



International Water Issues

An overview and the U.S. Response

Aaron Salzberg

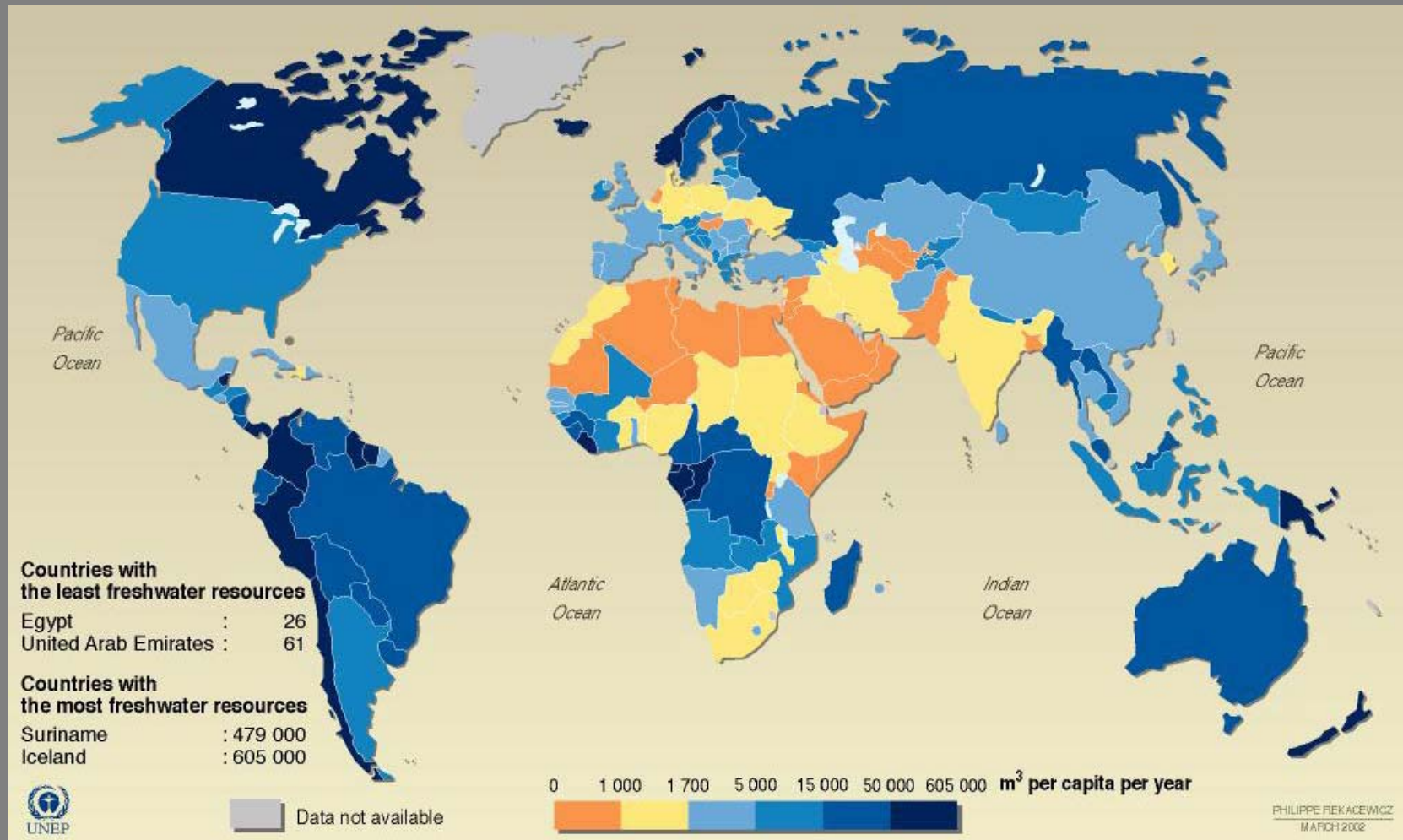
Special Coordinator for Water Resources



U.S. Department of State

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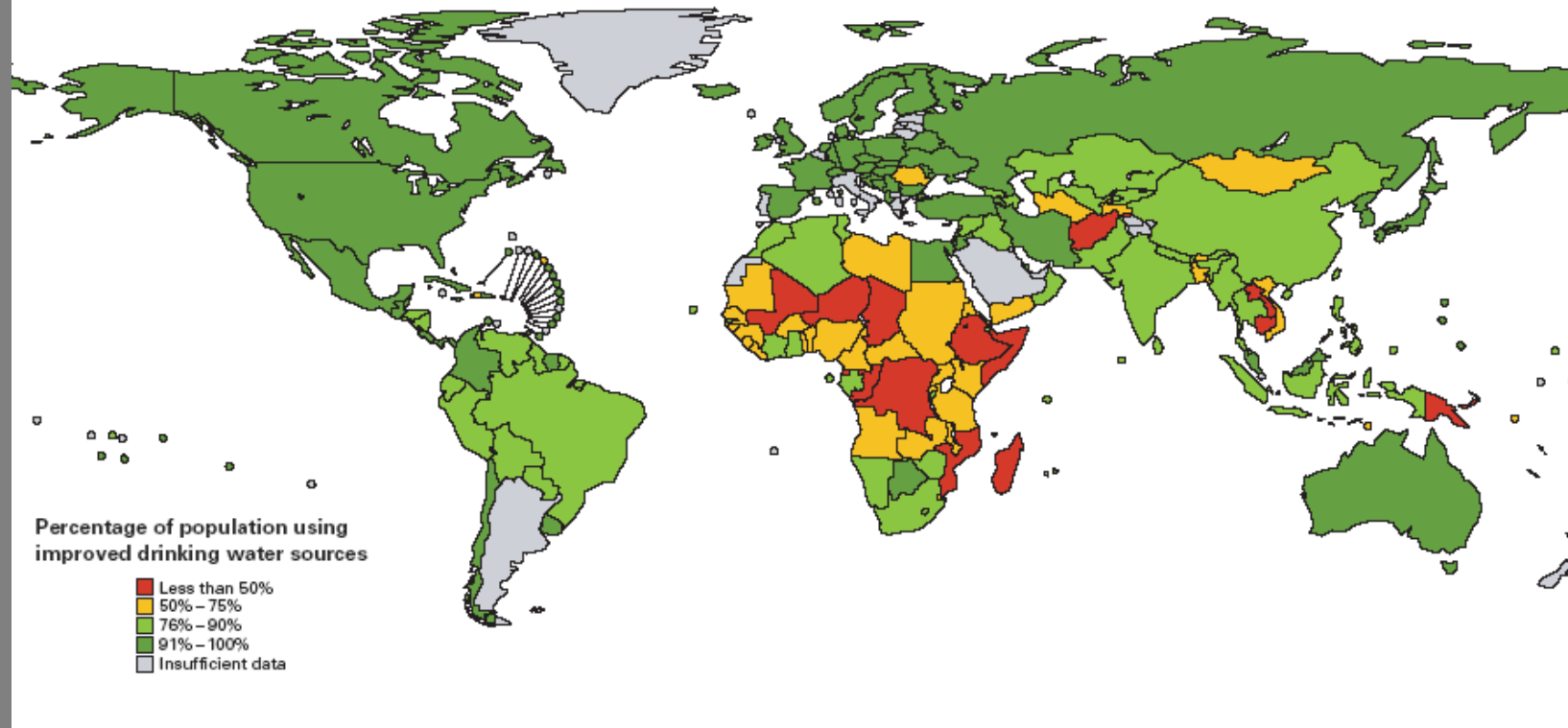
The State of the World



