

Disasters in Numbers 2009 and the Decade

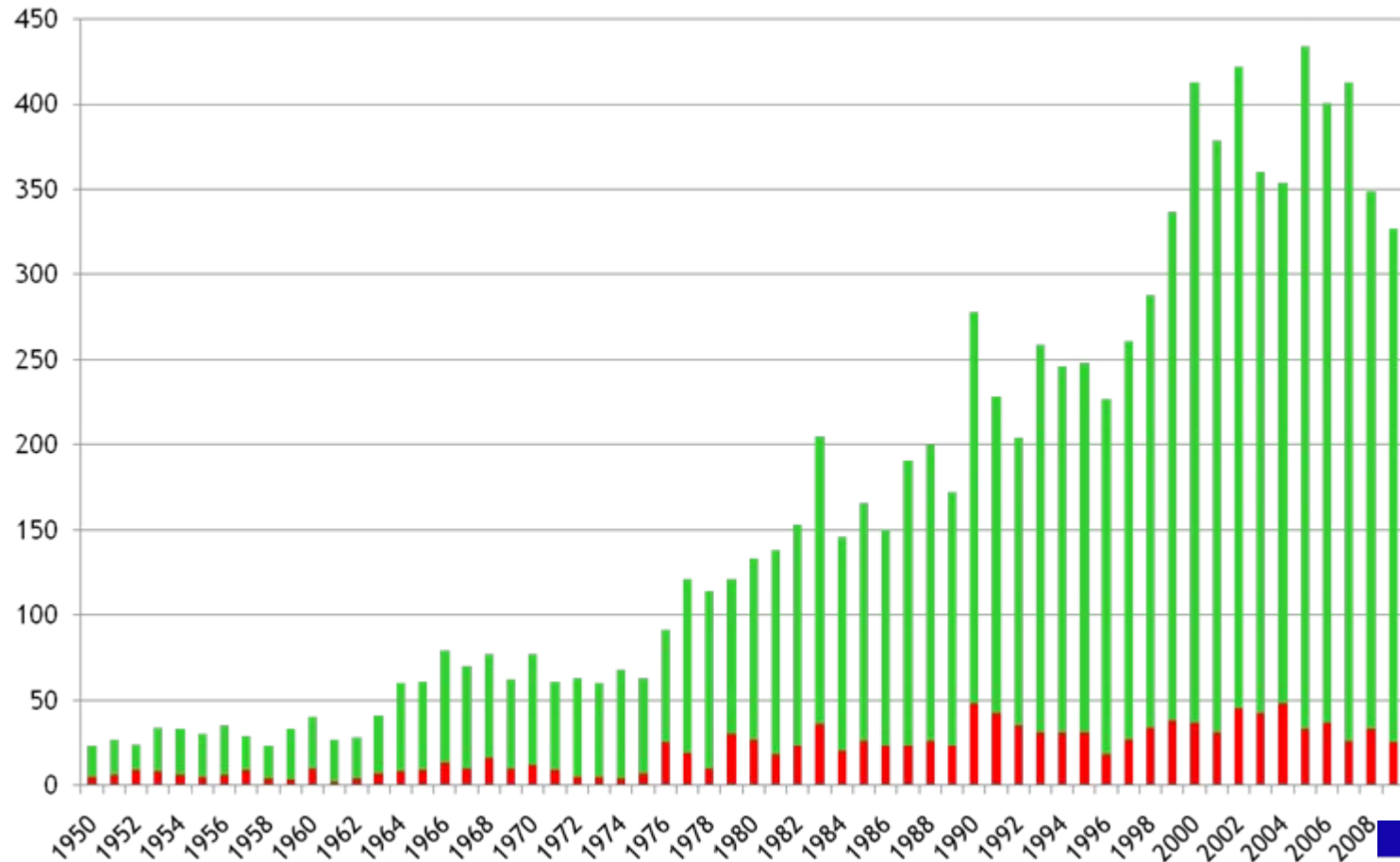
Prof. Dr. Debarati Guha-Sapir

CRED, University of Louvain, Brussels

January 28th, 2010 - Geneva



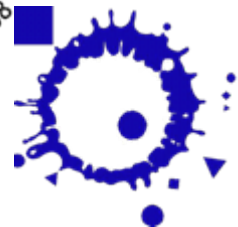
NATURAL DISASTERS* TREND 1950-2009



■ Earthquake, volcano, dry mass mov.

