

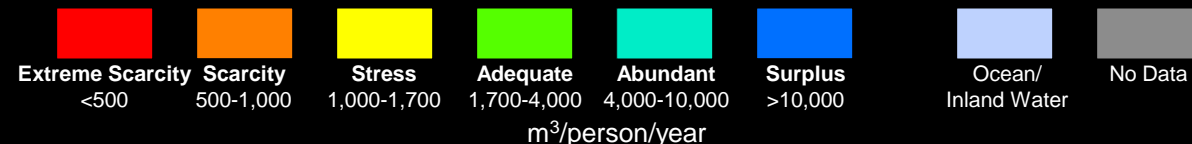
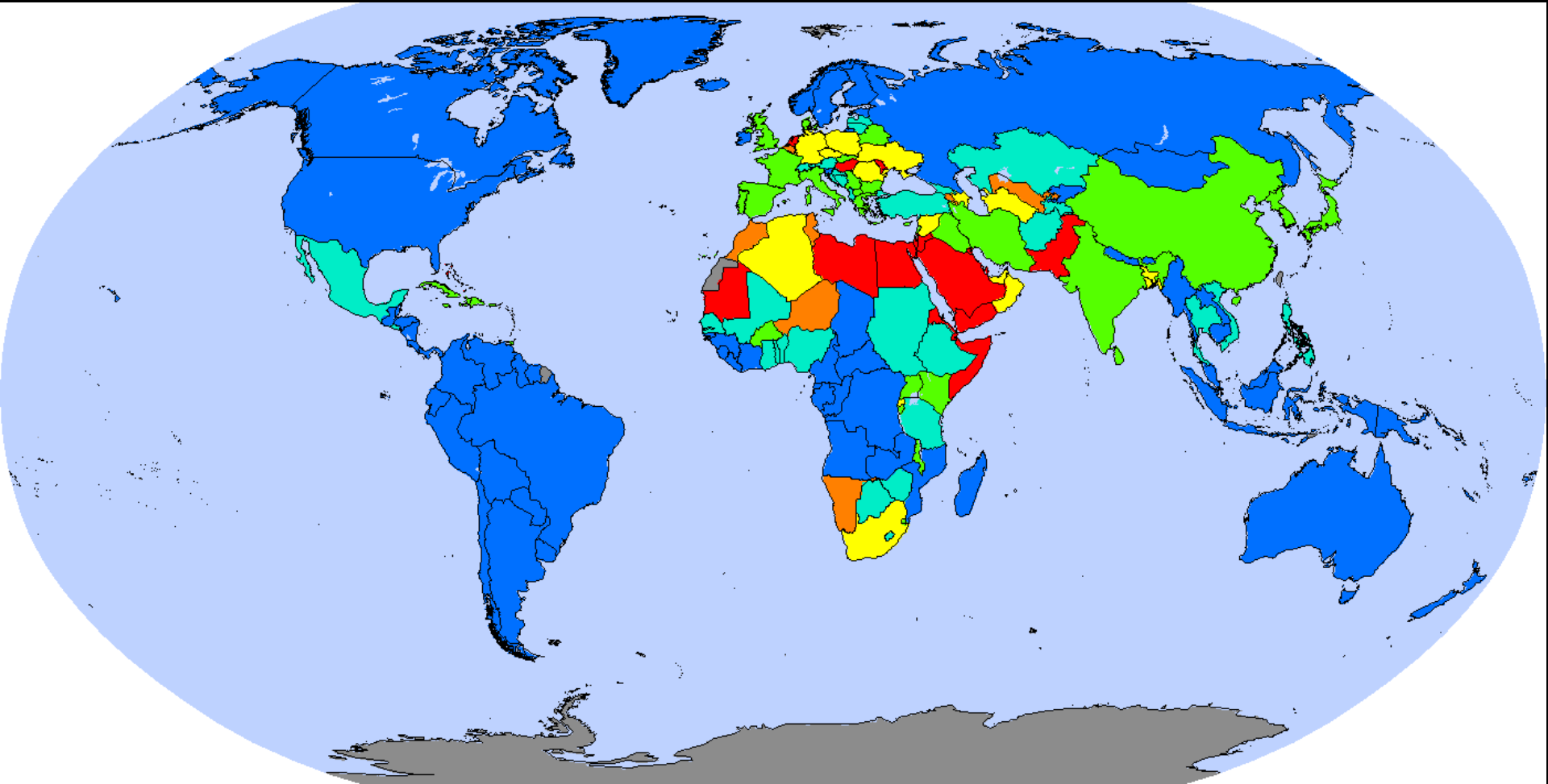


