

# Communicating the benefits of transboundary water cooperation

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REVOLVE WATER

communicating the value of water

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- MSc Hydrogeology
- 30 years experience in Europe, Middle East and Africa
- Ministry of Water Resources, Oman 1990-95
- Coca-Cola, Water Resources Manager Europe 2005-2012
- Currently: independent consultant and contributor to **Revolve Water**

Punting on the  
Okavanga  
Dec 2017



# Revolve Water



Communication and Events



Special reports

Quarterly  
sustainability  
magazine



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# Content

- Basic principles of good communication
- Review of transboundary water bodies: type, scale, issues and risks
- Brief real examples on benefits of communication:
  - Danube
  - Murray-Darling
  - Rwanda, Burundi, Tanzania
  - India-Pakistan

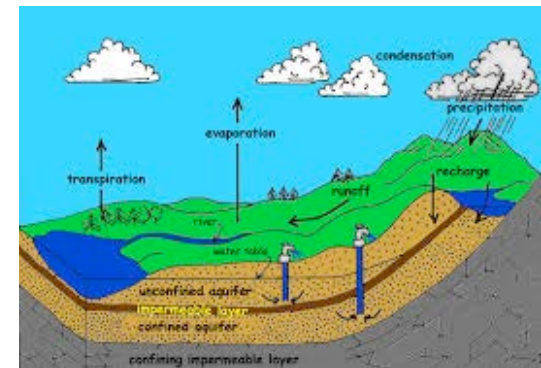
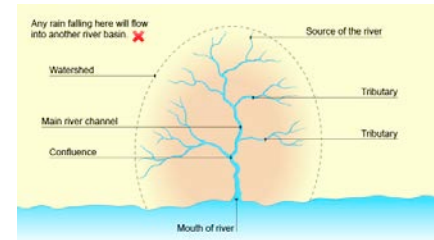
# Communicating on technical subjects to a mixed and non-technical audience

- Some:
  - Clarity
  - Plain language
  - Avoid jargon and acronyms (if must use, explain)
  - Keep it brief
  - Use clear illustrations and images
  - Be understood!

