Implementation of Water Framework and Nature Conservation

River Basin Management in the EU

Current Issues of Biodiversity Protection and
Participatory Development
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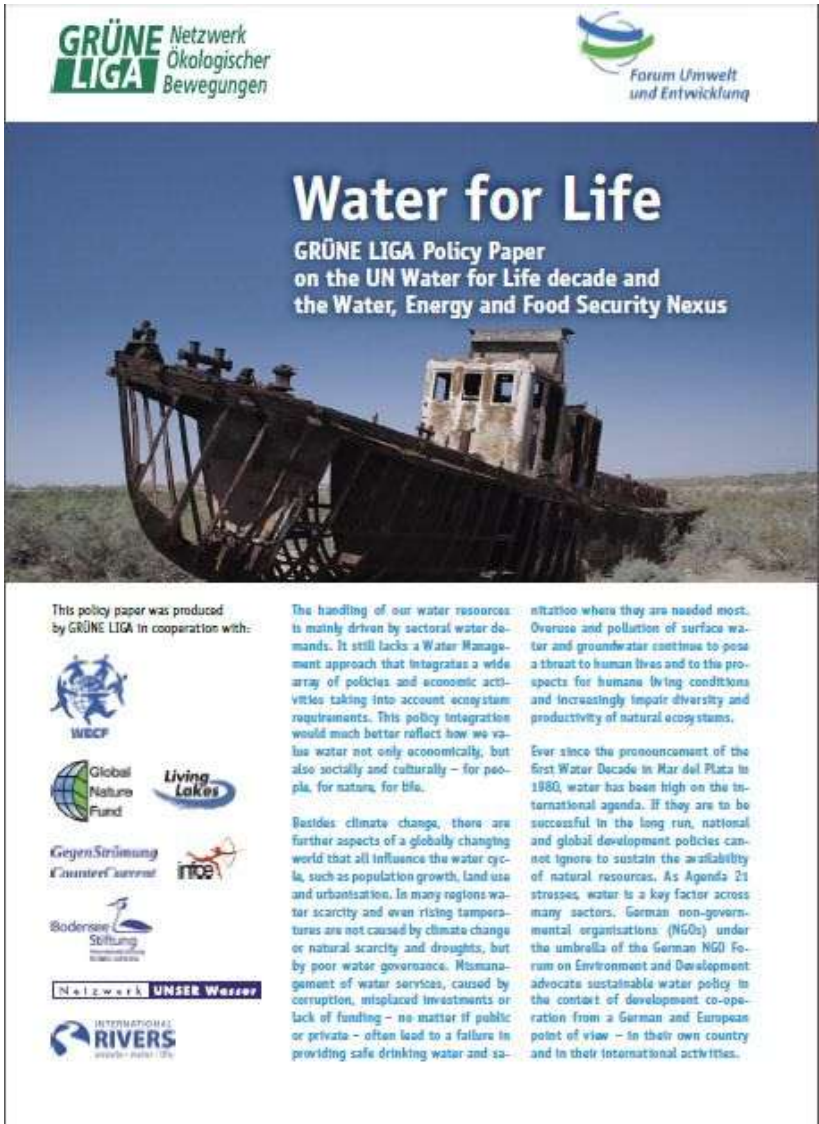
Rio+20 Conference (June 2012)

German NGO position:

1. The Human Right to Water and Sanitation
2. Sustainable and productive sanitation
3. Integrated River Basin Management
4. Large Dams – Beware of false solutions
5. Agriculture and irrigation – reducing wastage and using water well
6. Water Pricing and cost recovery
7. Publically owned water management



