

World Water Congress 2015

The Integrated Regulation of Water Resources Management In England and the European Union

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1. Overview

- Although Integrated Water Resources Management (IWRM) is widely accepted as a global imperative for water sustainability, there is a notable lack of progress on the implementation of this approach in English and European Union water legislation.
- It is argued that the sustainable management of water quantity, particularly in respect of water security and flood risk, should adopt a more consistent regulatory approach towards uncertain and extreme hydrological events.
- In addressing hydrological extremes, it is suggested that respecting 'naturalness' is a key factor in providing an appropriate and sustainable legal response.

2. IWRM

- IWRM may be traced back to Chapter 18 of Agenda 21 from the United Nations Rio Conference on Environment and Development in 1992.
- Global Water Partnership 2000 definition: 'a process which promotes the co-ordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems'.

3. Theory, Practice and Competition

- As a matter of theory, IWRM seeks the greatest long-term benefit for humanity, as measured in aggregate economic, social and environmental terms.
- As a matter of practice, IWRM is uninformative as to what way of managing, or regulating, water is actually most beneficial.
- If water management is about determining priorities between competing claims to a limited natural resource, the recommendation that management should be "integrated" does not assist in the determination of those priorities.

4. IWRM in EU Law

- As regards EU law, the Water Framework Directive cites the need for an integrated policy on water amongst its purposes, but it is primarily a water *quality* measure, with limited relevance to water quantity concerns such as drought and flooding.
- Some inroads into water deficit management are made under the European Commission's 2007 Communication on Water Scarcity and Droughts, and management of excess water in the Flood Risk Management Directive.
- Generally, the record of the EU in integrating water regulation is seriously incomplete.

5. Qualitative Status Concerns

- The European Environment Agency has drawn attention to the problem of the quantitative status of water in EU law and called for a redefinition of 'good status' under the Water Framework Directive to incorporate a requirement for 'ecological flows' to provide sufficient water to meet ecological needs.
- At best, integration is acknowledged as an overall objective for EU water policy, but the European Commission's *Blueprint to Safeguard Europe's Water Resources* (2012) recognises that actual EU measures to achieve regulatory integration of water management are seriously lacking.

6. IWRM in English Law

- In English water law, lack of integration is even more evident, with measures relating to different kinds of water use having been adopted over time and in isolation from one another.
- Distinct and unconnected laws are provided in relation to water supply, water pollution, flood risk management, and other uses such as hydropower, irrigation, fisheries, navigation and ecological protection, alongside recreational uses.

7. Naturalisation

- There are indications of a growing 'naturalisation' approach in relation to sustainability in water security and flood risk management regulation.
- 'Naturalisation' involves application of water management options that secure an acceptable degree of risk minimisation through measures that involve the least intrusion upon the natural aquatic environment.
- Major infrastructure projects, such as water supply reservoirs and flood defence embankments, will be regarded as the least natural, and therefore least sustainable, method of securing an acceptable level of risk.

8. Naturalisation and Water Resources Planning

- Securing sustainability in water supply in England and Wales is provided for under the Water Act 2003. This facilitates a new system of water resources management planning, which requires water undertakers publicly to show how water supply obligations are to be met over the following 25 years.
- Water resources management planning has placed water company proposals to establish major water infrastructure projects, such as reservoir construction, under intense public scrutiny. In economic, social and environmental terms, major infrastructure projects may not always be the most sustainable way of securing water supplies.

9. Naturalisation and Flood Risk Management

- In respect of flood and coastal erosion management, the Flood and Water Management Act 2010 introduces a risk-based approach. The recharacterisation of flooding in terms of the management of *risk* carries with it the recognition that the alleviation of flooding at one location may involve increasing risks elsewhere.
- *Defending* land from flooding may not always be a sustainable option. In many instances construction of major embankments may have the consequence of exacerbating downstream flooding problems and/or passing excessive maintenance costs to future generations.

10. Common Features and Naturalisation

- Although dealing with different ends of the spectrum of hydrological events, the recent national legislative responses to water resources planning and flood risk management share the appreciation that sustainable water management does not always involve ever-greater infrastructure provision (particularly reservoirs and flood defence embankments).
- Often, sustainability involves the adoption of a 'naturalisation' approach to water management, seeking the least intrusive solution to water resources management challenges.

11. Restoring Natural Hydrology

- The way forward may lie in adopting regulatory approaches that seek to reduce flooding and to avoid water shortages by retention measures which seek to restore natural hydrological patterns through 'slowing the flow' and maintaining ecological benefits.

12. Concluding Observations

- Although IWRM may have gained international recognition as the guiding concept for sustainability in water management, the progress of the idea in EU and English water legislation has been very limited.
- Arguably, this may be because the call for 'integration' may be uninformative in resolving competing priorities in water management.
- The present argument is that 'naturalisation' indicates a more practicable route towards sustainable water quantity management.

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