

Reforming Water Institutions and Organizations: What have we learned?

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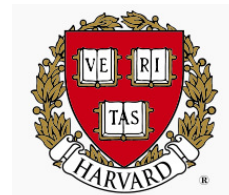
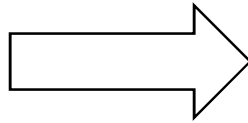


My aspirations

- To try and give us a sound conceptual framework to use to interpret:
 - The information we have on what has worked and what not
 - The additional information (eagerly awaited!) that the sessions will provide us
- Some observations of how we have gone about the learning process....



From the real world



To the ivory tower

Let's split
some
(etymological)
hairs...



What do we mean by “governance”?



- When used BY the World Bank talking about developing countries:
 - “governance” is a code word for corruption
- When used BY developing countries about the World Bank:
 - “governance” means too little representation



What our invitation to this conference says...

“Institute of Water Policy understands water governance broadly as the set of **water laws, policies, programs and projects** adopted by a country or a State to develop and manage its water resources to meet the current and future needs of its population.”

“Good water governance implies that these laws, policies, programs and projects are **effective, efficient, equitable, sustainable and are consistent with the Dublin Principles.**”

- Tip my hat to the IWP for being specific, but
- I see several difficulties
 - There are several different common understandings of “governance”
 - In the IWP there are a lot of different things thrown together. (Projects are surely not “governance”?)
 - And, as I will try to show, I think it is productive to separate the “descriptive” (how things are) from the “normative” (how things should be).

So I will not use “governance” but use a different nomenclature, which has strong and consistent conceptual underpinnings...

What I suggest as a framework

- Draw on definitions emerging from the Nobel Prize-winning work of Douglass North
- Definitions:
 - #1: Institutions (Descriptive)
 - #2: Organizations (Descriptive)
 - #3: Societal goals (Normative)

The key elements of North's framework (from his Nobel speech):

- "Institutions are the humanly-devised constraints that structure human interaction. They are made up of **formal constraints** (rules, laws, constitutions), **informal constraints** (norms of behavior, conventions, and self imposed codes of conduct), and their **enforcement characteristics**."
 - **In our case this would include like water laws, water rights, pollution standards, regulatory regime, compliance norms**
- "Organizations are made up of groups of individuals bound together by some common purpose to achieve certain objectives. Organizations include **political bodies** (political parties, the Senate, a city council, regulatory bodies), **economic bodies** (firms, trade unions, family farms, cooperatives), **social bodies** (churches, clubs, athletic associations)."
 - **In our case this means ministries (water, agriculture, energy, health), basin organizations, utilities, user associations.....**

Two last salient points from North...

- **Institutions are the rules of the game, organizations are the players.**
- The process is evolutionary:
 - It is the interaction between **institutions** and **organizations** that shapes the institutional evolution of an economy (or, in our case, the water sector)

Finally, we have to locate our sector in terms of society's goals

- Goals are things like economic growth, distribution, services received, environmental quality.....

Now we have, I think, a well-established set of concepts to work with...

- Definitions:

#1: Institutions (“the rules”) (Descriptive)

#2: Organizations (“the players”) (Descriptive)

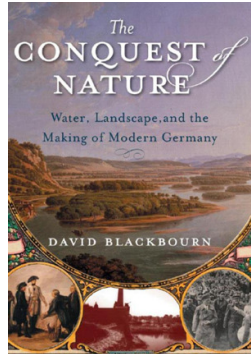
#3: Societal goals (Normative)

Now a few personal observations

OBSERVATION #1: Engineers (most of us here and most in the water sector!) are more comfortable with “solutions” and “answers” than with evolutionary processes



How do societal goals, institutions and organizations evolve?



The societal goal was to “conquest nature” (Prussia was a malarial swamp)

“the institutions and organizations were always provisional – something that historians know well, but hydrological engineers found hard to accept”.

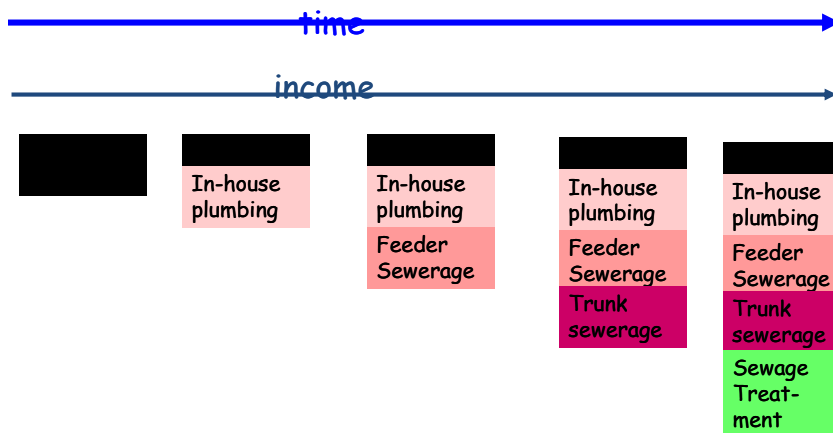
(Water) reform is dialectic, not mechanical....

