#### **XV IWRA WORLD WATER CONGRESS**

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## TRENDS AND DEVELOPMENTS IN WATER LEGISLATION – REVISITED

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## SCOPE AND STRUCTURE OF PRESENTATION

- 1. SALIENT FEATURES AND TRENDS IN CONTEMPORARY DOMESTIC WATER LEGISLATION – SOME CLEARLY DISCERNIBLE, OTHERS EMERGING
- 2. ISSUES EMERGING FROM COMPARATIVE ANALYSIS

- STEADY ATTRACTION OF WATER RESOURCES IN THE PUBLIC DOMAIN/TRUST OF THE STATE, AND IN THE SCOPE OF GOVERNMENTAL (OR JUDICIAL) ALLOCATION AUTHORITY – pockets persist where groundwater is private (Finland; Portugal; Texas SC 2012)
- 2. STEADY ATTRACTION OF GROUNDWATER IN THE SCOPE OF REGULATION AS REGARDS
- WELL DRILLING AND EXTRACTION/USE
- POLLUTION CONTROL FROM "POINT" SOURCES
- LAND USE IMPACTS ON NATURAL RECHARGE PROCESSES

- 2.THE DISCRETIONARY AUTHORITY OF GOVERNMENT TO ALLOCATE AND RE-ALLOCATE WATER RESOURCES QUALIFIED – AND THE QUALITY OF RELEVANT DECISION-MAKING IMPROVED - THROUGH –
- EIA requirements of water projects
- water resources plans and relevant determinations
- minimum ecological flow requirements of watercourses
- the "reserve" of water volumes or flows for basic human needs and the environment

## 3. PURSUIT OF EFFICIENCY OF ALLOCATION (AND RE-ALLOCATION) THROUGH

- CONTROLLED TRADING OF WATER RIGHTS
- ABSTRACTION AND WASTEWATER DISPOSAL CHARGING
- ECONOMIC AND OTHER REWARDS TO EFFICIENT USER
- 4. RAISING THE PROFILE OF THE ENVIRONMENT IN THE ALLOCATION AND MANAGEMENT OF AVAILABLE WATER RESOURCES ("GREENING" OF WATER LAWS) – AS SEEN IN -

- Controlled trading of water abstraction rights
- Restricting groundwater extraction to ensure the ecosystem-support function of groundwater
- Priority of environmental allocations in water abstraction licensing, in particular at times of scarcity
- Environment-friendly terms and conditions of abstraction licences and of wastewater discharge permits
- The environmental "reserve" of water volumes or flows

- Environmental criteria entering determination of water abstraction and wastewater disposal charge tariffs (Peru, Uruguay)
- Review and downwards adjustment of licensed allocations as a result of
- mandatory environmental protection goals (Spain, Honduras, Zambia) and
- zoning for the protection of water-dependent ecosystems (Bhutan, Peru)
- Stretching the notion of "beneficial" use to leaving water in the stream for recreation & wildlife (Colorado)

#### 5. CAPTURING THE LAND/WATER INTERFACE, VIA -

- internalization of water impact in land use planning regulation and determinations (e.g., "water assessment" prescribed by Dutch and Flemish town & country planning legislation; gw sustainability planning prescribed by SGMA California (2014); also Zambia WA 2011)
- regulation of cultivation practices giving rise to diffuse pollution of surface water and of groundwater from fertilizers and pesticides (e.g., EU Nitrates Directive 1991, Bhutan, Philippines)
- restrictions on land uses interfering with groundwater recharge processes (EU WFD; zoning of gw recharge areas under German, Tanzanian, Philippine, Barbados legislation; India's Model Groundwater Bill 2011. Note: green space compensation under Honduran law)

- empowering public water supply utilities to make land management agreements with landowners to protect upstream drinking water sources (PES/PWS in Scotland, England, New York Catskills)
- empowering public water supply utilities to compulsorily purchase parts of their groundwater source capture zones from landowners, and then permit farming or recreational use under licence (e.g., Denmark, England, Germany)

- PARTICIPATION OF WATER USERS IN THE MANAGEMENT OF THE RESOURCE, EVIDENCED BY -
- the formation and functioning of formal users' groups for the management of, in particular, groundwater under stress,
- experiments in "collaborative' water management, with coalition of water users, local governments and conservation interests taking up the use and re-distribution of water under existing water rights (Oregon, USA)
- the reservation of seats for users' representatives including reps of native communities – in the makeup of river basin governance structures

- 7. ACCOUNTING IN MAINSTREAM WATER LEGISLATION FOR INTERSECTION/INTERACTION (AND POTENTIAL COLLISION) OF TRADITIONAL COMMUNITIES AND WATER-BASED PRACTICES WITH
- MODERN/FORMAL WATER ABSTRACTION AND WASTEWATER DISPOSAL RIGHTS
- THE GOVERNMENT WATER ADMINISTRATION
- FORMAL WATER USERS' GROUPS

- Balancing security of legal title to water with the administrative flexibility required to re-allocate available water resources in response to changing circumstances and to the risk and uncertainty of resource availability heightened by climate variability
- Reconciling efficiency of resource allocation and re-allocation through water rights trading and user charging with social and environmental equity

- 3. In recognition of the strategic value of the resource, insulating groundwater's lifecycle from man-made stress on
- available groundwater stocks
- natural groundwater quality
- natural recharge and discharge processes
- Raising the profile of the environment in the allocation and re-allocation of available water resources to competing uses

- Recouping the elusive connection between water regulation (and administration) and land use regulation (and administration), particularly as regards groundwater
- Empowering users to shoulder greater responsibilities in managing water resources, in particular those under stress

7. Mapping out and sorting out the interplay of customary/ancestral communities and their water-based practices with modern, formal water abstraction, impoundment and wastewater disposal rights derived from statute

# THANK YOU!

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