



# **RE-THINKING PARADIGMS: WATER AND FOOD SECURITY**

**4th Marcelino Botín Foundation Water  
Workshop**

**Risk, private sector, policy.....**

Stuart Orr –WWF International  
Santander (Spain), 22–24 September 2009

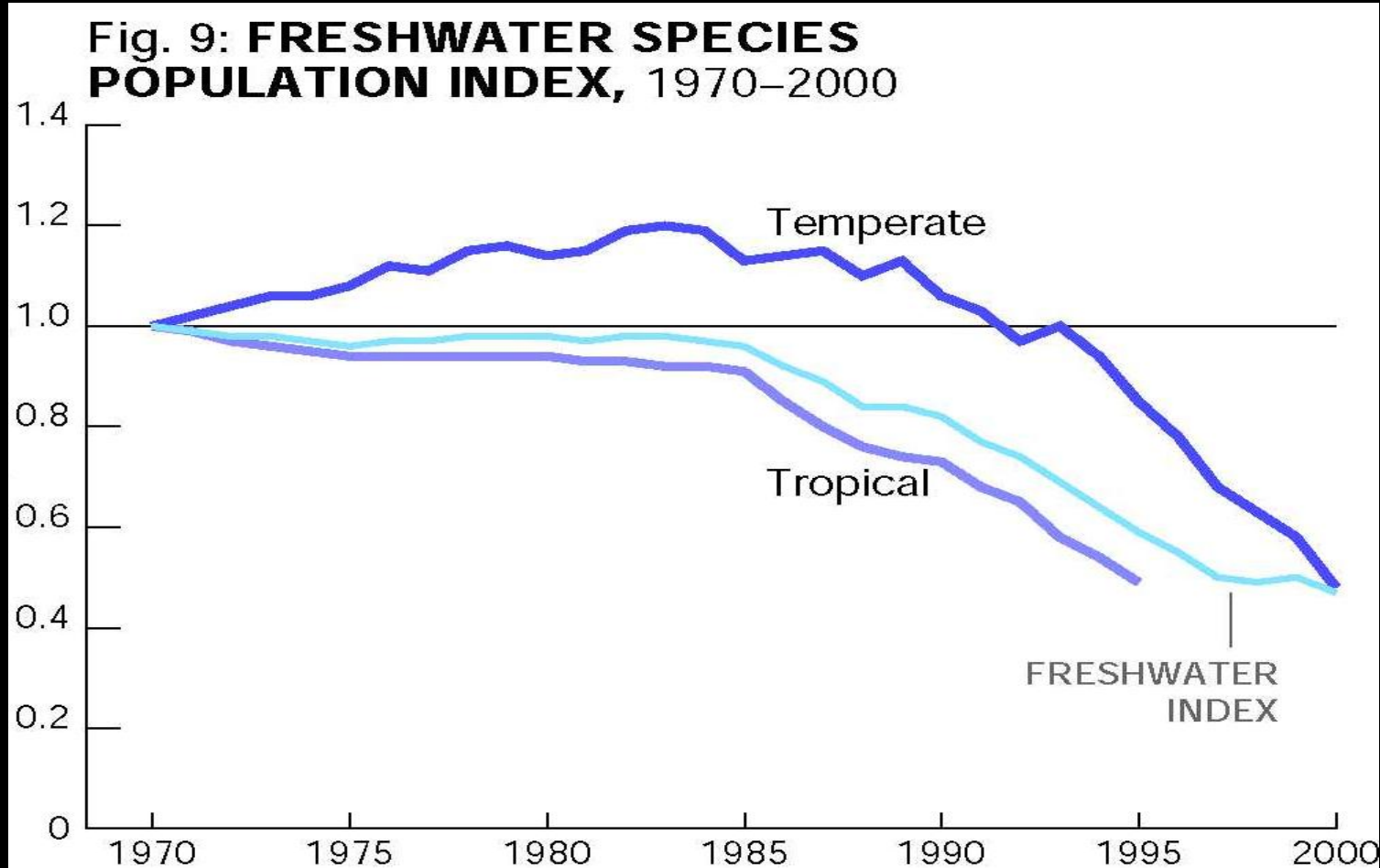
**"For every complex problem  
there is an answer that is  
clear, simple and wrong." HL**