Freshwater Availability in 2000

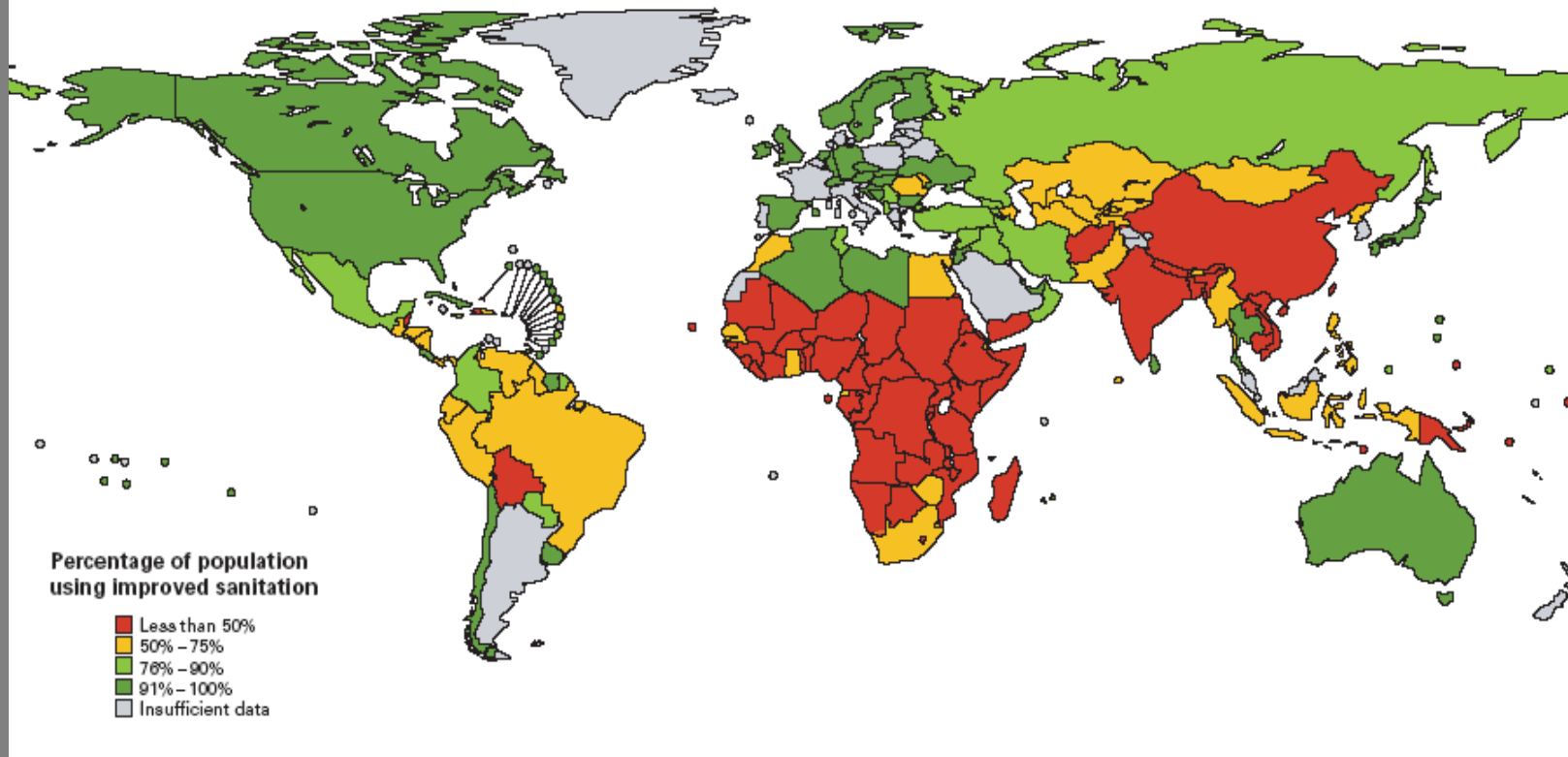
Water supply and sanitation

FIGURE 1 Coverage with improved drinking water sources in 2002

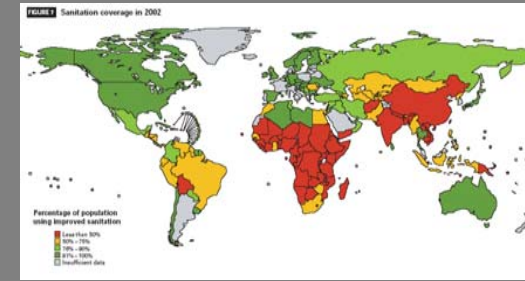
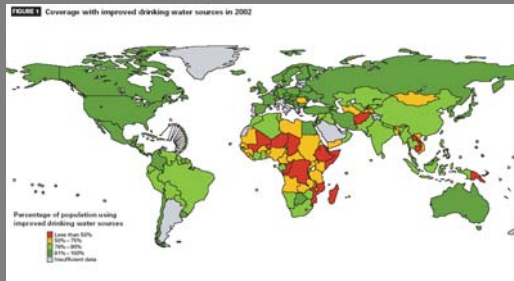