OBSERVATION # 2: Social goals change a lot as development takes place (and this has profound implications for the institutions and organizations which are needed at different stages of development)

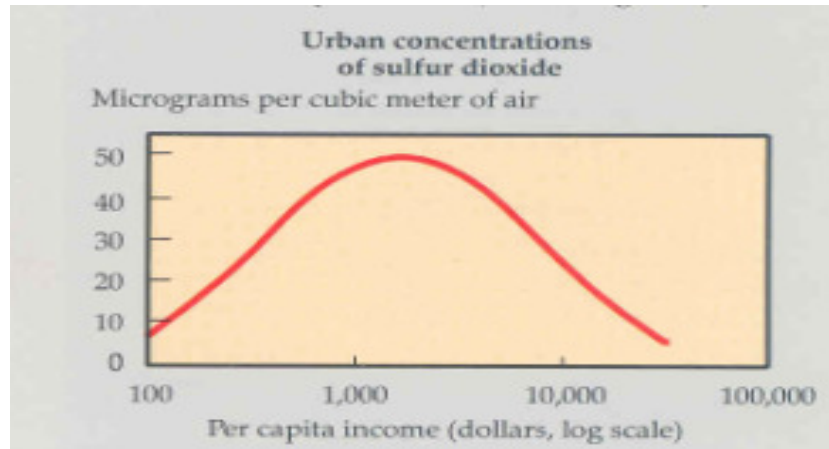
This matters a lot for the goals of societies and the institutions and organizations they develop

- For example consider the case of water supply, sewage collection and sewage treatment in cities....
- Engineers (who like “final solutions”) often proclaim “they must be done together”
- But this has never been the case, because society has a different, contextual, evolutionary view...

There is a “natural sequence” of demand
(nicely documented in Pedro Jacoby’s surveys in Sao Paulo, for example)



More generally there exists something called “the Kuznets curve for the environment”, because demand for environmental quality rises up the list of priorities only after basic economic needs are met

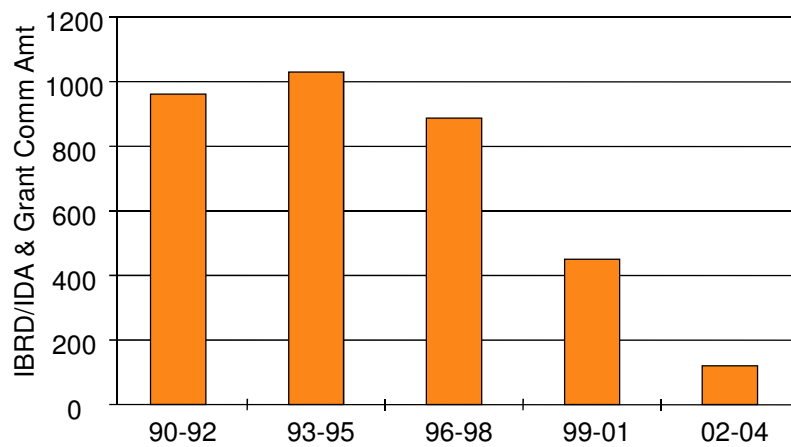


The point?

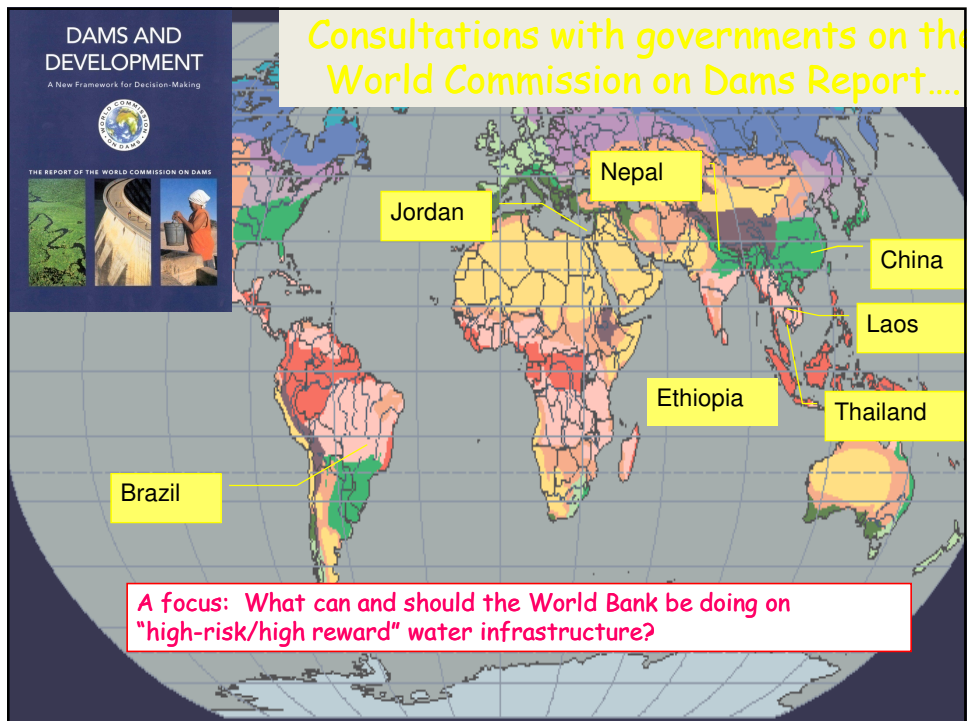
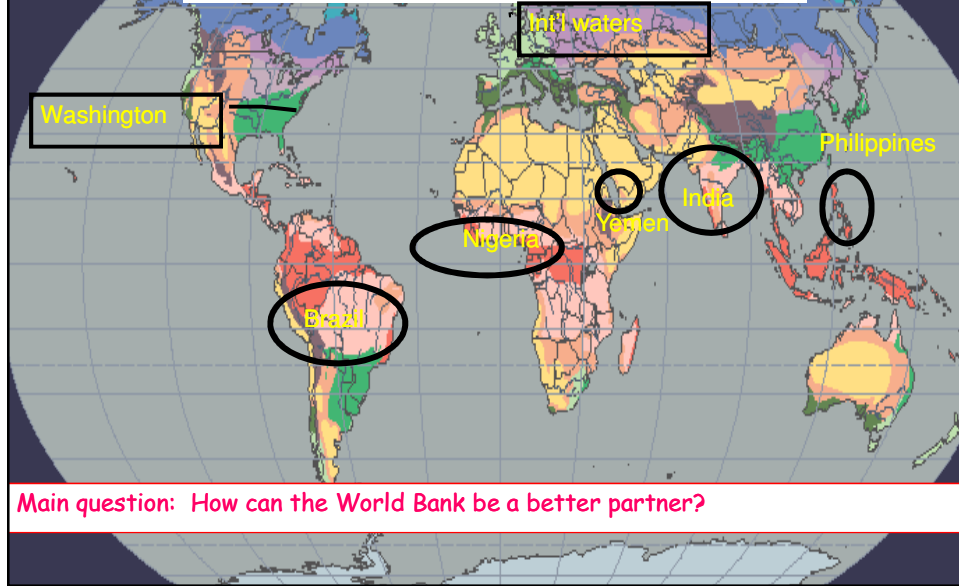
- Be very careful of assuming that goals of rich are the goals of the poor
- This is a major issue for aid agencies with extreme danger of “moral hazard”
- Three examples of central relevance to the water sector:
 - Example 1 – should aid agencies and IFIs finance large dams in developing countries?