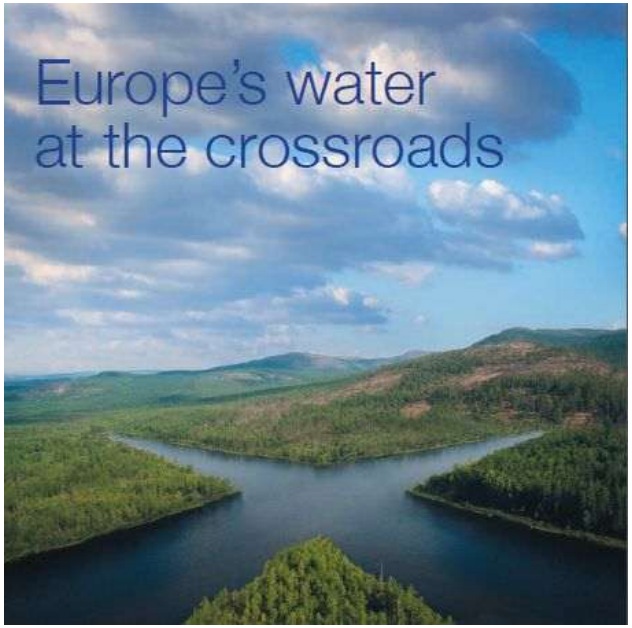
Water Framework Directive

A milestone in European water policy

Key elements of the European Water Framework Directive

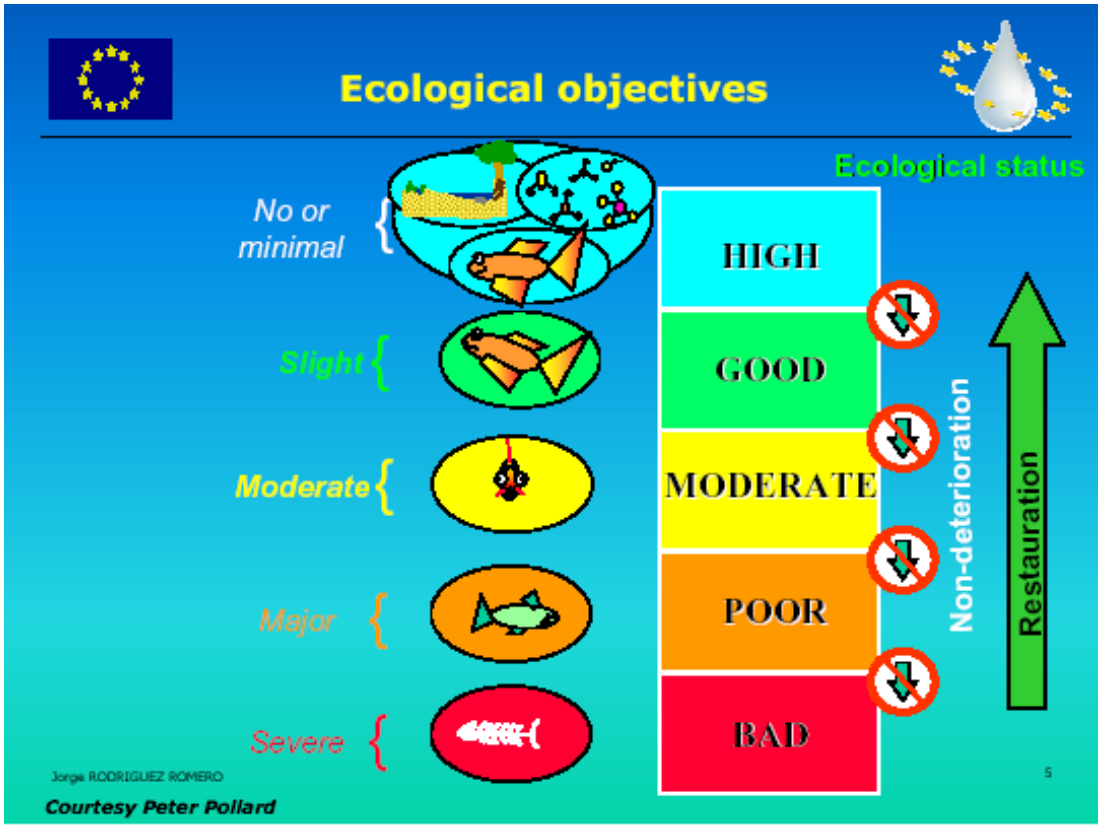
- Scope: **Rivers, lakes, coastal and transitional waters**
- **„Good status“ of surface and groundwater**
  ecological, chemical, quantitative
  to be reached **by 2015**
- **Ecosystem approach** und Prozessschutz
- Focus on **aquatic communities:**
  fish, invertebrates, water plants, algae
- **No deterioration obligation**
- Far reaching **exemptions**
- Management of **river basins** across national borders
- Binding **timeline**
- **Common Implementation Strategy (CIS)**
- **Economic instruments** to support
  sustainable water use and environmental objectives

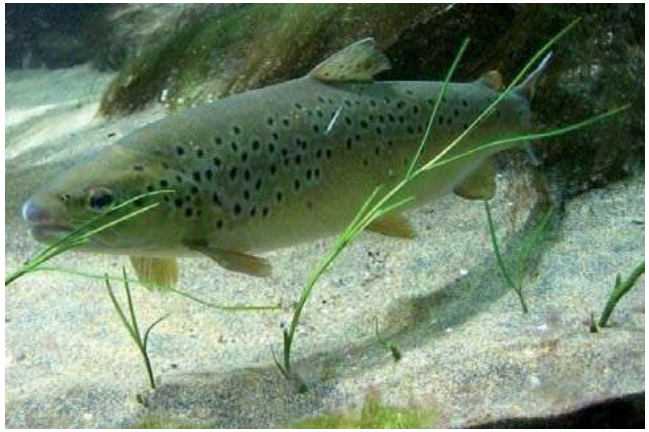
Große Russgebietseinheiten in Mitteleuropa Karte: Stephan Gunkel/ERN



Good ecological status

- Focus on **aquatic communities:**
  Fish, Invertebrates, water plants, algae
- Hydromorphology(supporting)
- Typical species diversity etc.