**Menken**

# objectives

- risk to motivate
- what companies are doing
- policy matters to companies
- risk corporates vs. rent-seekers

# boundaries...freshwater species decline



# dams on the lower Mekong will transfer risk



- second highest aquatic biodiversity in the world
- 70% of the total fish catch in the Mekong Basin (i.e. more than 1.8 million tonnes worth US\$1.4 billion) is dependent on long distance migration

# what is our global water future?

- increased water scarcity
- demographic changes
- food security and international trade
- climate change
- energy nexus
- pricing and regulation
- greater societal voice

# why is water different?

- availability, management and impacts are *local* at a watershed or basin level
- typically *variable* in space and time, while changes are *uncertain*
- availability for use is *constrained*, but often with complex rights and undeveloped pricing-market systems
- a *social* and *economic* nature, with significant political involvement
- freshwater ecosystems are vulnerable and are highly *interconnected* with human activities

# people view water differently...

- as natural rights, water rights are use rights; water can be used but not owned

Vandana Shiva

- a lot of investors tell me they want to invest in water, yet there's no market for water. And yet it is the world's most important commodity

Rob Parsley









# what do we mean by water risk?

- insufficient water
- the consequences of insufficient water
- the consequences of responses to water shortages
  - discrete quantifications tend to underestimate risk

# risk reduction as a water governance goal

- most people are risk averse
- avoid shortages
  - costs, supply vs. demand
- in shortage
  - remove social and ecological amplifiers
  - allocate to the risk averse
  - increase capacity to cope
  - bring risk to bear on those that cause it:  
rights, charges, allocations, litigation

# in its broadest sense risk analysis includes

- risk assessment
  - identifying hazards, the likelihood of hazards occurring, and their consequences
- risk dialogue
  - between those vulnerable, risk assessors and mitigation activities
- risk management
  - identifying which risks can be prevented or controlled, and taking steps to reduce the likelihood and impact of hazards

# ...but risk is relative

to whom and of what?

- ...farmer, business, government
- depends on sector
- supply chain matters
- are water policies coherent?
- from where do you source, operate?
- the product – luxury or necessity?
- watchdog society?
- financial and insurance concerns