over 1 billion people lack access to safe water

FIGURE 7 Sanitation coverage in 2002



over 2 billion people lack access to sanitation

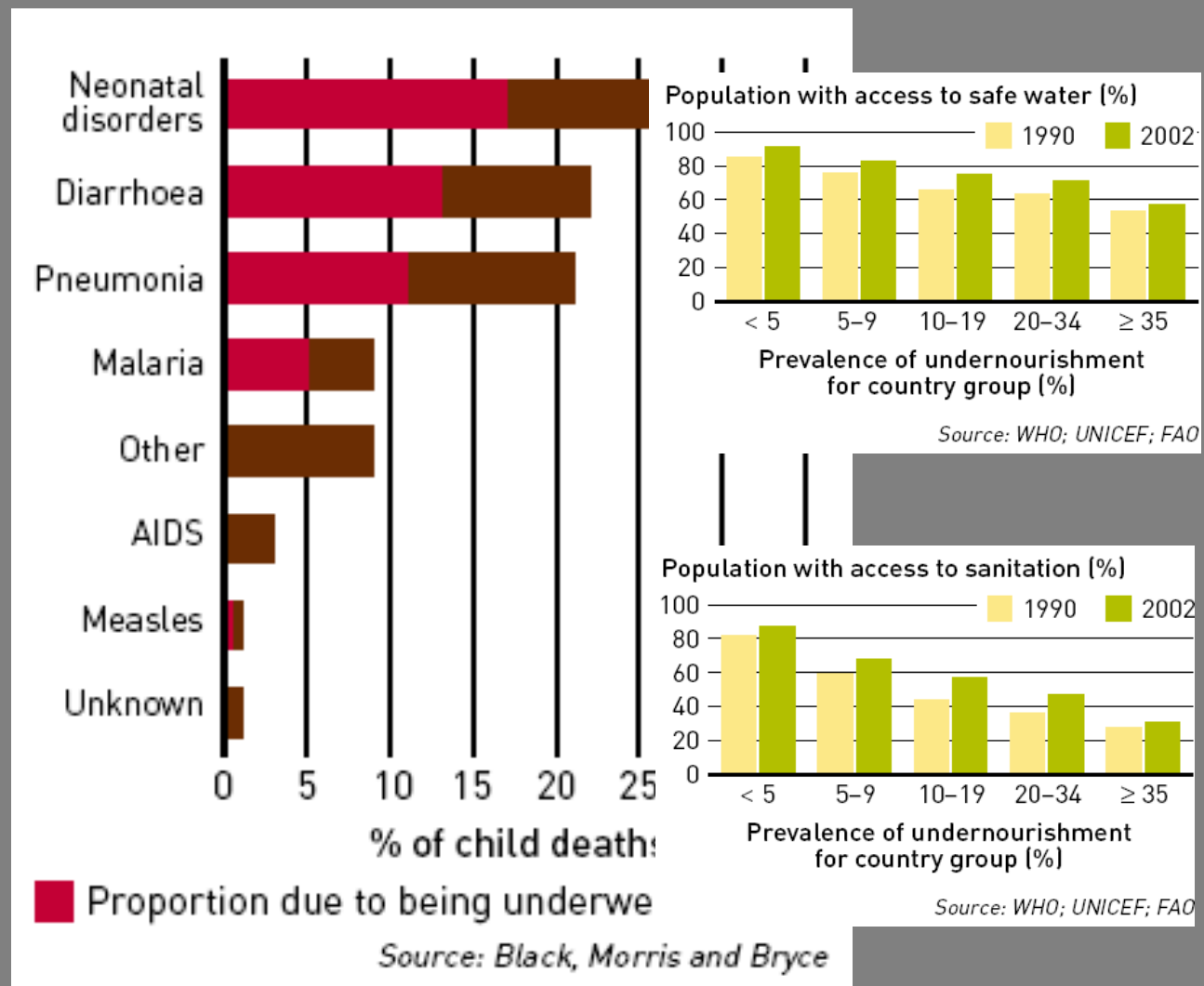


Over 1 billion ill per year

Approximately 1.8-5 million deaths
per year

6,000 per day

Most children under 5



global child deaths by cause

Food Production

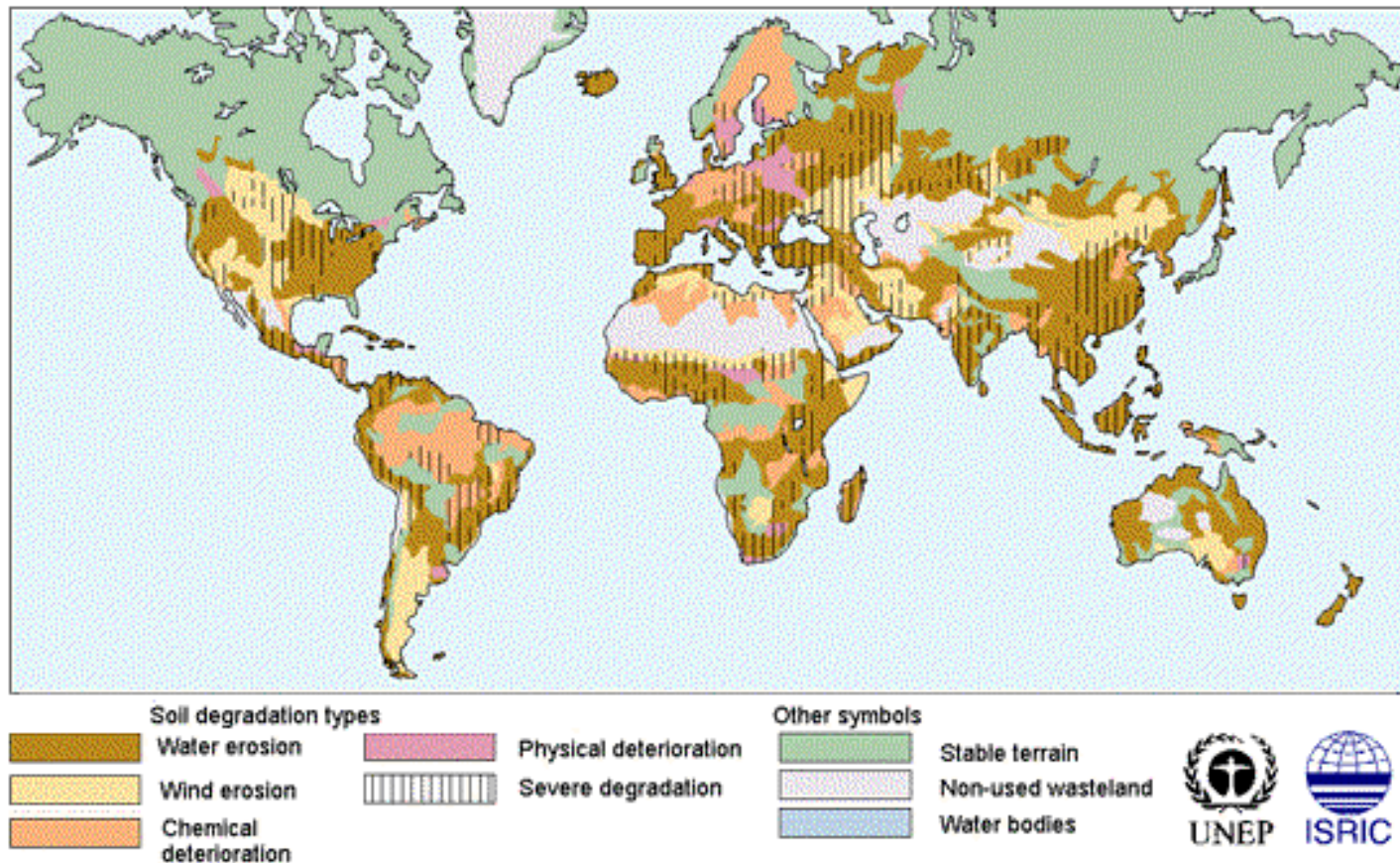


Agriculture is the largest water user

Population in SSA will rise 71%
Demand for grain will increase 45%
Demand for beef will rise 91%

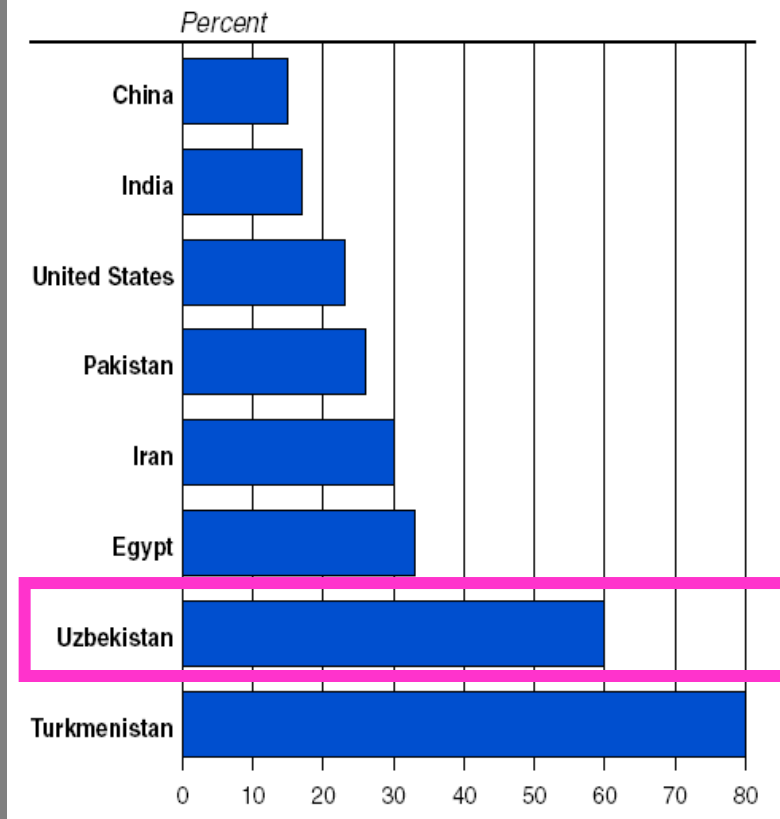
Increasing Demand

Human-induced soil degradation



arable land is decreasing

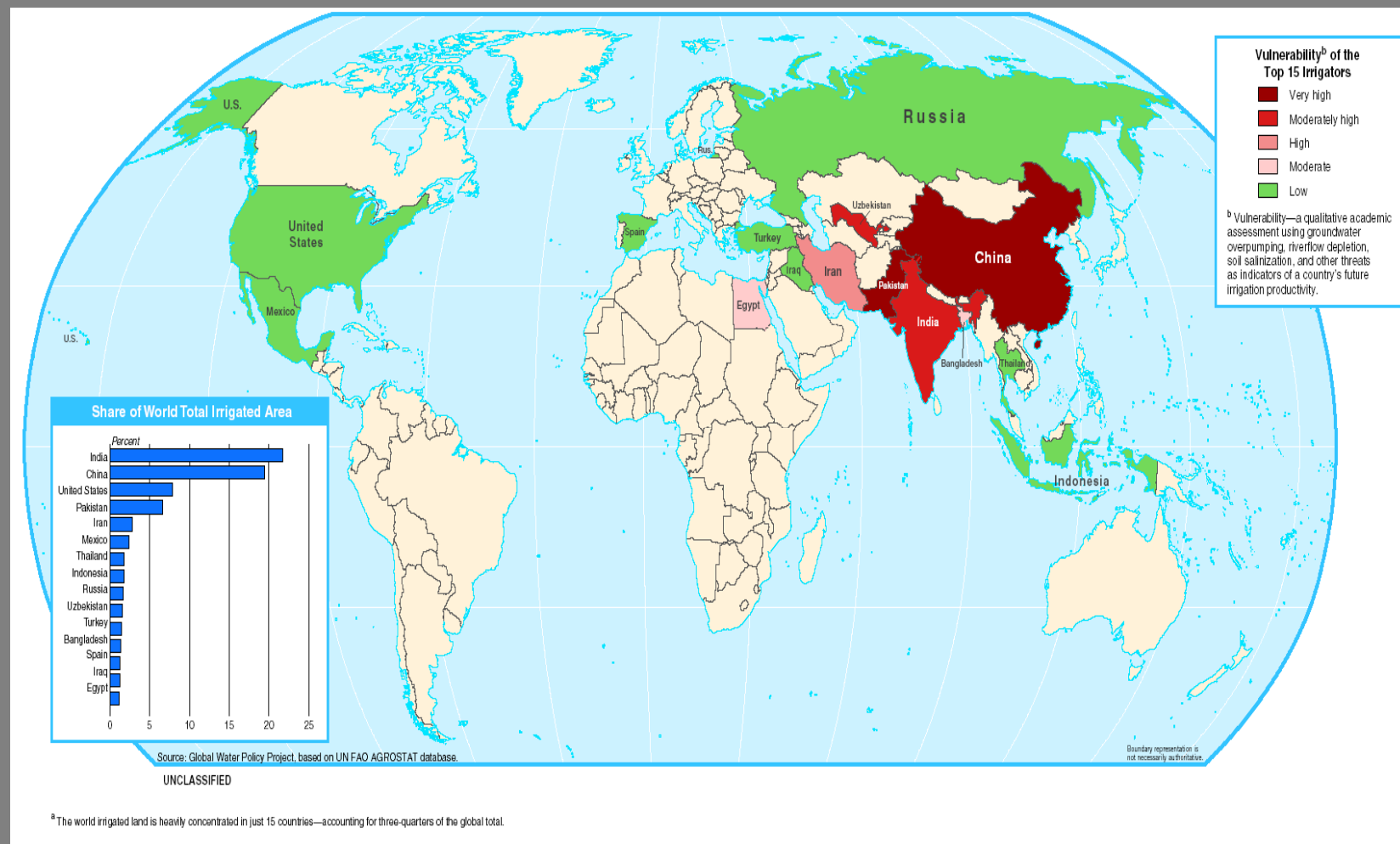
Share of Irrigated Land Damaged by Salinization (U)
Figure 10