Most important environmental objectives

1. **Surface water bodies**:
   good ecological and chemical status
   until 2015 (or 2027)

2. **Groundwater**
   good chemical and quantitative status
   until 2015 (or 2027)

3. **Natura 2000-Areas:**
   respective conservation goals

4. **Wetlands:**
   no deterioration in terms of water balance


J.Schönfelde

Zeitplan zur Umsetzung der WRRL (Auszug)

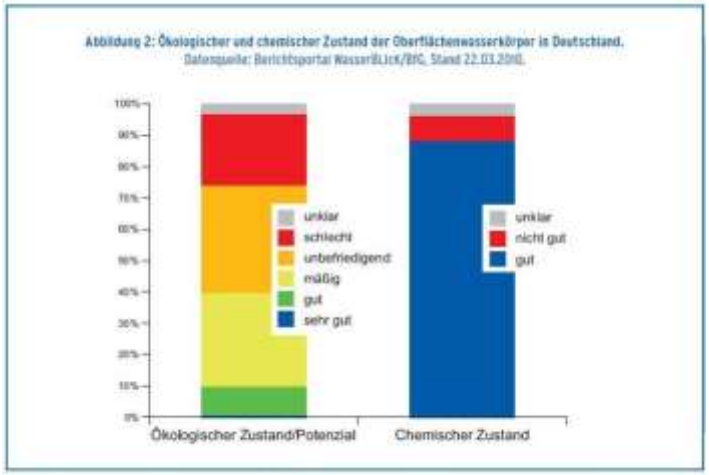
2003	Umsetzung in nationales Recht und Bestimmung der zuständigen Behörden
2004	Erste Bestandsaufnahme zum Gewässerzustand in den Flussgebieten (Bericht 2005)
2006	Einrichtung der Monitoringnetze
2006-09	**Aufstellung der Bewirtschaftungspläne und Maßnahmenprogramme** - Zeitplan und Arbeitsprogramm (2006) - Überblick über die wichtigsten Wasserbewirtschaftungsfragen (2007) - Entwurf der Pläne und Programme (2008) dabei *Anhörung der Öffentlichkeit* mit jeweils sechsmonatiger Frist zur Stellungnahme
2009	Fertigstellung der Bewirtschaftungspläne
2009	*Aufstellung von Hochwasserschutzplänen gemäß WHG*
2009-12	**Umsetzung von Maßnahmen**
2010	Wasserpreispolitik wirksam
2015	**Erreichen der Umweltziele** Beginn zweiter Planungszyklus
2021	Ende 1. Verlängerungszeitraum
2027	Ende 2. Verlängerungszeitraum

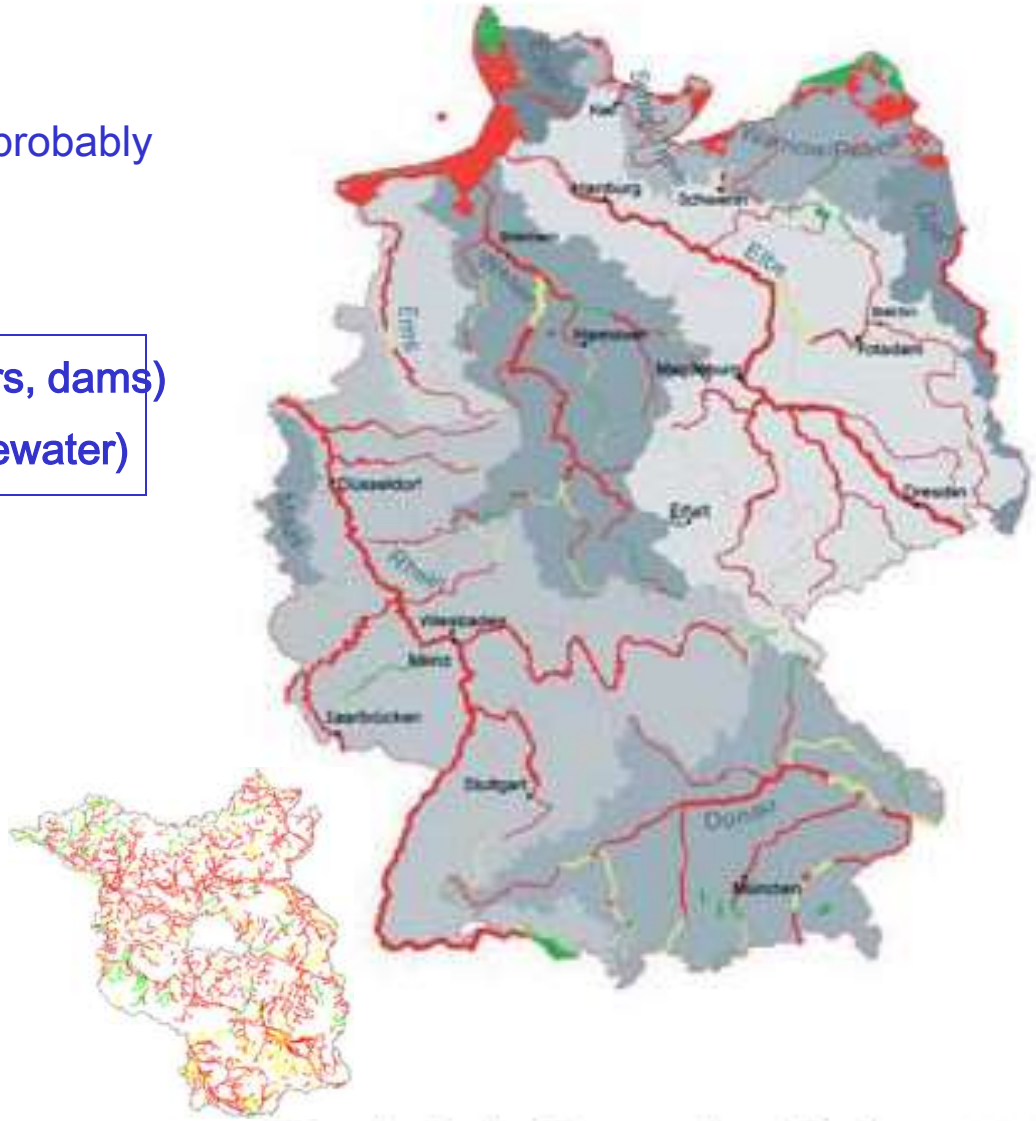
Status report 2005: Need for action!