# WATER SCARCITY



**Herald Tribune**  
INTERNATIONAL THE WORLD'S DAILY NEWSPAPER  
*"We can avert a water crisis - but we must act now"*

**BBC NEWS**  
*"Waking up to the water crisis"*

**FINANCIAL TIMES**  
*"Declining water supply brings a deluge of ideas"*

**The Economist**  
*"Is the world running out of water?"*

**The New York Times**  
*"Water crisis likely to replace oil as major concern of the future"*



## water risks

sequences  
government

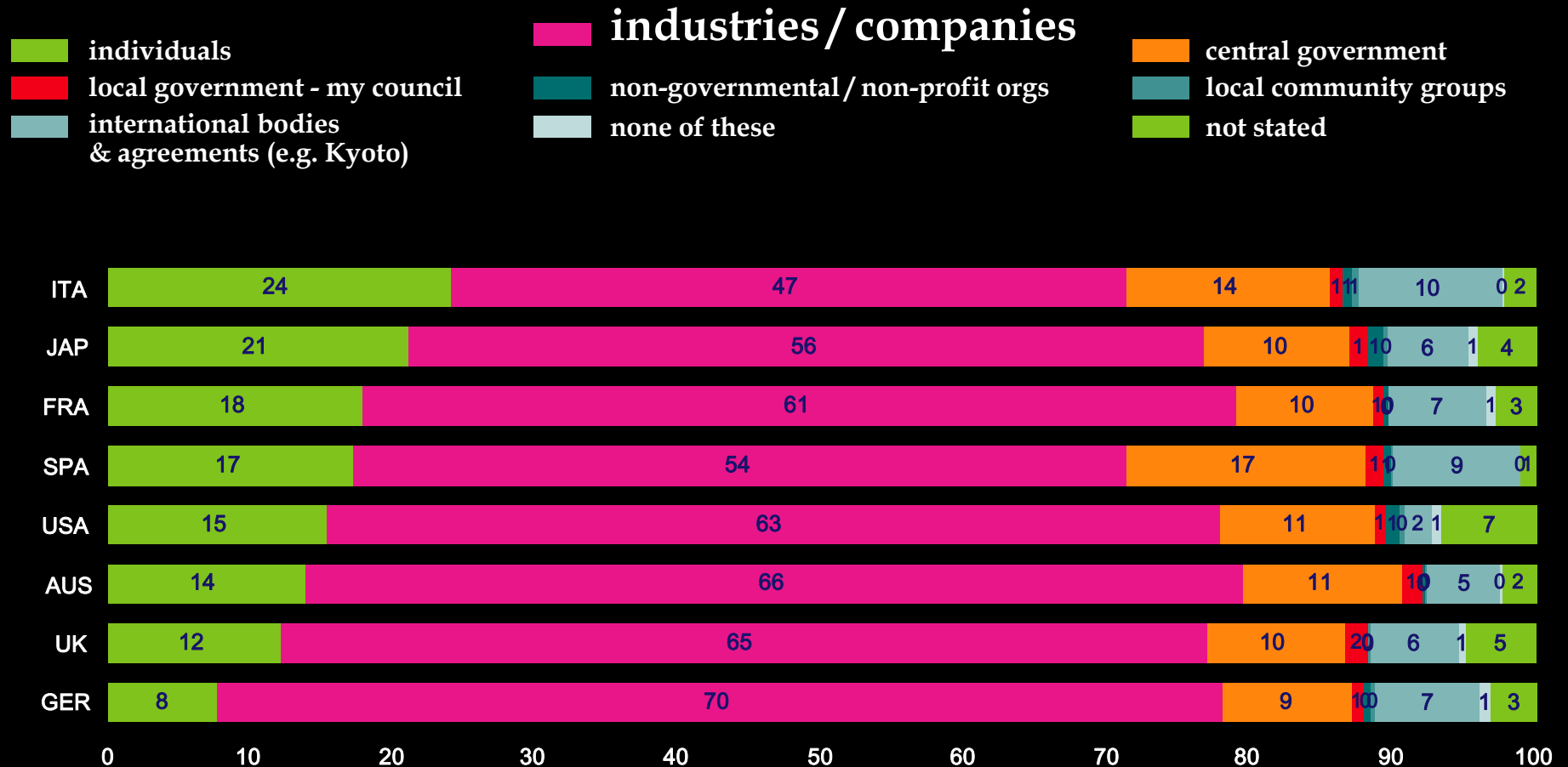
INSTITUTE

the Pacific Institute

- Jason Morrison
- Mari Morikawa
- Michael Murphy
- Peter Schulte

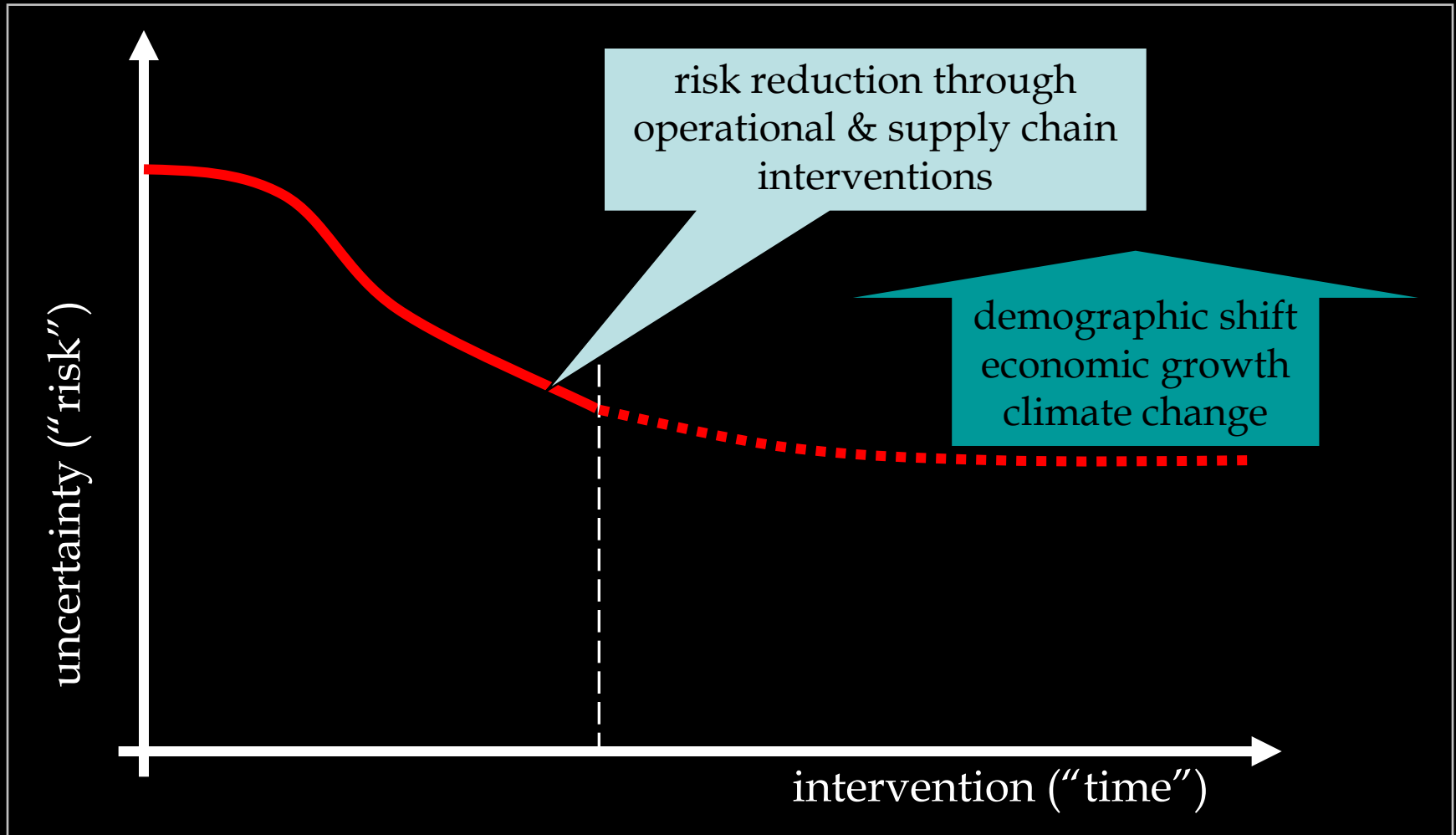


# who is most at fault for causing environmental damage?





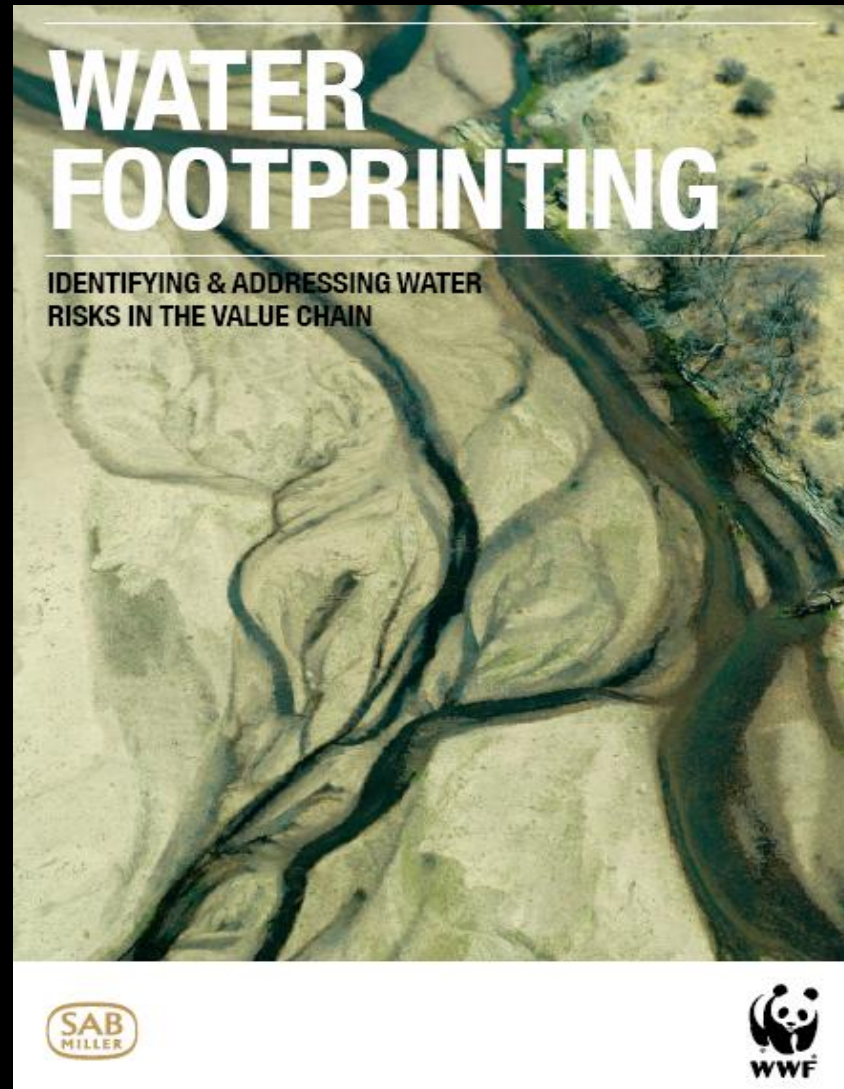
# risk reduction for companies



# water-related risks to business

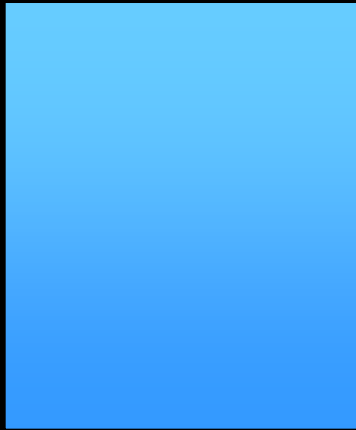
- physical/ disruption
  - through scarcity, poor quality and infrastructure neglect
- regulatory
  - change in the rules of the game, less availability
- reputation
  - huge potential loss of market share, access, social and physical license to operate
- financial
  - lost revenue through above costs and impacts