Freshwater Functions and implications for financing

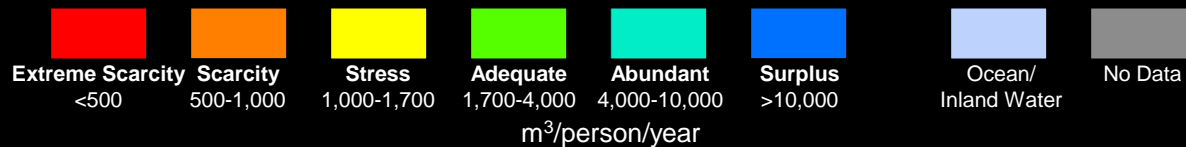
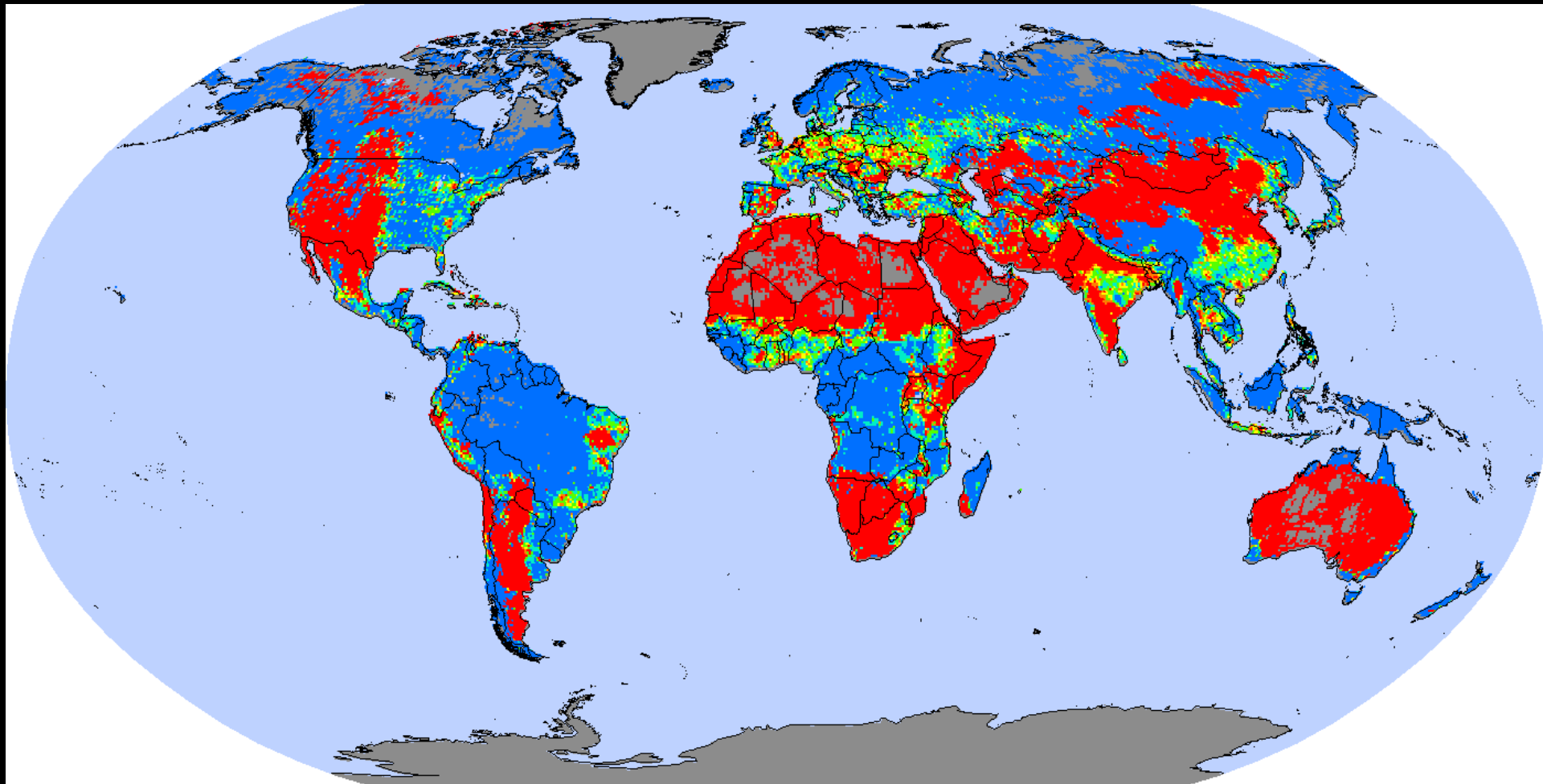
Martin Geiger
WWF International Freshwater Programme