At least **60%** of Germany's water will probably **not reach good status** by 2015 (business as usual)

Main environmental problems:

1. **Hydromorphological deficits (weirs, dams)**
2. **Nutrient inputs (agriculture, wastewater)**
3. chemical pollution
4. priority (hazardous) substances



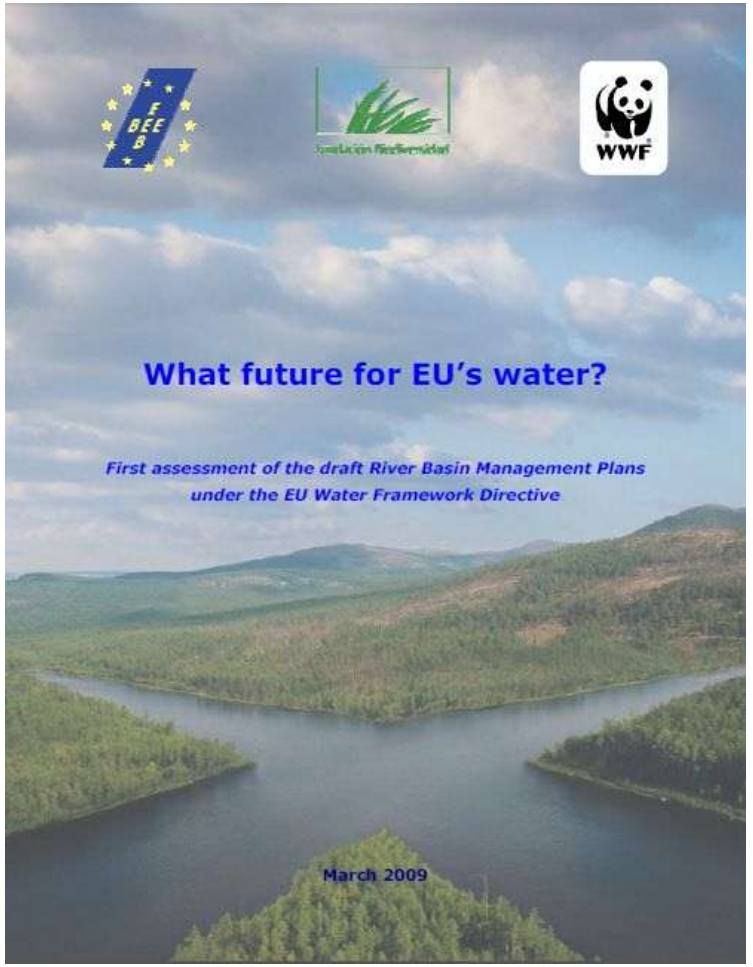


Ergebnis der Bestandsaufnahme 2005

Implementing the Water Framework Directive

NGO vision for Europe's waters

- publically owned water management
- more space for living rivers
- healthy, safe water for people and nature
- avoiding wastage and using water well
- adaptive and visionary water policies



10 years of WFD implementation

River Basin Management Planning obliges authorities to achieve good ecological status of rivers, lakes and coastal waters + Ecological goals include macrophytes, phytoplankton, invertebrates and fish. + Status classification of water bodies (2005) gave a realistic picture of the dramatic ecological situation of Europe's rivers, lakes and coastal waters: most of all water bodies were estimated at risk of not achieving good status.	− Specific goals for achieving good ecological status in 2015 in individual river systems drastically lower the general ambition of the WFD. Exemptions became the rule. − EU-wide eutrophication of rivers, lakes and seas caused by excessive agricultural and other emissions is by far not sufficiently addressed in management plans and programs. − As of 2011, River Basin Management Plans are still missing in some EU-member states.
Combating harmful chemicals in the aquatic environment – "Priority Substances" + The WFD calls for a combined approach (emission and immission oriented) and "phasing out" of the most problematic toxins in the aquatic environment.	− Adopted after years of delay, a daughter directive regulates only a tiny portion of highly problematic chemical substances in the aquatic environment.
Protection of Groundwater + Good chemical and good quantitative status of groundwater are addressed as environmental goals.	− Adopted after years of delay, a daughter directive does not apply a strictly precautionary approach and allows "filling up" with problematic substances to critical threshold levels.
Cost recovery, polluter pays principle and other economic instruments + EU member states are required to integrate environmental and resource costs into cost recovery and water pricing schemes.	− Enormous misallocation of water resources caused by non-existing cost-recovery for irrigation continues − The economic analyses of river basins fail to estimate the enormous social cost of water pollution − The 2010 deadline for new water pricing schemes was not met in most countries
Common Implementation Strategy and international cooperation + EU-wide implementation strategy has improved cooperation. + Authorities have established working structures to cooperate in international river basins.	
Transparency and public participation in water management + The obligation to foster public participation has increased transparency of water management and public awareness for water policies.	− The level of transparency and public participation varies considerably among states and river basins.

