNL LandScan population density
	Citation:	Oak Ridge National Laboratory
ш	Date of publication:	2012
IRC	Reference time:	2011
no	Periodicity:	Annual
S	URL:	http://www.ornl.gov/sci/landscan/
	Data Type:	Raster (ESRI/GRID)
	Country coverage:	191/191 (100%)



Dimension:	Hazards & Exposure
Category:	Natural Hazard
Component:	Tropical Cyclone

INDICATOR	Indicator:	Physical exposure to tropical cyclones winds of Saffir-Simpson category 1 (absolute)
	INFORM Code:	HA.NAT.TC.SS1-ABS
	Long Name:	Physical exposure to tropical cyclones winds of SS1 - average annual population exposed (inhabitants)
	Description:	The indicator is based on the estimated number of people exposed to tropical cyclones winds of Saffir-Simpson (SS) category 1 per year. It results from the combination of the hazard zones and the total population living in the spatial unit. It thus indicates the expected number of people exposed in the hazard zone in one year.
	Relevance:	Tropical cyclone is one of the rapid on-set hazards considered in the natural hazard category. The SS 1 is considered as low intensity level.
	Validity / Limitation of indicator:	

	Unit of Measure:	Average annual popu	Average annual population exposed per country		
ATOR NOTES	Indicator Creation Method:	For each country, the annual population (y calculating the zona bounds of each zonal This product was con	For each country, the physical exposure, which is an expected average annual population (year of reference 2011) exposed, was derived by calculating the zonal statistic (sum of each raster values within the bounds of each zonal polygon) within each national level. This product was compiled by EC/IBC for INEORM		
DIC	Additional notes:	•	· · · ·		
N	Pre-processing:	Transformation:	Log	Min:	1
		Normalisation:	MIN-MAX	Max:	6

	Variable:	Physical exposure to tropical cyclone of Saffir-Simpson category 1
	Citation:	Preview database of UNEP Global Risk Data Platform (GRID)
ш	Date of publication:	05/05/2011
RC	Reference time:	1970-2009
OO	Periodicity:	
S	URL:	http://preview.grid.unep.ch
	Data Type:	Raster (tif)
	Country coverage:	191/191 (100%)

	Variable:	ORNL LandScan population density
	Citation:	Oak Ridge National Laboratory
ш	Date of publication:	2012
RC	Reference time:	2011
OU	Periodicity:	Annual
S	URL:	http://www.ornl.gov/sci/landscan/
	Data Type:	Raster (ESRI/GRID)
	Country coverage:	191/191 (100%)



Dimension:	Hazards & Exposure
Category:	Natural Hazard
Component:	Tropical Cyclone

	Indicator:	Physical exposure to tropical cyclones winds of Saffir-Simpson category 1 (relative)
	INFORM Code:	HA.NAT.TC.SS1-REL
	Long Name:	Physical exposure to tropical cyclones winds of SS1 - average annual
		population exposed (percentage of the total population)
INDICATOR	Description:	The indicator is based on the estimated number of people exposed to tropical cyclones winds of Saffir-Simpson (SS) category 1 per year. It results from the combination of the hazard zones and the total population living in the spatial unit. It thus indicates the percentage of expected average annual population potentially at risk.
	Relevance:	Tropical cyclone is one of the rapid on-set hazards considered in the natural hazard category. The SS 1 is considered as low intensity level.
	Validity / Limitation of indicator:	

NDICATOR NOTES	Unit of Measure:	Percentage of expe	Percentage of expected average annual population exposed per country			
	Indicator Creation Method:	 For each country average annual pop derived by calculatir within the bounds of The exposed pop population, in order to This product was con 	 For each country, the physical exposure, which is an expected average annual population (year of reference 2011) exposed, was derived by calculating the zonal statistic (sum of each raster values within the bounds of each zonal polygon) within each national level. The exposed population was summed up and divided by total population, in order to obtain one exposure index per country. This product was compiled by EC/JRC for INFORM. 			
	Additional notes:					
	Pre-processing:	Transformation:		Min:	0%	
		Normalisation:	MIN-MAX	Max:	5%	

	Variable:	Physical exposure to tropical cyclone of Saffir-Simpson category 1
	Citation:	Preview database of UNEP Global Risk Data Platform (GRID)
ш	Date of publication:	05/05/2011
IRC	Reference time:	1970-2009
OU	Periodicity:	
S	URL:	http://preview.grid.unep.ch
	Data Type:	Raster (tif)
	Country coverage:	191/191 (100%)

	Variable:	ORNL LandScan population density
	Citation:	Oak Ridge National Laboratory
ш	Date of publication:	2012
IRC	Reference time:	2011
nos	Periodicity:	Annual
	URL:	http://www.ornl.gov/sci/landscan/
	Data Type:	Raster (ESRI/GRID)
	Country coverage:	191/191 (100%)



Dimension:	Hazards & Exposure
Category:	Natural Hazard
Component:	Tropical Cyclone

	Indicator:	Physical exposure to tropical cyclones winds of Saffir-Simpson category 3 (absolute)
	INFORM Code:	HA.NAT.TC.SS3-ABS
	Long Name:	Physical exposure to tropical cyclones winds of SS3 - average annual population exposed (inhabitants)
INDICATOR	Description:	The indicator is based on the estimated number of people exposed to tropical cyclones winds of Saffir-Simpson (SS) category 3 per year. It results from the combination of the hazard zones and the total population living in the spatial unit. It thus indicates the expected number of people exposed in the hazard zone in one year.
	Relevance:	Tropical cyclone is one of the rapid on-set hazards considered in the natural hazard category. The SS 3 is considered as high intensity level.
	Validity / Limitation of indicator:	

	Unit of Measure:	Average annual popu	Average annual population exposed per country		
DICATOR NOTES	Indicator Creation Method:	For each country, the physical exposure, which is an expected average annual population (year of reference 2011) exposed, was derived by calculating the zonal statistic (sum of each raster values within the bounds of each zonal polygon) within each national level. This product was compiled by EC/JRC for INFORM.			
	Additional notes:				
Z	Pre-processing:	Transformation:	Log	Min:	1
		Normalisation:	MIN-MAX	Max:	4

	Variable:	Physical exposure to tropical cyclone of Saffir-Simpson category 3
	Citation:	Preview database of UNEP Global Risk Data Platform (GRID)
ш	Date of publication:	05/05/2011
RC	Reference time:	1970-2009
ΟU	Periodicity:	
S	URL:	http://preview.grid.unep.ch
	Data Type:	Raster (tif)
	Country coverage:	191/191 (100%)

SOURCE	Variable:	ORNL LandScan population density
	Citation:	Oak Ridge National Laboratory
	Date of publication:	2012
	Reference time:	2011
	Periodicity:	Annual
	URL:	http://www.ornl.gov/sci/landscan/
	Data Type:	Raster (ESRI/GRID)
	Country coverage:	191/191 (100%)



Dimension:	Hazards & Exposure
Category:	Natural Hazard
Component:	Tropical Cyclone

	Indicator:	Physical exposure to tropical cyclones winds of Saffir-Simpson category 3 (relative)
	INFORM Code:	HA.NAT.TC.SS3-REL
	Long Name:	Physical exposure to tropical cyclones winds of SS3 - average annual
		population exposed (percentage of the total population)
INDICATOR	Description:	The indicator is based on the estimated number of people exposed to tropical cyclones winds of Saffir-Simpson (SS) category 3 per year. It results from the combination of the hazard zones and the total population living in the spatial unit. It thus indicates the percentage of expected average annual population potentially at risk.
	Relevance:	Tropical cyclone is one of the rapid on-set hazards considered in the natural hazard category. The SS 3 is considered as low intensity level.
	Validity / Limitation of indicator:	

	Unit of Measure:	Percentage of expe	cted average annual populat	ion expose	ed per	
		country				
	Indicator Creation	1. For each country	1. For each country, the physical exposure, which is an expected			
TES	Method:	average annual pop	average annual population (year of reference 2011) exposed, was			
.ON		derived by calculatir	erived by calculating the zonal statistic (sum of each raster values			
R I		within the bounds of	vithin the bounds of each zonal polygon) within each national level.			
ΔTC		2. The exposed population was summed up and divided by				
		population, in order to obtain one exposure index per country.				
ND		This product was con	npiled by EC/JRC for INFORM.	RC for INFORM.		
	Additional notes:					
	Pre-processing:	Transformation:		Min:	0%	
		Normalisation:	MIN-MAX	Max:	0.1%	

	Variable:	Physical exposure to tropical cyclone of Saffir-Simpson category 3
	Citation:	Preview database of UNEP Global Risk Data Platform (GRID)
ш	Date of publication:	05/05/2011
IRC	Reference time:	1970-2009
OU	Periodicity:	
S	URL:	http://preview.grid.unep.ch
	Data Type:	Raster (tif)
	Country coverage:	191/191 (100%)

SOURCE	Variable:	ORNL LandScan population density
	Citation:	Oak Ridge National Laboratory
	Date of publication:	2012
	Reference time:	2011
	Periodicity:	Annual
	URL:	http://www.ornl.gov/sci/landscan/
	Data Type:	Raster (ESRI/GRID)
	Country coverage:	191/191 (100%)


Dimension:	Hazards & Exposure
Category:	Natural Hazard
Component:	Drought

	Indicator:	People affected by Droughts (absolute)
ICATOR	INFORM Code:	HA.NAT.DR-ABS
	Long Name:	People affected by droughts 1989-2014 - average annual population
		affected (inhabitants)
	Description:	The indicator shows the average annual affected population by
		droughts per country on the period from 1989 to 2014.
ND	Relevance:	Drought is the only one slow on-set hazards considered in the natural
		hazard category.
	Validity / Limitation	The indicator is based on the total number of people affected by
	of indicator:	droughts per year per country. It thus indicates how many people per
		year are at risk.