# risk in the value chain



# how might policy issues impact SAB?

Water supply chain



cultivation



processing



operations



discharge

Resource protection

Water allocation reform

Water use efficiency

Licensing & enforcement

Agriculture shift

Infrastructure

Pricing / instruments

Water loss / efficiency

Resource protection

Discharge licensing

Discharge charges

# motivation for public policy?

- operational – short term profit/cost
  - reactive/incidents
- strategic – long term economic value
  - proactive/uncertainties
- stewardship – corporate social entity
  - normative/responsibilities

but what's the business case?

# what are companies doing?

- CEO water mandate

measurement – WF, LCA  
volumes and impacts

- WEF process

responses - risk mapping  
business strategy

- Mckinsey cost-curve

conservation work

- water footprint network

water efficiency

- alliance for water

supply chain partnerships

stewardship

stakeholder engagement

global fora

stewardship initiatives

off-sets

- water disclosure

- shared risk

beyond footprint –  
public policy



# government risk?

- too little water (scarcity)
- too much water (flooding)
- and/or water that is unfit for use (pollution)

from this, risks to other mandates emanate around public health, environmental health, food security, energy security and industrial development, which may hamper the ability of government to achieve environmental sustainability, poverty alleviation, social development and economic growth objectives

# government risk?

- availability of easily accessible freshwater has proven a key determinant in development

those countries which, 25 years ago, had low incomes (below US \$750 per year per person) yet had access to adequate safe water and sanitation, had an average of 3.7 % growth in GDP per year, while countries with the same per person income but limited access to water grew at only 0.1 % per year over the same period

# shared risk and potential alignment

## business risk

- physical
- regulatory
- reputational
- financial

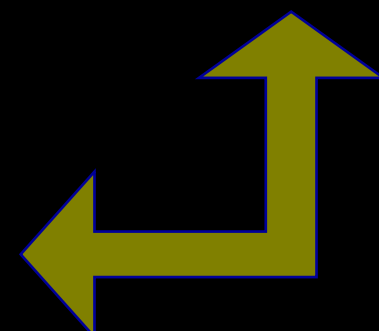
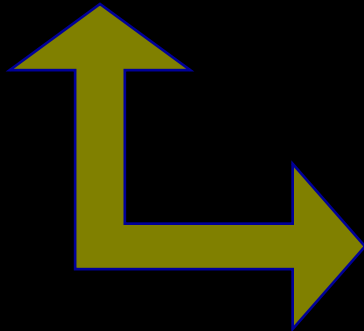
economic value

## government risk

- social/ecological
- economic
- institutional
- conflict

political support

potential shared risk in -  
implementation (practice)  
strategy (intent)  
policy (principle)