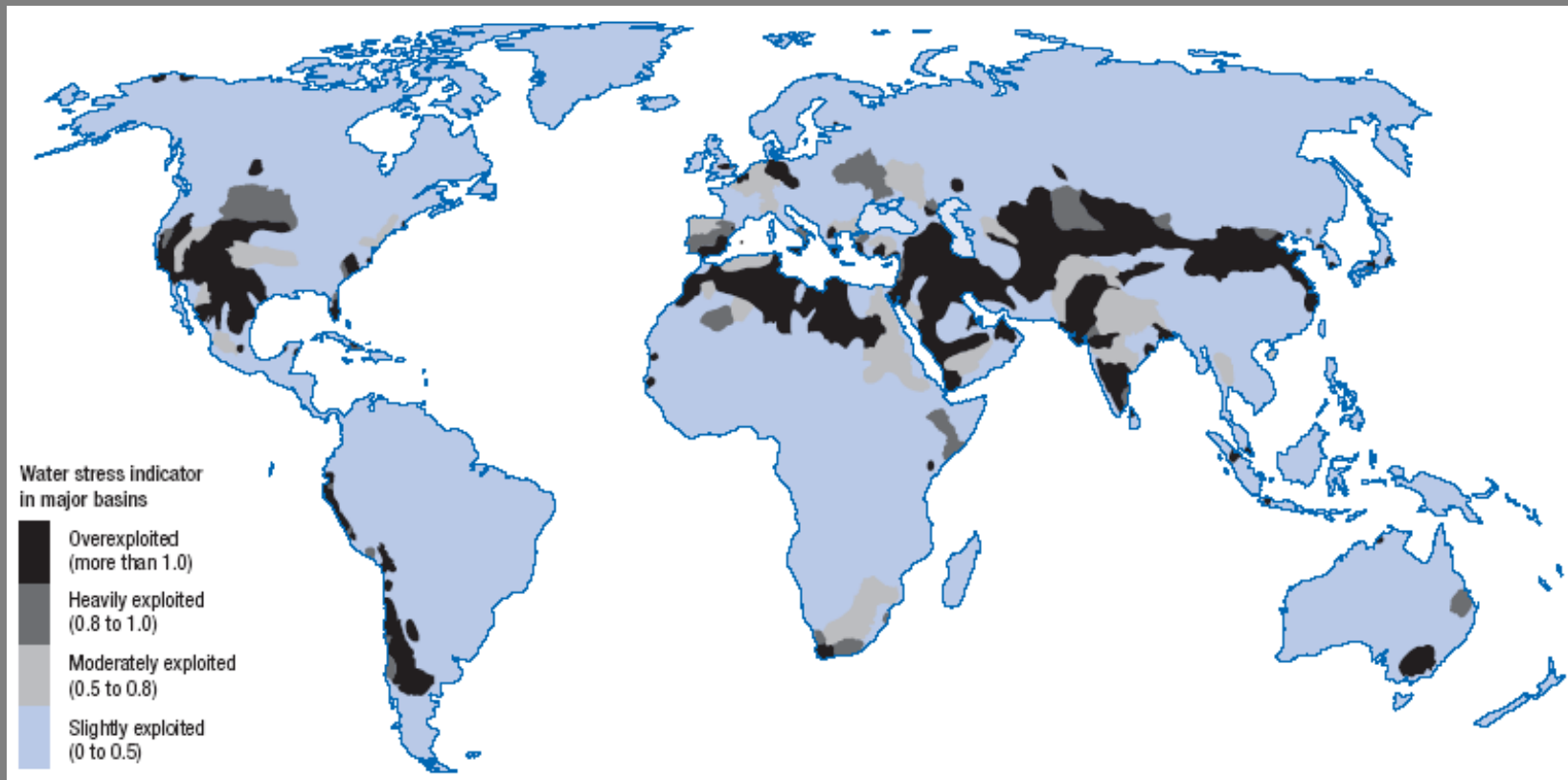


Cropland That Is Irrigated by Top Irrigators (U)

Country	Irrigated Area (million hectares)	Share of Cropland That is Irrigated (percent)
India	59.0	35
China	52.6	39
United States	21.4	12
Pakistan	18.0	82
Iran	7.6	40
Mexico	6.5	24
Thailand	4.8	23
Indonesia	4.8	16
Russia	4.7	4
Uzbekistan	4.3	89
Turkey	4.2	16
Bangladesh	3.8	46
Spain	3.6	19
Iraq	3.5	64
Egypt	3.3	100

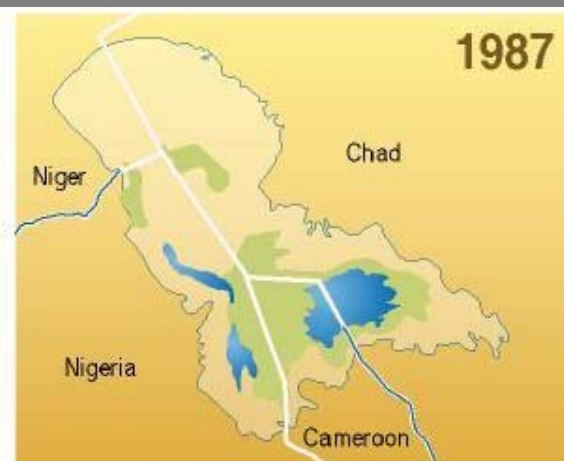
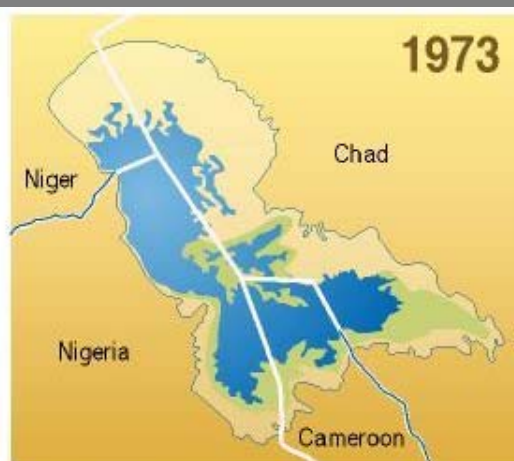
60% irrigated by top irrigators





Groundwater

Environmental degradation



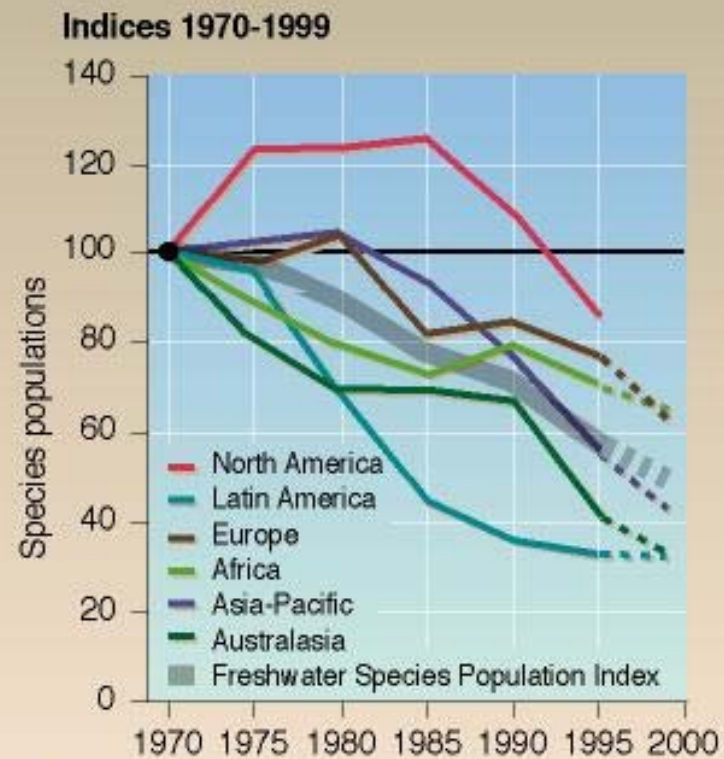
This collection of maps has been sourced from a series of satellite images provided by NASA Goddard Space Flight Center:

