Climate change and system preparedness



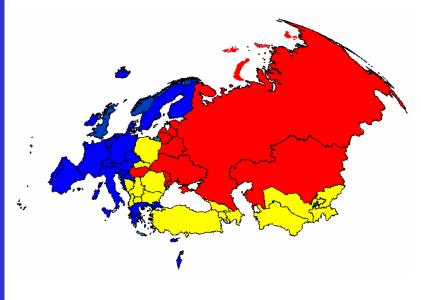
1. European region





The WHO European region

Disease stratum DALY (1,000)



97

Low child,	454
Low adult	

Low child, 91 High adult





Subregional differences in Europe

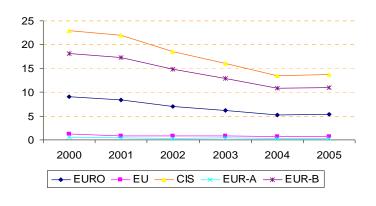


	HDI	HDI rank	GDP 100 0	GD P rank
LUX			<i>60,2</i>	1
ICE	0,96	1		
ALB	0,80	68	5,3	18
LTH	0,86	43	14,5	46
MD V	0,71	111	2,10	136
RUS	0,80	67	10,8	58
TJK	0,67	122	1,3	152

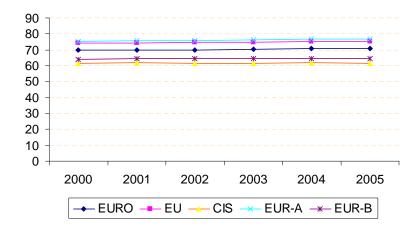


Mortality in the European region

SDR DD below 5y per 100,000

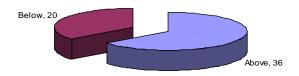


Male life expectancy at birth (y)

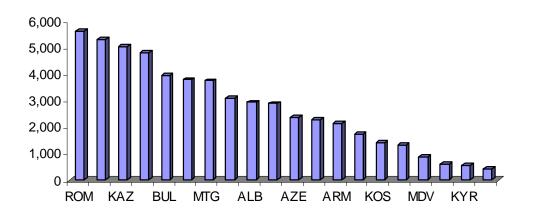




Economic vulnerability



GDP per capita (US\$)



Countries with annual GDP per capita of less than 6,000 USD are assumed to be at additional risk of diarrhoea.

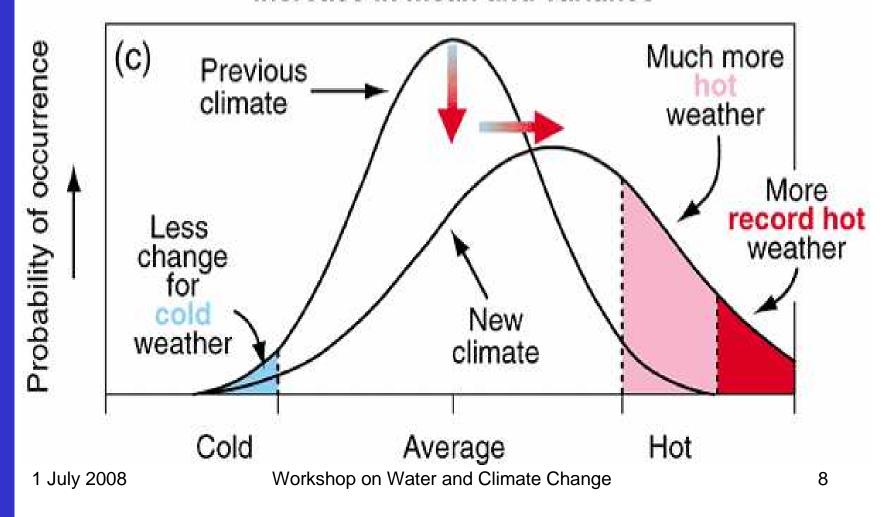
2. Climate change, health and the water cycle





The bottom line...

