

Global Water Issues

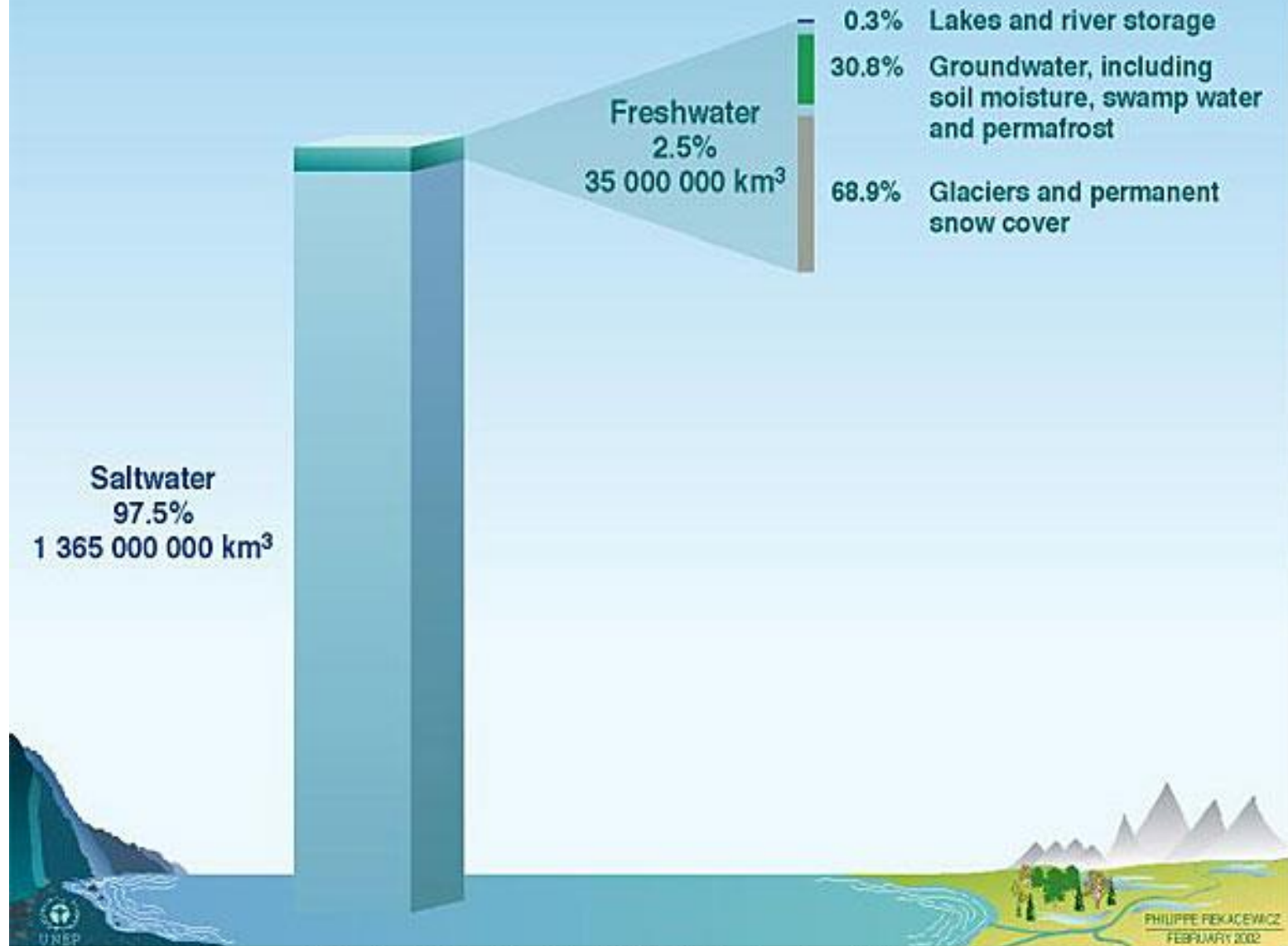
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Water issues concerns everybody

- ❑ **>1.5 billion lack safe access to water**
- ❑ **>2.5 billion do not have access to safe sanitation**
- ❑ **>5 million people die each year**
- ❑ **Water pollution is increasing**
- ❑ **Floods and droughts are increasing partly due to climate change**
- ❑ **Water related conflicts are increasing**