<http://www.gsfc.nasa.gov/gstc/earth/envirom/lakechad/chad.htm>

PHILIPPE PEKACEWICZ
MAY 2002

surface water usage increasing

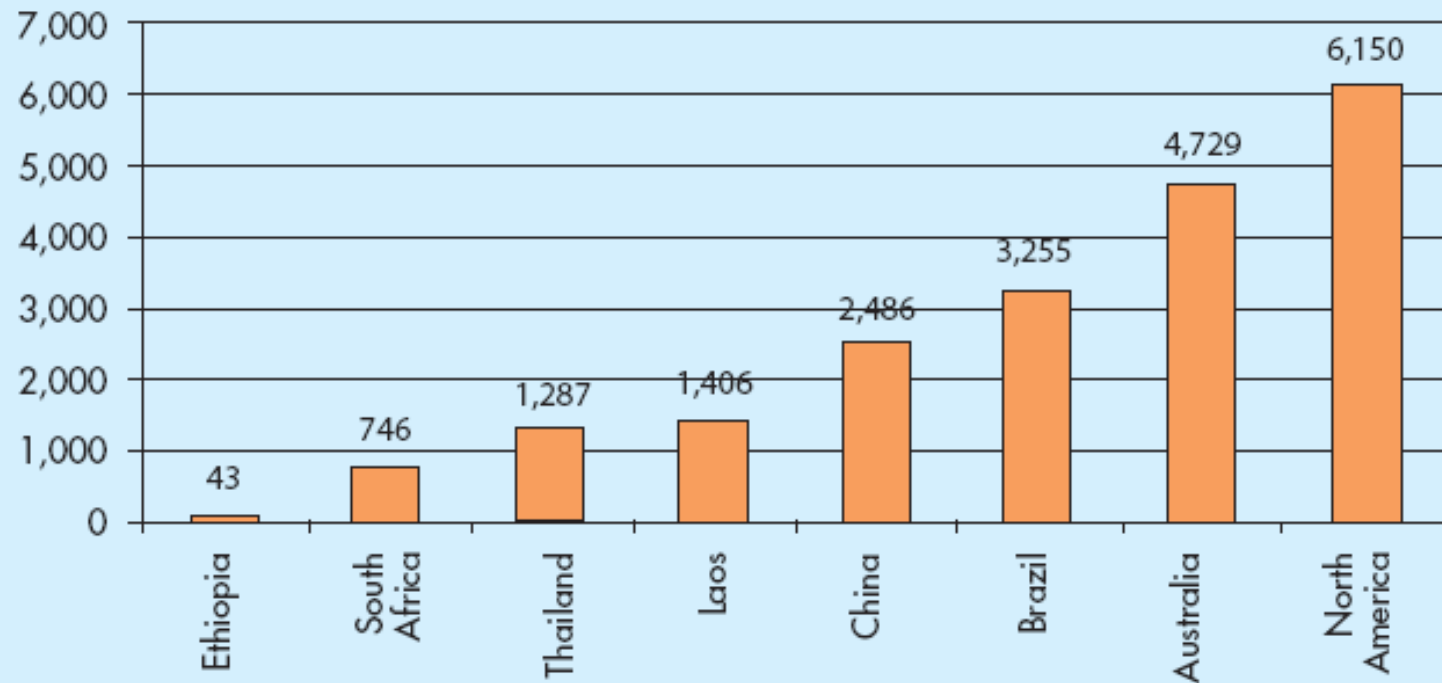
Changes in Freshwater Species Populations



Freshwater species declining

Economic growth / Disaster prevention (why infrastructure matters)

Water Storage Per Person (cubic meters)

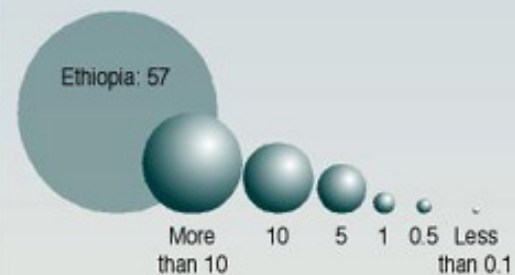


dams and water storage

People Affected by Natural Disasters between 1971-2000



Millions of People affected



Source: The Office of U.S. Foreign Disaster Assistance (OFDA), The Centre for Research on the Epidemiology of Disasters (CRED), International Disaster Database, www.cred.be/emdat, Université Catholique de Louvain, Brussel, Belgium.



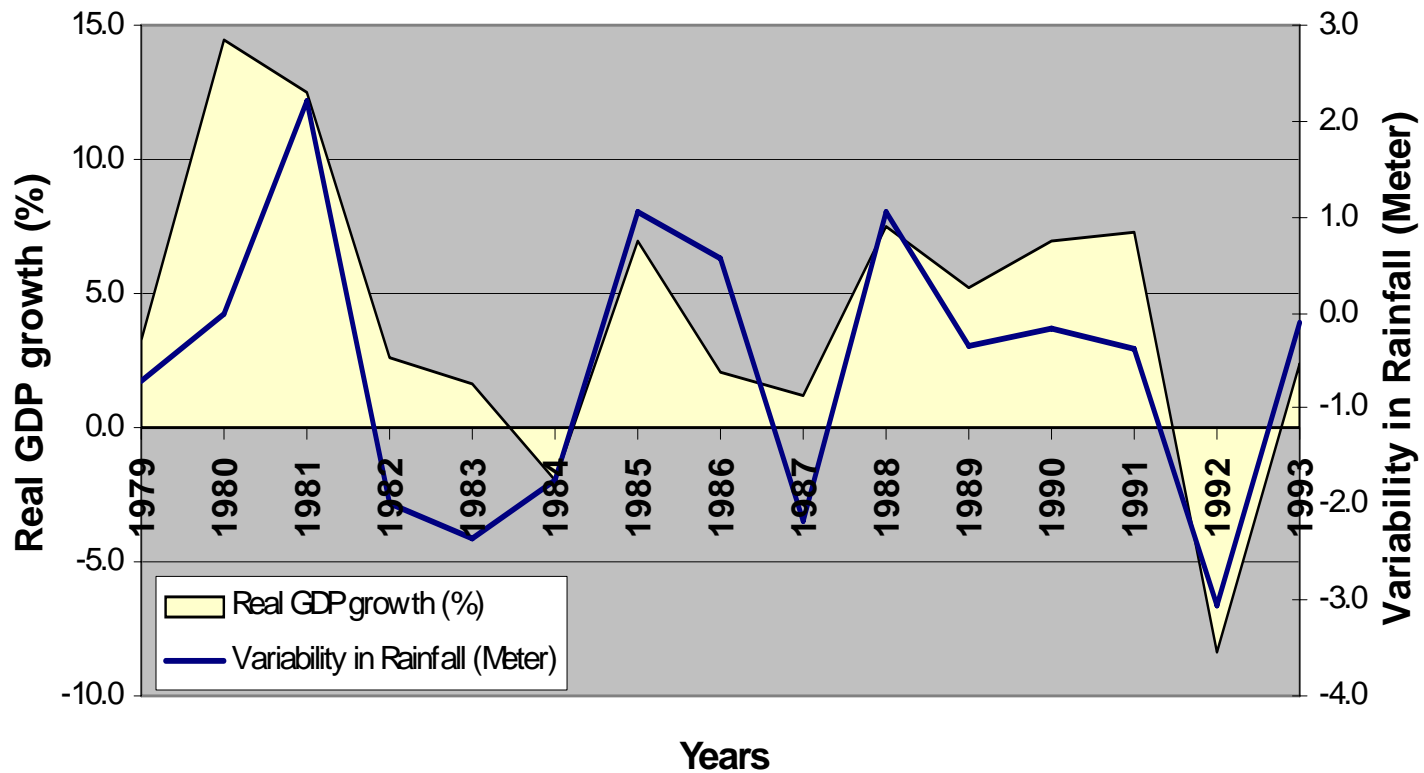
GRID
Arendal

DELPHINE DIGOUT
BASED ON A SKETCH BY PHILIPPE REKACEWICZ
JUNE 2002

using water

rainfall affects growth....