# what are the opportunities for policy engagement (beyond footprint)?

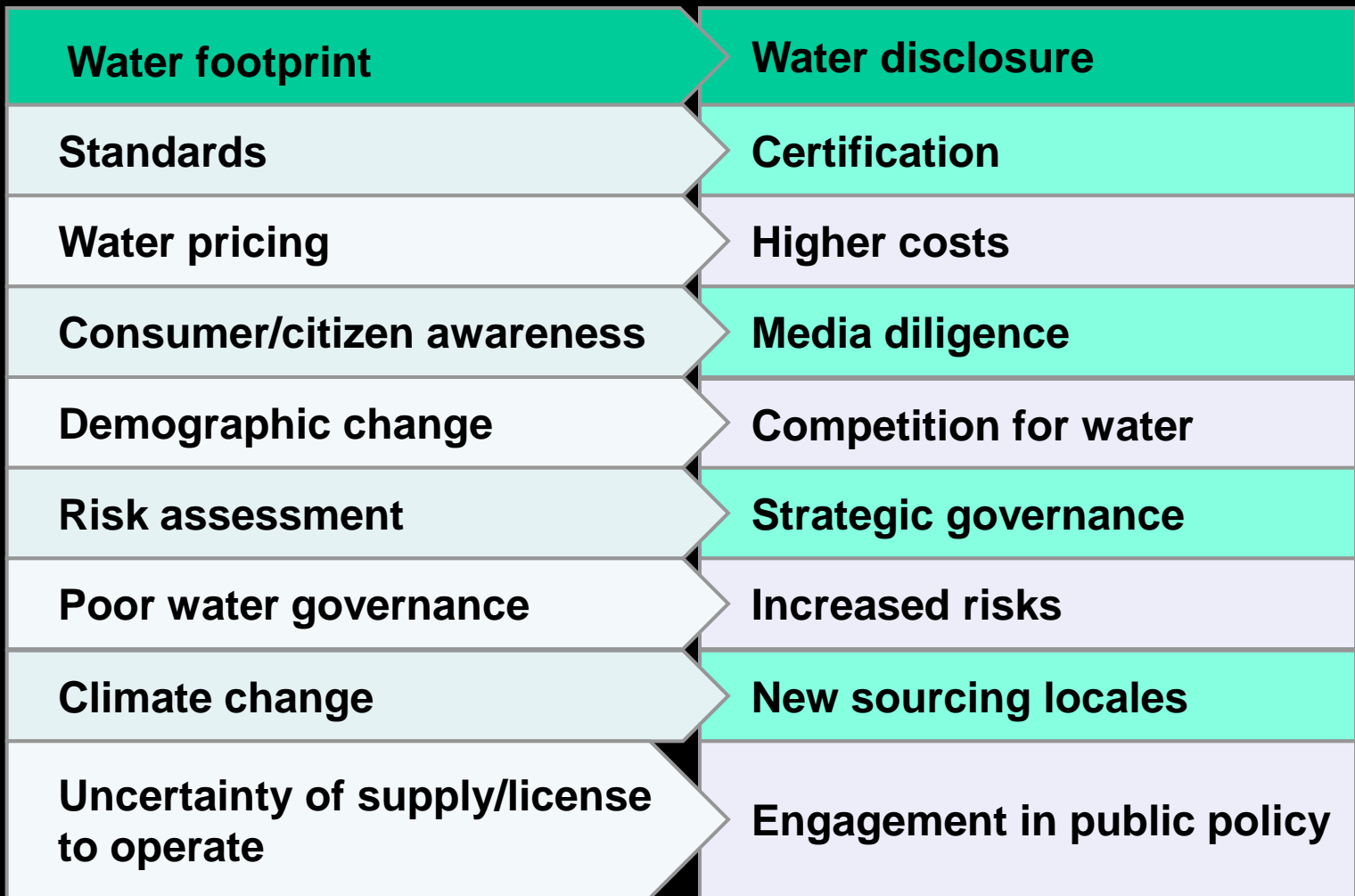
- advocacy / lobbying / influencing
- partnership / participating / facilitating
- financial support / facilitation
- institutional strengthening / capacity
- self-regulation
- implementation support

# but...acknowledge the risks of engagement

- inadequate political will (commitment)
- lack of institutional capacity to engage
- government abdication of responsibility
- challenges to exiting from intervention
- corporate resource requirements