	Unit of Measure:	Average annual popu	Average annual population affected per country			
TOR NOTES	Indicator Creation Method:	The total affected per country in the period from 1989 to 2014 has been divided by the number of reference periods (25) in order to obtain the annual average affected population per country.			een the	
IC I	Additional notes:					
ND	Pre-processing:	Transformation:	Log	Min:	1	
		Normalisation:	MIN-MAX	Max:	5	

	Variable:	Total number of affected by droughts
	Citation:	EM-DAT, CRED
ш	Date of publication:	01/03/2015
OURCI	Reference time:	1989-2014
	Periodicity:	Every 3 months
S	URL:	http://www.emdat.be/
	Data Type:	Tabular (csv)
	Country coverage:	191/191 (100%)



Dimension:	Hazards & Exposure
Category:	Natural Hazard
Component:	Drought

	Indicator:	People affected by Droughts (relative)
ICATOR	INFORM Code:	HA.NAT.DR-REL
	Long Name:	People affected by droughts 1989-2014 - average annual population
		affected (percentage of the total population)
	Description:	The indicator shows the percentage of the average annual affected
		population per country by droughts on the period from 1989 to 2014.
ND	Relevance:	Drought is the only one slow on-set hazards considered in the natural
		hazard category.
	Validity / Limitation	The indicator is based on the total number of people affected by
	of indicator:	droughts per year per country. It thus indicates how many people per
		year are at risk.

	Unit of Measure:	Percentage of the av	Percentage of the average annual population affected per country			
S	Indicator Creation	1. The total affected per country in the period from 1989 to 2014 has				
DTE	Method:	been divided by the number of reference periods (25) in order to obtain				
the annual average affected population per country.2. The average affected population was divided by t						
				otal popula	tion of	
CAT		each country.	each country.			
DIC	Additional notes:					
Z	Pre-processing:	Transformation:		Min:	0%	
		Normalisation:	MIN-MAX	Max:	3%	

	Variable:	Total number of affected by droughts
	Citation:	EM-DAT, CRED
ш	Date of publication:	01/03/2015
RC	Reference time:	1989-2014
sou	Periodicity:	Every 3 months
	URL:	http://www.emdat.be/
	Data Type:	Tabular (csv)
	Country coverage:	191/191 (100%)

	Variable:	Total population
	Citation:	World Bank
ш	Date of publication:	2014
RC	Reference time:	2013
OU	Periodicity:	Annual
S	URL:	http://data.worldbank.org/indicator/SP.POP.TOTL
	Data Type:	Excel/XML
	Country coverage:	191/191 (100%)



Dimension:	Hazards & Exposure
Category:	Natural Hazard
Component:	Drought/Frequency

	Indicator:	Frequency of droughts events
	INFORM Code:	HA.NAT.DR-FRQ
R	Long Name:	Frequency of droughts events
ICATO	Description:	The indicator shows the frequency of droughts events on the period
		from 1989 to 2014.
ND	Relevance:	Drought is the only one slow on-set hazards considered in the natural
		hazard category.
	Validity / Limitation	The indicator is based on the number of droughts per year per
	of indicator:	country. It thus indicates the return period of the hazard.

INDICATOR	Unit of Measure:	Percentage of event	Percentage of event expected to occur per country			
	Indicator Creation	The number of events per country occurred in the selected period has				
	Method:	been divided by the number of years of the period.				
	Additional notes:					
	Pre-processing:	Transformation:		Min:	0	
		Normalisation:	MIN-MAX	Max:	0.30	

	Variable:	Number of droughts
	Citation:	EM-DAT, CRED
ш	Date of publication:	01/03/2015
IRC	Reference time:	1989-2014
sou	Periodicity:	Every 3 months
	URL:	http://www.emdat.be/
	Data Type:	Tabular (csv)
	Country coverage:	191/191 (100%)



Dimension:	Hazards & Exposure
Category:	Natural Hazard
Component:	Drought

INDICATOR	Indicator:	Agriculture drought probability
	INFORM Code:	HA.NAT.DR.ASI
	Long Name:	Annual empirical probability to have more than 30% of agriculture area affected by drought
	Description:	The indicator is based on the FAO Agriculture Stress Index (ASI) that highlights anomalous vegetation growth and potential drought in arable land. It is defined as the annual probability to have more than 30% of agriculture area affected by drought.
	Relevance:	Drought is the only one slow on-set hazards considered in the natural hazard category.
	Validity / Limitation of indicator:	

	Unit of Measure:	Percentage of event	expected to occur per country p	er year	
	Indicator Creation	The number of event	s, defined as the annual probab	ility to ha	ve more
	Method:	than 30% of agricult	ure area affected by drought, p	per counti	ry in the
		selected period has b	een divided by the number of y	ears of th	e period
		(30).			
OTES	Additional notes:	The Agricultural Stress Index (ASI) is an index based on the integration			
		of the Vegetation Health Index (VHI) in two dimensions that are critical			
		in the assessment o	in the assessment of a drought event in agriculture: temporal and		
Z		spatial. The first step of the ASI calculation is a temporal averaging of			
2		the VHI, assessing th	the VHI, assessing the intensity and duration of dry periods occurring		
CA		during the crop cycle at pixel level. The second step determines			
ğ		the spatial extent of drought events by calculating the percentage of			
2		pixels in arable areas with a VHI value below 35 percent (this value was			alue was
		identified as a critical threshold in assessing the extent of drought in			ought in
		previous research by Kogan, 1995). Finally, each administrative are classified according to its percentage of affected area to facilitate			e area is
					tate the
		quick interpretation of results by analysts.			
	Pre-processing:	Transformation:		Min:	0
		Normalisation:	MIN-MAX	Max:	0.30

	Variable:	Annual Agriculture Stress Index ASI
	Citation:	FAO
ш	Date of publication:	30/09/2014
SOURCI	Reference time:	1984-2013
	Periodicity:	Annual
	URL:	http://www.fao.org/giews/earthobservation/asis/index_1.jsp
	Data Type:	Tabular
	Country coverage:	191/191 (100%)



Dimension:	Hazards & Exposure
Category:	Human Hazard
Component:	Conflict Risk/Internal Conflict Probability

	Indicator:	GCRI Violent Internal Conflict probability
	INFORM Code:	HA.HUM.GCRI-VC
	Long Name:	GCRI Violent Internal Conflict probability
2	Description:	The Global Conflict Risk Index (GCRI) is an indicator that assess the
TO		states' risk for violent internal conflicts.
ICA	Relevance:	The Human Hazard component of INFORM refers to risk of conflicts in
ND		the country. The current intensity of conflict in a country is taken into
		account or – in case that there is currently no conflict – an estimate of
		future conflict probability.
	Validity / Limitation	
	of indicator:	

ATOR NOTES	Unit of Measure:	Probability for intern	al violent conflicts		
	Indicator Creation	The probability of	violent conflicts is determined	l using a	logistic
	Method:	regression model.	gression model.		
	Additional notes:	The GCRI is a quantitative regression model developed by the JRC that			
		uses structural indicators to determine a given country's risk for			
		conflict.			
Z	Pre-processing:	Transformation:		Min:	0
		Normalisation:	MIN-MAX	Max:	0.95

	Variable:	Global Conflict Risk Index (GCRI)
	Citation:	Joint Research Centre of EC
ш	Date of publication:	30/8/2014
RC	Reference time:	2014
οn	Periodicity:	Bi-Annual
S	URL:	http://conflictrisk.gdacs.org/
	Data Type:	Tabular (Excel)
	Country coverage:	191/191 (100%)



Dimension:	Hazards & Exposure
Category:	Human Hazard
Component:	Conflict Risk/Internal Conflict Probability

	Indicator:	GCRI Highly Violent Internal Conflict probability
	INFORM Code:	HA.HUM.GCRI-HVC
	Long Name:	GCRI Highly Violent Internal Conflict probability
R	Description:	The Global Conflict Risk Index (GCRI) is an indicator that assess the
ТО		states' risk for violent internal conflicts.
ICA	Relevance:	The Human Hazard component of INFORM refers to risk of conflicts in
ND		the country. The current intensity of conflict in a country is taken into
		account or – in case that there is currently no conflict – an estimate of
		future conflict probability.
	Validity / Limitation	
	of indicator:	

IR NOTES	Unit of Measure:	Probability for intern	al highly violent conflicts		
	Indicator Creation	The probability of hig	The probability of highly violent conflicts is determined using a logistic		
	Method:	regression model.	egression model.		
	Additional notes:	The GCRI is a quantitative regression model developed by the JRC that			
ATC		uses structural indic	uses structural indicators to determine a given country's risk for		
		conflict.			
Z	Pre-processing:	Transformation:	LOG	Min:	0.01
		Normalisation:	MIN-MAX	Max:	0.95

	Variable:	Global Conflict Risk Index (GCRI)
	Citation:	Joint Research Centre of EC
ш	Date of publication:	30/8/2014
RC	Reference time:	2014
ΟU	Periodicity:	Bi-Annual
S	URL:	http://conflictrisk.gdacs.org/
	Data Type:	Tabular (Excel)
	Country coverage:	191/191 (100%)



Dimension:	Hazards & Exposure
Category:	Human Hazard
Component:	Conflict Risk/Current Conflict Intensity

	Indicator:	Conflict Barometer – National Power Conflicts
	INFORM Code:	HA.HUM.CON.NP
	Long Name:	Conflict Barometer – National Power Conflicts
	Description:	The HIIK's annual publication Conflict Barometer describes the recent
OR		trends in global conflict developments, escalations, de-escalations,
DICAT		and settlements.
	Relevance:	The Human Hazard component of INFORM refers to risk of conflicts in
Z		the country. The current intensity of conflict in a country is taken into
		account or – in case that there is currently no conflict – an estimate of
		future conflict probability.
	Validity / Limitation	
	of indicator:	

res	Unit of Measure:	Level of intensity in a	scale from 1 to 5		
	Indicator Creation	Conflicts with HIIK in	tensity 5 receive an INFORM int	ensity of	10 if the
ō	Method:	object is National Pov	object is National Power, and 9 if the object is Subnational. Analogous,		
R Z		conflicts with HIIK intensity 4 (limited wars) are attributed values of 8			
TO		(National Power) and	National Power) and 7 (Subnational).		
C	Additional notes:				
ND	Pre-processing:	Transformation:		Min:	8
		Normalisation:	Threshold	Max:	10