■ Climate-related disasters

* Biological disasters excluded



NATURAL DISASTERS* IN THE DECADE: 2000-2009

- Occurrence of natural disasters: 3 852 country level disasters*
- Total deaths: > 780 000
- Total affected: > 2 billion
- Estimated damage: 959 billion US\$

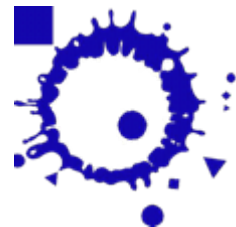
* Biological disasters excluded



NATURAL DISASTERS FOR THE DECADE: 2000-2009

<i>Years</i>	<i>Occurrence</i>	<i>Deaths</i>	<i>Total Affected (Million)</i>	<i>Economic Losses (Million US\$)*</i>
2000	413	9686	173.2	56801
2001	379	30981	108.7	32668
2002	422	12657	660.3	61932
2003	360	109991	255	81175
2004	354	241635	161.7	154219
2005	434	89210	160.2	234614
2006	401	23502	122.3	36205
2007	413	16857	211.1	77765
2008	349	235298	215.5	188991
2009	327	10416	112.8	34938
Grand Total	3852	780233	2180.9	959307

* In 2009 US\$ value



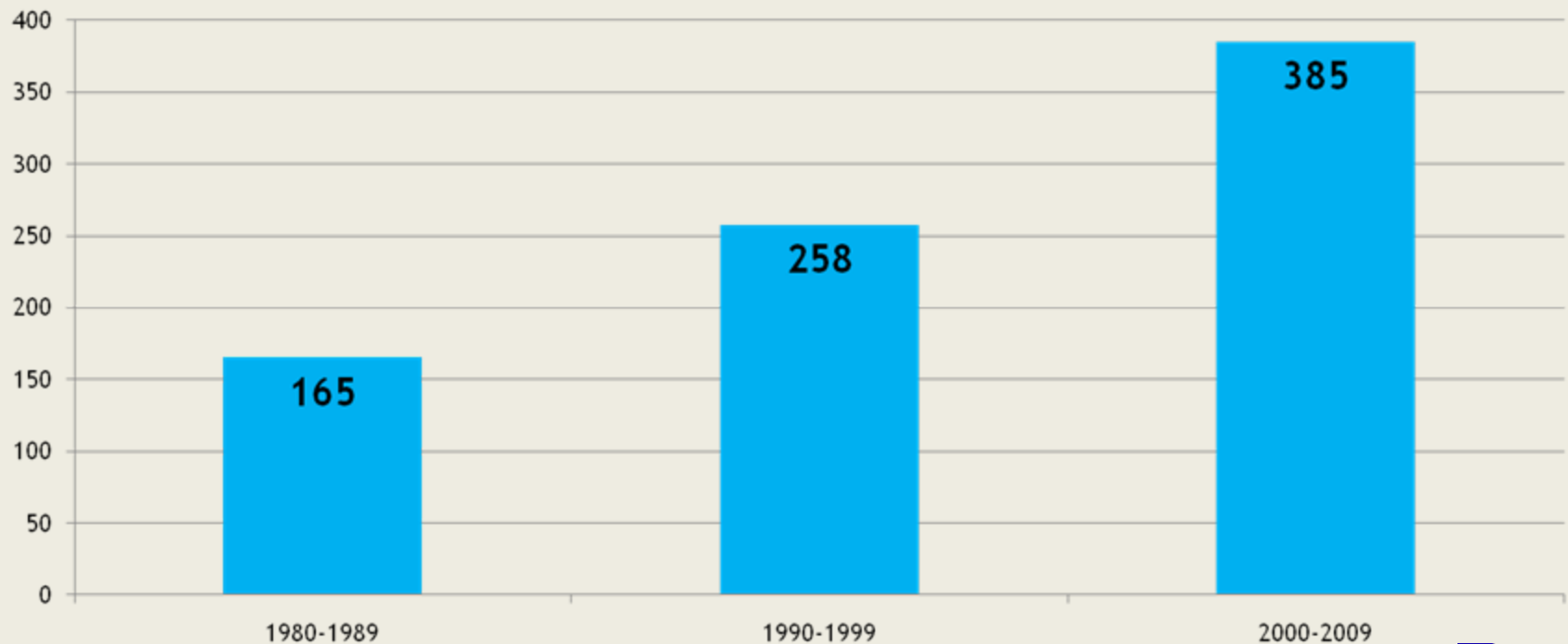
TOP 10 NATURAL DISASTERS BY NUMBER OF DEATHS IN THE DECADE: 2000-2009

Event	Date	Country	Deaths
Tsunami	Dec. 2004	Indonesia	165 708
Cyclone Nargis	May 2008	Myanmar	138 366
Earthquake	May 2008	China	87 476
Earthquake	Oct. 2005	Pakistan	73 338
Tsunami	Dec. 2004	Sri Lanka	35 399
Earthquake	Dec. 2003	Iran	26 796
Heat wave	Summer 2003	Italy	20 089
Earthquake	Jan. 2001	India	20 005
Heat wave	Summer 2003	France	19 490
Tsunami	Dec. 2004	India	16 389



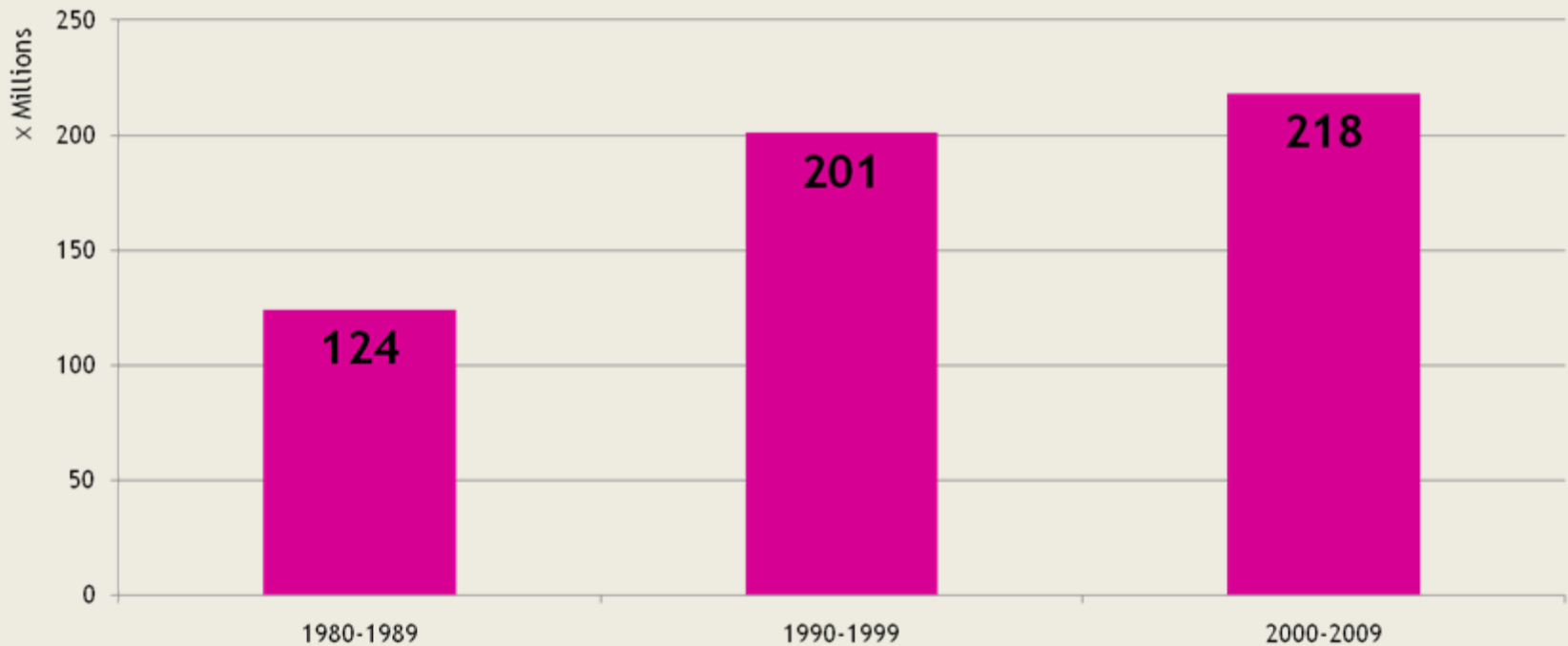
133% more events in 2000-2009 than in 1980-1989