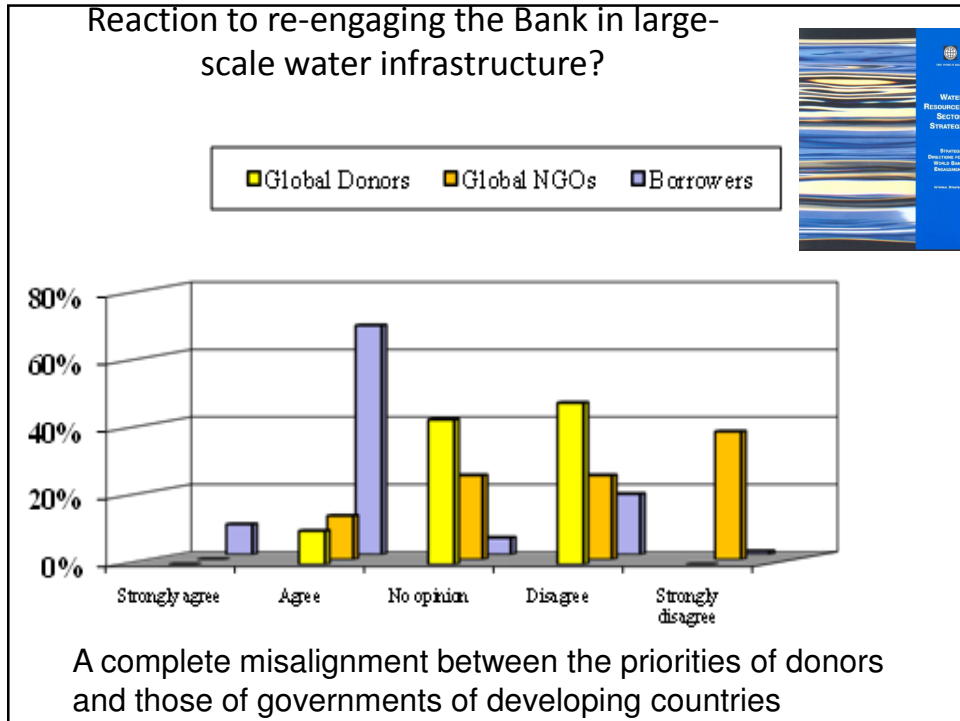
The example of the World Bank

World Bank lending for hydropower



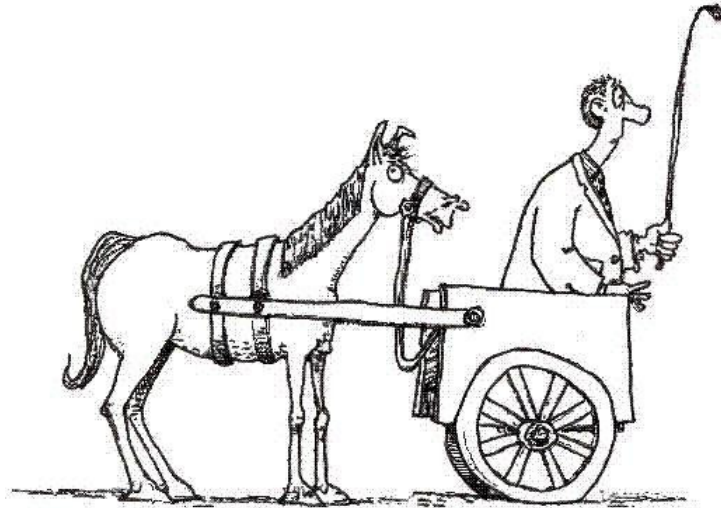
Multistakeholder Consultations 1999/2000....