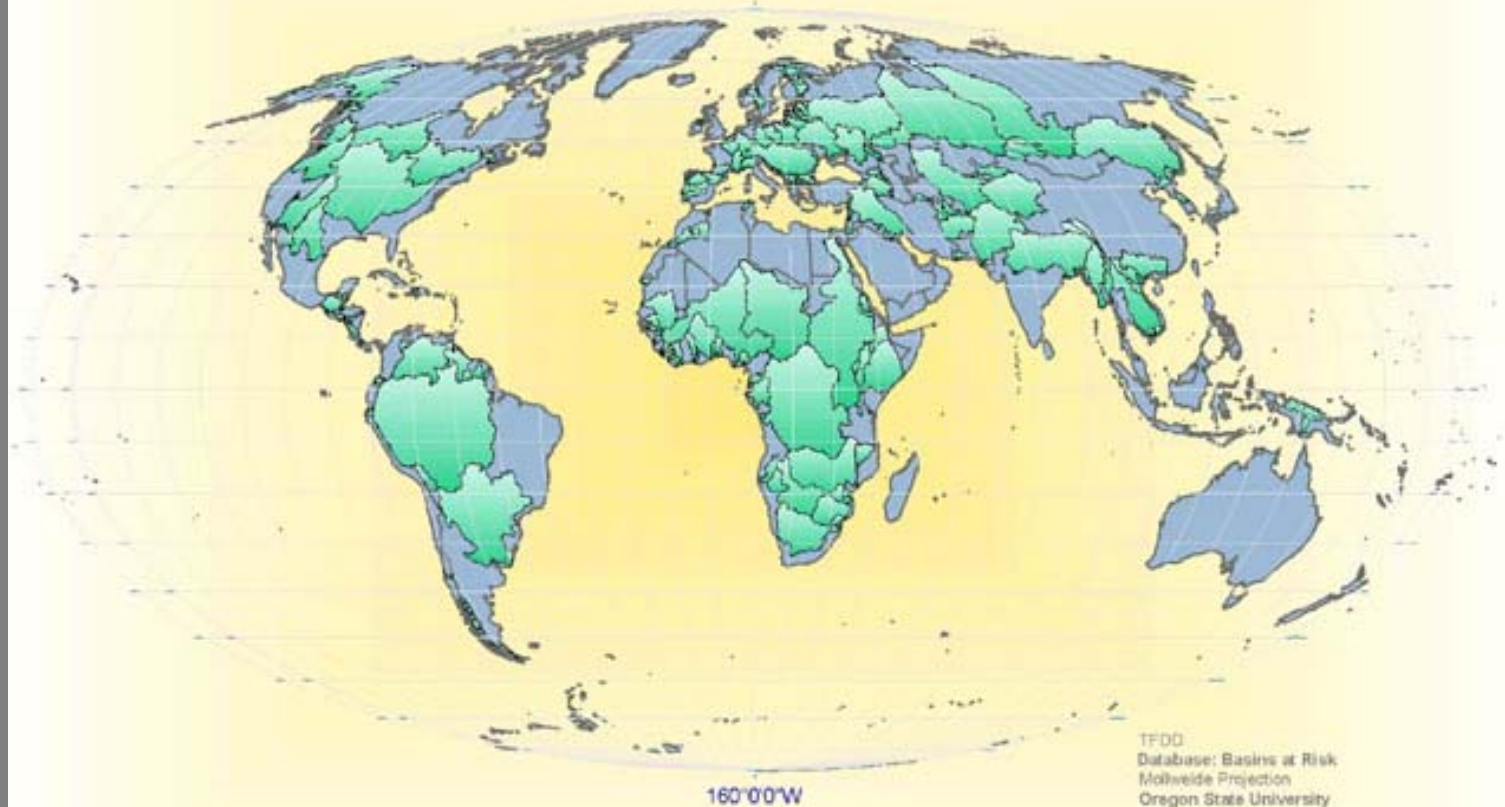
Correlation between GDP and Rainfall in Zimbabwe 1979-1993



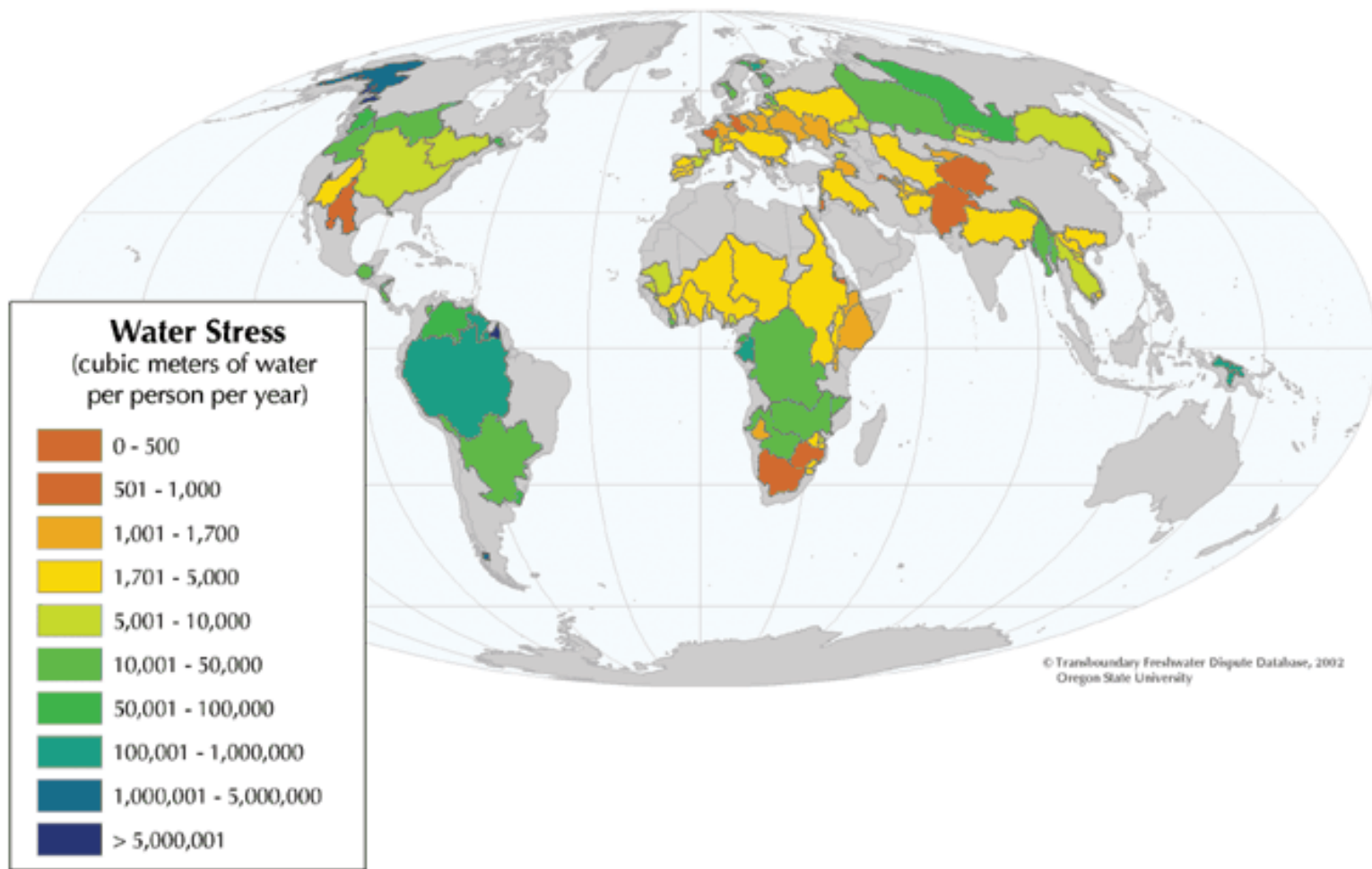
water – economic growth

Peace and Security (I.e., Water Wars)