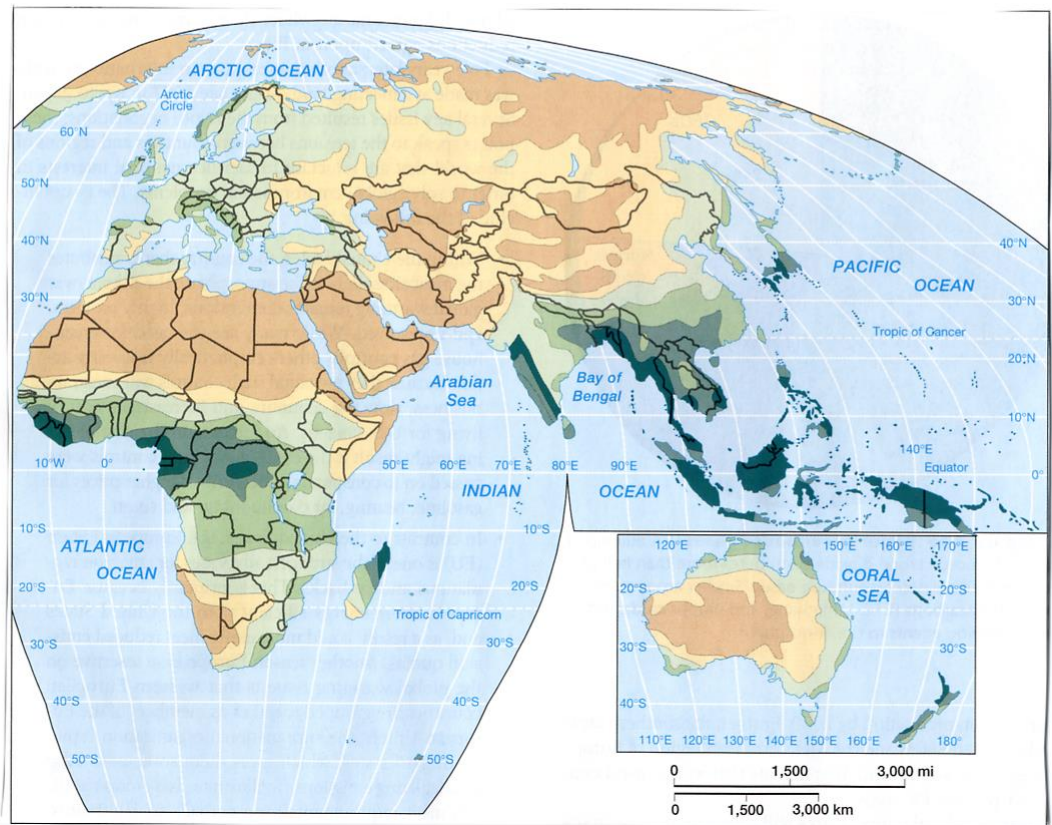
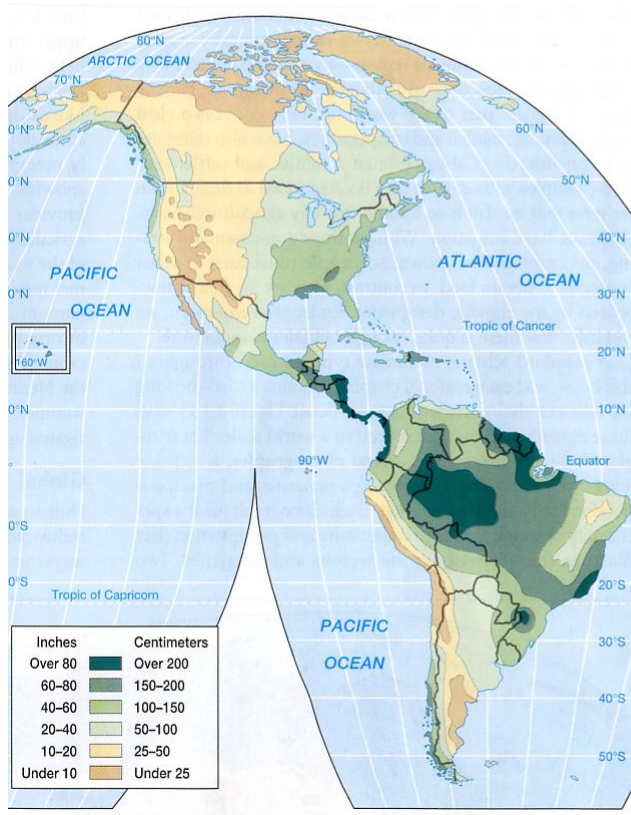
A World of Salt