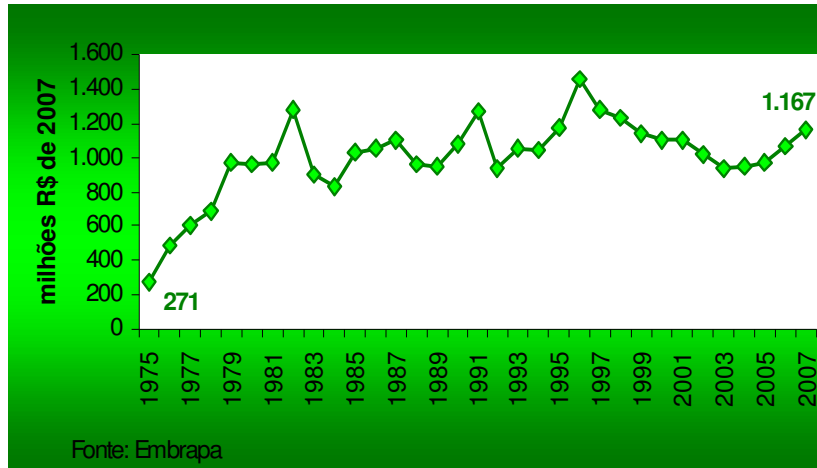
- Three examples of central relevance to the water sector:
 - Example 1 – should aid agencies and IFIs finance large dams in developing countries?
 - Example 2 -- The MDGs:
 - focus on social goals and largely ignore economic goals, employment, etc...
 - Anyone who has seen elections in poor countries see that there is a complete disconnect:
 - primary demand is always for jobs and basic infrastructure...

The moral? – a serious misalignment
which puts the (social) cart before the
(economic) horse

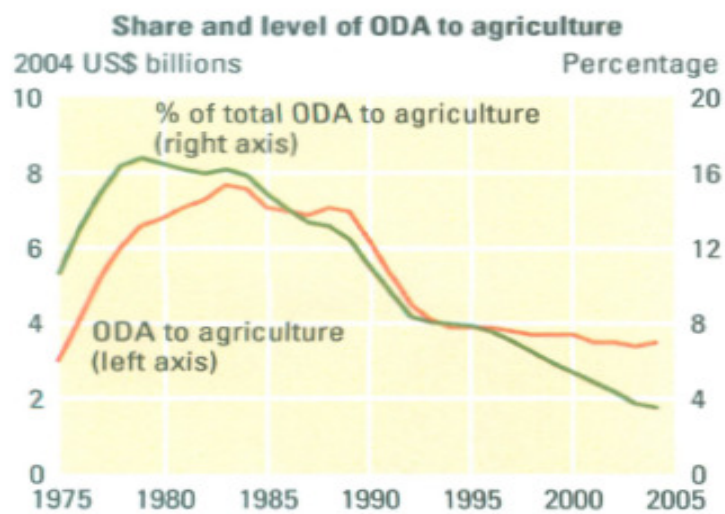


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 - focus on social goals and largely ignore economic goals, employment, etc...
 - Anyone who has seen elections in poor countries see that there is a complete disconnect
 - Example 3 – what priority for agriculture in developing countries?

Agriculture a priority for MICs who don't depend on aid...



What about donor support for agriculture -- pushed out by greater focus on social sectors



Source: OECD 2006a.

With catastrophic consequences for the poor...



The heavily-overloaded social cart has left the economic horse up in the air!

