

Green economy approaches, water and abstraction reform

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Investing in Water for a Green Economy

Services, infrastructure,
policies and management



Edited by
Mike D. Young and Christine Esau

earthscan
from Routledge

Part 1: Overview

1. Investing in water – Young

Part 2: The Macro-Economic Case for Investment in Water

2. Charting our future - 2030 WRG
3. Water & econ development - Tropp
4. Climate Change & Trade – Calzadilla
5. Ecosystem Services - Khan

Part 3: Policy Guidelines for Investment in Water

6. Water Economics - Beato & Vives
7. Water Financing - Vives & Beato
8. Governance – Ménard & Saleth

Part 4: Regional Experience

9. Niger River Basin – Ward et al
10. Western Jakarta - Fournier
11. Sub-Saharan Investment – Schreiner et al.
12. Free Water in South Africa - Muller

Background

1. By 2030, over half the world's population is expected to be living in a water-stressed region.
2. Failure to provide reliable access to water and sanitation services is one of humankind's greatest failings.
3. Demand is growing and costs rising.
4. The aggregate affect of climate change on water supplies is expected to be negative.
5. By 2030 child malnutrition is predicted to increase by 20%.
6. The rate of change and structural adjustment necessary to resolve
 - Resolve existing water scarcity challenges; and
 - Cope with emerging challenges (more people, wealthier people, migrating people, healthier systems)is an **order of magnitude faster than the current rate.**

Finance

1. The recent financial crisis means need for more economic discipline to water investment and management.
 - Donor and government willingness to pay for water infrastructure has declined.
 - A larger proportion of the money needed to finance investment is going to have to come from user charges.
2. Whilst administratively more challenging, the least cost solution to the resolution of water supply and sanitation challenges is around four times cheaper than those usually proposed.
3. Abstraction reform can significantly reduce the cost to governments of achieving progress.

Making water reform easier

1. **Parallel investments** in governance, tax reform, the removal of market distortions and freer trading arrangements will make the global water challenge easier!
2. **Freer international trading arrangements** will significantly reduce the costs of facilitating adjustment and attaining MDG goals.
3. The early introduction of green taxation arrangements in concert with **market-based instruments** can be expected to reduce the costs of achieving a sustainable transition.
4. Need to identify values and reflect them in economic signals given to users.
5. **Increases in the capacity of a nation to collect income and other taxes** will make it easier for nations to transition to necessary full-cost pricing arrangements for water. Where appropriate, provide water-supply rebates to the most dis-advantaged in lieu of concessional prices ***A focus on the role of markets and prices will not be enough..***

Language

- Institutional “regimes” and river “systems”
- “Entitlements and obligations” not “rights”
- “Charges” are not the same as “prices”

Water re-allocation options

1. Government periodically claws a % of each licence and then re-allocates
2. Defining water licences as shares of a pool whose size varies according to periodically revised rules
3. Government moves by stealth and erodes the integrity of the abstraction regime in an attempt to meet everyone's aspirations.

Robust abstraction regimes

1. Most abstraction regimes do not reward innovation and do not give advantage to those who keen to change how and where water is used.
2. Need to begin with robust sharing plans that set rules that define limit use at any point in time and empower environmental managers to manage.
3. Then need to define entitlements and make allocations with hydrological rigour and reward innovative changes.
4. Critical to separate the system-wide allocation regime from the regime used to distribute water to individuals.
5. Where possible, abstraction regimes should be unbundled
 - a) **Shares in perpetuity** entitling the holder to a proportion of all allocations made to a priority pool.
 - b) **Robust bank-like water accounting arrangements** for the management of daily water use sometimes based on flow rate, sometimes by volume.
 - c) **Land and water use permitting arrangements** to ensure efficient control of use, monitoring and efficient management of externalities
6. Replace single licence with a constellation of arrangements to enable efficient management.
7. May need several priority pools to manage risk.
8. Catchment plan reviews to allow for revision of rules as new knowledge emerges and values change. Governance is critical.



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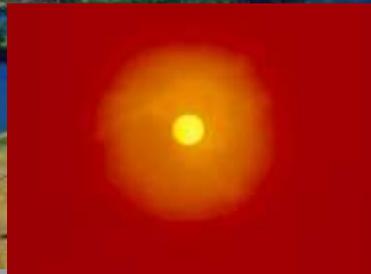
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Pragmatic observations

- Reform sequence matters
- Transformational reform requires
 - Leadership
 - Shared vision
 - Agreed principles
 - Time
- New institutional and new administrative arrangements take time evolve
- New precedents are waiting to be born

TOWARDS A GENERIC FRAMEWORK FOR THE ABSTRACTION AND UTILISATION OF WATER IN ENGLAND AND WALES
UCL Environment Institute: Visiting Fellowship Report 2012



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