



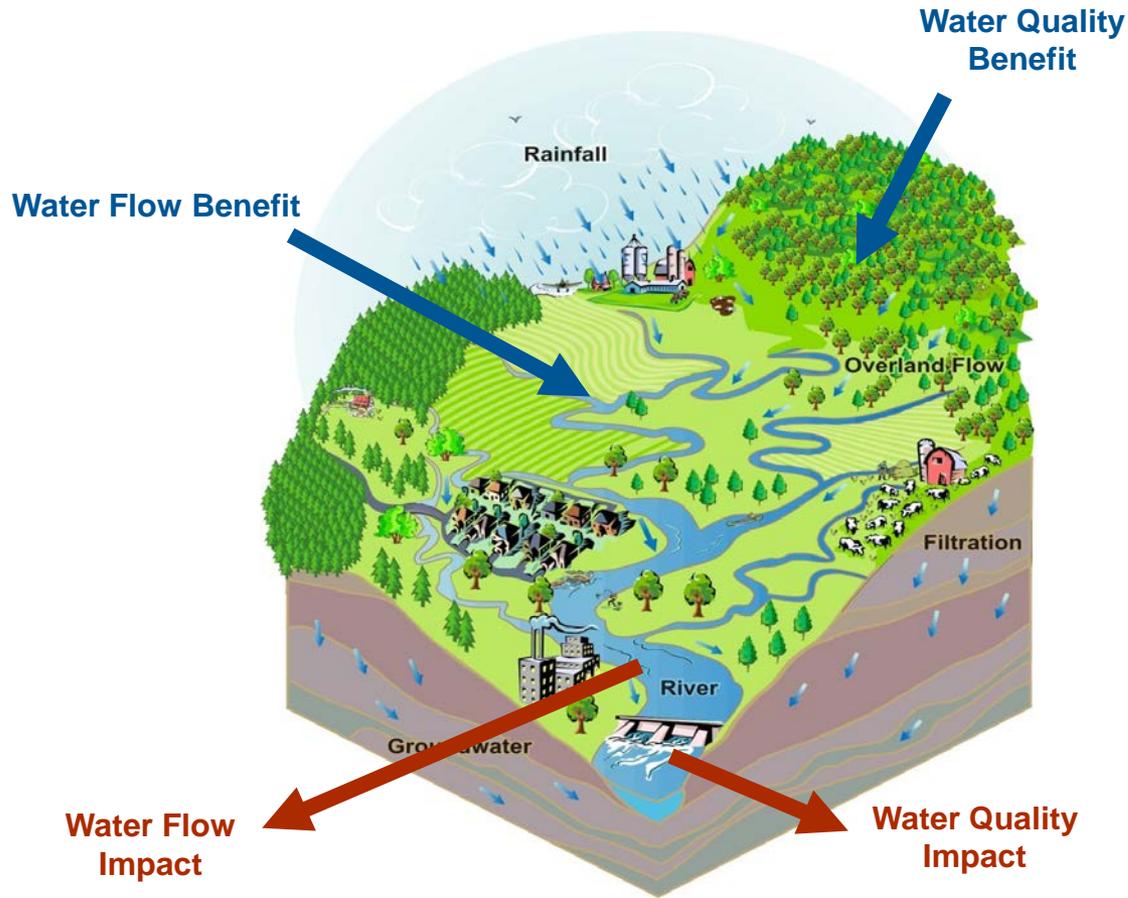
Reflecting on water stewardship collective action within the context of broader water governance

Setting the Scene

Stockholm World Water Week Seminar:
*Improving the Impacts and
Effectiveness of Corporate Water
Stewardship Initiatives*
2 September 2014



Watersheds are everywhere... and important to everyone



Source: The Nature Conservancy



Business depends on (and impacts) watershed services

Provision of freshwater

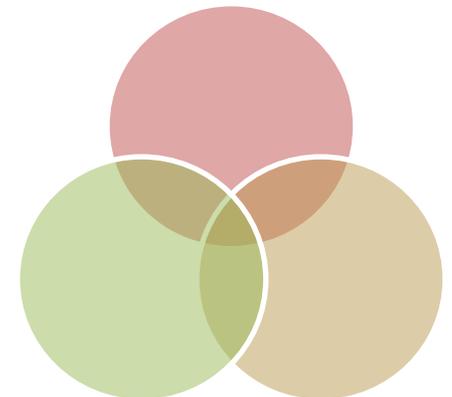
- Consumptive uses
 - Drinking
 - Domestic
 - Agricultural
 - Industrial
- Non-consumptive uses
 - Hydropower generation
 - Cooling water
 - Navigation