# what is the business water future?



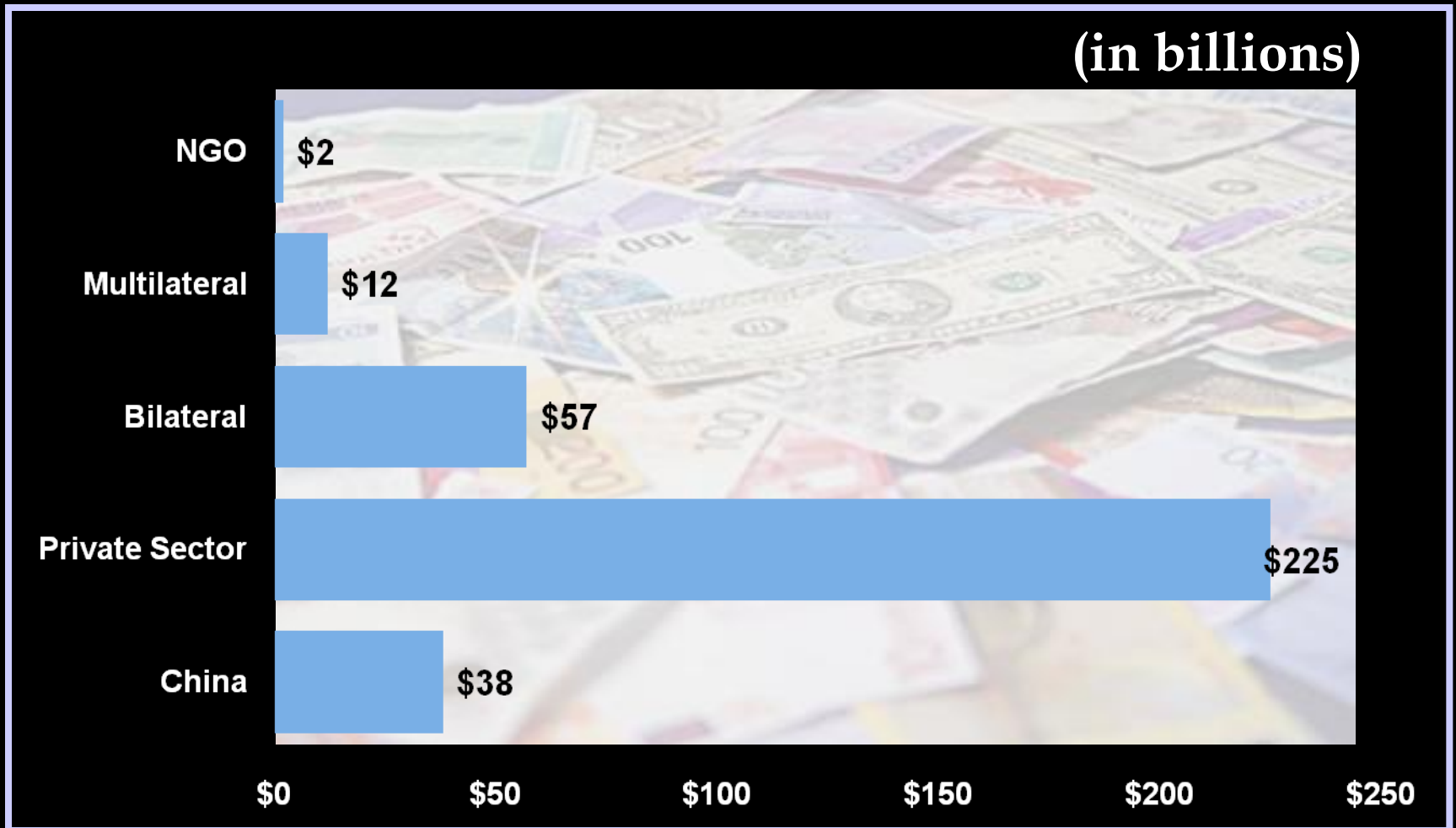
# but...who is the private sector?