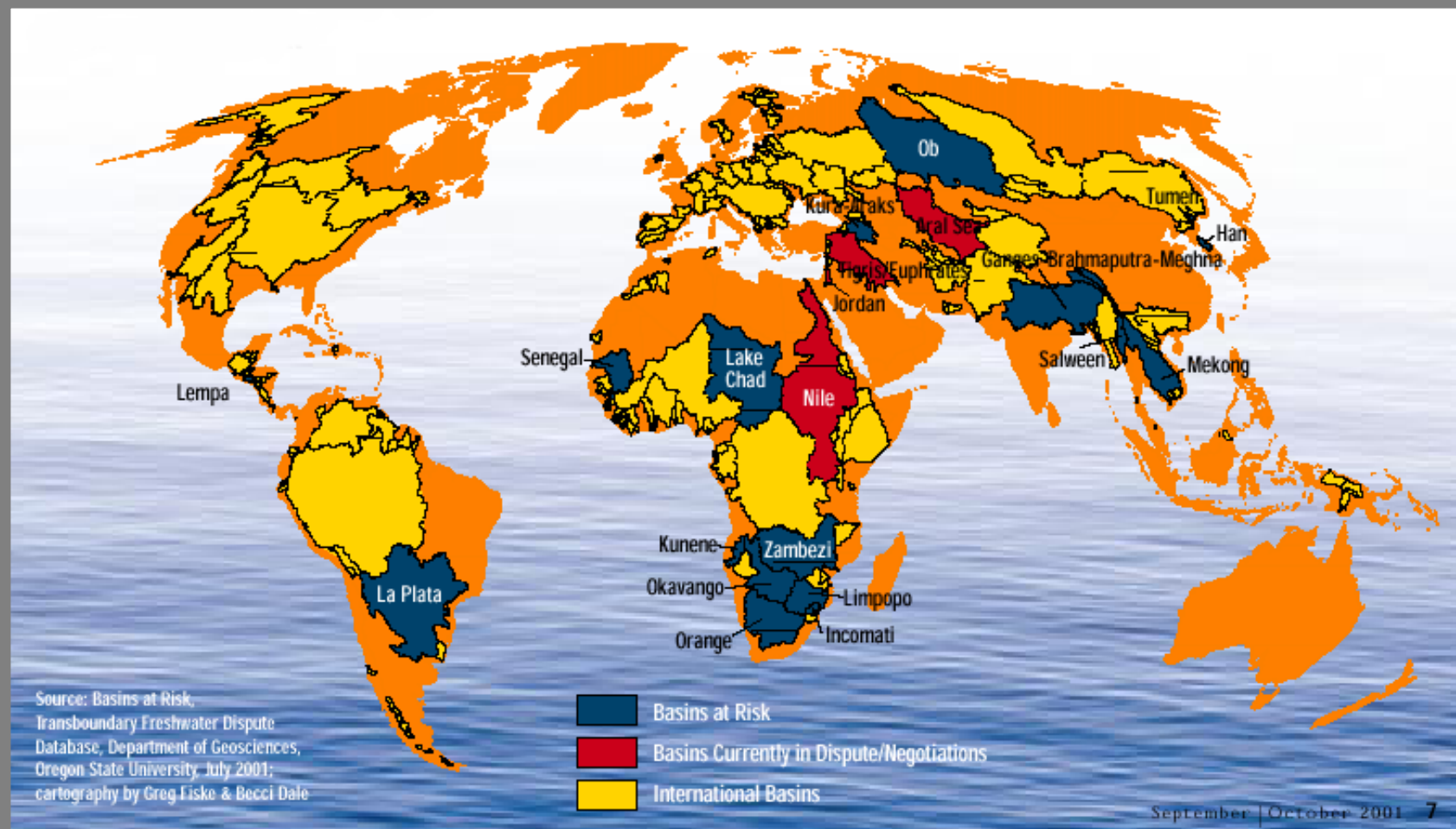
International Basins of the World



over 40% of the world lives in a shared basin



water stress by international basin



conflict

Basic Human Need

Dignity

Economic growth / Poverty reduction

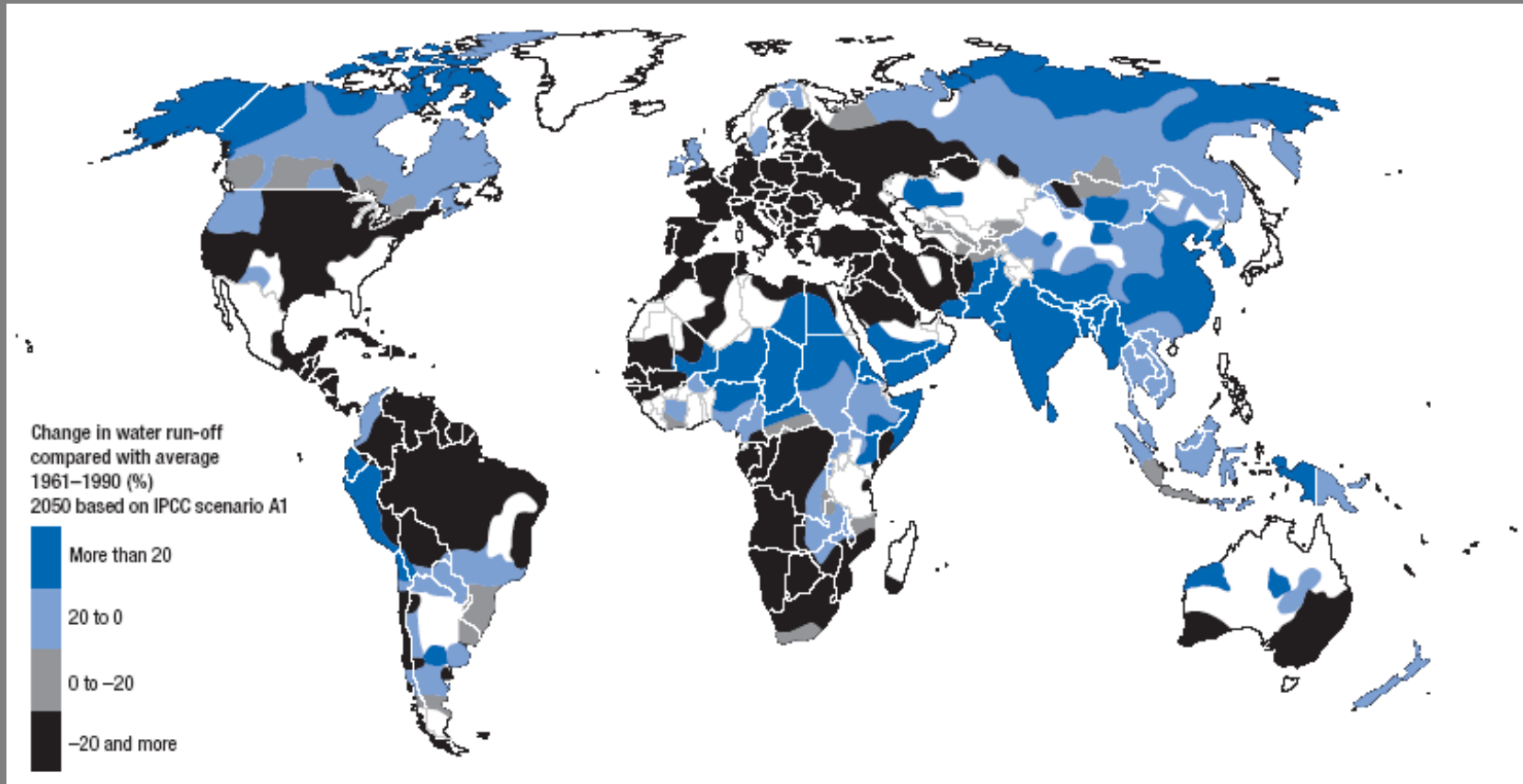
Conflict prevention

Build trust and promote cooperation

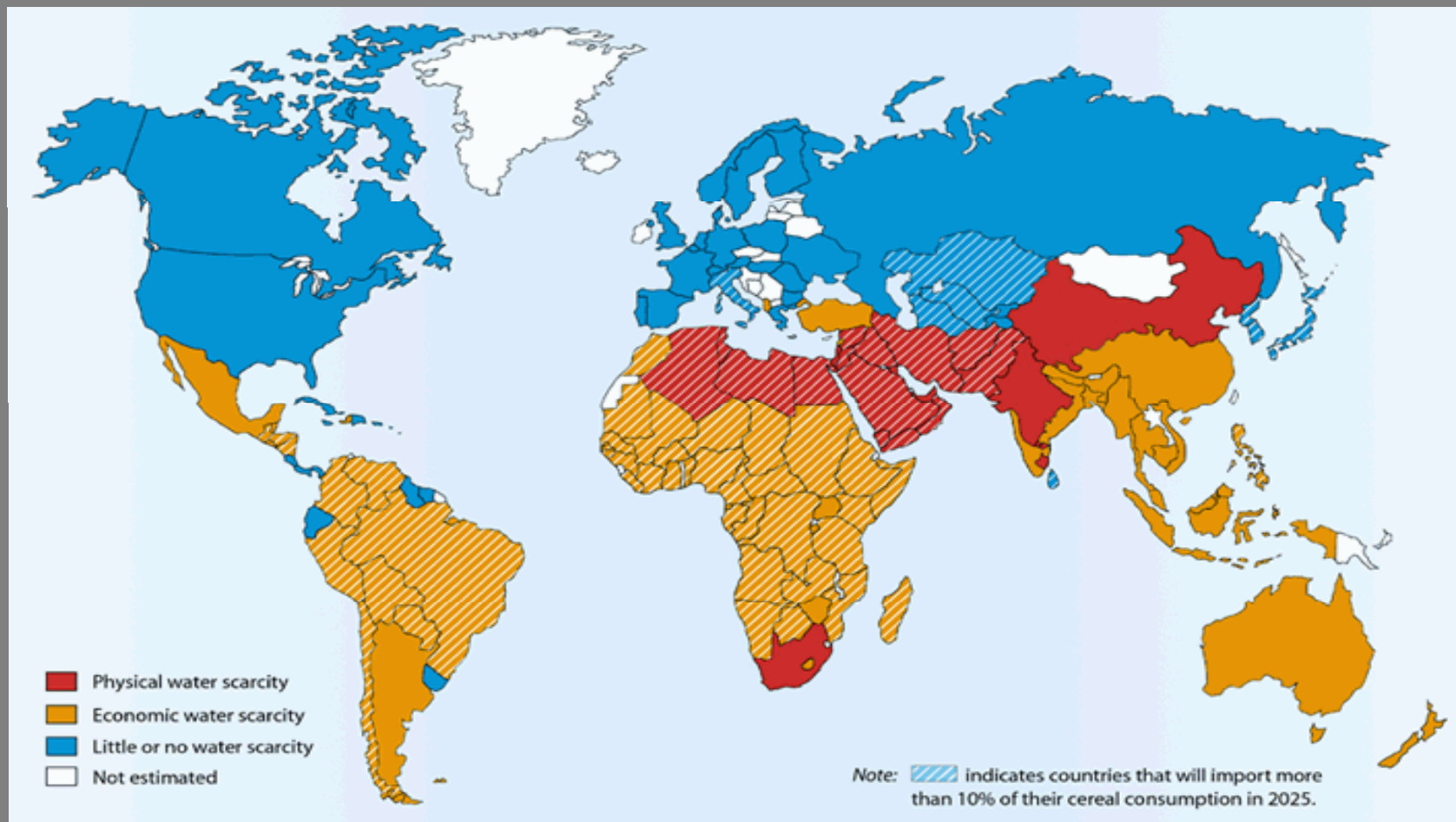
Democracy Building

why water matters

the future



climate change impacts



2025: over 1 billion people will face absolute water scarcity

So, you want to work on water
(Have we got a job for you!)