Increase in mean and variance

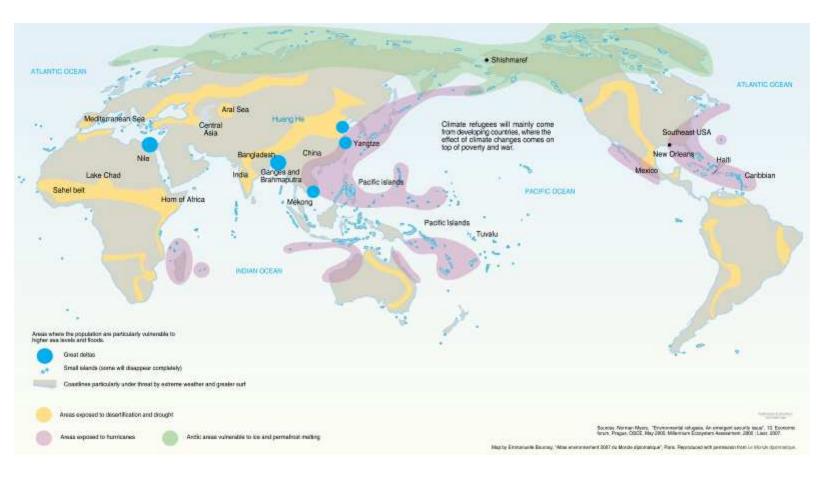




Projected impact of climate change Global temperature change (relative to pre-industrial) 0°C 1°C 2°C 3°C 4°C 5°C 6°C Food Falling crop yields in many areas, particulary developing regions Possible rising yields in some high latitude regions Falling yields in many developed regions Water Small mountain glaciers disappear -Significant decreases in water availability in many Sea level rise threatens major cities areas, including Mediterranean and Southern Africa water supplies threatened in several areas **Ecosystems** Extensive damage to coral reefs Rising number of species face extinction Extreme weather events Rising intensity of storms, forest fires, droughts, flooding and heat waves Risk of abrupt and major irreversible changes Increasing risk of dangerous feedbacks and abrupt, large-scale shifts in the climate system SOURCE: Stem Review IAASTOKetil Berger, UNEP/GRID-Aren



Climate change refugees



3. The role of health systems

Protect Europe's health from climate change





There are common actions that all health systems can take to strengthen preparedness and response

- 1. identify problems; most vulnerable populations; training, communication and supplies needs;
- 2. reinforce health systems' interventions to adapt to climate change
 - (i.e. ensuring clean water and sanitation, safe and adequate food, immunization, disease surveillance and response, vector control, and disaster preparedness);
- 3. train health professionals on climate-related health issues



Common actions that all health systems can take (continued...)

- 4. Deliver accurate and timely information and communication
- 5. Strengthen health security (IHR(2005)
- 6. Advocate health in other sectors (energy, water management, land use, housing...)
- 7. Set example of addressing root causes

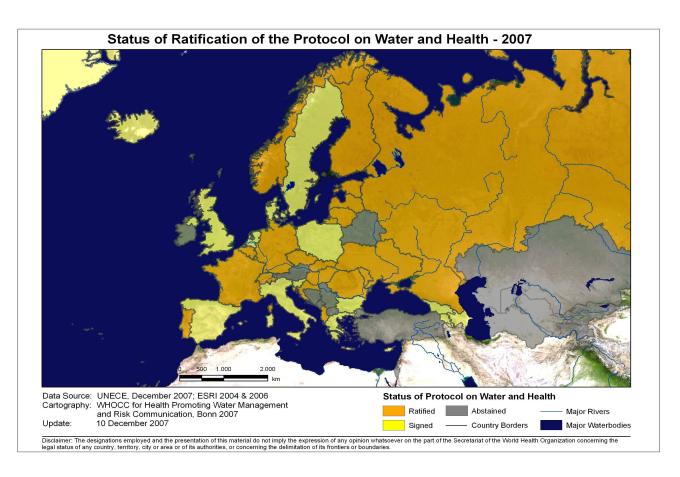
3. Role of international instruments to promote preparedness

Protect Europe's health from climate change





Protocol on water and health





Safeguard water supply and sanitation

- Joint and coordinated action
 - Notification of threats of disease outbreak
- Cooperation on transboundary water management
 - Joint and coordinated water management plans
- International support for national action
 - Project facilitation mechanism



Safeguard water supply and sanitation

TF on Indicators and Reporting

- Management, protection from pollution and use of water resources for dw production
- Access to water supply and sanitation
- Performance of service provider (loss reduction)
- Quality of drinking water supplied
- Safe reuse/disposal of treated wastewater/sludge



Strengthen health systems

Task Force on water-related disease surveillance

- Assess current surveillance systems
- Provide guidance on reduction of waterrelated diseases
- Assist in the development of contingency plans
- Assist in strengthening response capacity



Manage extreme events

- Task Force on indicators and reporting
 - Discharges of untreated storm water
- Task Force on water supply and extreme events
 - Exchange information on management of water and sanitation utilities under extreme drought/ flooding
 - Codify good practice guidance documents in this area
 - Outline document prepared and currently available for comments change on Water and Climate Change 19



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Protecting health in Europe from climate change