Annual average disaster occurrence: 3 decades comparison



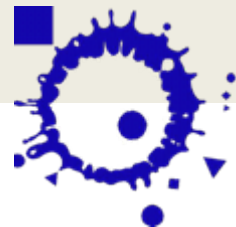
76% more affected people in 2000-2009 than in 1980-1989

Annual average of affected people: 3 decades comparison



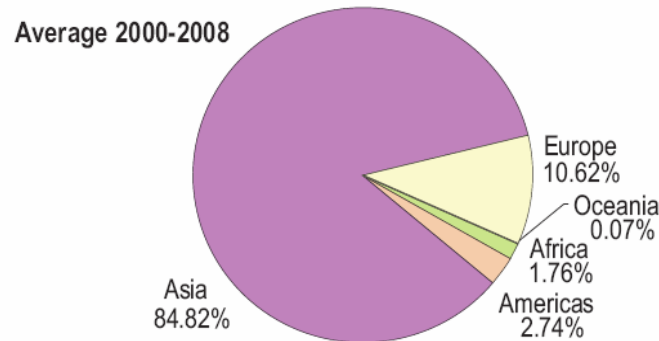
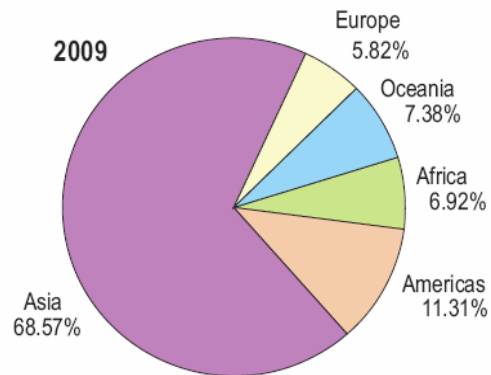
FACTS AND FIGURES FOR THE DECADE : 2000-2009

- 60% people died because of earthquakes in the last decade, followed by storms (22%) and extreme temperatures (11%)
- 85% of fatalities were in Asia
- Average total affected people follow the same trend as previous decades; mainly due to climate-related events
- Total economic losses vary from one decade to the other; but are mainly due to floods and storms

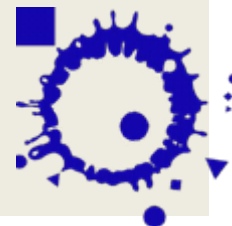


PERCENTAGE OF PEOPLE KILLED BY NATURAL DISASTERS* BY REGION

Percentage of people killed by natural disasters by region



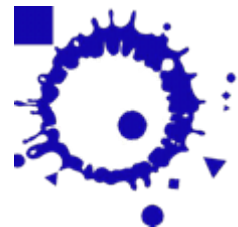
* Biological disasters excluded



NATURAL DISASTERS* IN 2009

- Occurrence of natural disasters: 327 country level disasters*
- Total deaths: 10 416
- Total affected: 113 million
- Estimated damage: 34.9 billion US\$

* Biological disasters excluded



TOP10 DISASTERS BY NUMBER OF DEATHS (2009)

Event	Date	Country	Deaths
Earthquake	September	Indonesia	1195
Flood	July/Sep.	India	992
Typhoon Morokot	August	Taiwan	630
Typhoon Pepeng	October	Philippines	539
Typhoon Ondoy	September	Philippines	501
Heat wave	Jan./Feb.	Australia	347
Flood	September	India	300
Earthquake	April	Italy	295
Hurricane Ida	November	El Salvador	275
Cold wave	May/August	Peru	274