Within the water sector we have the same “moral hazard” problem

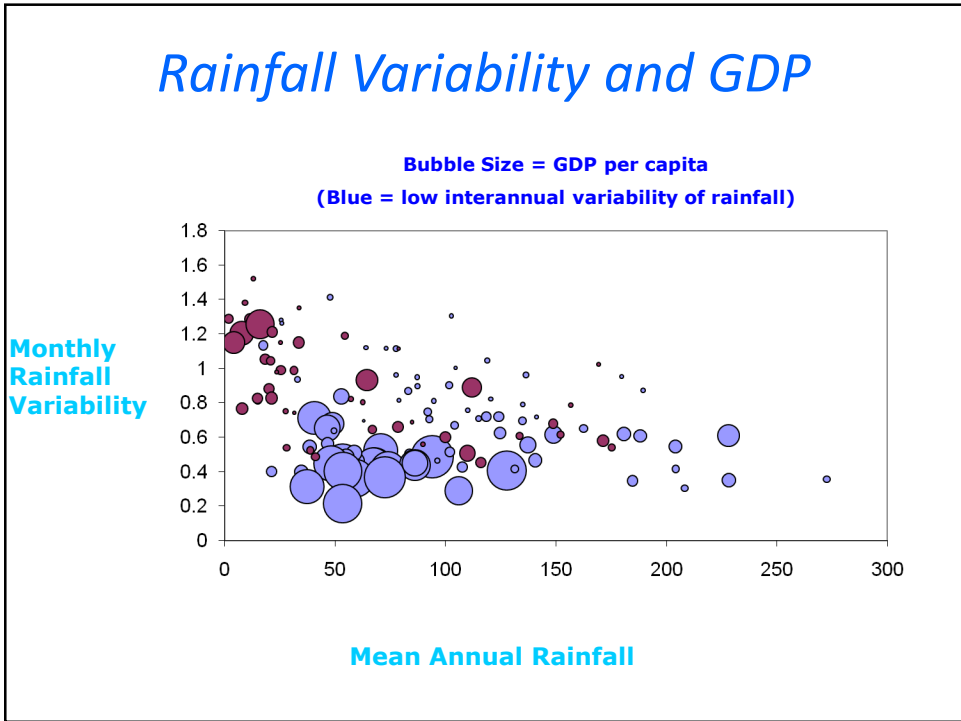
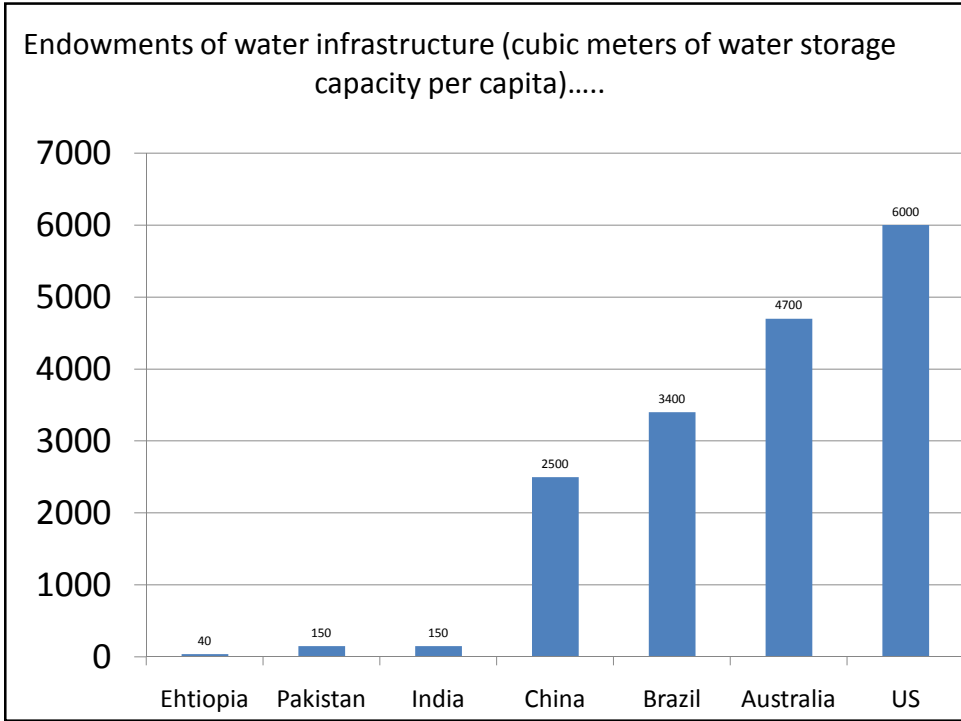
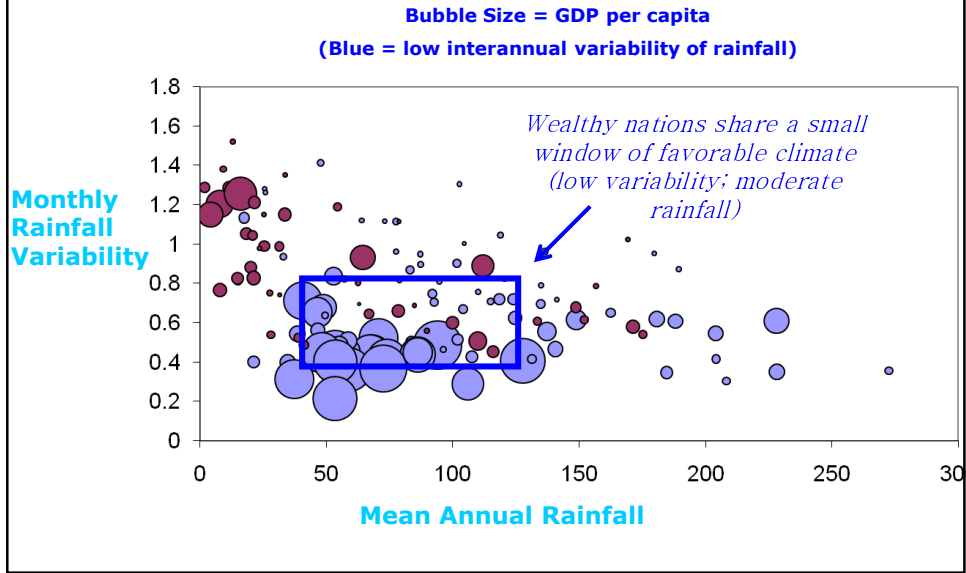
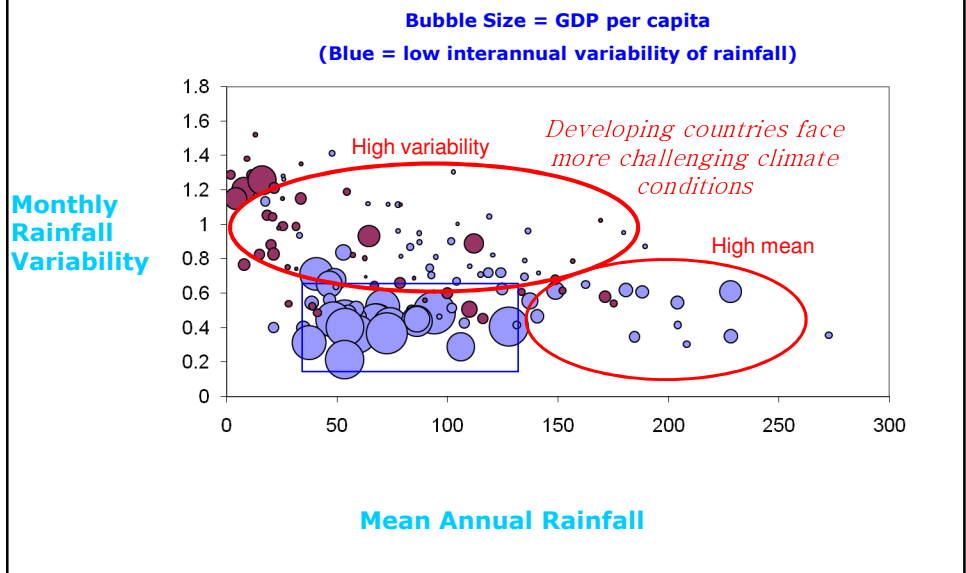