Lack of capacity
Lack of resources
Lack of cooperation
Lack of commitment

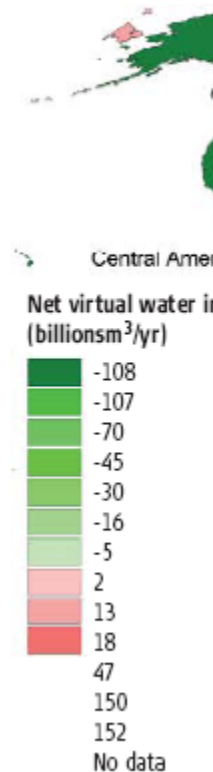
Challenges

It's not about water at all

- political will
- governance
- globalization

Challenges

Map 11.4: Net virtual



Product	Virtual water content (litres)
1 glass of beer (250 ml)	75
1 glass of milk (200 ml)	200
1 cup of coffee (125 ml)	140
1 cup of tea (250 ml)	35
1 slice of bread (30 g)	40
1 slice of bread (30 g) with cheese(10 g)	90
1 potato (100 g)	25
1 apple (100 g)	70
1 cotton T-shirt (250 g)	2000
1 sheet of A4-paper (80 g/m²)	10
1 glass of wine (125 ml)	120
1 glass of apple juice (200 ml)	190
1 glass of orange juice (200 ml)	170
1 bag of potato crisps (200 g)	185
1 egg (40 g)	135
1 hamburger (150 g)	2400
1 tomato (70 g)	13
1 orange (100 g)	50
1 pair of shoes (bovine leather)	8000
1 microchip (2 g)	32



Trafficking in Water

what are we doing



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109TH CONGRESS } HOUSE OF REPRESENTATIVES } REPORT
1st Session } 109-260

SENATOR PAUL SIMON WATER FOR THE POOR ACT OF 2005

OCTOBER 28, 2005.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. HYDE, from the Committee on International Relations, submitted the following

REPORT

[To accompany H.R. 1978]

[Including cost estimate of the Congressional Budget Office]

The Committee on International Relations, to whom was referred the bill (H.R. 1978) to make access to safe water and sanitation for developing countries a specific policy objective of the United States foreign assistance programs, and for other purposes, having considered the same, reports favorably thereon with an amendment and recommends that the bill as amended do pass.

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THE AMENDMENT

The amendment is as follows:
Strike all after the enacting clause and insert the following:

Senator Paul Simon Water for the Poor Act of 2005



Report to Congress June 2006



www.state.gov/g/oes/water

The Senator Paul Simon Water for the Poor Act of 2005

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Mr. HYDE, from the Committee on International Relations, submitted the following

R E P O R T

(a) STRATEGY.—The President, acting through the Secretary of State, shall develop a strategy to further the United States foreign assistance objective to provide affordable and equitable access to safe water and sanitation in developing countries, as described in section 135 of the Foreign Assistance Act of 1961, as added by section 5(a) of this Act.

Hearings	12
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www.state.gov/g/oes/water

Water Security

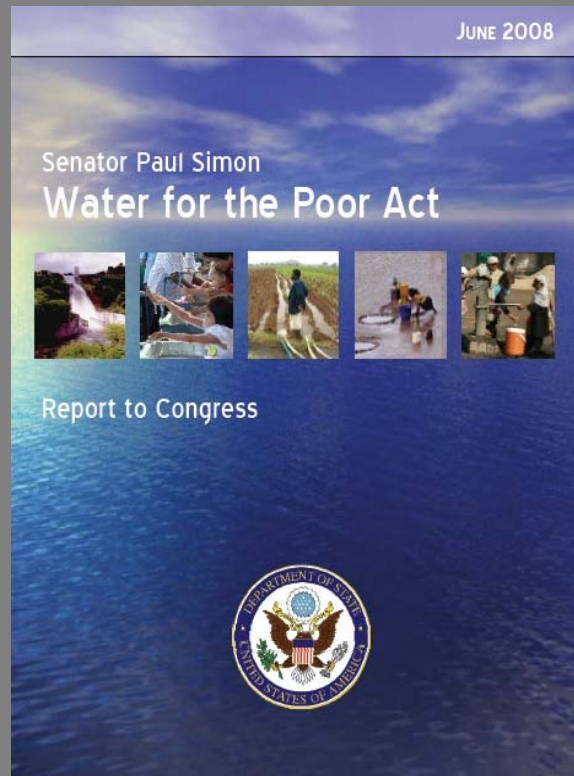
Reliable and sustainable access to an acceptable quantity and quality of water to meet human, livelihood, ecosystem, and production needs while reducing the risks of extreme hydrological events to people, the environment, and economies

U.S. Water Vision



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www.state.gov/g/oes/water

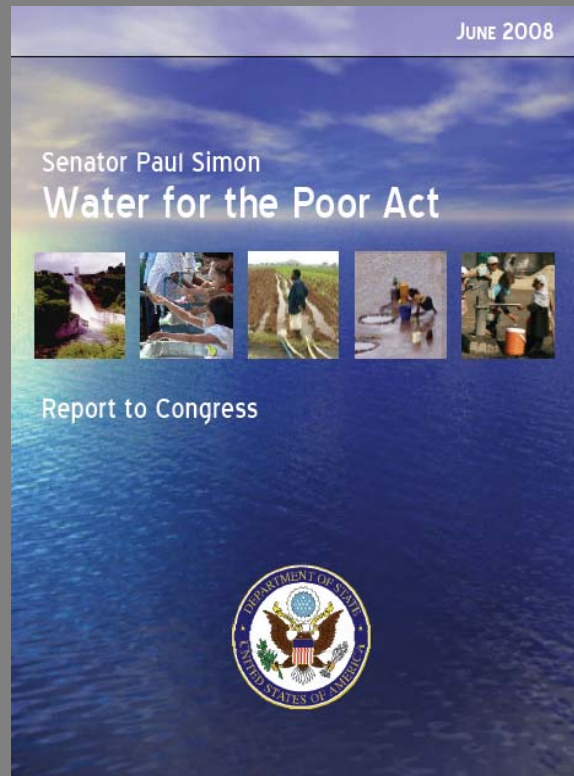
- Increase access to safe drinking water and sanitation
- Improve water resources management
- Increase the productivity of water resources

U.S. Objectives



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www.state.gov/g/oes/water

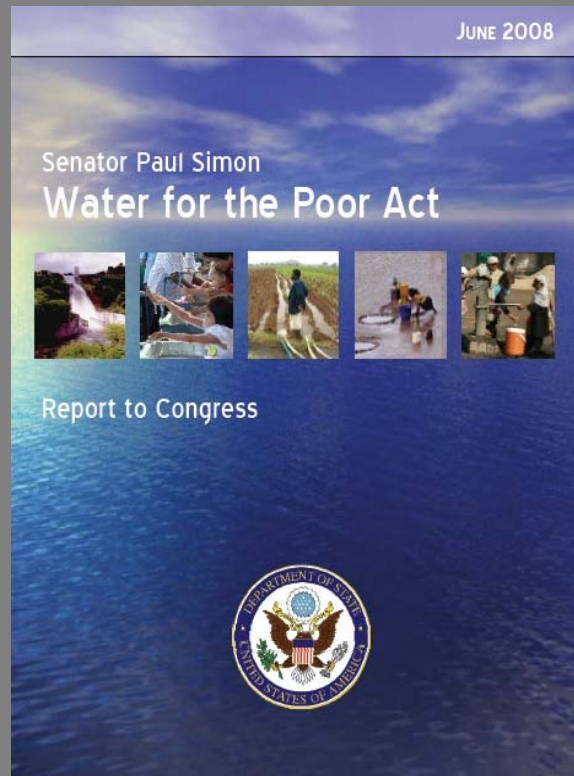
- Capacity building, institutional strengthening, and regulatory policy reform
- Diplomatic engagement
 - Direct investment
 - Investments in S&T
- Working in Partnership

U.S. Approach



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www.state.gov/g/oes/water

- Improving water quality, infrastructure, storage, and conservation
- Increasing food productivity
- Enhance forecasting

Improving Food Security



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JUNE 2008

Senator Paul Simon Water for the Poor Act



Report to Congress



www.state.gov/g/oes/water



Ranthambore 2006