TOP10 DISASTERS ECONOMIC LOSSES (2009)

Event	Date	Country	Damage*
Winter storm Klaus	January	France	3.2
Earthquake	April	Italy	2.5
Tornado	February	United States	2.5
Earthquake	September	Indonesia	2.0
Tornado	June	United States	2.0
Winter Storm Klaus	January	Spain	1.9
Tornado	April	United States	1.7
Typhoon Morokot	August	China, P Rep	1.4
Wild Fire	February	Australia	1.3
Flood	June-July	China	1.0

*in US\$ billion



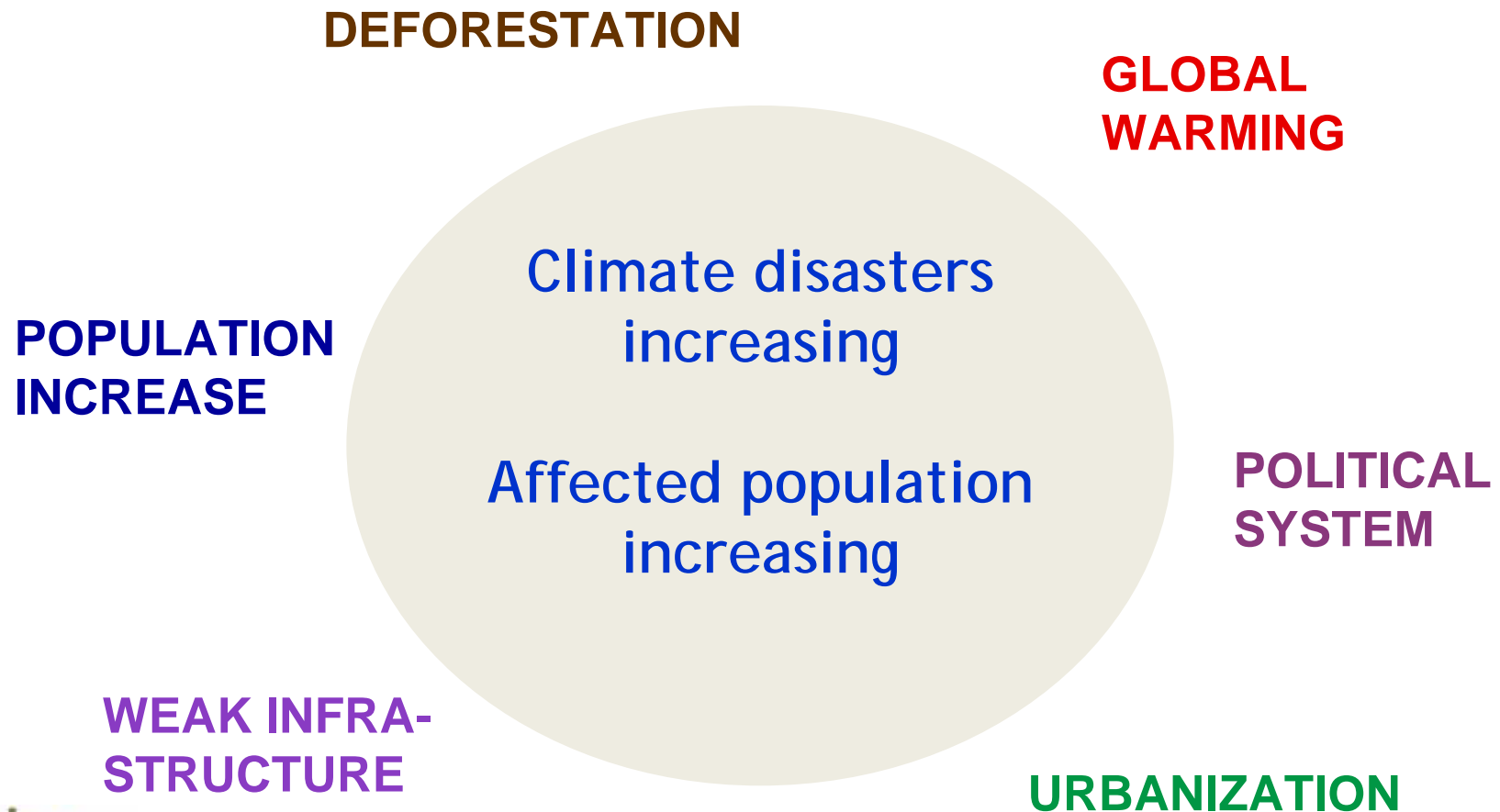
NUMBER OF REPORTED NATURAL DISASTERS* BY COUNTRY - 2009

Philippines	26
China, P Rep	23
United States	16
India	13
Indonesia	12
Brazil	10
Australia	7
Mexico	7
Bangladesh	6
Viet Nam	6

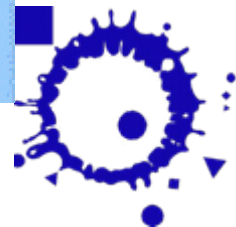
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WHICH FACTORS CONTRIBUTE TO CLIMATE-RELATED DISASTER INCREASE?

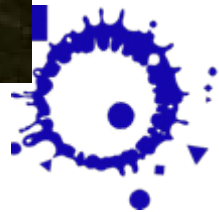


HAITI/DOMINICAN REPUBLIC MAPS



HISPANIOLA

SAME ISLAND, 2 COUNTRY PROFILES



HISPANIOLA

SAME ISLAND, 2 COUNTRY PROFILES

10 most recent natural disasters that have occurred in both countries

Date	Disaster Type	Haiti		Dominican Republic	
		Killed	Affected	Killed	Affected
September 2008	Hurricane Hanna	529	48,000	1	10,745
August 2008	Hurricane 'Gustav'	85	73,006	8	6,257
August 2008	Tropical Storm 'Fay'	10	220	4	20
December 2007	Tropical Storm 'Olga'	3	2,090	33	61,605
October-November 2007	Tropical Storm 'Noel'	90	108,763	129	79,728
August 2007	Hurricane Storm 'Dean'	9	3,966	1	1,600
May-June 2007	Flood	2	12,500	9	16,000
March 2007	Flood	14	15,014	3	3,830
October 2005	Tropical Storm 'Alpha'	12	2,192	9	1,000
September 2004	Hurricane 'Jeanne'	2,754	315,594	11	14,009
	Total	3,508	581,345	208	194,794



