Real world fails on water, pollution and the economy

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Water failures

Theory: Water has personal (excludable) and social (non-excludable) uses

Reality: Both mismanaged and mixed up (e.g., shortages, no e-flows, wasted wastewater)

Retail: ▶ Missing scarcity and CapEx costs
▶ Prices based on average (not marginal) cost
▶ Fixed/variable cost/revenue mismatches

Bulk: ▶ Overallocated rights
▶ Failure to secure rights
▶ Missing markets for rights
Pollution confusion

- Pigouvian taxes correct prices (e.g., carbon tax)
- Pigouvian taxes do not produce DWLs
- Correction weakened if losers uncompensated
- Coasian better for point sources (e.g., river pollution)
- Regulation better for weak price signals (e.g., ag practices) or asymmetric cost-benefit (tailwater)

**New (?) solutions:** Joint accountability (peer monitoring) or losers pay winners (divide and conquer)

aguanomics.com/2009/01/pigouvian-tax-fail.html
aguanomics.com/2013/01/pigouvian-taxes-do-not-produce.html
Mismeasuring the economy

Economists owe ecology an apology (ssrn.com/abstract=2230931)

- GDP misses non-cash transactions (homemade cookies)
- P&L (budget) misses balance sheet (natural capital)
- Static theory (prisoner’s dilemma) misses dynamic reality
- Too much risk, too little uncertainty
- EKC theory fails if $\uparrow TC > \downarrow MC$

**Problem:** Government policies overemphasize GDP growth (elections!) but ignores non-GDP costs (e.g., bullets vs. dead; timber vs. forests; gasoline vs. congestion)

**Suggestion:** Pursue vaguely right (set a tax, somewhere) over exactly wrong.
Now let’s have some questions!

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Book: endofabundance.com

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