Figure 1: Rainfall Variability and GDP

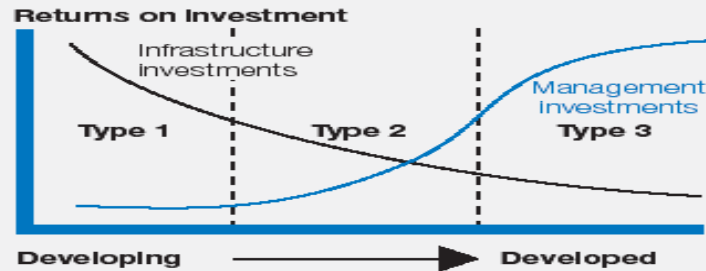


Rainfall Variability and GDP



f2.1

Rates of return on investment by development of water infrastructure



Source: World Bank, China Country Water Resources Assistance Strategy 2002.

- Rich countries (Type 3) should be focusing primarily on management and be wary of more investments in “dumb” infrastructure
- When they impose these priorities on poor (Type 1) countries (through the World Bank, for example) there is a serious moral and ethical problem

OBSERVATION #3: We “water-wallahs” suffer from the psychological disease “hydro-narcissism” (which believes that institutions and organizations should be consistent with hydrological laws)

How this distorted view (a) limits our capacity to learn...

Example:

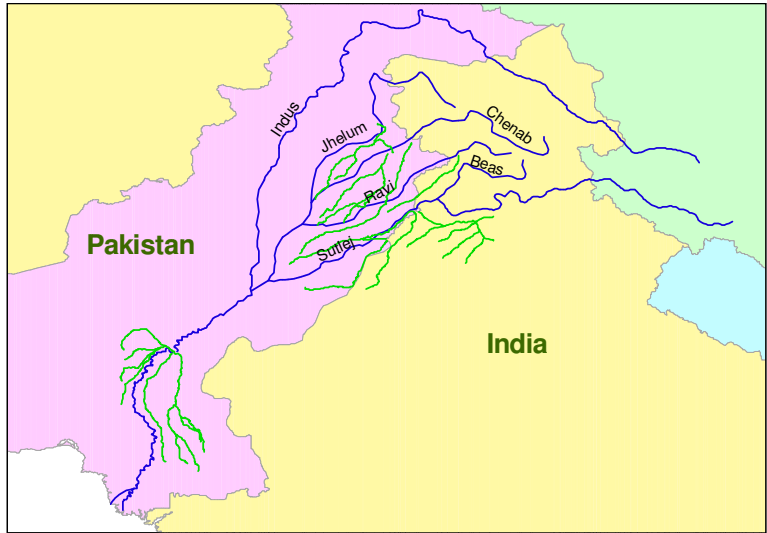
The Australian water reforms of recent decades (which Kerry will discuss later):

- We laud (as we should) basin agencies which have developed
- But the central principles (of competition in all sectors, including natural resources and infrastructure) came from somewhere else....
- When the external conditions are different, transposition of “Australia-type” institutions and organizations fail.

How this distorted view (b) leads us to often-silly reductionism

Example One:

1. The claim:
 - “the river basin must provide the basic architecture for water management”
2. Reality:
 - There are other, at least equally compelling, reasons for organizing along lines of general administration (district, state, nation)
 - Most river basin management organizations fail
 - We don’t (generally) design “second bests which will work within established frameworks”
 - An illustrative example, the Indus after partition



1947 – Partition, with Sir Cyril Radcliffe’s line as brutal to hydrology as it was to people...



David Lilienthal, ex-Chairman of TVA, advocated an integrated basin agency for the post-Partition Indus!!!

The Indus Water Treaty 1960

Done in triplicate in English at Karachi on this Nineteenth day of September 1960.