	Variable:	Conflict Barometer
	Citation:	Heidelberg Institute for International Conflict Research (HIIK)
ш	Date of publication:	01/02/2014
SOURCI	Reference time:	2013
	Periodicity:	Annual (February)
	URL:	http://www.hiik.de/en/konfliktbarometer/index.html
	Data Type:	Tabular (pdf)
	Country coverage:	191/191 (100%)



Dimension:	Hazards & Exposure
Category:	Human Hazard
Component:	Conflict Risk/Current Conflict Intensity

	Indicator:	Conflict Barometer – Subnational Conflicts
	INFORM Code:	HA.HUM.CON.SN
	Long Name:	Conflict Barometer – Subnational Conflicts
	Description:	The HIIK's annual publication Conflict Barometer describes the recent
DICATOR		trends in global conflict developments, escalations, de-escalations,
		and settlements.
	Relevance:	The Human Hazard component of INFORM refers to risk of conflicts in
Z		the country. The current intensity of conflict in a country is taken into
		account or – in case that there is currently no conflict – an estimate of
		future conflict probability.
	Validity / Limitation	
	of indicator:	

TES	Unit of Measure:	Level of intensity in a	scale from 1 to 5			
	Indicator Creation	Conflicts with HIIK in	Conflicts with HIIK intensity 5 receive an INFORM intensity of 10 if the			
0	Method:	object is National Power, and 9 if the object is Subnational. Analogous,				
R L		conflicts with HIIK intensity 4 (limited wars) are attributed values of 8				
LTO		(National Power) and	National Power) and 7 (Subnational).			
IC P	Additional notes:					
ND	Pre-processing:	Transformation:		Min:	7	
		Normalisation:	Threshold	Max:	9	

	Variable:	Conflict Barometer
	Citation:	Heidelberg Institute for International Conflict Research (HIIK)
ш	Date of publication:	01/02/2014
RC	Reference time:	2013
SOU	Periodicity:	Annual (February)
	URL:	http://www.hiik.de/en/konfliktbarometer/index.html
	Data Type:	Tabular (pdf)
	Country coverage:	191/191 (100%)



Dimension:	Vulnerability
Category:	Socio-Economic Vulnerability
Component:	Development & Deprivation

	Indicator:	Human Development Index
	INFORM Code:	VU.SEV.PD.HDI
	Long Name:	Human Development Index
R	Description:	The Human Development Index measure development by combining
ICATO		indicators of life expectancy, educational attainment and income into
		a composite index.
ND	Relevance:	It is assumed that the more developed a country is the better its people
		will be able to respond to humanitarian needs using their own
		individual or national resources.
	Validity / Limitation	
	of indicator:	

	Unit of Measure:	Index [0 – 1]			
R NOTES	Indicator Creation Method:	The HDI sets a mining oalposts, and then these goalposts, exprigeometric mean of dimensions.	goalposts, and then shows where each country stands in relation to these goalposts, expressed as a value between 0 and 1. The HDI is the geometric mean of normalized indices from each of these three dimensions.		
TO	Additional notes:				
IC /	Missing values:	Imputed by regression analysis of correlation between HDI and GDP per			
ND		capita, PPP for: Democratic People's Republic of Korea, Marshall			
		Islands, Tuvalu, Nauru, Somalia, South Sudan.			
	Pre-processing:	Transformation:		Min:	0.3
		Normalisation:	MAX-MIN	Max:	0.95

	Variable:	Human Development Index HDI
	Citation:	UNDP
ш	Date of publication:	20/02/2014
RC	Reference time:	2013
OO	Periodicity:	Annual (March)
S	URL:	http://hdr.undp.org/en
	Data Type:	Tabular (Excel), API
	Country coverage:	185/191 (97%)



Dimension:	Vulnerability
Category:	Socio-economic Vulnerability
Component:	Development & Deprivation

	Indicator:	Multidimensional Poverty Index
INDICATOR	INFORM Code:	VU.SEV.PD.MPI
	Long Name:	Multidimensional Poverty Index
	Description:	The Multidimensional Poverty MPI Index identifies overlapping deprivations at the household level across the same three dimensions as the Human Development Index (living standards, health, and education) and shows the average number of poor people and deprivations with which poor households contend.
	Relevance:	While the HDI measures the average achievement of a country in terms of development, the MPI, focuses on the section of the population below the threshold of the basic criteria for human development.
	Validity / Limitation	
	or mulcator.	

	Unit of Measure:	Index [0 – 1]	Index [0 – 1]			
ES	Indicator Creation	Each person is assig	Each person is assigned a deprivation score according to his or her			
DT	Method:	household's deprivations in each of 10 component indicators. The				
N		maximum score is 10	00%, with each dimension equa	lly weighted	d; thus	
OR		the maximum score in each dimension is 33.3%.				
CAT	Additional notes:					
DIO	Missing values:	Most recent of the last 5 years				
Z	Pre-processing:	Transformation:		Min:	0	
		Normalisation:	MIN-MAX	Max:	0.6	

	Variable:	Multidimensional Poverty Index MPI
	Citation:	UNDP
ш	Date of publication:	20/02/2014
OURCI	Reference time:	2008-2012
	Periodicity:	Annual (March)
S	URL:	http://hdr.undp.org/en
	Data Type:	Tabular (Excel), API
	Country coverage:	104/191 (54%)



Dimension:	Vulnerability
Category:	Socio-Economic Vulnerability
Component:	Inequality

	Indicator:	Gender Inequality Index	
Ī	INFORM Code:	VU.SEV.INQ.GII	
Ī	Long Name:	Gender Inequality Index	
	Description:	The Gender Inequality Index (GII) reflects gender-based disadvantages	
		in three dimensions—reproductive health, empowerment and the	
		labour market. The value of GII range between 0 to 1, with 0 being 0%	
- 1		inequality, indicating women fare equally in comparison to men an	
OR		being 100% inequality, indicating women fare poorly in comparison to	
CAT		men.	
DIC	Relevance:	The Inequality component introduces the dispersion of conditions	
Ζ		within population presented in Development & Deprivation	
		component.	
		Countries with unequal distribution of human development also	
		experience high inequality between women and men, and countries	
		with high gender inequality also experience unequal distribution of	
		human development.	
	Validity / Limitation		
	of indicator:		

	Unit of Measure:	Index [0 – 1]	ndex [0 – 1]		
TOR NOTES	Indicator Creation Method:	The index is based on the general mean of general means of different orders—the first aggregation is by the geometric mean across dimensions; these means, calculated separately for women and men, are then aggregated using a harmonic mean across genders.			
	Additional notes:				
ND	Pre-processing:	Transformation:		Min:	0
		Normalisation:	MIN-MAX	Max:	0.75

	Variable:	Gender Inequality Index
	Citation:	UNDP
ш	Date of publication:	20/02/2014
RCI	Reference time:	2013
OU	Periodicity:	Annual (March)
S	URL:	http://hdr.undp.org/en
	Data Type:	Tabular (Excel, API)
	Country coverage:	148/191 (77%)



Dimension:	Vulnerability
Category:	Socio-economic Vulnerability
Component:	Inequality

	Indicator:	GINI Index
INDICATOR	INFORM Code:	VU.SEV.INQ.GINI
	Long Name:	Income Gini coefficient - Inequality in income or consumption
	Description:	Gini index measures the extent to which the distribution of income or consumption expenditure among individuals or households within an economy deviates from a perfectly equal distribution. Thus a Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality.
	Relevance:	The Inequality component introduces the dispersion of conditions within population presented in Development & Deprivation component. The GINI index depict the wealth distribution within a country.
	Validity / Limitation of indicator:	

	Unit of Measure:	Index [0 – 100]	Index [0 – 100]		
TOR NOTES	Indicator Creation Method:	A Lorenz curve plots the cumulative percentages of total income received against the cumulative number of recipients, starting with the poorest individual or household. The Gini index measures the area between the Lorenz curve and a hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line.			
IC/	Additional notes:				
ND	Missing values:	Most recent of the last 10 years			
	Pre-processing:	Transformation:		Min:	25
		Normalisation:	MIN-MAX	Max:	65

	Variable:	Income Gini coefficient
	Citation:	World Bank
ш	Date of publication:	01/10/2014
RC	Reference time:	2003-2013
OO	Periodicity:	Annual (not for every countries)
S	URL:	http://data.worldbank.org/indicator/SI.POV.GINI
	Data Type:	Tabular (Excel)
	Country coverage:	135/191 (71%)



Dimension:	Vulnerability
Category:	Socio-Economic Vulnerability
Component:	Aid Dependency

	Indicator:	Public Aid per capita
	INFORM Code:	VU.SEV.AD.AID-REL
	Long Name:	Public Aid per capita (current USD)
OR	Description:	This indicator is calculated by adding the public development aid and
AT		the humanitarian aid.
DIC	Relevance:	The Aid Dependency component points out the countries that lack
Ζ		sustainability in development growth due to economic instability and
		humanitarian crisis.
	Validity / Limitation	
	of indicator:	

	Unit of Measure:	Current USD per capi	ta		
	Indicator Creation	This indicator is calcu	lated by adding the public dev	elopment	aid and
	Method:	the humanitarian aid	he humanitarian aid. Public development aid is calculated on the basis:		
S		of data provided by th	of data provided by the OECD Development Assistance Committee over		
ОТІ		the last two years for	ne last two years for which data are available. It includes all the major		
Ň		donors and all catego	ories of aid (grants, loans, tech	nical coop	eration,
OF		emergency aid, pub	lic aid etc., minus repayments	of princ	ipal and
CAT		interest paid on loan	s). The humanitarian aid is calcu	lated on t	he basis
DI		of data provided by t	the OCHA Financial Tracking Sys	stem over	the last
Z		two years plus the ye	ar in which the exercise is done	•	
	Additional notes:				
	Pre-processing:	Transformation:		Min:	0
		Normalisation:	MIN-MAX	Max:	500