Flow regulation and filtration

- Stores water in soils, wetlands and floodplains which can buffer flood flows and drought
- Controls erosion and sedimentation
- Maintains river mouths and channels, wetlands, riparian habitats, fisheries, and other wildlife habitat
- Maintains mangroves, estuaries, reefs and coastal zone processes
- Controls the level of water tables
- Maintains water quality: nutrients and organic matter, pathogens, persistent organic pollutants, salinity, heavy metals, changes in thermal regime

Supporting services

- Maintains natural flow and disturbance regimes as drivers of ecosystem processes
- Supports cultural and heritage values (e.g., aesthetic qualities) that support tourism and recreational uses and ways of life



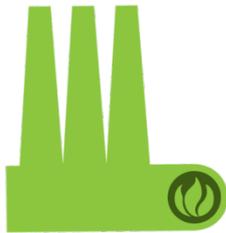


Global mega-forces already impact the health of the world's watersheds

Climate Change



Energy & Fuel



Material Resource Scarcity



Water Scarcity



Population Growth



Wealth



Urbanization



Food Security



Ecosystem Decline



Deforestation





Watershed challenges: Competing demands

Cities and surrounding regions
where the population concentrates

Utilities which require water to
operate power plants

Rural agriculture which needs water to
grow food

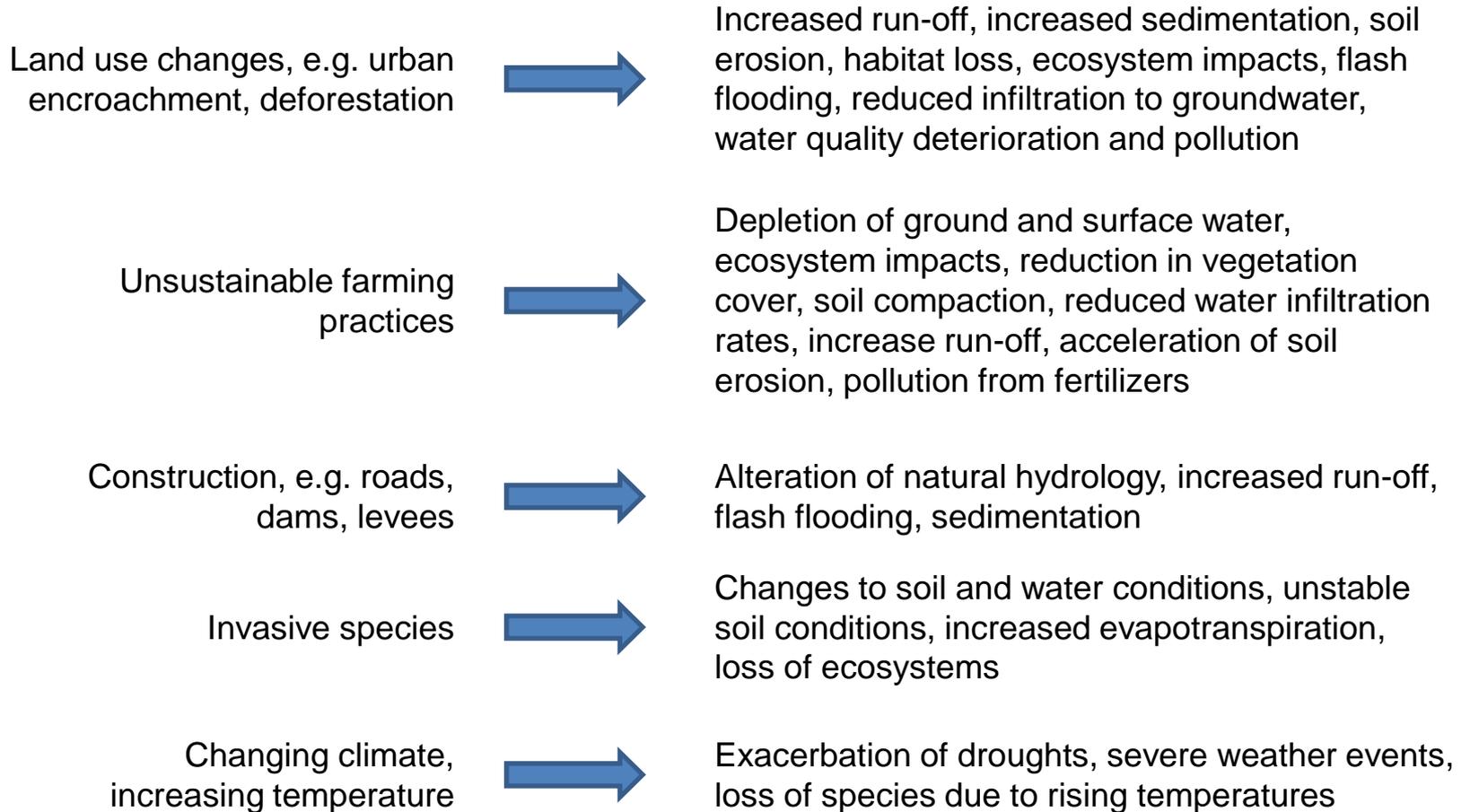
Ecosystems which can help sustain and
replenish water sources if protected