Total Global Saltwater and Freshwater Estimates



Source: Igor A. Shiklomanov, State Hydrological Institute (SHI, St. Petersburg) and United Nations Educational, Scientific and Cultural Organisation (UNESCO Paris), 1999

Amount of precipitation/year



Availability of Freshwater in 2000

Average River Flows and Groundwater Recharge

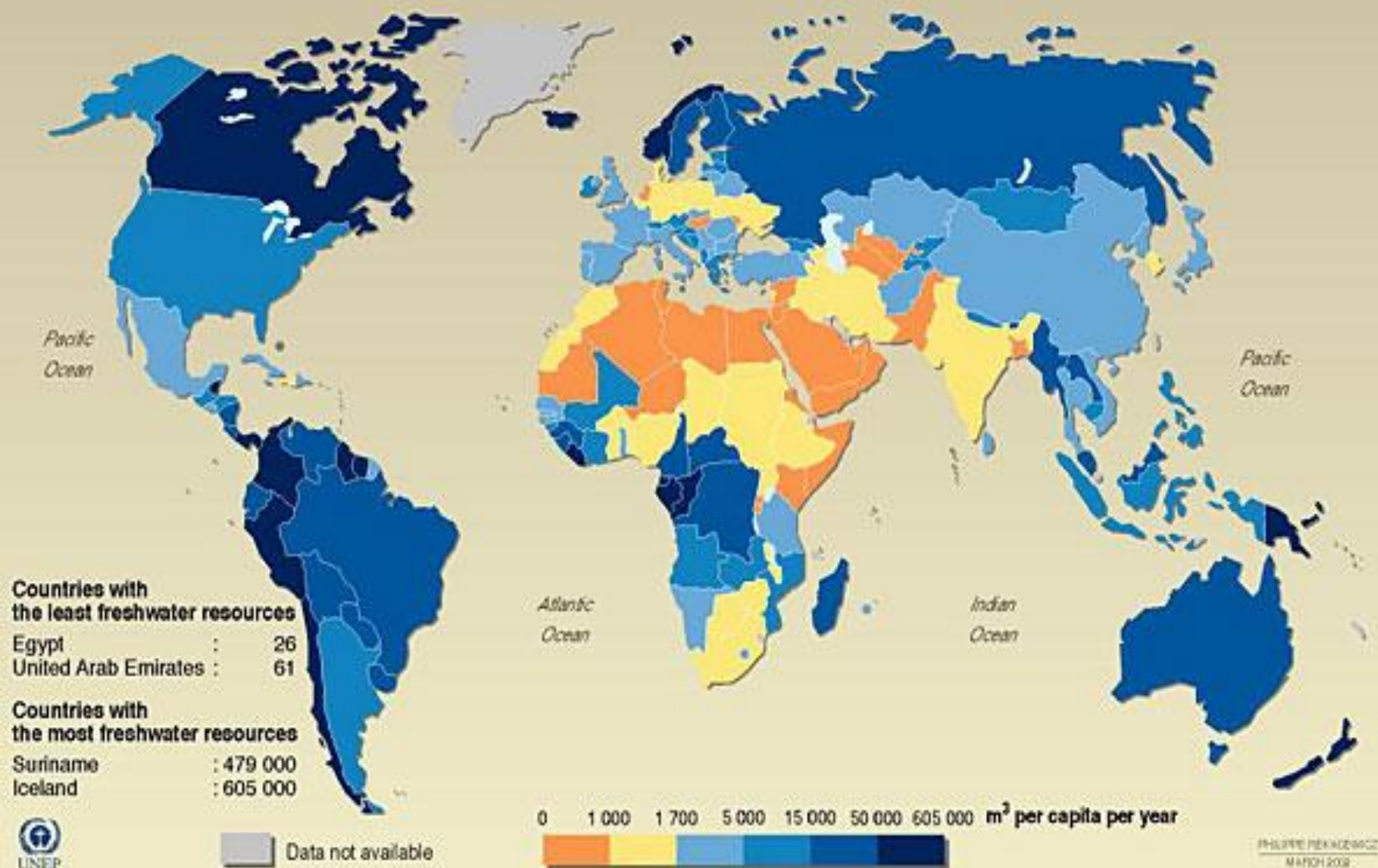
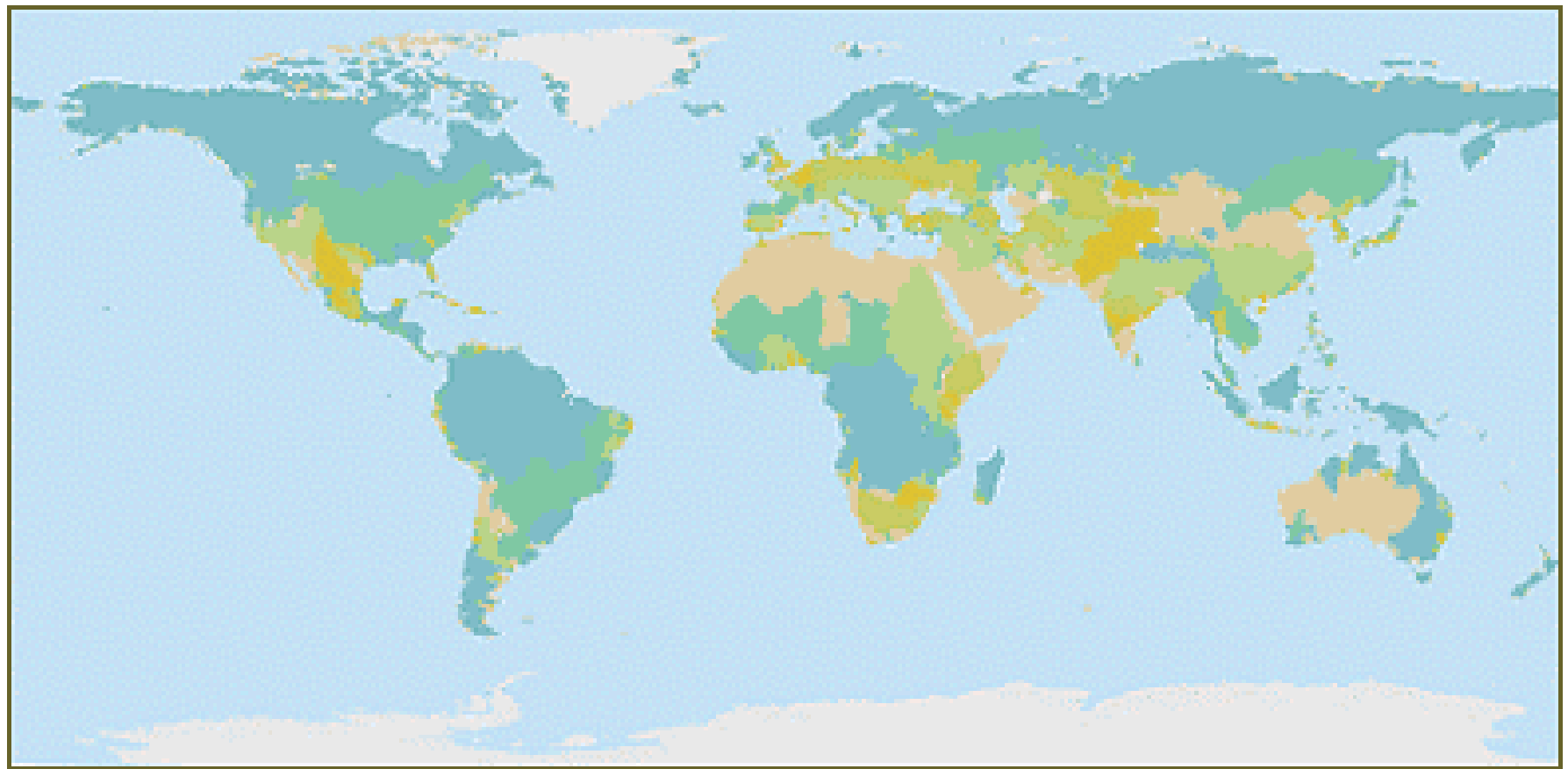
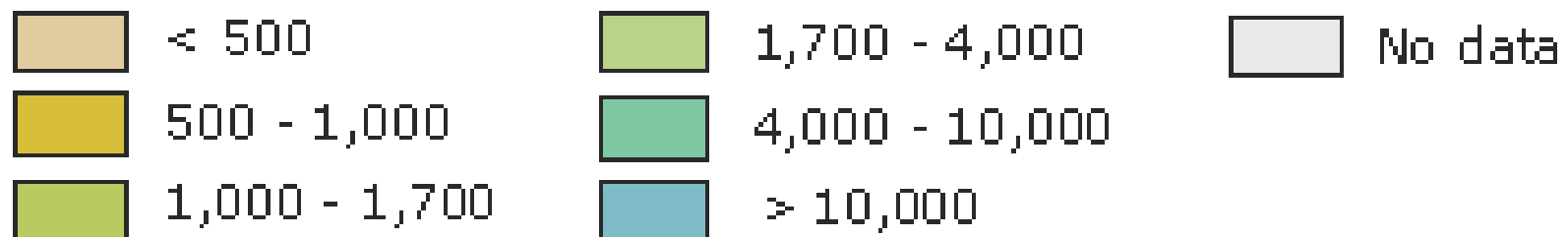