5. Challenges for water framework directive implementation

Energy policy causes deterioration of water status

- New Subsidies for Biomass production
- Boom of hydropower

Agriculture: lack of Common agricultural reform and good farming practise

- Nutrient inputs
- Habitat destruction

Navigation infrastructure projects and port development

- **Elbe:** Harbour in Hamburg will be further deepened despite natura 2000 and WFD new dam at Decin (Czeck Republik); erosion of the riverbed endangers floodplain forests
- **Danube** Delta; Kopacki Rit (Croatia); free flowing Danube in Bavaria; Main-Danube-Canal: invasion of alien species!

Fluvial Forest

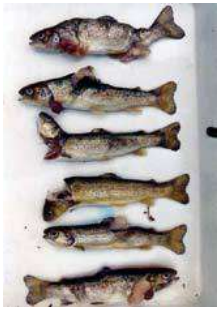
- more than 80% of floodplains lost

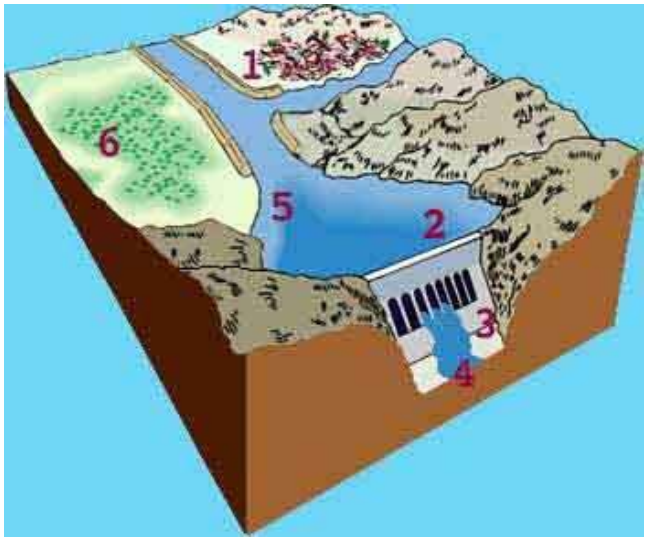
Climate change still to come

- Changes in flow regimes; Water scarcity; Extreme events (floods, droughts)