	Variable:	Net official development assistance (ODA)
	Citation:	Development Assistance Committee of the Organisation for Economic
		Co-operation and Development
СЕ	Date of publication:	01/10/2014
UR	Reference time:	2012-2014
SO	Periodicity:	Annual
	URL:	http://stats.oecd.org/qwids/
	Data Type:	Tabular (Excel)
	Country coverage:	140/191 (73%)

	Variable:	Financial Tracking System
	Citation:	UN-OCHA
ш	Date of publication:	01/10/2014
RC	Reference time:	2011-2012
OU	Periodicity:	Annual
S	URL:	http://fts.unocha.org/pageloader.aspx
	Data Type:	Tabular (Excel)
	Country coverage:	191/191 (100%)



Dimension:	Vulnerability
Category:	Socio-economic Vulnerability
Component:	Aid Dependency

	Indicator:	Net ODA Received (% of GNI)
	INFORM Code:	VU.SEV.AD.ODA-GNI
	Long Name:	Net ODA received (% of GNI)
INDICATOR	Description:	Net official development assistance (ODA) consists of disbursements of loans made on concessional terms (net of repayments of principal) and grants by official agencies of the members of the Development Assistance Committee (DAC), by multilateral institutions, and by non- DAC countries to promote economic development and welfare in countries and territories in the DAC list of ODA recipients. It includes loans with a grant element of at least 25 percent (calculated at a rate of discount of 10 percent).
	Relevance:	The Aid Dependency component points out the countries that lack sustainability in development growth due to economic instability and humanitarian crisis.
	Validity / Limitation	
	of indicator:	

	Unit of Measure:	Percentage			
æ	Indicator Creation	The Net official dev	elopment assistance (ODA) of	the last	year are
TO	Method:	divided by the GNI es	stimated by World Bank.		
IDICA.	Additional notes:				
2	Pre-processing:	Transformation:		Min:	0%
		Normalisation:	MIN-MAX	Max:	15%

	Variable:	Net ODA received (% of GNI)
	Citation:	World Bank
ш	Date of publication:	01/10/2014
RC	Reference time:	2012
sou	Periodicity:	Annual
	URL:	http://data.worldbank.org/indicator/DT.ODA.ODAT.GN.ZS
	Data Type:	Tabular (Excel)
	Country coverage:	180/191 (94%)



Dimension:	Vulnerability
Category:	Vulnerability Groups
Component:	Uprooted people

	Indicator:	Total Persons of Concern (absolute)
	INFORM Code:	VU.VGR.UP.POC-ABS
	Long Name:	Total number of people in refugee-like situations by country of asylum,
		internal displaced peoples (IDPs), returned refugees.
	Description:	"Persons of concern" includes refugees, asylum-seekers, returnees,
R		stateless persons and groups of internally displaced persons (IDPs).
TO	Relevance:	Refugees, internally displaced persons (IDPs) and returnees (those who
ICA		returned the previous year are also taken into account) are among the
ND		most vulnerable people in a humanitarian crisis.
	Validity / Limitation	It is difficult to find accurate data on the number of internally displaced
	of indicator:	persons (IDPs) in a country. In many countries estimates are not
		reliable, for reasons of state censorship and lack of access by
		independent observers and also because it is not always easy to
		distinguish IDPs from the local population, especially if they take shelter
		with relatives or friends.

~	Unit of Measure:	Number of persons o	Number of persons of concern					
	Indicator Creation	The total number of	The total number of uprooted people is the sum of the highest figures					
TO	Method:	from the selected sou	urces for each uprooted group.					
CA	Additional notes:	For the ongoing crisi	s, real-time data are taken fror	n the Ope	erational			
IDI		Data Portals of UNHC	R and UN-OCHA Situation Repo	rts.				
	Pre-processing:	Transformation:	Log	Min:	3			
		Normalisation:	MIN-MAX	Max:	6			

	Variable:	People in refugee-like situations by country of asylum, Number of IDPs,
		Returned refugees
	Citation:	Global Trends Report United Nations Refugee Agency, United Nations
ш		High Commission for Refugees (UNHCR)
RC	Date of publication:	01/06/2014
OU	Reference time:	2013
S	Periodicity:	Biannual (January, June)
	URL:	http://www.unhcr.org
	Data Type:	Tabular (Excel)
	Country coverage:	191/191 (100%)

	Variable:	Total registered persons
	Citation:	United Nations Relief and Works Agency for Palestine Refugees in the
		Near East (UNRWA)
CE	Date of publication:	01/06/2014
SOUR	Reference time:	2013
	Periodicity:	Biannual (January, July)
	URL:	http://www.unrwa.org/resources/about-unrwa
	Data Type:	Tabular (pdf)
	Country coverage:	4/191 (2%)

	Variable:	Number of Internal Displaced Persons (IDPs)
	Citation:	The Internal Displacement Monitoring Centre (IDMC)
ш	Date of publication:	01/10/2014
SOURCE	Reference time:	2005-2014
	Periodicity:	Regularly updated
	URL:	http://www.internal-displacement.org/
	Data Type:	Tabular (html)
	Country coverage:	191/191 (100%)



Dimension:	Vulnerability
Category:	Vulnerability Groups
Component:	Uprooted people

	Indicator:	Total Persons of Concern (relative)
	INFORM Code:	VU.VGR.UP.POC-REL
	Long Name:	Total number of people in refugee-like situations by country of asylum,
		internal displaced peoples (IDPs), returned refugees (percentage of the
		total population).
	Description:	"Persons of concern" includes refugees, asylum-seekers, returnees,
OR		stateless persons and groups of internally displaced persons (IDPs).
AT	Relevance:	Refugees, internally displaced persons (IDPs) and returnees (those who
DIC		returned the previous year are also taken into account) are among the
N		most vulnerable people in a humanitarian crisis.
	Validity / Limitation	It is difficult to find accurate data on the number of internally displaced
	of indicator:	persons (IDPs) in a country. In many countries estimates are not
		reliable, for reasons of state censorship and lack of access by
		independent observers and also because it is not always easy to
		distinguish IDPs from the local population, especially if they take shelter
		with relatives or friends.

	Unit of Measure:	Percentag	ge of persor	ns of concern per	country		
	Indicator Creation	The total	The total number of uprooted people is the sum of the highest figures				
	Method:	from the	rom the selected sources for each uprooted group. The result is				
		divided by	vided by the total population of each country. The normalization has				
		been appl	been applied to match the criteria used in the GVCA of ECH				
ES		Score	% of total po	opulation	Level of Vulnera	bility	
ОТ		6	> 10%		high vulnerab.		
Z		5	> 3% AND <	10%			
ē		4	> 1% AND < 3%		medium vulner.		
LA		3	> 0.5% AND	< 1%			
DIC		2	> 0.1% AND	< 0.5%	low vulnerab.		
Z		1	> 0.005% AN	VD < 0.1%			
		0	< 0.005%		no vulnerab.		
	Additional notes:	For the ongoing crisis, real-time data are taken from the Operational				perational	
		Data Port	als of UNHC	R and UN-OCHA	Situation Repo	rts.	
	Pre-processing:	Transform	nation:			Min:	0.005%
		Normalisa	ition:	MIN-MAX		Max:	10%

	Variable:	People in refugee-like situations by country of asylum, Number of IDPs, Returned refugees
	Citation:	Global Trends Report United Nations Refugee Agency, United Nations High Commission for Refugees (UNHCR)
RC	Date of publication:	01/06/2014
OU	Reference time:	2013
S	Periodicity:	Biannual (January, June)
	URL:	http://www.unhcr.org
	Data Type:	Tabular (Excel)
	Country coverage:	191/191 (100%)

	Variable:	Total registered persons
	Citation:	United Nations Relief and Works Agency for Palestine Refugees in the
		Near East (UNRWA)
CE	Date of publication:	01/06/2014
SOUR	Reference time:	2013
	Periodicity:	Biannual (January, July)
	URL:	http://www.unrwa.org/resources/about-unrwa
	Data Type:	Tabular (pdf)
	Country coverage:	4/191 (2%)

	Variable:	Number of Internal Displaced Persons (IDPs)
	Citation:	The Internal Displacement Monitoring Centre (IDMC)
ш	Date of publication:	01/10/2014
SOURCI	Reference time:	2005-2014
	Periodicity:	Regularly updated
	URL:	http://www.internal-displacement.org/
	Data Type:	Tabular (html)
	Country coverage:	191/191 (100%)



Dimension:	Vulnerability
Category:	Vulnerable Groups
Component:	Other Vulnerable Groups/Children under-five

	Indicator:	Children Underweight			
	INFORM Code:	VU.VGR.OG.U5.UW			
	Long Name:	Percentage of underweight (weight-for-age less than -2 standard			
		deviations of the WHO Child Growth Standards median) among			
		children aged 0-5 years.			
	Description:	This indicator shows the ratio between weight and age of children under five.			
	Relevance:	The Health Condition of Children Under Five component is referred to			
		with two indicators, malnutrition and mortality of children under 5.			
OR		Valnutrition of children under 5 extract the group of children that are			
CAT		in a weak health condition mainly due to hunger.			
DIC	Validity / Limitation	Although the weight/height ratio indicating acute malnutrition			
Z	of indicator:	(wasting) is a better indicator for emergency situations and the			
		weight/age ratio does not distinguish between acute malnutrition			
		(wasting) and chronic malnutrition (stunting), it was nevertheless			
		decided to use the weight/age ratio in the Vulnerability component of			
		INFORM for two reasons: the weight/height ratio figures are not			
		collected systematically for all countries, and by their very nature they			
		rapidly become obsolete. (DG-ECHO GNA Methodology:			
		http://ec.europa.eu/echo/files/policies/strategy/methodology_2011_			
		<u>2012.pdf</u>)			
		Children Underweight is an MDG indicator (MDG 4).			