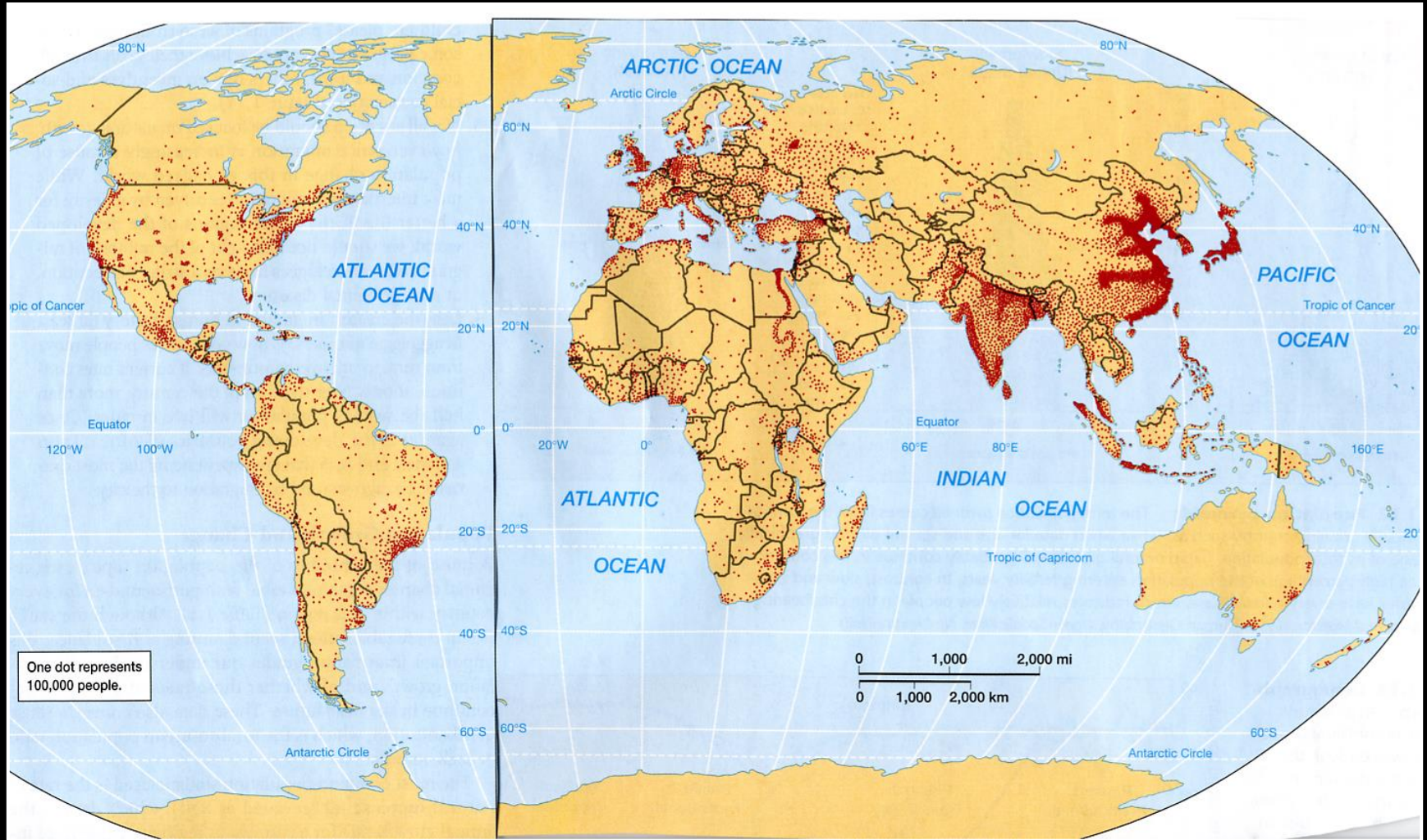
Figure 1: Annual Renewable Water Supply per Person by River Basin, 1995