Source: Ernst & Young, 2010

- How to decide who gets how much?
- Potential approaches include
 - ✓ water markets
 - ✓ water funds
 - ✓ emission permit trading
 - ✓ payments for ecosystems
 - ✓ certification
 - ✓ green public procurement, taxes and fiscal incentives



Watershed degradation: Causes lead to impacts





Watershed solutions: Local and political

“Yes, there is scarcity in certain areas, but our findings show that the problem overall is a **failure to make efficient and fair use** of the water available in these river basins. This is ultimately a political challenge, not a resource concern.”

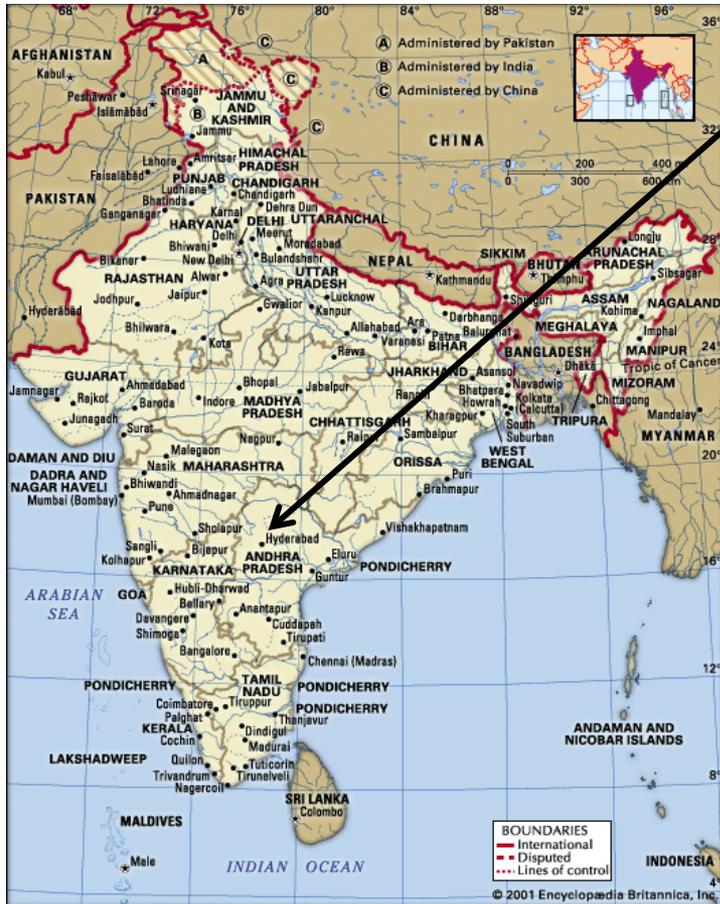
- *Alain Vidal, CPWF*

“The **basin perspective is critical** in order to assess the upstream and downstream impacts of **water allocation policies**, and to determine opportunities for optimizing the sum of benefits across many residents.”

- *Dennis Wichelns, IWMI*



An example in collaboration



Pothireddypalli

- Groundwater is an important source for agriculture and domestic use
- Economy relies on water-intensive crops
- Silting of cheruvus impedes natural recharge

PepsiCo India engaged **Alternative Development Initiatives** to establish a *sustainable water development model*

The SWRDM approach combines community interventions for water resource development with livelihood enhancement, so it is *inherently community-focused*



Initiatives and achievements

Water recharge and conservation Rehabilitating chervus



Community engagement

Capacity building

- On-field water management
- Multi-cropping

Livelihood enhancement

- Reduce dependence on single annual crop
- Diversified farm package: horticulture, vegetable gardening, ...



Community & gender empowerment

- Women's self-help groups leading to micro-capital, mobile banking
- Formation of local institutions including Water Users' Association, Joint Farmer's Club