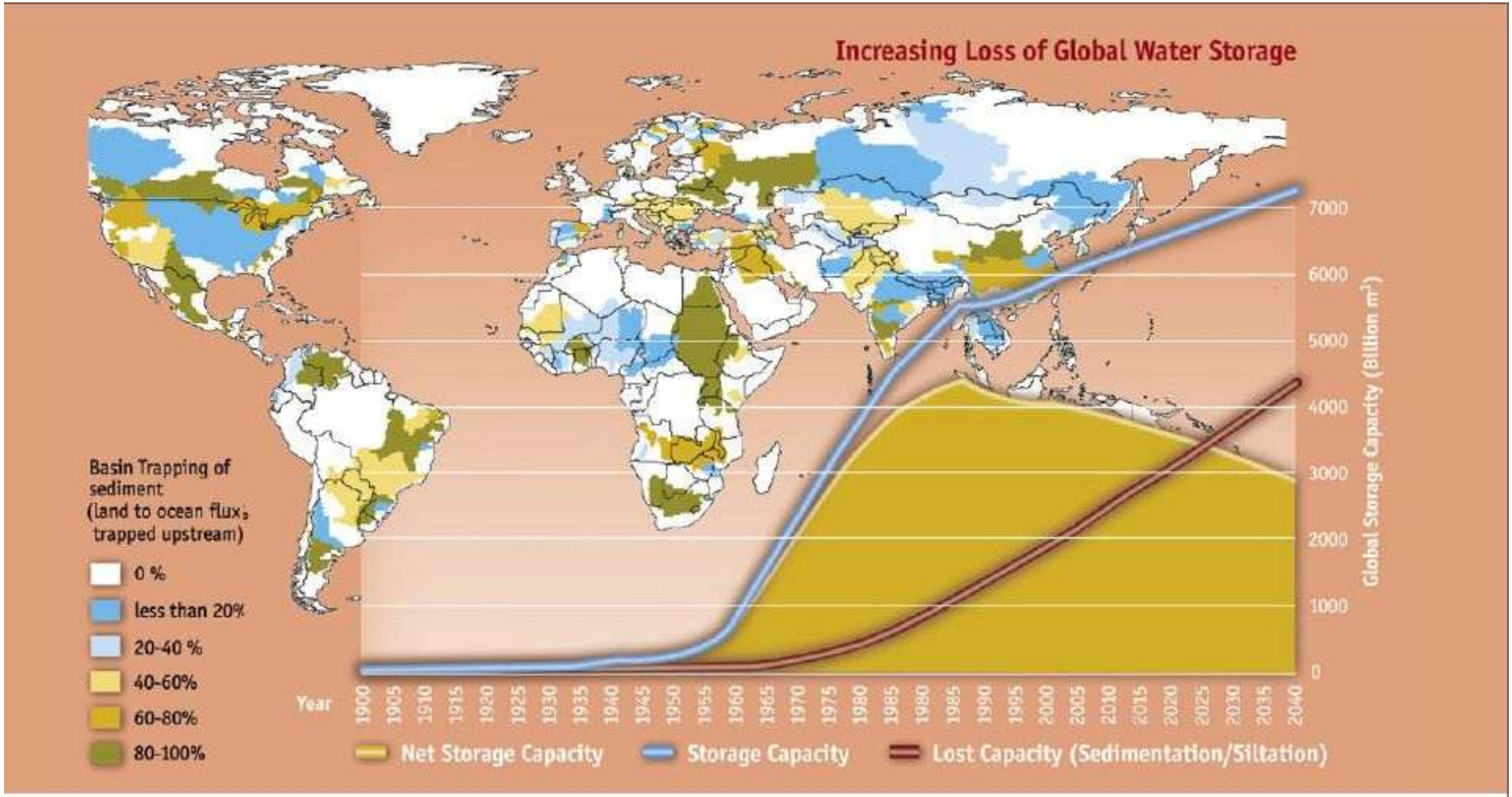
Protecting the last wild rivers

Boom of Hydropower in Europe (and worldwide)