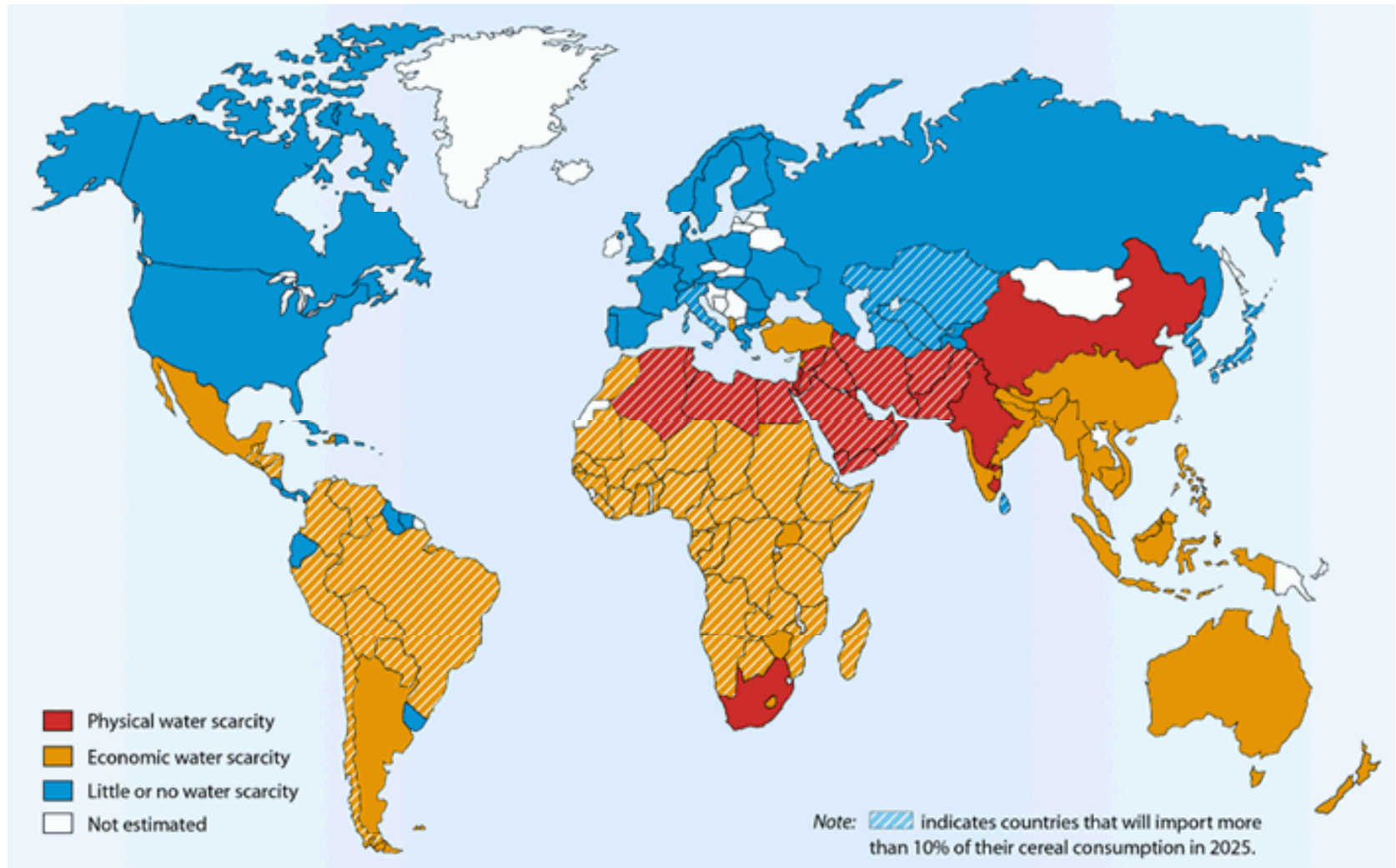
Annual Renewable Water (m³/person/year)



