

Turning the Tide: Role of Statutory Bodies in Abating River Pollution

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Navigating Rhine: European Experience of River Rejuvenation

Debarshee Dasgupta & Subia Ahmad, TREADS@CPR, India

Overview

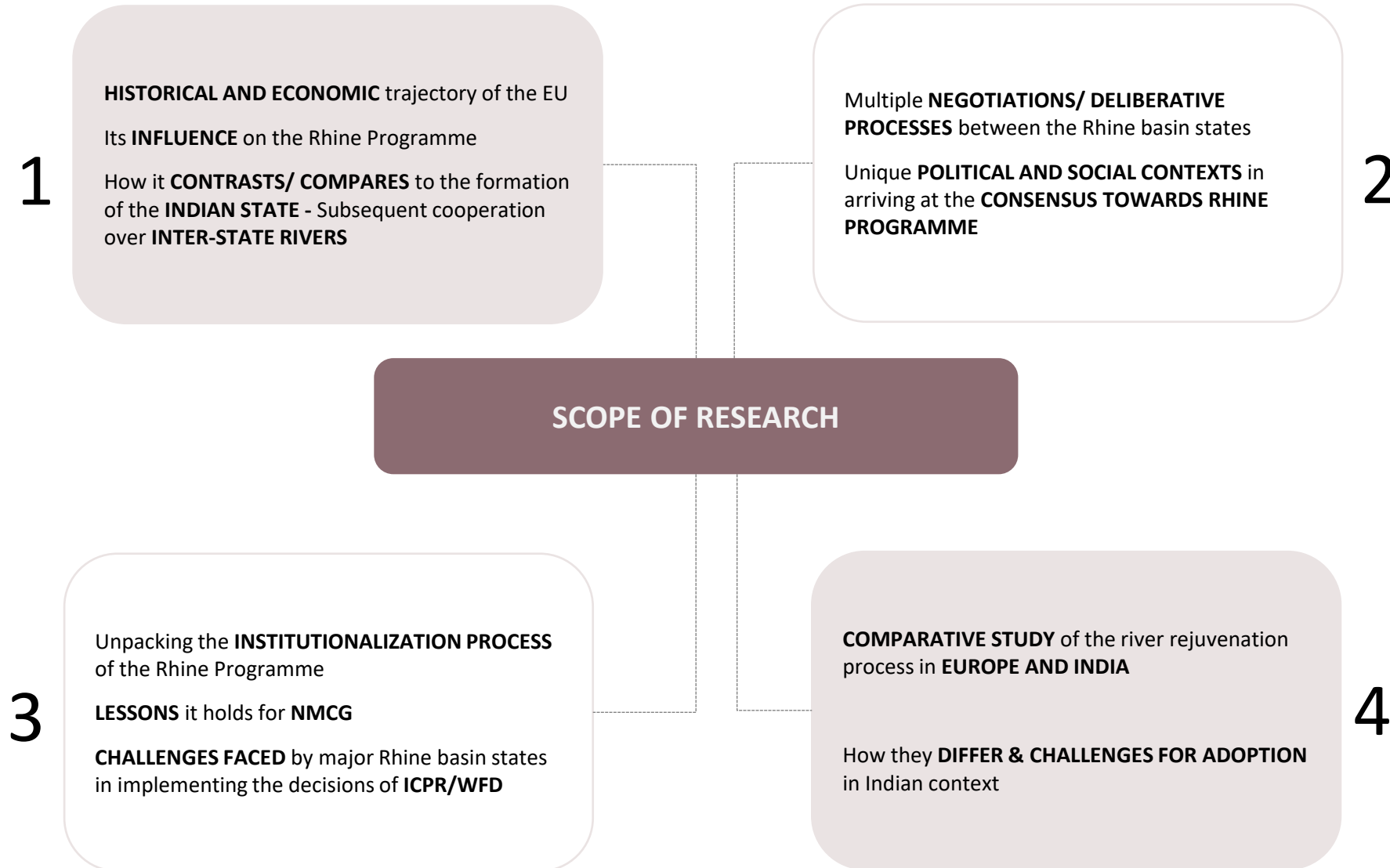
- Our Research
- Unpacking the Rhine Restoration Programme
- The Strategic Levers of European Union (EU) River Basin Management
- EU Water Framework Directive (EU WFD) and Key Takeaways
- Current Institutional Arrangement: Rhine and Ganges

Our Research

Our Research

Delving into the long history of Rhine Rejuvenation Programme to distil opportunities for learning from the European experiences in this broader terrain of political, policy and institutional issues for the Indian context.

