

Five Introductory Chapters

The first five chapters would be dedicated to specific topics and we are also suggesting responsible authors.

Approx. 6 to 7 pages for each chapter.

1) Quality of Water: changes in time, global picture challenges, impacts, the effects of global changes and emerging risks, solutions.

- *Resp: José Tundisi, Blanca Jimenez and Katherine Vammen.*

Comments from Focal Points:

- Water quality and quantity and their interrelationship.
- Natural and anthropogenic sources of pollution.
- Changes over time (type of contaminants, concentrations, etc.)
- Groundwater and surface water. Regions have different sources for drinking water (for example, Central America uses more groundwater than surface water for drinking). Less treatment is required for groundwater but energy costs are higher. Globally groundwater quantities are shrinking due to contamination, less recharge under climate change conditions and salt intrusion.
- Emerging contaminants and their risks, new patterns of impacts on health and economy.
- Impacts on ecosystem, the importance of having healthy ecosystems.

2) Biological and Chemical monitoring of water quality, indicators, methods, technologies, case studies.

- *Resp: Gabriel Roldan and Ernesto González*

Comments from Focal Points, it's important to include:

- Include biological and chemical contaminants and discuss the different types of contaminants.
- Likely no space for case studies, they can be covered in the country chapters.
- What to monitor? Pathogens and biological contaminants (cyanobacteria toxins for example) of interest for the region?
- Eutrophication should be covered as well.

3) Water Quality assessments: technologies, methods, strategies, approaches, modelling, case studies.

- *Resp: Raúl Lopardo and collaborators*

Comments from Focal Points, it's important to include:

- What are the parameters to measure? Chemical and physical parameters?
- Modeling – do you have the data?
- Emphasize that the generation of data is important for decision makers.
- Include conventional and emerging technologies, modelling, digital tools, use of internet, wireless communication, broad access to data.
- Society empowerment and management.
- Use by decision makers.
- Include challenges.

4)"Hydro social" cycle and impact on quality of water. Considers how the water is manipulated, used and concentrated by social stakeholders, struggles for access and control of the water and mechanisms of exclusion to access of water through factors such as waterworks legislation, institutions, practices and symbolic meanings.

. Resp: *Nicole Bernex and Maria Luisa Torregrosa*

Comments from Focal Points, it's important to include:

- The chapter could be titled **Water governance and social aspects.**
- Include cultural heritage.
- Water security and sustainability.
- Capacity building and knowledge management.
- Water policy and pricing.
- Include human health.
- Include gender issues.
- Conflicts related to quality of water.
- Education and water quality.

5) Water and Health

Resp: *Martin Forde, Ricardo Izurieta, Banu Ormeci, Mercedes Arrelano*

Comments from Focal Points, it's important to include:

- Mainly focusing on human wellbeing and health. Ecosystem health will be covered in elsewhere.
- There are studies done/data available.

Results of group discussion in Meeting of Water Programme of IANAS, 21 november of 2016 in Medellin, Colombia.