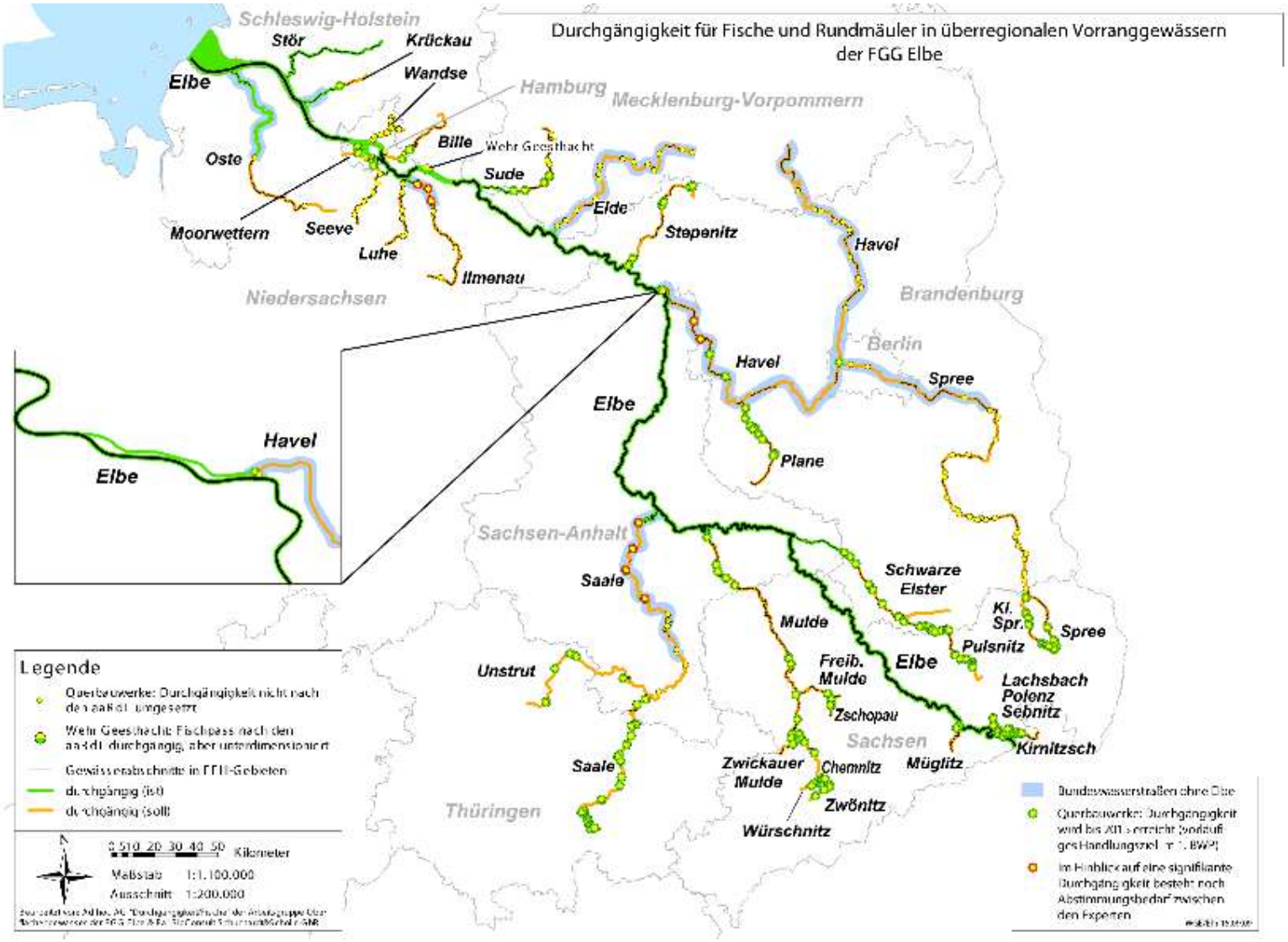


Reassessing sustainability of hydropower



Since the early 1990s, the loss of reservoir space through sedimentation exceeds the storage capacity of newly built dams. Based on data from Jenzer and Cesare (2005) and GWSP Digital Water Atlas (2008), Map 51: Sediment Trapping by Large Dams (V1.0), available online at http://atlas.gwsp.org

Fishpasses for biological continuity in the Elbe river basin



Improving Continuity

Restoring rivers

- Improving hydromorpholgical conditions
- Habitat quality for aquatic species

Prinzipschema zur Aufteilung der Gewässer- und Moorniederung

More space for living rivers

- >80% of floodplains lost
- Ecological status mostly not good
- Perspectives for „multifunctional floodplains“?

Reducing high nutrient loads


Neulich in der Kulturlandschaft . . . Foto: Stephan Gunkel

One of the main Environmental problems in Europe:

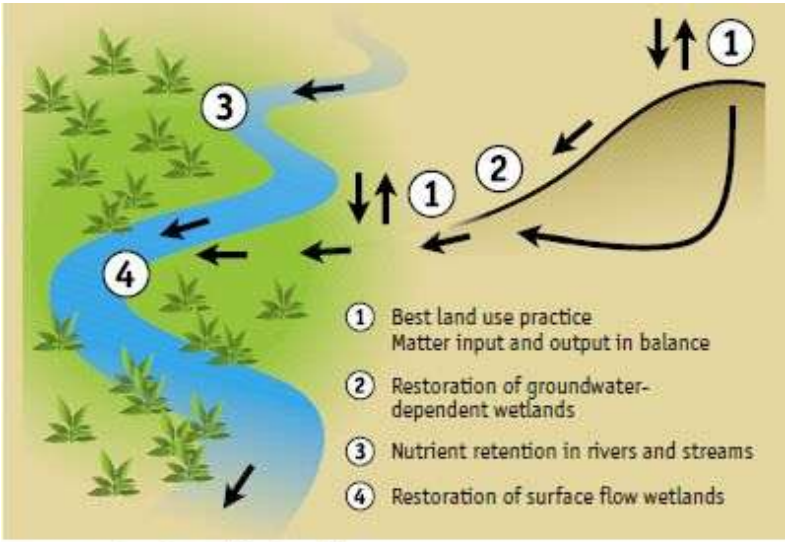
Eutrophication:

- Agricultural fertilizer (and erosion)
- Waste water

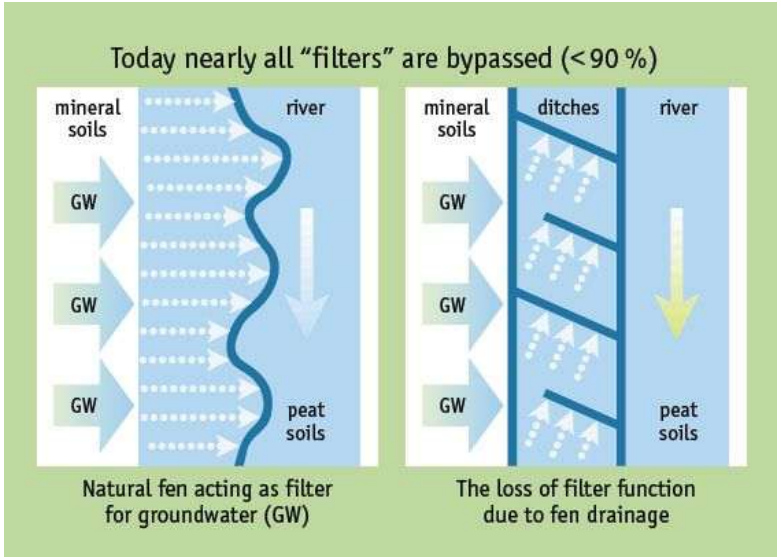
Cyanobacterial bloom (blue algae) in the Baltic Sea, summer 2010
Source: ESA - European Space Agency

Protecting wetlands

- Rich biodiversity
- Important filters for nutrient retention
  „kidneys of the landscape“
- Important for water balance in the landscape
- „Climate buffer“



Source: Michael Trepel (adapted)



Assessing the economic importance of inland waterways

Gütertransport
≥ 10 Mio. t

Gütertransport
≥ 5 Mio. t

Gütertransport
≥ 3 Mio. t

Gütertransport
≥ 1 Mio. t

Gütertransport
≥ 0,1 Mio. t

Untersuchungen zu Wasserstraßen mit touristischer Nutzung

Rest

Outlook

Economic benefits of living rivers

Valuing ecosystem services

EU-Commission's "Blueprint to Safeguard European Waters"

What is necessary beyond Water Framework Directive?