Research Scope



Unpacking the Rhine Restoration Programme

Evolution of Rhine Programme

- The Modern Rhine - Europe's romantic sewer - is an offspring of French and industrial revolutions (Cioc 2012)- captures the discourse on Rhine Pollution and for its importance in the cultural, social, and economic fabric of Western Europe.
- From 1800-1950, European nations collaborated in bits and parts for navigation in Rhine and Salmon Fishing, albeit with various contestations.
- The long history created an **economic case of trade interdependencies** - **provided foundation for international cooperation over the Rhine.**



The real Eau de Cologne, and its effect upon the noses of three illustrious individuals

A caricature of Rhine Romanticism in 1855. Cologne was among the first Rhine cities to experience industrial pollution. (From Doyle, The Foreign Tour, p. 7) Adopted from Cioc (2012)

Evolution of Rhine Programme

- In 1948, there was a proposal to establish a new commission by the Rhine Bordering countries to exclusively address the problem of pollution in the river (Koos and Anne 1997). Switzerland engaged in diplomatic correspondence with the Federal German Republic, France, Luxembourg, and The Netherlands.
- Laid the groundwork for the International Commission for the Protection of the Rhine against Pollution (ICPR) on July 11, 1950 (Beunen et al. 2009).
- In 1963, **Berne Agreement on Rhine** was signed **between basin states and ICPR** was formally established.