CATOR NOTES	Unit of Measure:	Percentage			
	Indicator Creation Method:	Percentage of children aged < 5 years underweight for age = (Number of children aged 0-5 years that fall below minus two standard deviations from the median weight-for-age of the WHO Child Growth Standards / Total number of children aged 0-5 years that were measured) * 100.			
DI	Additional notes:				
Z	Pre-processing:	Transformation:		Min:	0%
		Normalisation:	MIN-MAX	Max:	45%

SOURCE	Variable:	Children aged <5 years underweight (%)	
	Citation:	WHO Global Health Observatory Data Repository	
	Date of publication:	01/10/2014	
	Reference time:	2012	
	Periodicity:	Annual	
	URL:	http://apps.who.int/ghodata	
	Data Type:	Tabular (Excel)	
	Country coverage:	126/191 (66%)	


Dimension:	Vulnerability
Category:	Vulnerable Groups
Component:	Other Vulnerable Groups/Children under-five

	Indicator:	Under-five Mortality Rate
	INFORM Code:	VU.VGR.OG.U5.CM
	Long Name:	Mortality rate, under-5 (per 1,000 live births).
	Description:	This indicator shows the probability of death between birth and the end
R		of the fifth year per 1000 live births.
INDICATO	Relevance:	The Health Condition of Children Under Five component is referred to with two indicators, malnutrition and mortality of children under 5. The mortality of children under 5 shows general health condition of the children.
	Validity / Limitation of indicator:	Because data on the incidences and prevalence of diseases (morbidity data) frequently are unavailable, mortality rates are often used to identify vulnerable populations. Under-five mortality rate is an MDG indicator (MDG 4).

CATOR NOTES	Unit of Measure:	Deaths per 1000 live	Deaths per 1000 live births		
	Indicator Creation Method:	The global estimation Bayesian B-spline bia capture changes in U	The global estimation of child mortality has been obtained using a Bayesian B-spline bias-reduction model. The model is able to flexibly capture changes in U5MR over time, gives point estimates and credible		
		intervals that reflect potential biases in data series and performs reasonably well in out-of-sample validation exercises.			erforms
DIC	Additional notes:				
Z	Pre-processing:	Transformation:		Min:	0
		Normalisation:	MIN-MAX	Max:	130

	Variable:	Mortality rate, under-5 (per 1,000 live births)
	Citation:	UN Inter-agency Group for Child Mortality Estimation (UNICEF, WHO,
		World Bank, UN DESA Population Division)
СЕ	Date of publication:	01/10/2014
UR	Reference time:	2013
SO	Periodicity:	Annual
	URL:	www.childmortality.org
	Data Type:	Tabular (Excel)
	Country coverage:	189/191 (99%)



Dimension:	Vulnerability
Category:	Vulnerable Groups
Component:	Other Vulnerable Groups/Health conditions

	Indicator:	Adult Prevalence of HIV-AIDS
	INFORM Code:	VU.VGR.OG.HE.HIV
	Long Name:	HIV prevalence among adults aged 15-49 years (%)
R	Description:	The estimated number of adults aged 15-49 years with HIV infection,
ТО		whether or not they have developed symptoms of AIDS, expressed as
ICA		per cent of total population in that age group.
ND	Relevance:	HIV-AIDS is considered as one of the three pandemics of low- and
		middle- income countries.
	Validity / Limitation	Target 6.a of the Millennium development Goals is to "have halted by
	of indicator:	2015 and begun to reverse the spread of HIV/AIDS". Indicator 6.1 is
		defined as "HIV prevalence among population aged 15-24 years".

R NOTES	Unit of Measure:	Percentage			
	Indicator Creation Method:	The prevalence of measured as the nu divided by the total of	HIV among the population 15 Imber of individuals aged 15-4 population aged 15-49.	5-49 years o 9 living with	ld is HIV
ICATO	Additional notes:				
ND	Pre-processing:	Transformation:		Min:	0%
		Normalisation:	MIN-MAX	Max:	5%

SOURCE	Variable:	Estimated number of people living with HIV - Adult (>15) rate
	Citation:	WHO Global Health Observatory Data Repository
	Date of publication:	01/10/2014
	Reference time:	2012
	Periodicity:	Biennial (December)
	URL:	http://apps.who.int/ghodata
	Data Type:	Tabular (Excel)
	Country coverage:	150/191 (79%)



Dimension:	Vulnerability
Category:	Vulnerable Groups
Component:	Other Vulnerable Groups/Health conditions

	Indicator:	Tuberculosis Prevalence
	INFORM Code:	VU.VGR.OG.HE.TBC
	Long Name:	Estimated prevalence of tuberculosis (per 100 000 population)
	Description:	The number of cases of tuberculosis (all forms) in a population at a
TOR		given point in time (the middle of the calendar year), expressed as the
		rate per 100 000 population. Estimates include cases of TB in people
ICA		with HIV.
ND	Relevance:	Tuberculosis is considered as one of the three pandemics of low- and
		middle- income countries.
	Validity / Limitation	Target 6.c of the Millennium development Goals is to "have halted by
	of indicator:	2015 and begun to reverse the incidence of malaria and other major
		diseases". Indicator 6.9 is defined as "incidence, prevalence and death
		rates associated with TB".

	Unit of Measure:	Cases per 100,000 pc	Cases per 100,000 population		
TOR NOTES	Indicator Creation Method:	Prevalence can be estimated in national population-based surveys. Where survey data are not available, estimates of prevalence are derived from estimates of incidence and the duration of disease.			
	Additional notes:				
ND	Pre-processing:	Transformation:		Min:	0
		Normalisation:	MIN-MAX	Max:	500

SOURCE	Variable:	Estimated prevalence of tuberculosis (per 100 000 population)
	Citation:	WHO Global Health Observatory Data Repository
	Date of publication:	01/10/2014
	Reference time:	2012
	Periodicity:	Annual (March)
	URL:	http://apps.who.int/ghodata
	Data Type:	Tabular (Excel)
	Country coverage:	188/191 (98%)



Dimension:	Vulnerability
Category:	Vulnerable Groups
Component:	Other Vulnerable Groups/Health conditions

	Indicator:	Malaria Mortality Rate
	INFORM Code:	VU.VGR.OG.HE.MAL
	Long Name:	Deaths due to malaria (per 100 000 population)
TOR	Description:	The death rate associated with malaria is the number of deaths caused
		by malaria per 100,000 people per year.
ICA	Relevance:	Malaria is considered as one of the three pandemics of low- and
DN		middle- income countries.
	Validity / Limitation	Target 6.c of the Millennium development Goals is to "have halted by
	of indicator:	2015 and begun to reverse the incidence of malaria and other major
		diseases". Indicator 6.6 is defined as "Incidence and death rates
		associated with malaria".

	Unit of Measure:	Number of deaths ne	Number of deaths per 100,000 population		
	onit of Micusure.	Number of deaths pe			
res	Indicator Creation	The malaria death ra	The malaria death rate is expressed as the number of deaths due to		
	Method:	malaria per 100,000	malaria per 100,000 population per year with the population of a		
0		country derived from	country derived from projections made by the UN Population Division.		
DR D	Additional notes:	Information on the number of malaria cases, reporting completeness			
TC		and case confirmatio	n rates are compiled annually by	y the Min	istries of
		Health (National Mal	aria Control Programs) from the	administ	ration of
ND		health services.			
	Pre-processing:	Transformation:		Min:	0
		Normalisation:	MIN-MAX	Max:	120

SOURCE	Variable:	Deaths due to malaria (per 100 000 population)
	Citation:	WHO Global Health Observatory Data Repository
	Date of publication:	01/10/2014
	Reference time:	2012
	Periodicity:	Annual (December)
	URL:	http://apps.who.int/ghodata
	Data Type:	Tabular (Excel)
	Country coverage:	100/191 (52%)



Dimension:	Vulnerability
Category:	Vulnerable Groups
Component:	Other Vulnerable Groups/Recent Shocks

	Indicator:	Population affected by natural disasters in the last 3 years
	INFORM Code:	VU.VGR.OG.NATDIS-REL
	Long Name:	Percentage of population affected by natural disasters in the last 12,
		24, 36 months
	Description:	To account for increased vulnerability during the recovery period after
		a disaster, people affected by recent shocks in the past 3 years are
		considered. The affected people from the most recent year are
R		considered fully while affected people from the previous years are
ATC		scaled down with the factor 0.5 and 0.25 for the second and third year,
		respectively, assuming that recovery decreases vulnerability
Ľ.		progressively.
	Relevance:	The population affected by recent natural disasters are considered
		more vulnerable than the rest of the population.
		The indicator identify the countries that are recovering from
-		humanitarian crisis situation.
	Validity / Limitation	Although CRED recognises that the figures for people affected are not
	of indicator:	entirely reliable, since the definition leaves room for interpretation, it
		is nevertheless better to use this figure rather than the number of
		people killed, because it is the survivors who require emergency aid.

	Unit of Measure:	Percentage	Percentage			
TOR NOTES	Indicator Creation Method:	The affected population over the last 36 months are summed and then divided by the total population of the country. The affected people from the most recent year are considered fully while affected people from the previous years are scaled down with the factor 0.5 and 0.25 for the second and third year.				
JC	Additional notes:					
Z						
-	Pre-processing:	Transformation:		Min:	0%	
		Normalisation:	MIN-MAX	Max:	10%	

SOURCE	Variable:	Population affected by natural disasters in the last 3 years
	Citation:	EM-DAT, CRED
	Date of publication:	01/10/2014
	Reference time:	2012-2014
	Periodicity:	Every 3 months
	URL:	http://www.emdat.be/
	Data Type:	Tabular (csv)
	Country coverage:	191/191 (100%)



Dimension:	Vulnerability	
Category:	Vulnerable Groups	
Component:	Other Vulnerable Groups/Food Security – Malnutrition	

	Indicator:	Prevalence of Undernourishment
	INFORM Code:	VU.VGR.OG.FS.MA.PU
	Long Name:	Prevalence of undernourishment (% of population)
- 4	Description:	The Prevalence of Undernourishment expresses the probability that a
OR		randomly selected individual from the population consumes an amount
CAT		of calories that is insufficient to cover her/his energy requirement for
DIC		an active and healthy life.
N	Relevance:	The malnutrition component concerns the actual quality and type of
		food supplied to provide the nutritional balance necessary for healthy
		and active life. It captures trends in chronic hunger.
	Validity / Limitation	This is the traditional FAO hunger indicator, adopted as official
	of indicator:	Millennium Development Goal indicator for Goal 1, Target 1.9.