- Policy integration and revision of harmful subsidies
- Implementing the polluter-pays-principle
- Better water pricing and cost recovery

Priorities for better water management in the EU

5. Visionary and adaptive water policies

Addressing the priorities we have identified – ensuring transparency and ownership for the new water management in Europe; providing more water and space for rivers; and reducing pollution – will require a strong vision.

This cannot be laid down solely as a legal requirement in European law. It needs political will, sufficient financial budgets, and a readiness to adapt and learn from past mistakes.

For the first time in Europe, water management will be carried out systematically at the level of the river basins, some of which cover thousands of square kilometres and host millions of people. It is not a question of making small technical improvements or restoring a small wetland here or there. To be effective, water management must originate at the highest level, and be closely integrated with industrial, agricultural, transport and energy development policies in that river basin.

Most crucially, however, governments should stop repeating the errors of the past – such as the continuous over-engineering and destruction of river systems to satisfy short-sighted and unsustainable supply concerns in the field of energy, transport, housing and agriculture. The EU has an once-in-a-lifetime opportunity to make its water management fit for the 21st century.

Water management must provide active input to those policies within a sustainable development framework. Otherwise, it will get mired in complaints about affordability and lack of funds to do this or that; it will disappoint people by applying exemptions rather than achieving environmental outcomes; it will fail to grasp the opportunities arising from current energy, transport, agriculture and climate policy developments; and it will be unable to tackle the big, immediate challenges – either of restoring the functionality of aquatic environments or of adapting to climate change.

Water management has defined how civilisations have developed in the past and will continue to do so in the future.

Damming the last stretches of free-flowing rivers in Europe?

Far from taking this visionary approach, a number of governments are currently moving in the opposite direction, and planning the construction of dams for hydropower and water storage on some of the last stretches of free-flowing rivers in Europe.

New dam building projects should only be accepted if better environmental options – like water and energy-saving measures and better renewable energy alternatives – are technically impossible or disproportionately expensive for the general public.

If these essential and common-sense checks are not applied, governments risk increasing energy, land and natural resource use, undermining their countries' ability to cope responsibly with climate and energy challenges and ridiculing the EU water policy reform.

12 Europe's water at the crossroads

Making it happen

Delivering on these 5 priorities requires a concerted and lasting effort by all involved

Citizens across Europe **will** have to join in discussions during the public participations processes in 2009.

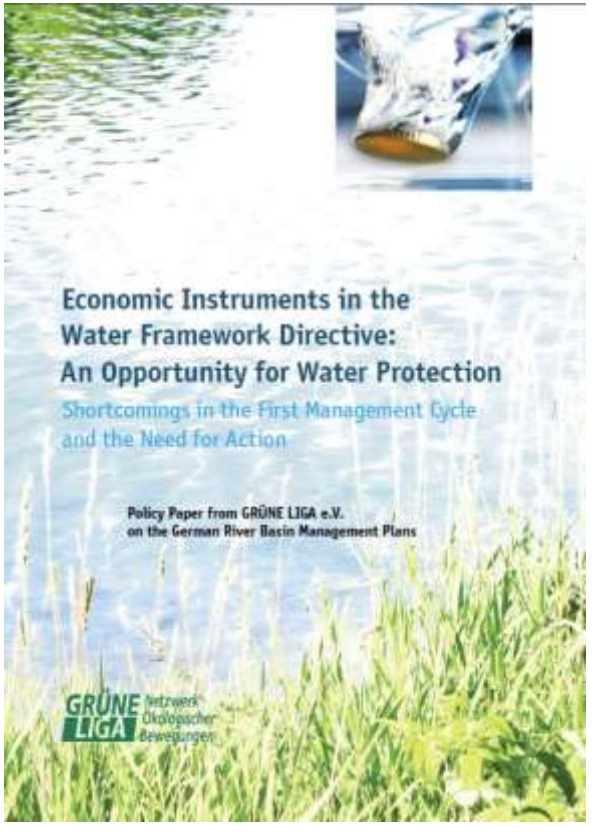
Governments and **water management authorities** at national level will need to grasp this opportunity to make real and lasting changes by 2015.

The European Commission will have to support the ambitious implementation through guidance and where necessary enforcement.

Members of the European as well as **National Parliaments** will need to use their powers to support implementation efforts.

Users of water services and other **stakeholders** will need to engage constructively in developing and implementing effective measures.

Environmental organizations will need to communicate effectively on the importance of protecting crucial water resources for the resilience of ecosystems and dealing with environmental change.



Economic Instruments in the Water Framework Directive: An Opportunity for Water Protection

Shortcomings in the First Management Cycle and the Need for Action

Policy Paper from GRÜNE LIGA e.V. on the German River Basin Management Plans

GRÜNE LIGA Netzwerk Ökologischer Bewegungen

Thank you for your attention!

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