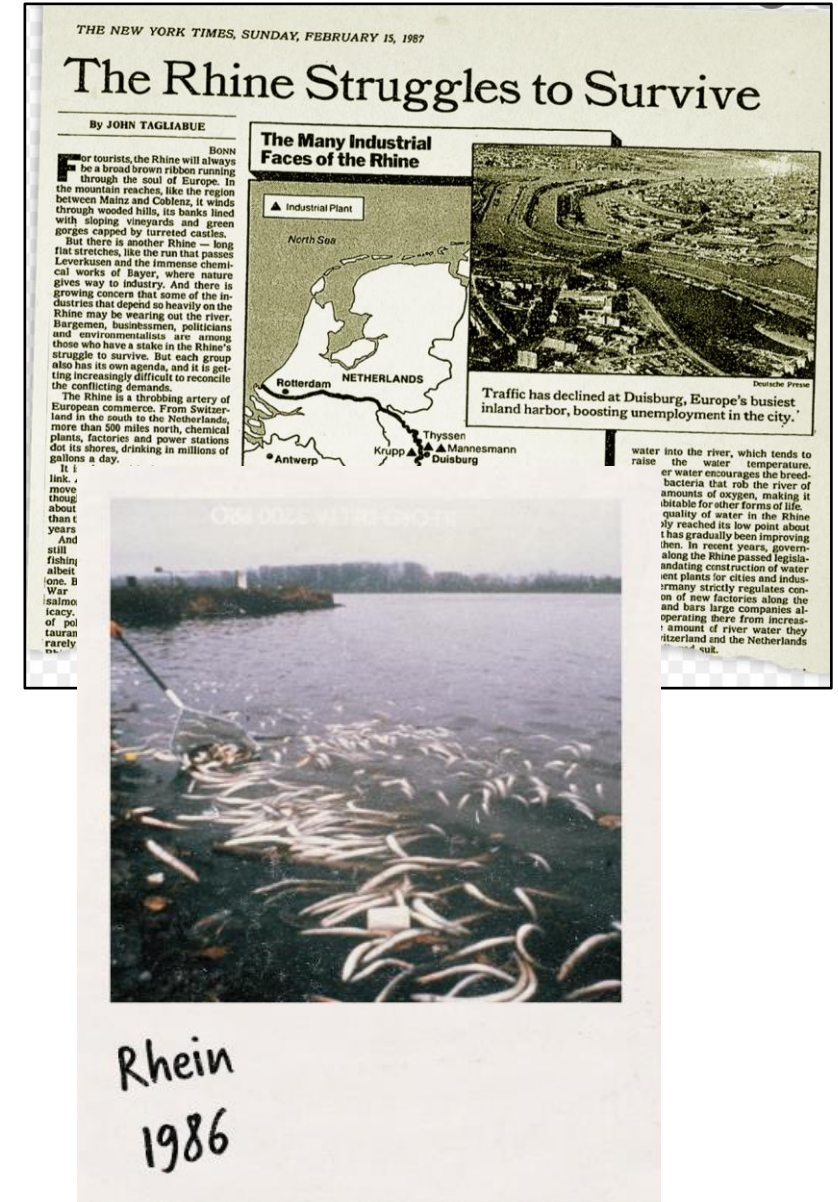
The Rhine Basin



Source: ICPR

Evolution of Rhine Programme

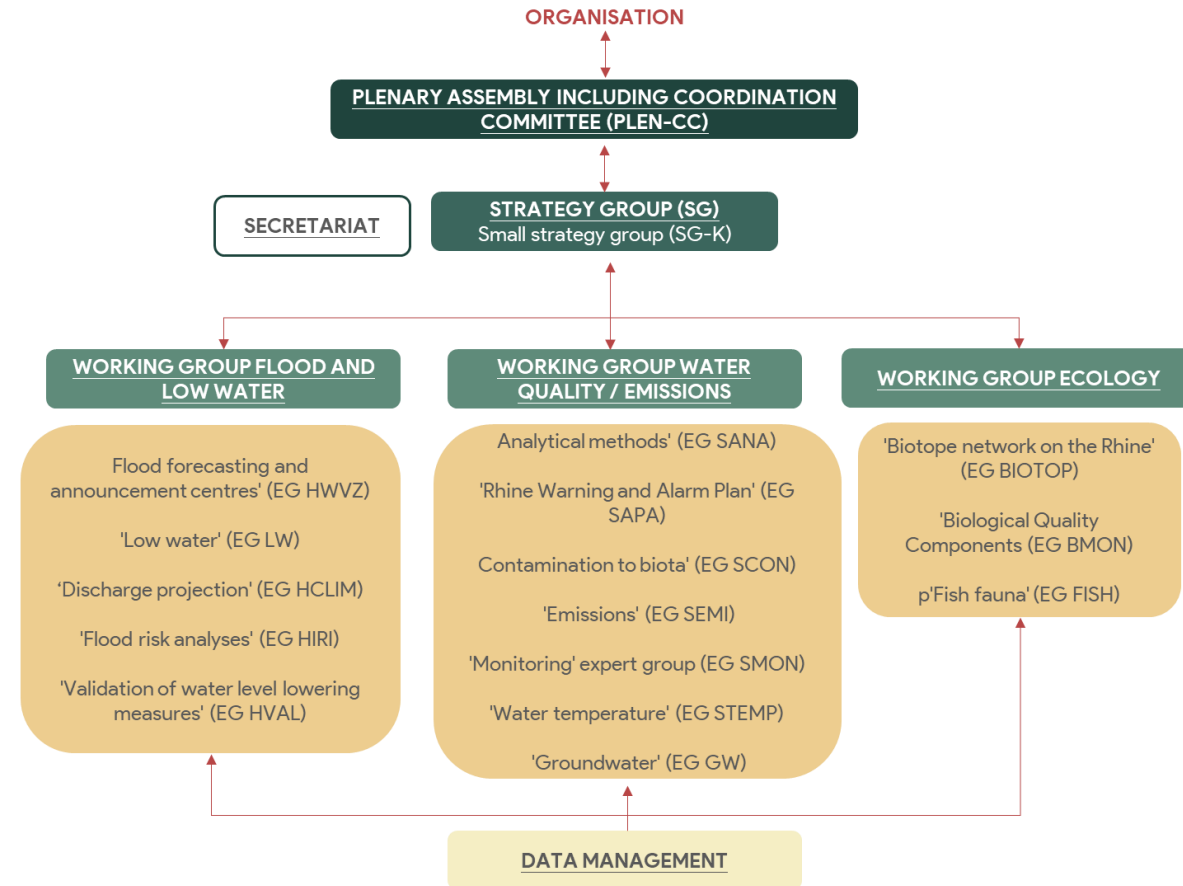
- Yet, till 1970's ICPR was unable to make any tangible impact. The 1963 Commission faced limitations due to the commissioners' dependence on their respective governments and the requirement for unanimous decisions.
- In 1972, prompted by the Dutch government, regular meetings among environment ministers (Conference of Rhine ministers) in the basin were launched. Provided political impetus and fast track decision making with support from ICPR.
- Led to "Salt Convention 1976": Convention on the Protection of the Rhine against Pollution with Chlorides was signed in 1976 – sharing costs among the basin states to reduce chloride pollution (Mostert 2008).
- Sandoz Accident in 1986: A major turning point. Catastrophic chemical spill led targeted and international efforts to address Rhine pollution and declining Salmon population. In 1987, the ICPR launched Rhine Action Plan and Salmon 2000.