FOR THE GOVERNMENT OF INDIA:

(Sd) Jawaharlal Nehru

FOR THE GOVERNMENT OF PAKISTAN:

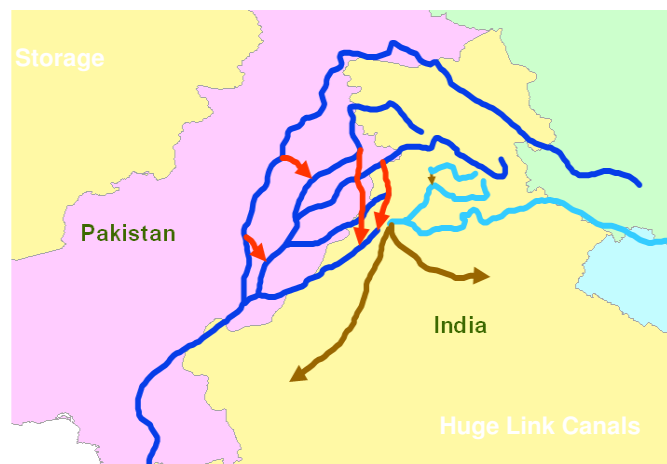
(Sd) Mohammad Ayub Khan
Field Marshal, H.P., H.J.

FOR THE INTERNATIONAL BANK FOR RECONSTRUCTION
AND DEVELOPMENT

for the purposes specified in Articles V and X and Annexures F, G and H:

(Sd) W. A. B. Iliff

What emerged....



- Three rivers for India, three for Pakistan
- A huge violation of the integrity of the basin
- But a second-best which has worked amazingly well (albeit with major questions arising now...)

How this distorted view (b) leads us to often-silly reductionism

Example One: river basins as the dominant factor in organizational arrangements

Example Two: the implications of virtual water flows:

The concept of virtual water states that “water-rich regions should produce and export water-intensive commodities (which indirectly carry embedded water needed for producing them) to water scarce regions”. (Verma and Hoekstra)

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But when we look globally and regionally (India here) we see something quite different

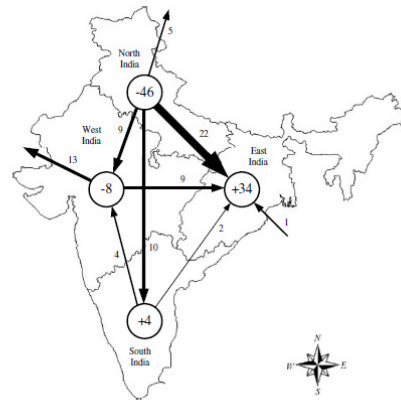
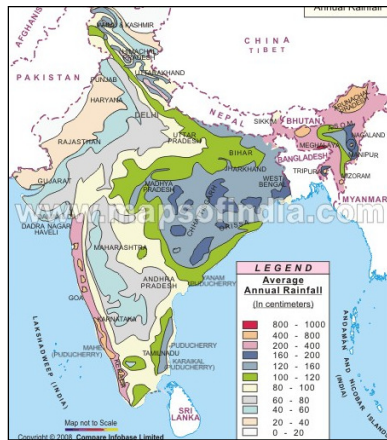


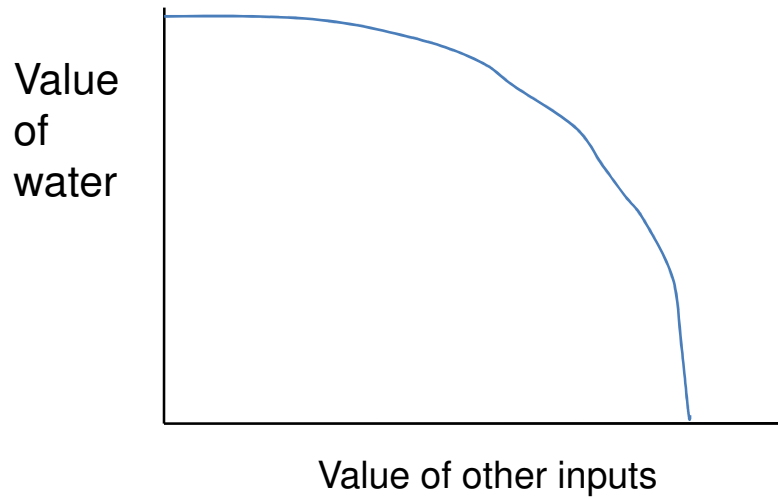
Fig. 3. Inter-regional virtual water flows ($10^6 \text{ m}^3/\text{yr}$), as estimated by Kamman (2007).

Water flowing from dry to wet areas!

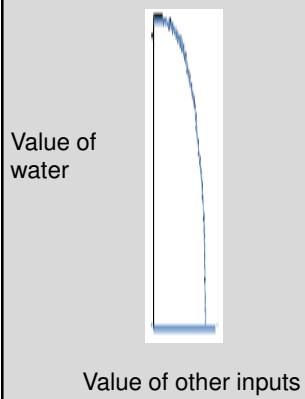
The hydro-centric conclusion? This is illogical

- But is it?
- Production of food takes many inputs:
 - Capital
 - Labour
 - Inputs like fertilizers and pesticides
 - Knowledge
 - water
- If we reduce to a two-input (water and other things) world

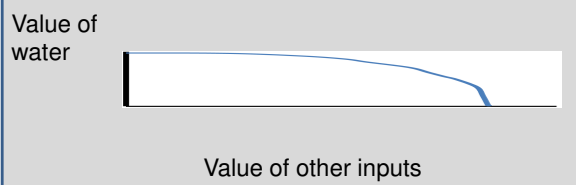
A two-sector production model



The virtual water view of the world



The world as it actually is



- The virtual water-wallahs, seeing the world through their reductionist lens, are perplexed by what they see
- Those who see all factors (eg Deepak Lal in The Hindu Rate of Growth) explain it easily – it has historically been much cheaper to bring (abundant) water to dry land (Western India) than it is to protect flood prone areas (North-eastern India)

The point?

