

Focal theme:
**Water supply, reuse and
environment**

European co-rapporteur
Chiara Tonelli

Indian co-rapporteur
T.B.S. Rajput

Session B1-B2-B3

- **Common ST&I challenges and needs 1**
- Restructuring water policy in India in the frame of IWRM using examples from Europe for example: Water framework directive.
- Urgent need for climate data for decision makers for the National Adaptation Programs and mitigation strategies
- There is a clear need to improve the underpinning regional climate studies.

- Better integrated management and governance of water including landuse management , awareness of endusers, riverbasin approach
- Manage aquifer recharge including groundwater recharge, rainwater harvesting and underground storage of water
- Low cost, low tech and energy independent treatment facilities especially for rural areas

- Natural drinking water treatment using riverbank filtration and soil aquifer treatment and recovery (SATR)
- Improvement and rehabilitation of drinking water distribution and sewer systems
- Genetic improvement of crops better adapted to climate change ,e.g water saving and salt tolerant plants.
- Identification of new genotypes or novel crops with a sustainable water use and high productivity

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- **state of play of current cooperation**
- **existing competence and deployment solutions (like centres of excellence, research teams, innovation hot spots)**
- A couple of network has been presented
- Mapping has started from European side and needs to be continued to have future cooperation. This should be mirrored on the Indian side.

- FP7 projects & bilateral research initiatives with scope for increased EU/MS cooperation
- MS donor organizations DIFID & GTZ already play a role in policy formation on a local level

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- What the EU/MS and India could do better together to find the most efficient, sustainable and affordable solutions to major challenges and type of instruments best suited

General Aspects

- Capacity building / capacity development in water resources management
- Sustainability of proposed solutions

Science oriented projects

- Scientific challenges remain in water purification treatment, irrigation science, modelling water resources, plant adapted genotypes, ecc
- Science to lead these projects with intense cooperation from industries and stakeholders

Technology oriented projects

- Technological development and adaptation is needed to provide solutions to the water cycle.
- Technology developers and providers should lead these projects with cooperation of science and stakeholders

Coordination and Support Actions

- Improvement of communication between Indian federal states and European member States
- Deployment of results of R&D projects
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- **Concrete coordinated actions to be included into the strategic roadmap for ST&I cooperation (strategies, programmes, resources)**
- 3+3 projects = research institutions, state authorities and industry
- Preference of projects in applied sciences
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- Glacier mass balance studies
- Technology-rich water management for sustainable intensification of agricultural system
- Prevention of groundwater pollution and seawater inclusion (watershed and wellhead protection)
- Acceptance of use of reclaimed water
- Development of low costs, low maintenance, reliable systems of water treatment for agriculture



- Additional funding required for long term data gathering and analyses
- Joint identification of focal points for research
- Impact of monsoon season on ocean modeling is an area of attention
- The Himalayas present an opportunity for joint collaboration –(global impact)
- Integration of climate models with socio-economic impact data and stake holder experiences

- Reduce water use by developing crops with higher use efficiency (water-savings plants)
- Reduce water contaminants by developing crops resistant to diseases and with increase N/P efficiency
- Increase crop productivity and quality by developing plants tolerant to multiple stress, less land and water use (yield stability in a changing environment) and plants with higher nutritional quality (fortified micronutrients, antioxidants, omega fatty acids)

- Projects should include demonstration fields to enable innovation both socially and economically.
- Communication of the “water challenge” to society at large and raise awareness of impacts of water use to industries and farmers

- Expanding existing networks (e.g. Riverbank filtration Network) and new ties with so far European based networks (e.g. European Water Partnership) and opened up to become multidisciplinary
- Identify interested networks and find mechanisms to network them for example with a series of thematic workshops(e.g. on water and resources management/climate change/agriculture

- Promote exchange of PhD students, postdocs and visiting scientists
- Benefits from adding the bottom-up approach (science organisation in Europe, ETPs) to the existing top-down approach