Evolution of Rhine Programme

- In 1999, due to the efforts of the Rhine Ministers' Conference, the scope of ICPR was broadened, replacing the previous Berne Convention and Chemical Convention.
- Return of Salmon and water quality improvement became a key indicator of ICPR's success.
- ICPR remains a deliberative platform for Knowledge Creation and Consensus Building.
- Working and Expert Groups play an important role in this aspect and each Working Group has a clearly defined mandate for a five-year cycle.
- ICPR's decades of deliberation established standardized monitoring program spanning from Switzerland to The Netherlands. This necessitated reaching agreements on the operation and alignment of national monitoring stations, defining the substances to be monitored, and standardizing analysis methods.

ICPR Organisation Structure



Source: ICPR

What mattered?

- International Cooperation for ICPR took 3-4 decades and intense negotiation for successful outcome on key issues.
- Gradual incrementalism: ICPR began with bilateral and specific river stretch and moved towards multilateral and basin approach by leveraging pragmatic politics and policies.
- ICPR with support from Rhine Ministers' Conference turned into an avenue for deliberating over several conventions and agreements towards pollution control (Mollenkamp 2007).
- Rhine Basin States cooperated over water quality than quantity.
- Consensus Building across range of political and financial matters, Cost Sharing on Infrastructure and Pollution Prevention (Le Marquand 1977).
- Investing in institutional structure for knowledge generation that could be trusted by all states.

The Strategic Levers of European Union (EU) River Basin Management

The Strategic Levers of European Union (EU) River Basin Management

- 1970's – Stockholm Convention and sharp policy focus on the environmental conservation. EU acknowledged the importance of community (European Community) environmental policy. In 1972 first Environmental Action Programme (EAP) was formulated.
- EAPs provide a general policy framework for the European Union's environment policy in which the most important medium and long-term goals are defined and set out in a basic strategy, including concrete measures, where appropriate.
- The calibration of EAP to incorporate the political economy of Europe in Environmental Policies

EAP - 1 and EAP-2
(1973-1976)

The 1st and 2nd EAP's Aimed to address environmental concerns within the European Communities

EAP - 3
(1982-1986)

The 3rd EAP represented a significant shift towards, integration of environmental concerns into EC policies

EAP - 4
(1987-1992)

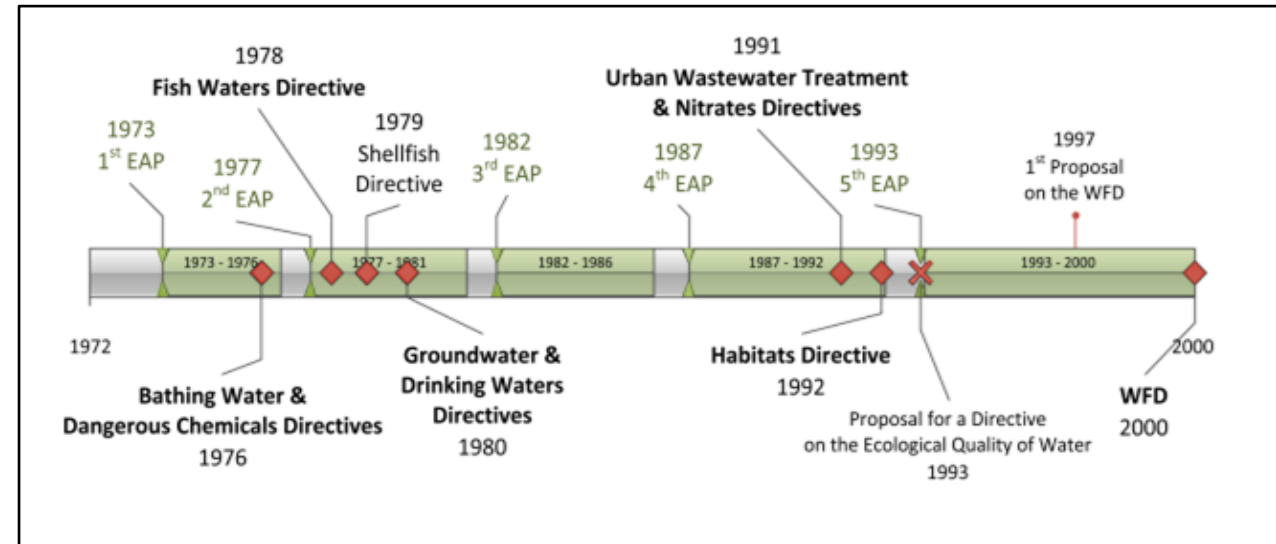
The 4th EAP emphasized the integration of environmental considerations into other Community policies marking a strategic reorientation towards sustainable development in EU environmental policy