15 March 2010

water security: water availability: 1975



water security: water availability: 2003

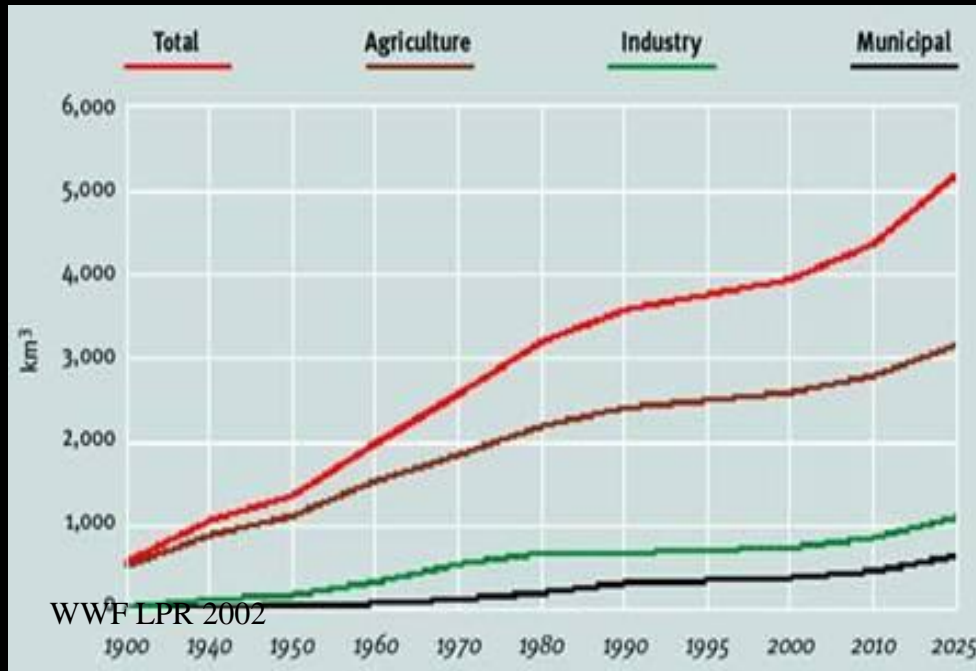


Environmental Services – a neglected and undervalued Water Resource Function?

- River and sediment dynamics provide for water purification
- Healthy watersheds provide for water quality
- Rivers provide protein (e.g. for 60 mio people on the Mekong)
- Water is essential for food and biofuels production
- Water is fundamental for extraction, production, manufacturing and processing (e.g. mining)
- Wetlands act as carbon sinks or stores (e.g. peat swamps in Borneo)



Example water and food



54% of accessible annual runoff diverted for human use, of which:

- 70% agriculture
- 20% industry
- 10% urban use



eradicating malnutrition by 2025, with current productivity, requires additional diversions “close to all the water withdrawals at present”

Example Navigation & Sediments



for a living planet®

Sediment extraction and channel incision along the Danube and selected tributaries