S	Unit of Measure:	Percentage	Percentage			
	Indicator Creation	The indicator is computed by comparing a probability distribution of				
DTE	Method:	habitual daily Dietary Energy Consumption with a threshold level called				
Ň		the Minimum Dieta	he Minimum Dietary Energy Requirement. Both are based on the			
OR		notion of an average individual in the reference population.				
CAT	Additional notes:	The indicator is calcu	lated on 3 year averages.			
DIO	Missing values:	Regional average				
Ξ	Pre-processing:	Transformation:		Min:	5%	
		Normalisation:	MIN-MAX	Max:	35%	

SOURCE	Variable:	Prevalence of undernourishment
	Citation:	ESS calculations, FAO
	Date of publication:	01/10/2014
	Reference time:	2012-2014
	Periodicity:	Annual
	URL:	http://www.fao.org/economic/ess/ess-fs/ess-fadata/en/
	Data Type:	Tabular (Excel)
	Country coverage:	171/191 (90%)



Dimension:	Vulnerability	
Category:	Vulnerable Groups	
Component:	Other Vulnerable Groups/Food Security – Malnutrition	

	Indicator:	Average Dietary Supply Adequacy
	INFORM Code:	VU.VGR.OG.FS.MA.ADSA
	Long Name:	Average dietary supply adequacy
R	Description:	Average dietary energy supply as a percentage of the average dietary
ТО		energy requirement.
CA	Relevance:	The malnutrition component concerns the actual quality and type of
ND		food supplied to provide the nutritional balance necessary for healthy
		and active life. It captures trends in chronic hunger.
	Validity / Limitation	Analysed together with the prevalence of undernourishment, it allows
	of indicator:	discerning whether undernourishment is mainly due to insufficiency of
		the food supply or to particularly bad distribution.

	Unit of Measure:	Percentage				
	Indicator Creation	The indicator expre	esses the Dietary Energy Su	pply (DES	S) as a	
	Method:	percentage of the Av	percentage of the Average Dietary Energy Requirement (ADER) in each			
		country.	country.			
ES		Each country's or	Each country's or region's average supply of calories for food			
OTI		consumption is norm	onsumption is normalized by the average dietary energy requirement			
Ž		estimated for its pop	timated for its population, to provide an index of adequacy of the			
<u></u>		food supply in terms	ood supply in terms of calories.			
CAT	Additional notes:	The indicator is calculated as an average over 3 years to reduce the				
Ď		impact of possible e	rrors in estimated DES, due to	the diffic	ulties in	
≤		properly accounting of stock variations in major food. It thus provides				
		an indicator of structural food supply adequacy.				
	Missing values:	Regional average				
	Pre-processing:	Transformation:		Min:	75%	
		Normalisation:	MAX-MIN	Max:	150%	

	Variable:	Average dietary supply adequacy
	Citation:	FAOSTAT and ESS calculations, FAO
ш	Date of publication:	01/10/2014
IRC	Reference time:	2012-2014
ON	Periodicity:	Annual
S	URL:	http://www.fao.org/economic/ess/ess-fs/ess-fadata/en/
	Data Type:	Tabular (Excel)
	Country coverage:	170/191 (89%)



Dimension:	Vulnerability	
Category:	Vulnerable Groups	
Component:	Other Vulnerable Groups/Food Security – Food access	

	Indicator:	Domestic Food Price Index
	INFORM Code:	VU.VGR.OG.FS.FA.DFPLI
R	Long Name:	Domestic Food Price Index
ТО	Description:	A measure of the monthly change in international prices of a basket of
INDICA		food commodities.
	Relevance:	Domestic Food Price Index refers to the economic aspect of the Food
		Access component.
	Validity / Limitation	The indicator does not consider differences in shares of food
	of indicator:	expenditures over total expenditure across countries.

	Unit of Measure:	Index				
	Indicator Creation	The Domestic Food P	he Domestic Food Price Level Index is calculated by dividing the Food			
S	Method:	Purchasing Power Parity (FPPP) by the General PPP, thus providing an				
DTE		index of the price of	food in the country relative to	o the pric	e of the	
Ž		generic consumption	eneric consumption basket. Data are available for 2005 from the ICF			
OR		Program. It is then	extended to other years b	y adjustii	ng both	
CAT		numerator and denominator using the relative changes in Food CPI and				
DIC		General CPI as provid	led by ILO.			
Ζ	Additional notes:					
	Pre-processing:	Transformation:		Min:	1	
		Normalisation:	MIN-MAX	Max:	2.5	

	Variable:	Domestic Food Price Level Index
	Citation:	FAO elaboration of data provided by ILO and the World Bank ICP
		(International Comparison Project)
CE	Date of publication:	01/10/2014
SOUR	Reference time:	2014
	Periodicity:	Annual
	URL:	http://www.fao.org/economic/ess/ess-fs/ess-fadata/en/
	Data Type:	Tabular (Excel)
	Country coverage:	134/191 (70%)



Dimension:	Vulnerability	
Category:	Vulnerable Groups	
Component:	Other Vulnerable Groups/Food Security – Food access	

R	Indicator:	Domestic Food Price Volatility
	INFORM Code:	VU.VGR.OG.FS.FA.DFPVI
	Long Name:	Domestic Food Price Volatility
TO	Description:	The Domestic Food Price Volatility compares the variations of the
INDICA		Domestic Food Price Index across countries and time.
	Relevance:	Domestic Food Price Volatility refers to the price stability aspect of the
		Food Access component.
	Validity / Limitation	
	of indicator:	

DR NOTES	Unit of Measure:	Index	Index			
	Indicator Creation Method:	The Domestic Food Price Volatility is a measure of variation of the Domestic Food Price Level Index. It has been computed as the Standard Deviation (SD) of the deviations from the trend over the previous five years.				
DICAT	Additional notes:					
Z	Pre-processing:	Transformation:		Min:	0	
		Normalisation:	MIN-MAX	Max:	100	

	Variable:	Domestic Food Price Volatility
	Citation:	FAO elaboration of the Domestic Food Price Index. Data to compute the
		Domestic Food Price Index were provided by ILO and World Bank ICP
ш		(International Comparison Project)
RCI	Date of publication:	01/10/2014
OU	Reference time:	2014
S	Periodicity:	Annual
	URL:	http://www.fao.org/economic/ess/ess-fs/ess-fadata/en/
	Data Type:	Tabular (Excel)
	Country coverage:	132/191 (69%)



Dimension:	Lack of Coping Capacity
Category:	Institutional
Component:	Disaster Risk Reduction

	Indicator:	HFA
	INFORM Code:	CC.INS.DRR
	Long Name:	Hyogo Framework for Action scores
	Description:	The indicator for the Disaster Risk Reduction (DRR) activity in the
ATOR		country comes from the score of Hyogo Framework for Action self-
		assessment progress reports of the countries. HFA progress reports
DIC		assess strategic priorities in the implementation of disaster risk
Z		reduction actions and establish baselines on levels of progress achieved
		in implementing the HFA's five priorities for action.
	Relevance:	The indicator quantifies the level of implementation of DRR activity.
	Validity / Limitation	Self-evaluation has a risk of being perceived as a process of presenting
	of indicator:	inflated grades and being unreliable.

ICATOR NOTES	Unit of Measure:	Index [1-5]	Index [1-5]			
	Indicator Creation	For each of the 5 priority actions, the average of the scores of the				
	Method:	underlying Indicators	underlying Indicators has been calculated. The final score is the average			
		of the 5 priority action scores.				
	Additional notes:	We considered the latest national progress report available for each				
		country.				
ND	Pre-processing:	Transformation:		Min:	1	
		Normalisation:	MAX-MIN	Max:	5	

	Variable:	Hyogo Framework for Action Progress Reports
	Citation:	UNISDR
ш	Date of publication:	01/10/2014
SOURCI	Reference time:	2007-2013
	Periodicity:	Biennial
	URL:	http://www.preventionweb.net/english/hyogo/progress/
	Data Type:	Tabular (Excel)
	Country coverage:	135/191 (71%)



Dimension:	Lack of Coping Capacity
Category:	Institutional
Component:	Governance

	Indicator:	Government Effectiveness
INDICATOR	INFORM Code:	CC.INS.GOV.GE
	Long Name:	Government effectiveness
	Description:	The Government effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.
	Relevance:	The indicator shows the effectiveness of the governments' effort for building resilience across all sectors of society.
	Validity / Limitation of indicator:	

	Unit of Measure:	Index [-2.5/2.5]	Index [-2.5/2.5]		
ICATOR NOTES	Indicator Creation Method:	The WGI are composite governance indicators based on 31 underlying data sources. These data sources are rescaled and combined to create the six aggregate indicators using a statistical methodology known as an unobserved components model.			
	Additional notes:				
ND	Pre-processing:	Transformation:		Min:	-2.5
		Normalisation:	MAX-MIN	Max:	2.5

SOURCE	Variable:	Government effectiveness
	Citation:	Worldwide Governance Indicators World Bank
	Date of publication:	01/10/2014
	Reference time:	2013
	Periodicity:	Annual
	URL:	http://info.worldbank.org/governance/wgi/index.asp
	Data Type:	Tabular (Excel)
	Country coverage:	188/191 (98%)