EAP - 5
(1993-2000)

The 5th EAP adopted a more global and long-term approach, focusing on integrating environmental considerations into all major policy areas

The Strategic Levers of European Union (EU) River Basin Management

- Water Directives and Environmental Action Plan complemented each other
- First Generation Directives: Water Quality Standards(1972-1990) – Limit Emission of Pollutants i.e., Immission logic that determined quality of objectives for designated type of water (bathing water, fishing water etc). Did not produce expected outcomes.
- Second Generation Directives (1991-1998)- Adoption of Emission Standards. Purpose was more specific (Urban and Industrial Wastewater), Nitrates from Agriculture.
- The implementation of each of these directives faced significant contestation and deliberation among the EU member states and drinking water companies regarding the policy choice, cost sharing and the political economy of the agricultural sector (Aubin and Varone 2004)



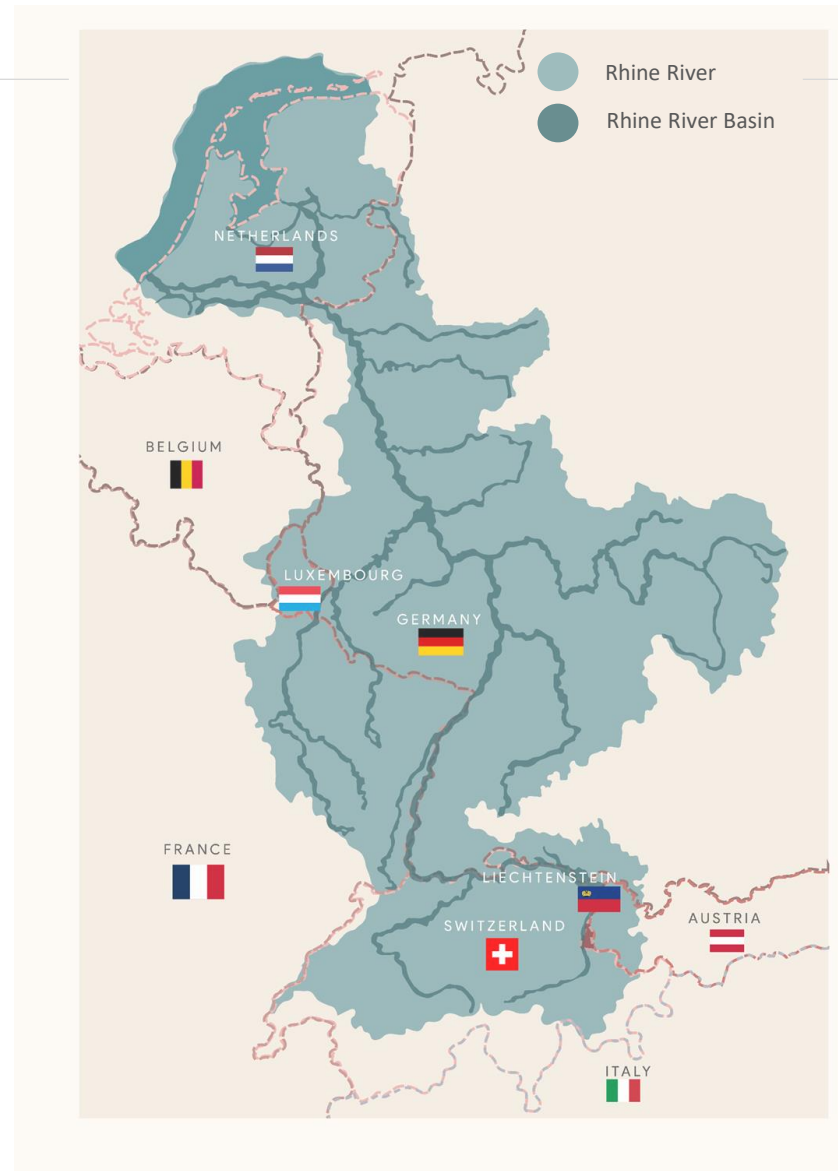
Source: European Commission and Kissling-Näf and Kuks 2004

