The Dilemma of Boundaries: Looking Beyond the Basin for Benefits and Identity

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Overview

- Look back at where we have been before looking where we are going
- Causes of conflict over water
- Negotiation strategies
- Approaches to blurring the boundaries
270 International River Basins
270+ Transboundary Aquifers

WHYMAP and the World Map of Transboundary Aquifer Systems. World-wide Hydrogeological Mapping and Assessment Programme (WHYMAP), IGRAC, and ISARM Atlas of Transboundary Aquifers
Geographic Boundaries in Watersheds
Groundwater flow systems are local, subregional, and regional in extent.

Geographic Boundaries in Groundwater

“Bona fide” Boundaries in “the Commons”
- Outcrop
- Watercourse
- Catchment, Watershed
- Megawatershed
- Springshed
- Recharge Zone
- Discharge Zone
- No-recharging Aquifers
- GW Ecosystems
- Chemical “Facies”

Groundwater Domains

“Fiat” Boundaries in “the Hydrocommons”
- Land Rights
- Drainage Area or Capture Area
- Radius of Influence
- WHPA, SWPA, “Belts”
- Conservation Area
- Sole Source Aquifer Area
- EU “Groundwater Bodies”
- Control / Mgmt. Area
- Megawatersheds
- Unitization

“Fiat” Boundaries in “the Common Heritage”
- Spiritual
- Therapeutic
- Historical
- Hydrogeological-Nature Reserves
“Water” Circle of Conflict

**Structural conflict**
- Causes: Destructive Behavior, Unequal Power, Time Constraints

**Value conflict**
- Causes: Criteria for evaluating ideas, Ideology

**Data conflict**
- Causes: Relevancy, Interpretation, Misinformation, Assessment, Procedures

**Interest conflict**
- Causes: Perceived Competition, Procedural interests

**Identity conflict**
- Causes: History, Recognition, Efficacy, Control

**Relationship conflict**
- Causes: Emotions, Negative behavior, Poor communication

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ARIA: Four Stages of Negotiations

• **Adversarial** -- each side defines its positions, or *rights* (win-lose, zero-sum, distributive).

• **Reflexive** -- the *needs* of each side bringing them to their positions is addressed.

• **Integrative** -- negotiators brainstorm together to address each side's underlying *interests* (win-win, positive sum).

• **Action** -- negotiators work on implementation and re-entry.

Overview: Basins with Boundaries

Common Criteria: “Rights”

Key Concepts:
Intro to Hydropolitics
Intro to Negotiations

Exercises: Trust-building
Assessing a basin:
Identifying parties, issues, interests
Planning by nation

Map of the Sandus River basin

- SANDUS REPUBLIC
- SOUTH ZWABILI
- Mliaca
- Sandustown
- GAMBO
- Kigalatown
- ITAGA
- KIGALA
- Tangis Sea
Changing Perceptions: Basins Without Boundaries

Map of the Sandus River basin

Common Criteria: “Needs”

Key Concepts:
- Cooperative Framework
- Lessons Learned
- The New Diplomacy

Exercises: Skills-building
- Interpersonal skills “Active” listening
- Thinking as a basin: Planning by sectors
Enhancing and Sharing Benefits

Common Criteria: “Benefits”

Key Concepts:
- Economics of Int’l waters
- Equity, Efficiency, and Thinking
- Beyond the River

Exercises: Consensus-building

Enhancing benefits
Putting it all Together: Capacity building

Map of the Sandus River basin

Common Criteria: “Equity”

Key Concepts:
International Water Law
Institutions in Practice, Track II, Stakeholder Participation

Exercises: Re-entry
Crafting Institutions
“Forgotten” and Unforeseen Issues
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<thead>
<tr>
<th>Adversarial</th>
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<th>Physical</th>
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Massachusetts Episcopal Diocese reorganized along watersheds

“Simply demonstrating that we are all connected by water: rich and poor, urban and rural, upstream and downstream, is a fine place to start. I think the Holy Spirit will take care of the rest.”
Thank you for your invitation and attention.