Dimension:	Lack of Coping Capacity
Category:	Institutional
Component:	Governance

INDICATOR	Indicator:	Corruption Perception Index
	INFORM Code:	CC.INS.GOV.CPI
	Long Name:	Corruption Perception Index CPI
	Description:	The CPI scores and ranks countries based on how corrupt a country's public sector is perceived to be. It is a composite index, a combination of surveys and assessments of corruption, collected by a variety of reputable institutions.
	Relevance:	The indicator captures the level of misuse of political power for private benefit, which is not directly considered in the construction of the government effectiveness even though interrelated.
	Validity / Limitation of indicator:	

	Unit of Measure:	Index [0/100]			
S	Indicator Creation	The methodology fo	ollows 4 basic steps: selection	of sour	ce data,
DT	Method:	rescaling source			
Ž		data, aggregating the	e rescaled data and then report	ing a mea	sure for
-OF		uncertainty.			
CAT	Additional notes:	Scale from 0 (highly o	corrupt) to 100 (very clean)		
DIO					
Z	Pre-processing:	Transformation:		Min:	0
		Normalisation:	MAX-MIN	Max:	100

SOURCE	Variable:	Corruption Perception Index CPI
	Citation:	Transparency International
	Date of publication:	3/12/2013
	Reference time:	2013
	Periodicity:	Annual (December)
	URL:	http://www.transparency.org/research/cpi/
	Data Type:	Tabular (Excel)
	Country coverage:	172/191 (90%)



Dimension:	Lack of Coping Capacity
Category:	Infrastructure
Component:	Communication

	Indicator:	Access to Electricity
	INFORM Code:	CC.INF.COM.ELACCS
	Long Name:	Access to electricity (% of population)
	Description:	Access to electricity is the percentage of population with access to
ĸ		electricity. Electrification data are collected from industry, national
TO		surveys and international sources.
INDIC	Relevance:	The communication component aims to measure the efficiency of dissemination of early warnings through a communication network as well as coordination of preparedness and emergency activities. It is dependent on the dispersion of the communication infrastructure as
		well as the literacy and education level of the recipients.
	Validity / Limitation	
	of indicator:	

TES	Unit of Measure:	Percentage			
	Indicator Creation	Data on access to el	ectricity are collected by the I	EA from i	ndustry,
0	Method:	national surveys, and	ational surveys, and international sources.		
ATOR I	Additional notes:	Where country data appeared contradictory, outdated or unreliable,			
		the IEA Secretaria	t made estimates based o	on cross	-country
		comparisons and ear	lier surveys.		
ND	Pre-processing:	Transformation:		Min:	0%
		Normalisation:	MAX-MIN	Max:	100%

SOURCE	Variable:	Access to electricity (% of population)
	Citation:	World Bank based on International Energy Agency, World Energy
		Outlook
	Date of publication:	21/12/2013
	Reference time:	2010
	Periodicity:	Annual
	URL:	http://data.worldbank.org/indicator/EG.ELC.ACCS.ZS
	Data Type:	Tabular (Excel)
	Country coverage:	85/191 (45%)



Dimension:	Lack of Coping Capacity
Category:	Infrastructure
Component:	Communication

_		
	Indicator:	Internet Users
	INFORM Code:	CC.INF.COM.NETUS
	Long Name:	Internet Users (per 100 people)
2	Description:	Internet users are people with access to the worldwide network.
INDICATO	Relevance:	The communication component aims to measure the efficiency of dissemination of early warnings through a communication network as well as coordination of preparedness and emergency activities. It is dependent on the dispersion of the communication infrastructure as well as the literacy and education level of the recipients.
	Validity / Limitation of indicator:	

	Unit of Measure:	Number of users per	Number of users per 100 people			
ICATOR NOTES	Indicator Creation Method:					
	Additional notes:					
ND	Pre-processing:	Transformation:		Min:	0	
		Normalisation:	MAX-MIN	Max:	100	

	Variable:	Internet Users (per 100 people)
	Citation:	World Bank based on International Telecommunication Union, World
		Telecommunication/ICT Development Report and database, and World
ш		Bank estimates.
RC	Date of publication:	21/12/2013
OU	Reference time:	2012
S	Periodicity:	Annual
	URL:	http://data.worldbank.org/indicator/IT.NET.USER.P2
	Data Type:	Tabular (Excel)
	Country coverage:	186/191 (97%)



Dimension:	Lack of Coping Capacity
Category:	Infrastructure
Component:	Communication

	Indicator:	Mobile Cellular Subscriptions
	INFORM Code:	CC.INF.COM.CEL
	Long Name:	Mobile cellular subscriptions (per 100 people)
	Description:	Mobile cellular telephone subscriptions are subscriptions to a public
		mobile telephone service using cellular technology, which provide
OR		access to the public switched telephone network. Post-paid and
AT		prepaid subscriptions are included.
DIC	Relevance:	The communication component aims to measure the efficiency of
Z		dissemination of early warnings through a communication network as
		well as coordination of preparedness and emergency activities. It is
		dependent on the dispersion of the communication infrastructure as
		well as the literacy and education level of the recipients.
	Validity / Limitation	
	of indicator:	

	Unit of Measure:	Number of subscripti	on per 100 people		
TES	Indicator Creation				
NO	Method:				
R					
ΔTC	Additional notes:				
) C					
N	Pre-processing:	Transformation:		Min:	5
		Normalisation:	MAX-MIN	Max:	200

	Variable:	Mobile cellular subscriptions (per 100 people)
	Citation:	World Bank based on International Telecommunication Union, World
		Telecommunication/ICT Development Report and database, and World
ш		Bank estimates.
RC	Date of publication:	21/12/2013
OU	Reference time:	2012
S	Periodicity:	Annual
	URL:	http://data.worldbank.org/indicator/IT.CEL.SETS.P2
	Data Type:	Tabular (Excel)
	Country coverage:	189/191 (99%)



Dimension:	Lack of Coping Capacity
Category:	Infrastructure
Component:	Communication

	Indicator:	Adult Literacy Rate
	INFORM Code:	CC.INF.COM.LITR
	Long Name:	Literacy rate, adult total (% of people ages 15 and above)
	Description:	Total is the percentage of the population age 15 and above who can,
ĸ		with understanding, read and write a short, simple statement on their
TO		everyday life.
ICA	Relevance:	The communication component aims to measure the efficiency of
ND		dissemination of early warnings through a communication network as
		well as coordination of preparedness and emergency activities. It is
		dependent on the dispersion of the communication infrastructure as
		well as the literacy and education level of the recipients.
	Validity / Limitation	
	of indicator:	

NOTES	Unit of Measure:	Percentage			
	Indicator Creation Method:	This indicator is calcu years and over by	lated by dividing the number of the corresponding age group	f literates populat	aged 15 ion and
)R		multiplying the result	t by 100.		
ICATO	Additional notes:				
ND	Pre-processing:	Transformation:	Squared	Min:	900
		Normalisation:	MAX-MIN	Max:	10000

	Variable:	Literacy rate, adult total (% of people ages 15 and above)
	Citation:	UNESCO Institute for Statistics
ш	Date of publication:	21/12/2013
SOURCI	Reference time:	2005-2012
	Periodicity:	Annual
	URL:	http://stats.uis.unesco.org/unesco/ReportFolders/reportFolders.aspx
	Data Type:	Tabular (Excel)
	Country coverage:	144/191 (75%)



Dimension:	Lack of Coping Capacity
Category:	Infrastructure
Component:	Physical Infrastructures

	Indicator:	Road Density
	INFORM Code:	CC.INF.PHY.ROD
	Long Name:	Road density (km of road per 100 sq. km of land area)
	Description:	Road density is the ratio of the length of the country's total road
OR		network to the country's land area. The road network includes all roads
DICAT		in the country: motorways, highways, main or national roads,
		secondary or regional roads, and other urban and rural roads.
Ζ	Relevance:	The physical infrastructure component tries to assess the accessibility
		as well as the redundancy of the systems which are two crucial
		characteristics in a crisis situation.
	Validity / Limitation	
	of indicator:	

	Unit of Measure:	km of road per 100 s	q. km of land area		
S	Indicator Creation				
ОТІ	Method:				
ž					
OF	Additional notes:				
CAT					
DIC	Missing values:	Most recent values fr	om the last 10 years		
Z	Pre-processing:	Transformation:		Min:	1
		Normalisation:	MAX-MIN	Max:	150

	Variable:	Road density (km of road per 100 sq. km of land area)
	Citation:	World Bank
ш	Date of publication:	21/12/2013
SOURCI	Reference time:	2001-2010
	Periodicity:	Annual
	URL:	http://data.worldbank.org/indicator/IS.ROD.DNST.K2
	Data Type:	Tabular (Excel)
	Country coverage:	70/191 (37%)



Dimension:	Lack of Coping Capacity
Category:	Infrastructure
Component:	Physical Infrastructures

	Indicator:	Access to Improved Water Source
•	INFORM Code:	CC.INF.PHY.H2O
	Long Name:	Improved drinking-water source (% of population with access)
	Description:	The indicator defines the percentage of population with reasonable
		access (within one km) to an adequate amount of water (20 litres per
		person) through a household connection, public standpipe well or
		spring, or rain water system.
		An improved drinking-water source is defined as one that, by nature of
		its construction or through active intervention, is protected from
		outside contamination, in particular from contamination with faecal
N R		matter.
ATC	Relevance:	The physical infrastructure component tries to assess the accessibility
		as well as the redundancy of the systems which are two crucial
ND		characteristics in a crisis situation.
		Use of an improved drinking water source is a proxy for access to safe
		drinking water. Improved drinking water sources are more likely to be
		protected from external contaminants than unimproved sources either
		by intervention or through their design and construction. People
		without improved water sources are vulnerable to diseases caused by
		unclean water and could become more vulnerable in the aftermath of
		a hazard, due to their existing ailments.
	Validity / Limitation	Target 7.c of the Millennium development Goals is to "halve, by 2015,
	of indicator:	the proportion of the population without sustainable access to safe
		drinking water and basic sanitation". Indicator 7.8 is defined as
		"Proportion of population using an improved drinking water source".