- Not that virtual water is not a useful tool
- Not that water does not matter (crop choices have change dramatically when there is scarcity and when there are institutional forms whereby scarcity value is made evident to users, as in Australia, which we will hear about later)
- But the danger of drawing radically incorrect conclusions on institutional and organizational responses if we reduce the world view to simply a water view....

How this distorted view (b) leads us to often-silly reductionism

Example One: river basins as the dominant factor in organizational arrangements

Example Two: the implications of virtual water flows:

Example Three: the “water as a human right” discussion

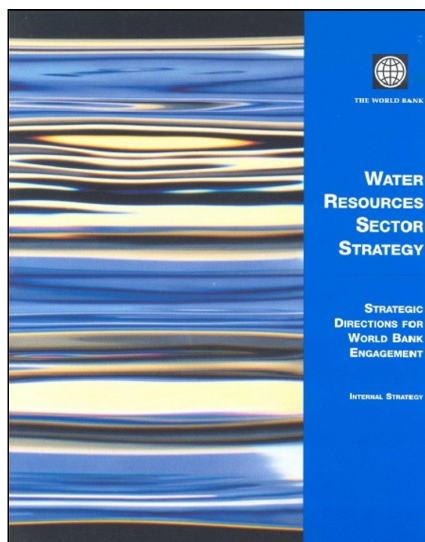
- South Africa often lauded for its commitment to provide “a basic quantity of free water for all”
- The enthusiasm of the Minister of Water (seeing the world through a water lens)
- The lack of enthusiasm of the Finance Minister (see the world through a broader lens)

I have taken too much time...

- But two more (important, I think, for our discussion and more generally) observations which will be discussed very briefly....

OBSERVATION # 4 (a): We pay (way) too much attention to organizational arrangements and (way) too little attention to the instruments which determine behavior (including water rights and prices)

Very extensive consultations in developing the World Bank's current Water Strategy...



A consistent finding on the question:
How has Country XX done vis a vis Dublin Principles?

Comprehensive:

- Some state and basin plans, national plan beginning
- Ecological and hydropower not integrated into plans
- Weak stakeholder participation
- Lack of financing to implement plans



Green

Institutional:

- State and national water laws—weak implementation
- Laws for bulk water charges not yet approved
- State and federal water councils, river basin committees—limited policy and planning influence
- Fledging water resource management agencies at state and national level



Yellow

Economic:

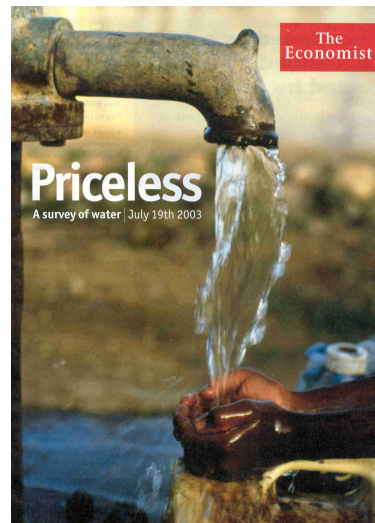
- Heavily subsidized water resource infrastructure without explicit justification
- Very limited bulk water charging
- State Water Funds undercapitalized



Red

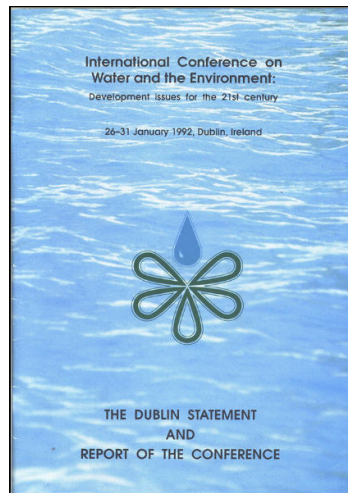
OBSERVATION # 4 (b):

Economists give too much emphasis to pricing as a means for water allocation (and too often ignore the much more important water entitlements issue)



CONCLUSION:

There is a global consensus
on the principles which
govern sound water
management



The Dublin Principles

- The “ecological” principle:
 - holistic (including environment), comprehensive, inter-sectoral...
- The “institutional” principle:
 - stakeholder participation
 - subsidiarity (federal, state, municipality, users...)
 - greater role for private sector, NGOs and women
- The “instrument” principle:
 - greater attention to economic value of alternative uses
 - greater use of economic instruments (water rights, user charges...)



- 18 years later they still seem like the right principles to me
- With very different institutional and organization priorities in different types of countries
- We need a better framework for understanding the interplay of goals, institutions and organizations
- In the meantime we need to push forward applying principles, learning from each other. The watchword must be “**principled pragmatism**” as in the World Bank Water Strategy.
- Now much look forward to learning, and listening!



Thank you!