- risk/image/values?
- profit seeker?
- “sell banks, buy cheese”





# average annual global investments in developing countries

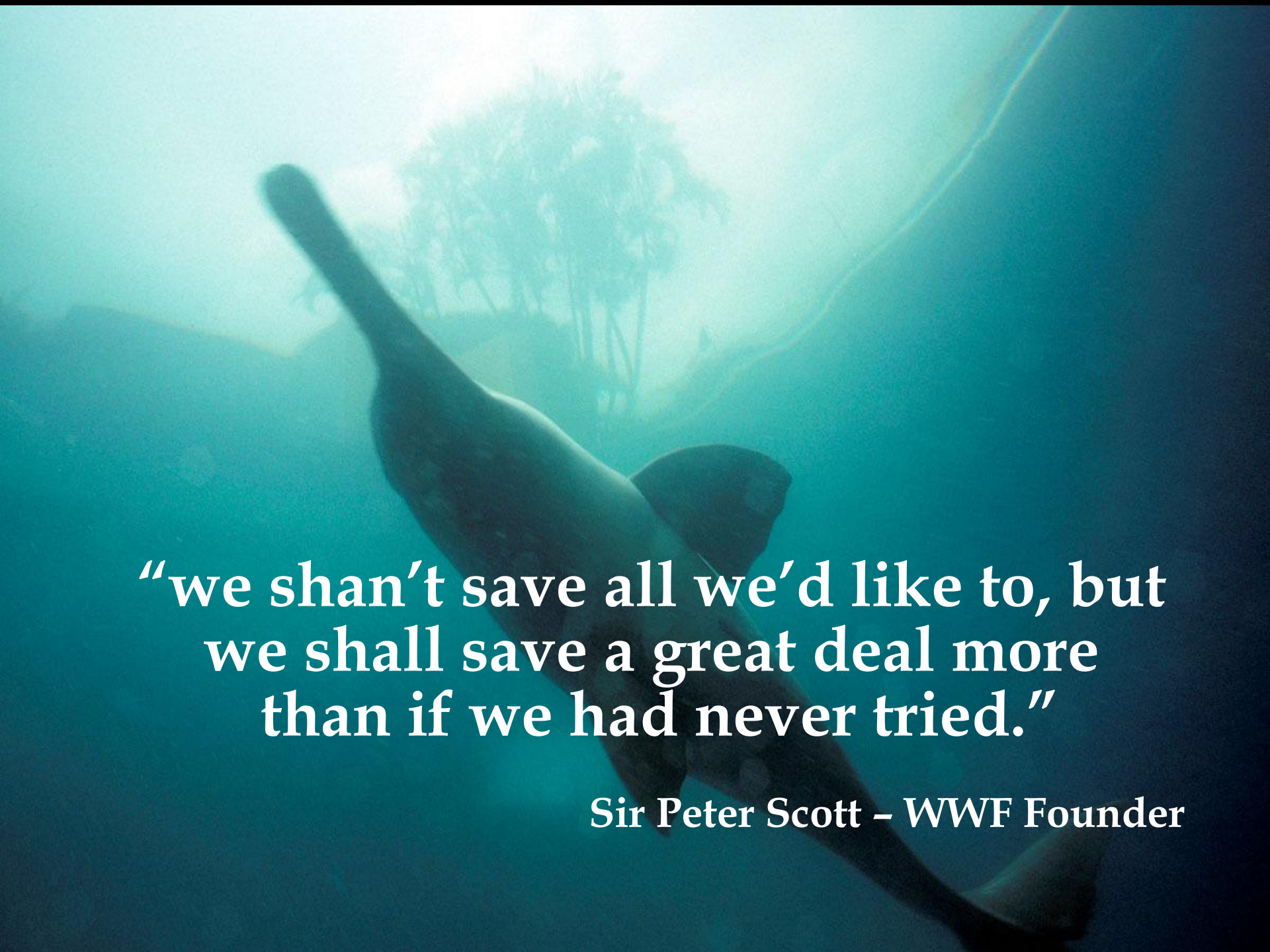


**more of this...**



# conclusions... what does this mean?

- greater private sector awareness, attention and movement on water
- potential for policy capture but great opportunity
- competing interests and risk profiles
- perverse activities (no risk)
- water investment no, VW , yes...
- food security? increasingly controlled by market forces with less environmental adherence

A person is swimming underwater, holding a dolphin. The scene is set in clear, turquoise water. In the background, there are silhouettes of palm trees and a coastline under a bright sky. The overall mood is serene and peaceful.

**“we shan’t save all we’d like to, but  
we shall save a great deal more  
than if we had never tried.”**

**Sir Peter Scott – WWF Founder**