	Unit of Measure:	Percentage of popula	ition without access		
CATOR NOTES	Indicator Creation Method:	Coverage estimates are based on data from nationally representative household surveys and national censuses, which in some cases are adjusted to improve comparability among data over time. For each country, survey and census data are plotted on a timescale from 1980 to the present. A linear trend line, based on the least-squares method, is drawn through these data points to provide estimates for all years between 1990 and 2011 (wherever possible). The total estimates are population weighted average of the urban and rural numbers.			
N	Additional notes:				
	Missing values:	Countries with missing data are assigned regional averages when generating regional and global estimates.			
	Pre-processing:	Transformation:		Min:	50%
		Normalisation:	MAX-MIN	Max:	100%

	Variable:	Improved drinking-water source (% of population with access)
	Citation:	WHO/UNICEF Joint Monitoring Programme (JMP) for Water supply and
		Sanitation
CE	Date of publication:	21/08/2014
UR	Reference time:	2005-2012
SO	Periodicity:	Annual
	URL:	http://www.wssinfo.org/data-estimates/table/
	Data Type:	Tabular (Excel)
	Country coverage:	187/191 (98%)


Dimension:	Lack of Coping Capacity
Category:	Infrastructure
Component:	Physical Infrastructures

	Indicator:	Access to Improved Sanitation Facilities
	INFORM Code:	CC.INF.PHY.STA
	Long Name:	Improved sanitation facilities (% of population with access)
	Description:	Access to improved sanitation facilities refers to the percentage of the
		population using improved sanitation facilities. The improved
		sanitation facilities include flush/pour flush (to piped sewer system,
		septic tank, pit latrine), ventilated improved pit (VIP) latrine, pit latrine
R		with slab, and composting toilet.
TO	Relevance:	The physical infrastructure component tries to assess the accessibility
		as well as the redundancy of the systems which are two crucial
SD		characteristics in a crisis situation.
		For MDG monitoring, an improved sanitation facility is defined as one
		that hygienically separates human excreta from human contact. People
		without improved sanitation are susceptible to diseases and can
		become more vulnerable following a hazard.
	Validity / Limitation	Target 7.c of the Millennium development Goals is to "halve, by 2015,
	of indicator:	the proportion of the population without sustainable access to safe
		drinking water and basic sanitation". Indicator 7.9 is defined as
		"Proportion of population using an improved sanitation facility".

	Unit of Measure:	Percentage of popula	Percentage of population without access		
	Indicator Creation	Coverage estimates a	are based on data from nationa	lly repre	esentative
	Method:	household surveys a	nd national censuses, which ir	n some	cases are
		adjusted to improve	comparability among data over	er time.	For each
TES		country, survey and o	census data are plotted on a tim	nescale f	rom 1980
.ON		to the present. A line	ar trend line, based on the least	-square	s method,
JR I		is drawn through the	ese data points to provide estim	nates fo	r all years
٩TC		between 1990 and 2	011 (wherever possible). The to	otal esti	mates are
		population weighted	average of the urban and rural	number	s.
ND	Additional notes:				
	Missing values:	Countries with miss	ing data are assigned regiona	l avera	ges when
		generating regional a	nd global estimates.		
	Pre-processing:	Transformation:		Min:	10%
		Normalisation:	MAX-MIN	Max:	100%

SOURCE	Variable:	Improved sanitation facilities (% of population with access)
	Citation:	WHO/UNICEF Joint Monitoring Programme (JMP)
	Date of publication:	21/08/2014
	Reference time:	2005-2012
	Periodicity:	Annual
	URL:	http://www.wssinfo.org/data-estimates/table/
	Data Type:	Tabular (Excel)
	Country coverage:	186/191 (97%)



Dimension:	Lack of Coping Capacity
Category:	Infrastructure
Component:	Access to Health System

	Indicator:	Physicians Density
	INFORM Code:	CC.INF.AHC.PHYS
	Long Name:	Density of physicians (per 10,000 population)
	Description:	Number of medical doctors (physicians), including generalist and
R		specialist medical practitioners, per 10,000 population.
INDICATO	Relevance:	The physical infrastructure component tries to assess the accessibility as well as the redundancy of the systems which are two crucial characteristics in a crisis situation. Preparing the health workforce to work towards the attainment of a country's health objectives represents one of the most important challenges for its health system.
	Validity / Limitation	
	of indicator:	

	Unit of Measure:	Persons per 10 000 population			
S	Indicator Creation	WHO compiles data on health workforce from four major sources:			
DTE	Method:	population censuses, labour force and employment surveys, health			
Ž		facility assessments a	and routine administrative inform	mation sy	stems.
OR	Additional notes:				
CAT					
DIQ	Missing values:	Most recent values la	ast 5 years		
Ξ	Pre-processing:	Transformation:		Min:	0
		Normalisation:	MAX-MIN	Max:	40

SOURCE	Variable:	Density of physicians (per 10,000 population)
	Citation:	WHO Global Health Observatory Data Repository
	Date of publication:	01/07/2013
	Reference time:	2007-2012
	Periodicity:	Annual
	URL:	http://apps.who.int/ghodata
	Data Type:	Tabular (Excel)
	Country coverage:	152/191 (80%)



Dimension:	Lack of Coping Capacity
Category:	Infrastructure
Component:	Access to Health System

ATOR	Indicator:	Health Expenditure per capita
	INFORM Code:	CC.INF.AHC.HEALTH_EXP
	Long Name:	Per capita total expenditure on health (PPP int. USD)
	Description:	Per capita total expenditure on health (THE) expressed in Purchasing
		Power Parities (PPP) international dollar.
DIC	Relevance:	The physical infrastructure component tries to assess the accessibility
Z		as well as the redundancy of the systems which are two crucial
		characteristics in a crisis situation.
	Validity / Limitation	
	of indicator:	

	Unit of Measure:	PPP international dol	lar		
TES	Indicator Creation				
NO	Method:				
R					
ATC	Additional notes:				
ND	Pre-processing:	Transformation:		Min:	50
		Normalisation:	MAX-MIN	Max:	3000

SOURCE	Variable:	Per capita total expenditure on health (PPP int. USD)
	Citation:	WHO Global Health Observatory Data Repository
	Date of publication:	01/07/2014
	Reference time:	2012
	Periodicity:	Annual
	URL:	http://apps.who.int/ghodata
	Data Type:	Tabular (Excel)
	Country coverage:	185/191 (97%)



Dimension:	Lack of Coping Capacity
Category:	Infrastructure
Component:	Access to Health System

INDICATOR	Indicator:	Measles Immunization Coverage
	INFORM Code:	CC.INF.AHC.MEAS
	Long Name:	Measles (MCV) immunization coverage among 1-year-olds (%)
	Description:	The percentage of children under one year of age who have received at
		least one dose of measles-containing vaccine in a given year.
	Relevance:	The physical infrastructure component tries to assess the accessibility
		as well as the redundancy of the systems which are two crucial
		characteristics in a crisis situation.
		Measles immunization coverage is a good proxy of health system
		performance.
	Validity / Limitation	
	of indicator:	

ICATOR NOTES	Unit of Measure:	Percentage			
	Indicator Creation Method:	The estimate of immunization coverage is derived by dividing the total number of vaccinations given by the number of children in the target population, often based on census projections.			
	Additional notes:				
ND	Pre-processing:	Transformation:		Min:	60%
		Normalisation:	MAX-MIN	Max:	99%

SOURCE	Variable:	Measles (MCV) immunization coverage among 1-year-olds (%)	
	Citation:	WHO Global Health Observatory Data Repository	
	Date of publication:	01/07/2013	
	Reference time:	2012	
	Periodicity:	Annual	
	URL:	http://apps.who.int/ghodata	
	Data Type:	Tabular (Excel)	
	Country coverage:	189/191 (99%)	



European Commission EUR 26528 - Joint Research Centre - Institute for the Protection and the Security of the Citizen

Title: Index for Risk management - INFORM: Concept and Methodology

Author(s): Tom De Groeve, Karmen Poljanšek, Luca Vernaccini

Luxembourg: Publications Office of the European Union

2014 –119 pp. – 21.0 x 29.7 cm

EUR - Scientific and Technical Research series - ISSN 1831-9424 (online)

ISBN 978-92-79-33669-0 (pdf)

doi: 10.2788/78658

Abstract

This report describes the concept and methodology of the composite Index for Risk Management (INFORM). The INFORM initiative began in 2012 as a convergence of interests of UN agencies, donors, NGOs and research institutions to establish a common evidence-base for global humanitarian risk analysis.

INFORM identifies the countries at a high risk of humanitarian crisis that are more likely to require international assistance. The INFORM model is based on risk concepts published in scientific literature and envisages three dimensions of risk: Hazards & Exposure, Vulnerability and Lack of Coping Capacity. The INFORM model is split into different levels to provide a quick overview of the underlying factors leading to humanitarian risk.

The INFORM index supports a proactive crisis and disaster management framework. It will be helpful for an objective allocation of resources for disaster management as well as for coordinated actions focused on anticipating, mitigating, and preparing for humanitarian emergencies.

As the Commission's in-house science service, the Joint Research Centre's mission is to provide EU policies with independent, evidence-based scientific and technical support throughout the whole policy cycle.

Working in close cooperation with policy Directorates-General, the JRC addresses key societal challenges while stimulating innovation through developing new standards, methods and tools, and sharing and transferring its know-how to the Member States and international community.

Key policy areas include: environment and climate change; energy and transport; agriculture and food security; health and consumer protection; information society and digital agenda; safety and security including nuclear; all supported through a cross-cutting and multi-disciplinary approach.



ISBN 978-92-79-33669-0 DOI 10.2788/78658