EU Water Framework Directive (EU WFD)

EU Water Framework Directive

EU & WFD

- As the EU integrated, European policies set water standards, emission levels through directives
- These were initial stages that paved way for European Commission's Water Framework Directive (WFD) in 2000 – subsuming most earlier directives
- WFD provides an umbrella framework aiming at “good ecological status.”



WFD BUILDS ON EC CONSENSUS

- WFD builds on EC consensus – a collective supranational institution – legally binding
- WFD outlines and sets out objectives and measures for the protection and improvement of water quality in EU member states
- Sovereign nations concede powers for a greater goal and collective interest

Third Generation: Water Framework Directives as umbrella framework (Combines 1st and 2nd). In other words, combines objectives of quality and limitation of emission of pollutant at the River Basin Scale.

Key Takeaways

- EU has been sensitive towards integrating the Political Economy of Europe.
- The Directive was the outcome of intense political negotiations and WFD is legally binding.
- Key sectoral actors such as drinking water companies, agriculturalists and influential environmental NGO's lobbied during the framing of WFD legislation. This further ensured that **political consensus was reached before adoption of WFD** (Kaika and Page 2003, Dieperink 2000).
- European Parliament got additional negotiating power and EP became a co-legislator on environmental matters (Giakoumis and Voulvoulis 2017): **Legitimacy of a Supranational Body in Water Policy Making.**
- Rhine Basin States aligned with WFD and other EU policies by harmonizing their national and sub-national water and environmental legislation: **A case of Subnational Institutional Internalization** (Chokkakula 2021).
- WFD Framework also **established protocols for Inter and Intra-State Mechanism for implementation of WFD**: The Programme of Measures (PoM) and Common Implementation Strategy (CIS).

EU and Rhine Programme: Intersections and Complementarity

- The Rhine Action Programme and the process and protocols ICPR established played a key role in EU WFD negotiation both ex-ante and ex-post (during the negotiation and implementation).
- Rhine River Basin Management Plan (IRBD): Pursuant to WFD, river basin management plan is prepared for the International River Basin District Rhine: ICPR plays a key role in planning and development of knowledge of the resource at the scale of river basins with the objective of securing international co-operation for EU WFD
- ICPR got more teeth/wide-ranging legitimacy once European Community (EC) became its member

Current Institutional Arrangement : Rhine and Ganges

RHINE RIVER

ICPR

International Commission for the Protection of the Rhine

DELIBERATIVE PLATFORM AND ENABLING KNOWLEDGE GENERATION

ICPR provided the institutional space for the riparian nations to deliberate and negotiate collaborative actions to address pollution in the Rhine from 1950's.

ICPR facilitated several bilateral and multilateral conventions and conferences for these deliberations and negotiations between the riparian nations. These efforts were incremental and led to varied arrangements for reducing pollution.

This long history of fragmented joint responses between nations contributed gradually to perceptions of river rejuvenation as a collective interest and developed mutual trust between the nations.



Source : ICPR

GANGES RIVER

NMCG

National Mission for Clean Ganga

REGULATOR & IMPLEMENTER

NMCG is the implementing arm of the National Ganges Programme and work towards:

Ensuring effective abatement of pollution and rejuvenation of the river Ganga by adopting a river basin approach to promote inter-sectoral co-ordination for comprehensive planning and management.

To maintain minimum ecological flows in the river Ganga with the aim of ensuring water quality and environmentally sustainable development.



Source : NMCG

Thank you