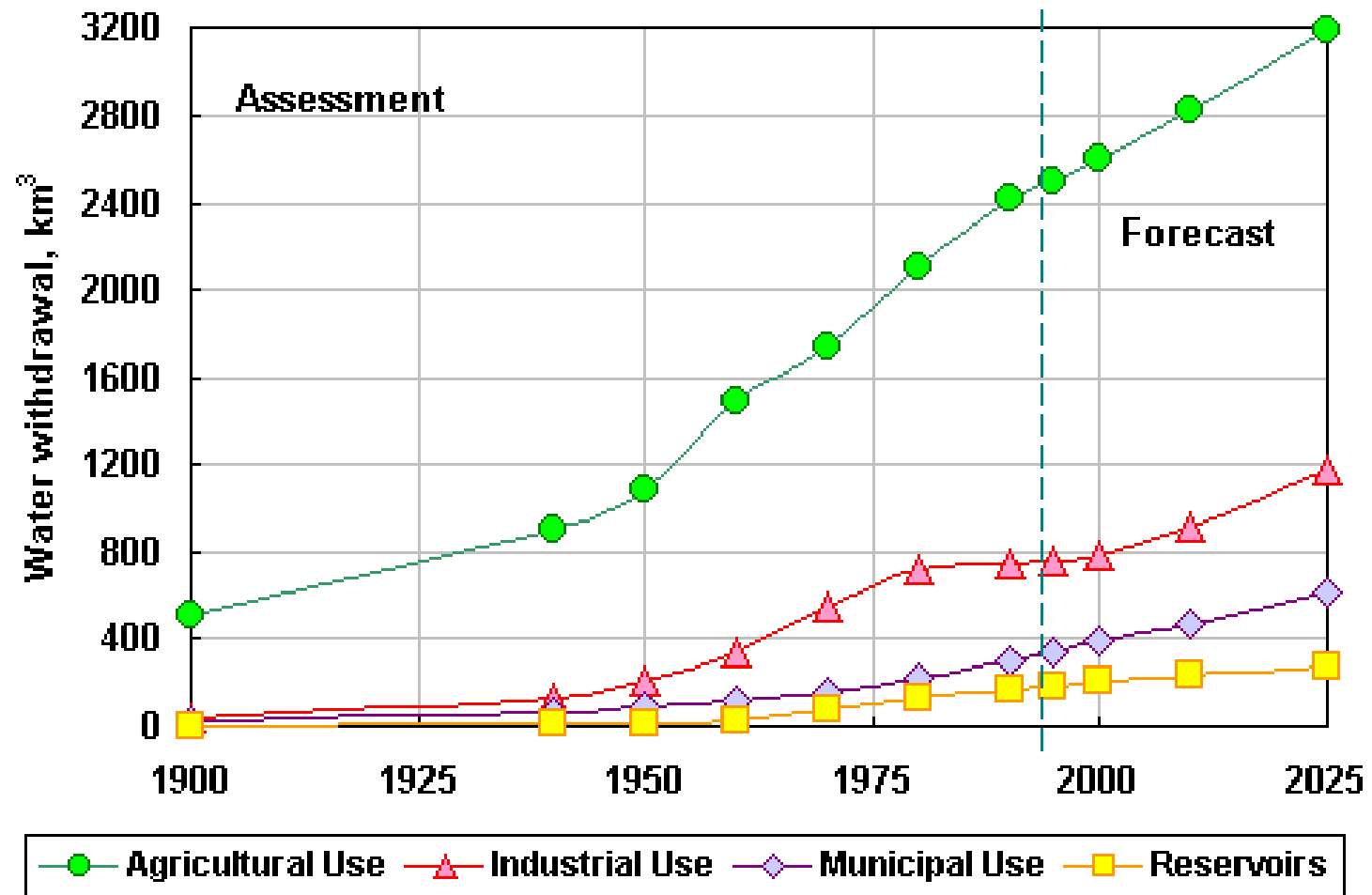
Population distribution



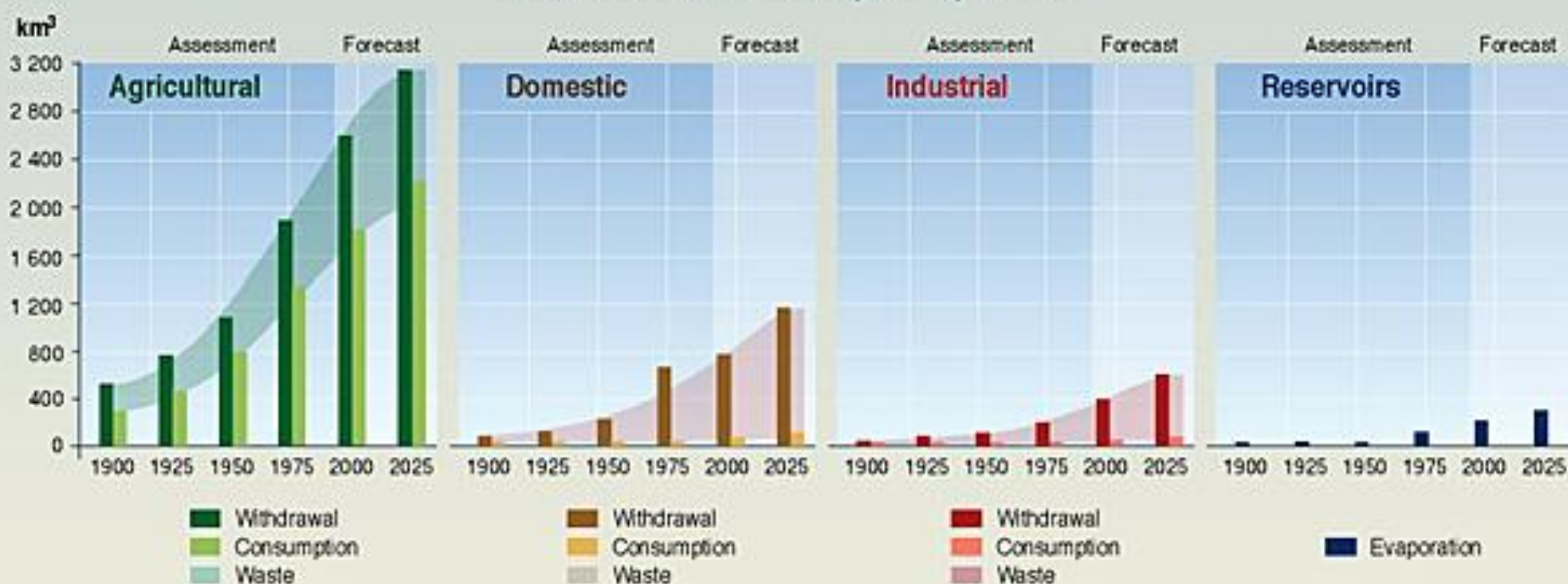
Global distribution of water scarcity



World



Evolution of Global Water Use Withdrawal and Consumption by Sector



Note: Domestic water consumption in developed countries (500-800 litres per person per day) is about six times greater than in developing countries (60-150 litres per person per day).

PHILIPPE REKACEWICZ
FEBRUARY 2002

Source: Igor A. Shiklomanov, State Hydrological Institute (SHI, St. Petersburg) and United Nations Educational, Scientific and Cultural Organisation (UNESCO, Paris), 1999.

IWRM PRINCIPLES

- Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment.
- Water development and management should be based on a participatory approach, involving users, planners and policymakers at all levels.
- Women play a central part in the provision, management and safe-guarding of water.
- Water has an economic value in all its competing uses and should be recognized as an economic good as well as social good.

Dublin, 1992



The EU Water Framework Directive

- Negotiations, applying a sustainable approach to manage an essential resource were initiated 2000, considering the valuable water ecosystem and its essential links to human health;
- It will provide a holistic ecosystem protection for all water ecosystem;
- The objectives are concrete and ambitious with flexible means;

EU Water Framework Directive

- Planning shall be integrated and coordinated;
- It is based on the river basin approach (catchment) and cuts across administrative boundaries including at transboundary level;
- Polluter pays principle shall be applied, as water pricing policies;
- WFD ensures active participation by all sectors;

EU Water Framework Directive (continues)

- Implementation of the EU WFD is to be achieved through management at River Basin level.
- The WFD includes the bases of earlier directives that in some cases had a more burdensome regulatory system:
- The WFD creates synergies, increases protection and streamlines efforts.

Questions for studying the global water issues.

- 1. Where and for which purposes is water used in different parts of the world?
- 2. Which are the most important difficulties when it comes to water access?