

# Water and the economy

Reducing the cost of resource conflict

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*Eschborn dialogue on raw materials and resources: growth, values, competition*

19 Jun 2013

# The diamond-water paradox

Why are diamonds valuable but water cheap when water's so "useful"?

We value a good depending on how much of it **we already have**

The low value of water **shoots up** when we do not get the water we expect, e.g.,

- Value of clean water vs. sickness
- Value of irrigation water vs. failed crop
- Value of cooling water vs. power cuts
- Value of tap water vs. empty village

NB: A **price** based on **cost** does not include **value** (usually priced at 0)

Why is water-as-a-resource priced at zero? Water is **not allocated by markets** (e.g., oil) but **political** decisions that consider different values.

# Water facts

- Population, income and changing tastes are **increasing demand** for water
- **Supply is falling** in most places (e.g., aquifers, climate change). New supplies (e.g., desalination) are costly.
- Rich and poor countries face a **demand-supply gap** because water was not managed for scarcity in the past (i.e., take water from environment or future)
- The gap can result in **deprivation or conflict**

Many examples of **scarcity causing political and/or economic stress**

**Thesis:** Gap needs to be addressed in two stages: quantification of rights (politics, equity) and reallocation (economics, efficiency) , e.g., **MDB \$billions**

How? **Change institutions by changing governance and habits**

NB: Governance fails from **corruption** (bias, theft) and **confusion** (TCs)

# How do we do this?

**Ignore drinking and sanitation** where **problems are caused by populism**, not scarcity. Remaining water (>95%) goes to ecological and economic uses, i.e.,

- **Ecological flows create positive externalities** (climate, fisheries, pollution) and **climate change is worsening water cycle volatility** (drought in the US; failed monsoon in India; or floods in Thailand, central Europe, etc.) so its important to give them priority.

*Shorts v. A/C (costs of T&T)*

- **Economic uses** (agriculture, industry, energy, lawns, etc.) should be **reconciled by prices or markets** instead of rhetoric (e.g., “food security” “energy independence”) that produces failures, e.g., Saudi (g/w for wheat, now dairy), Egypt (drink for wheat). US ethanol (g/w, pollution, food prices, fisheries). China (industry for quality)...



# Fairness and efficiency

Politics allocates water (wealth); economics puts it to use (value)

Facts:

- There's nothing to do about a crooked government
- Political control of water can create "resource curse" lobbying
- Economic markets do not deliver fairness [**book**]
- Small, inefficient farmers need not lose *their* water?

**Policy:** Government recognizes traditional, communal and/or individual rights. Rights can be ~~traded~~ rented (recall MDB) to improve efficiency... **fairly.**

**Problem:** Rights already distributed? Charge a "public good fee" to help citizens

**Take away:** Manage water as a valuable resource; people will find technologies and techniques to cope.

# Thank you! Questions?

**Blog:** [aguanomics.com](http://aguanomics.com)

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The research leading to these results has received funding from the *European Community's* Seventh Framework Programme (FP7/2007-2013) / *grant agreement n°* 265213 – Project EPI-WATER “Evaluating Economic Policy Instrument for Sustainable Water Management in Europe”.