HAITI: 2000-2009

Number of natural disasters: 39

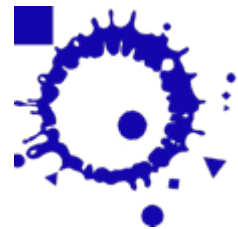
Floods: 20

Storms: 18

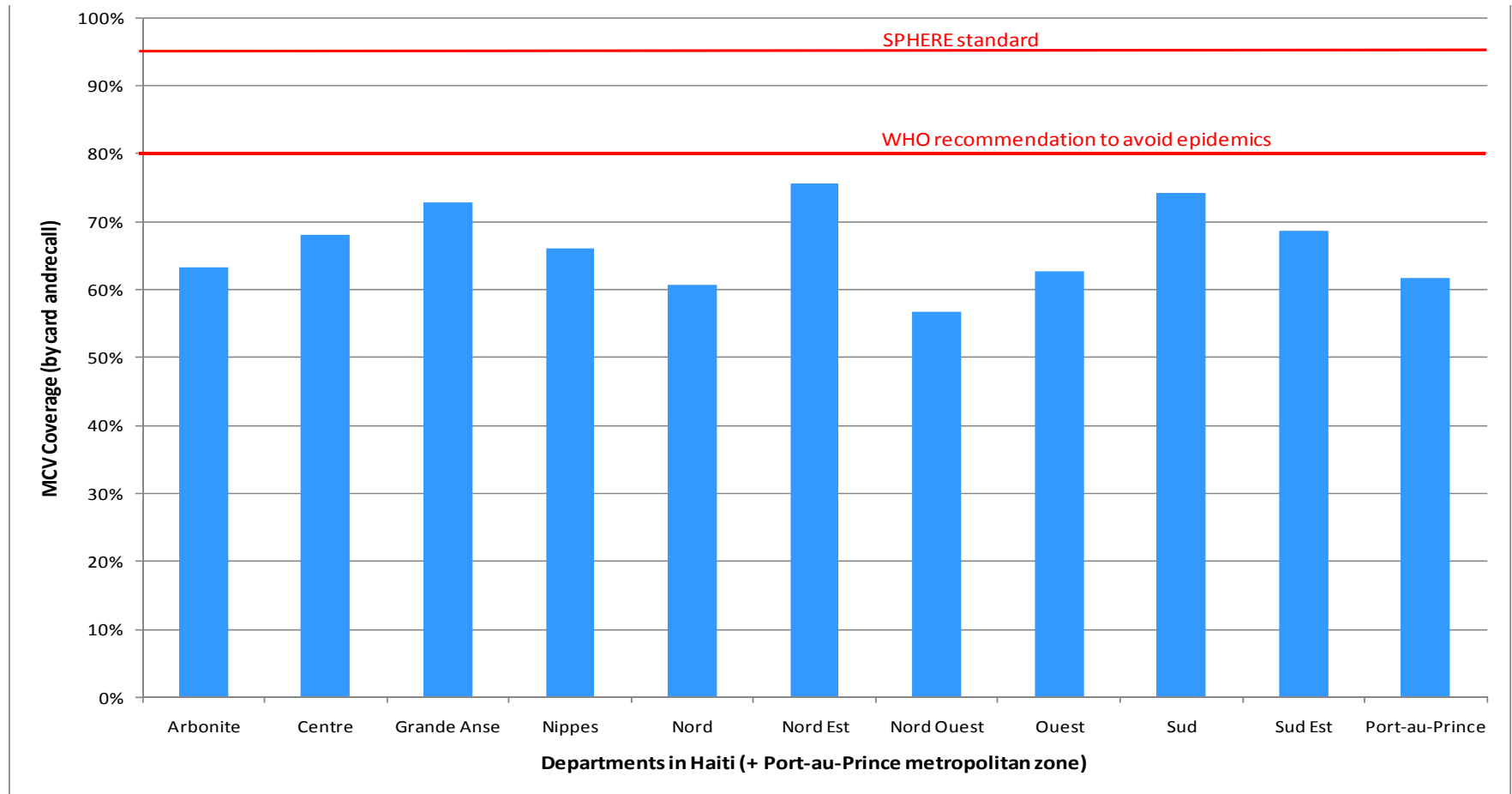
Drought: 1

Number of persons reported killed: 6,573

Number of persons reported affected: 1,156,577



HAITI: MEASLES CONTAINING VACCINE (MCV) COVERAGE, 9-59 OLD MONTHS CHILDREN



Source: Action Contre la Faim International Network surveys carried out in 2009 in all departments and Port-au-Prince



CAUSES OF MORTALITY IN CITE SOLEIL (PORT-AU-PRINCE)

Tableau 4: causes de mortalité

Causes de mortalité	Nombre de morts (%)	IC
Violences	35 (29,2 %)	[21,6-37,8]
Fièvre	16 (13,3%)	[8,1-20,3]
Diarrhée	9 (7,5%)	[3,7-13,3]
Maladies respiratoires	8 (6,7 %)	[3,1-12,3]
Malnutrition	4 (3,3 %)	[1,1-7,8]
Problème cardiaque/ tension artérielle	17 (14,2%)	[8,8-21,3]
Sorcellerie/empoisonnement	8 (6,7%)	[3,1-12,3]
Autres	23 (19,2%)	[12,9-26,9]

- In Cité Soleil, the first reported cause of mortality is violence. **Infectious diseases together account for 27.5% of the causes of mortality**, hence an equal weight to violence in the total mortality.
- For the 15 to 39 age group, violence is the first cause of mortality and represents 47.1% of the causes of death.

Source: Médecins Sans Frontières: Haïti - Mortalité, violences et accès aux soins à Cité Soleil - Avril 2008



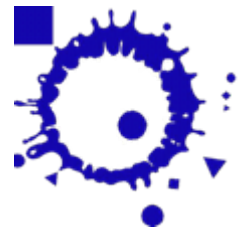
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