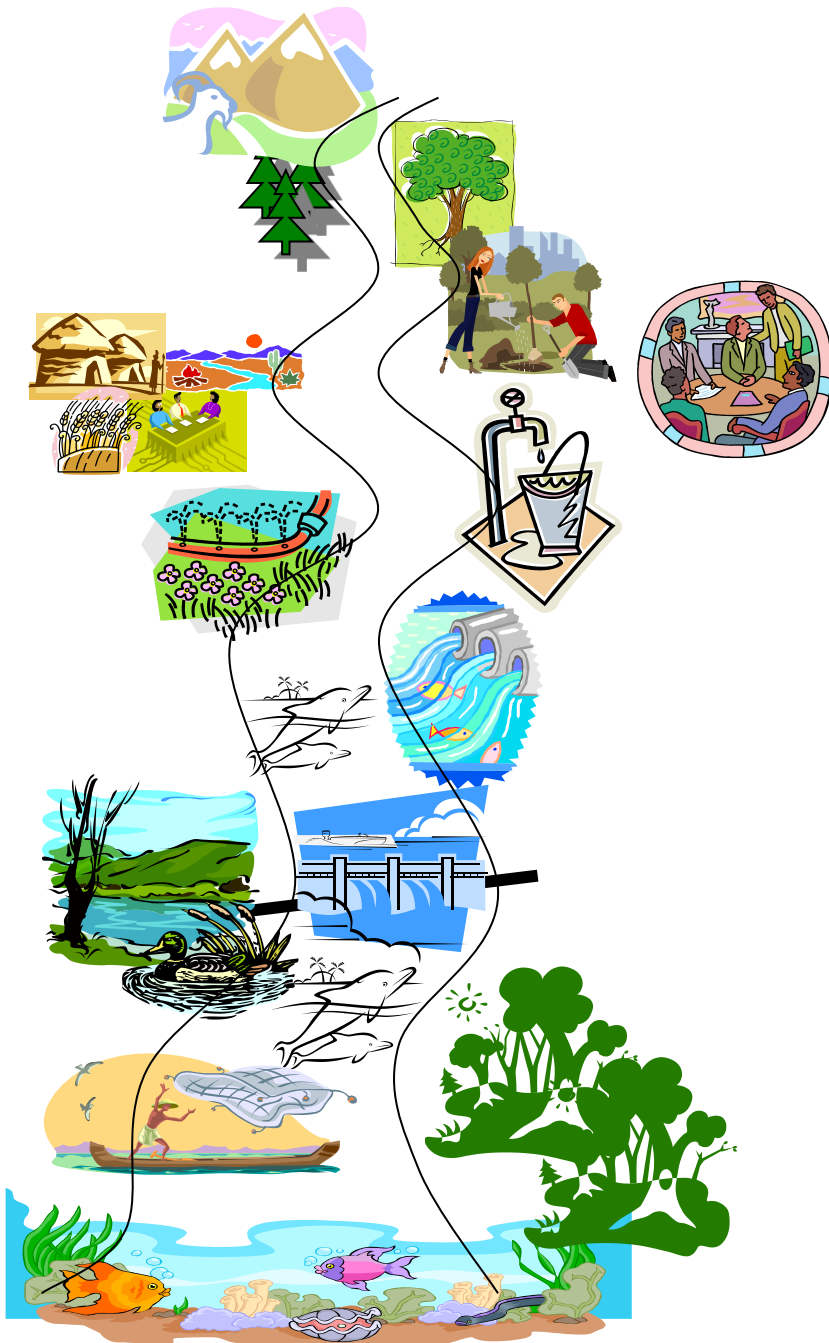
Implications for Financing Needs I



Considerable investments required for assessing

- Environmental water needs
- No-go / go areas from a biodiversity perspective
- Environmental flows
- Existing and expected threats (e.g. infrastructures, land use, pollution, abstraction of water, gravel and sand)
- Current and planned water uses for various sectors
- Climate change impacts & vulnerability

Implications for Financing Needs II



Considerable investments required for promoting

- Stakeholder consultation
- River Basin Planning
- Transboundary Basin Organisations
- SEA and Cumulative Impact Assessments at basin scale
- Efficient Water Use, in particular in agriculture
- Sustainable water & aquatic resource use in all sectors