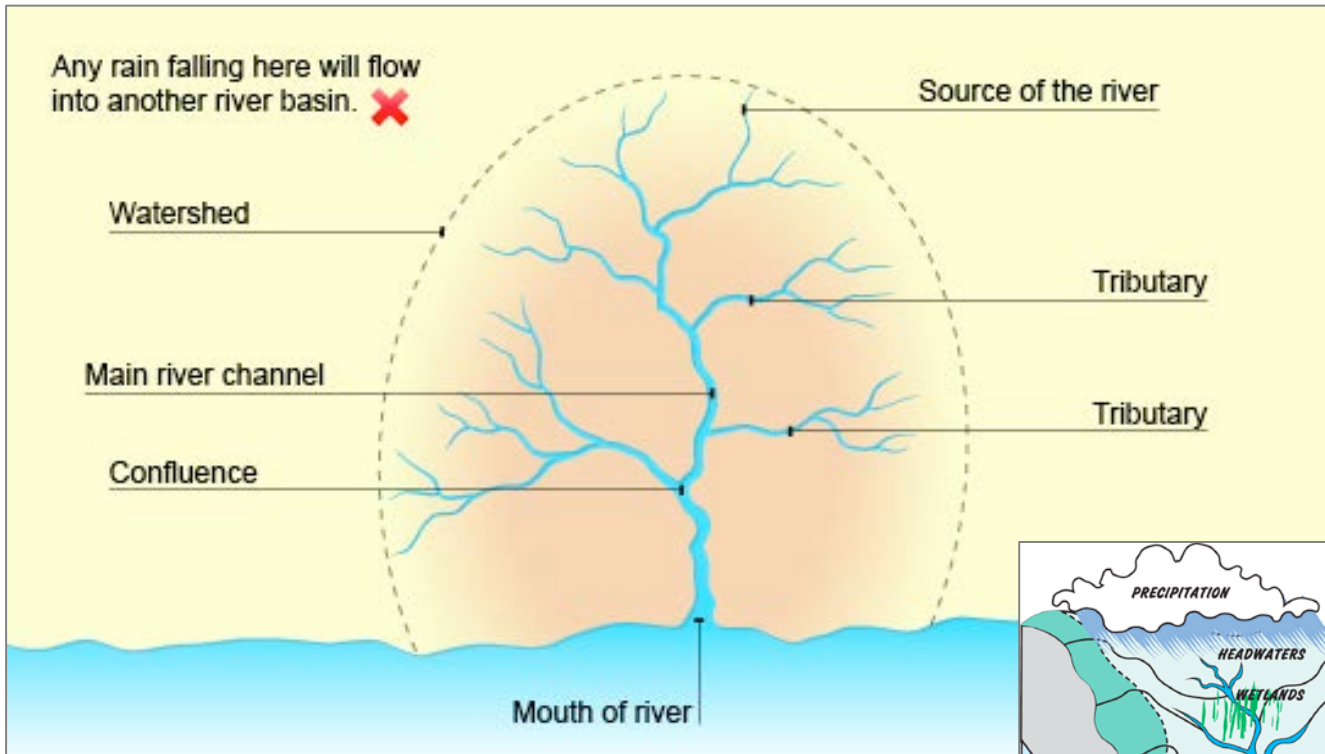


# Transboundary water bodies

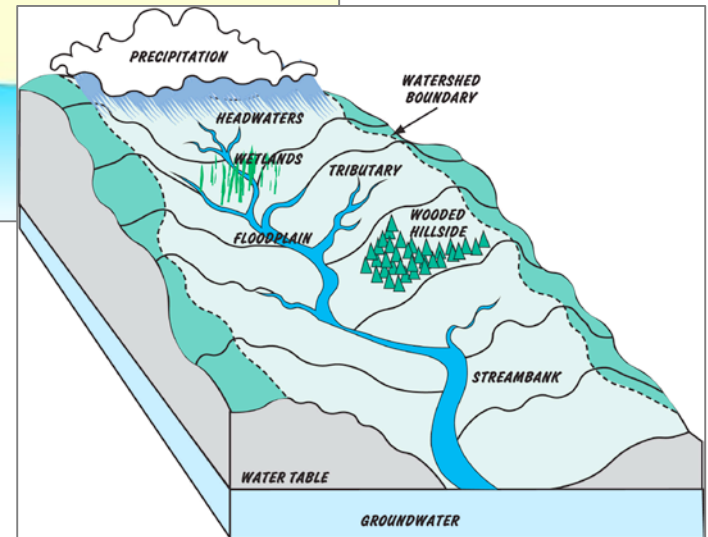
- Types
  - River basin
  - Lakes (and inland seas)
  - Groundwater bodies
- Scale
- Understanding issues and risks



# River basin



Impacts mainly travel from upstream to downstream

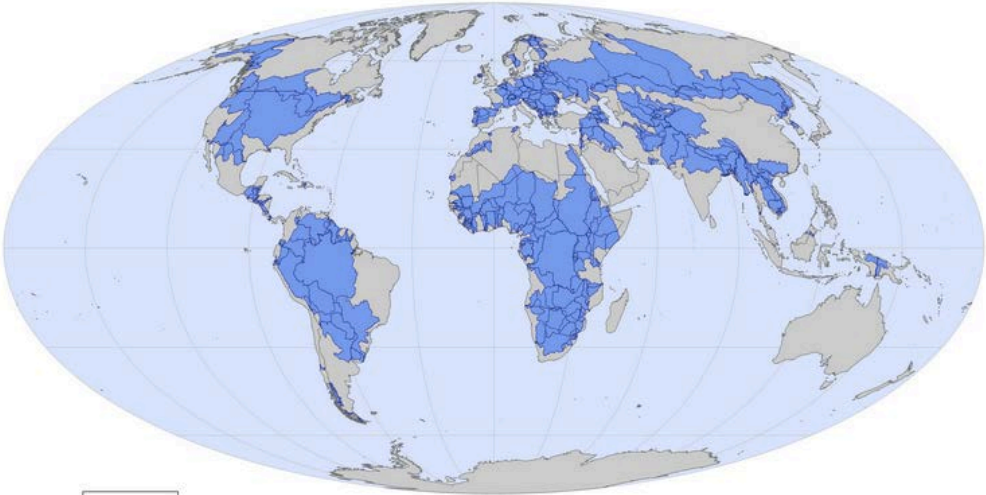


# Scale of river basins



Green = transboundary river basin

## International River Basins

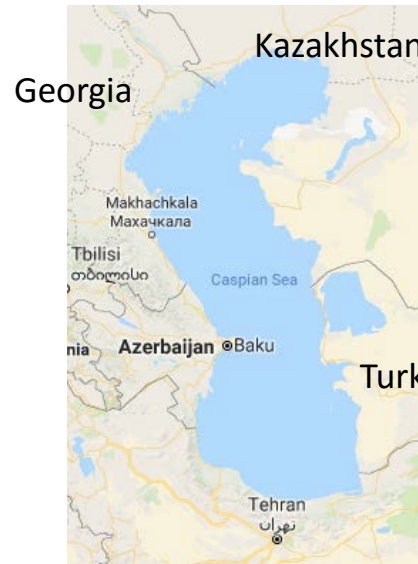


Transboundary Freshwater Dispute Database  
Oregon State University, 2010

Blue= transboundary river basin



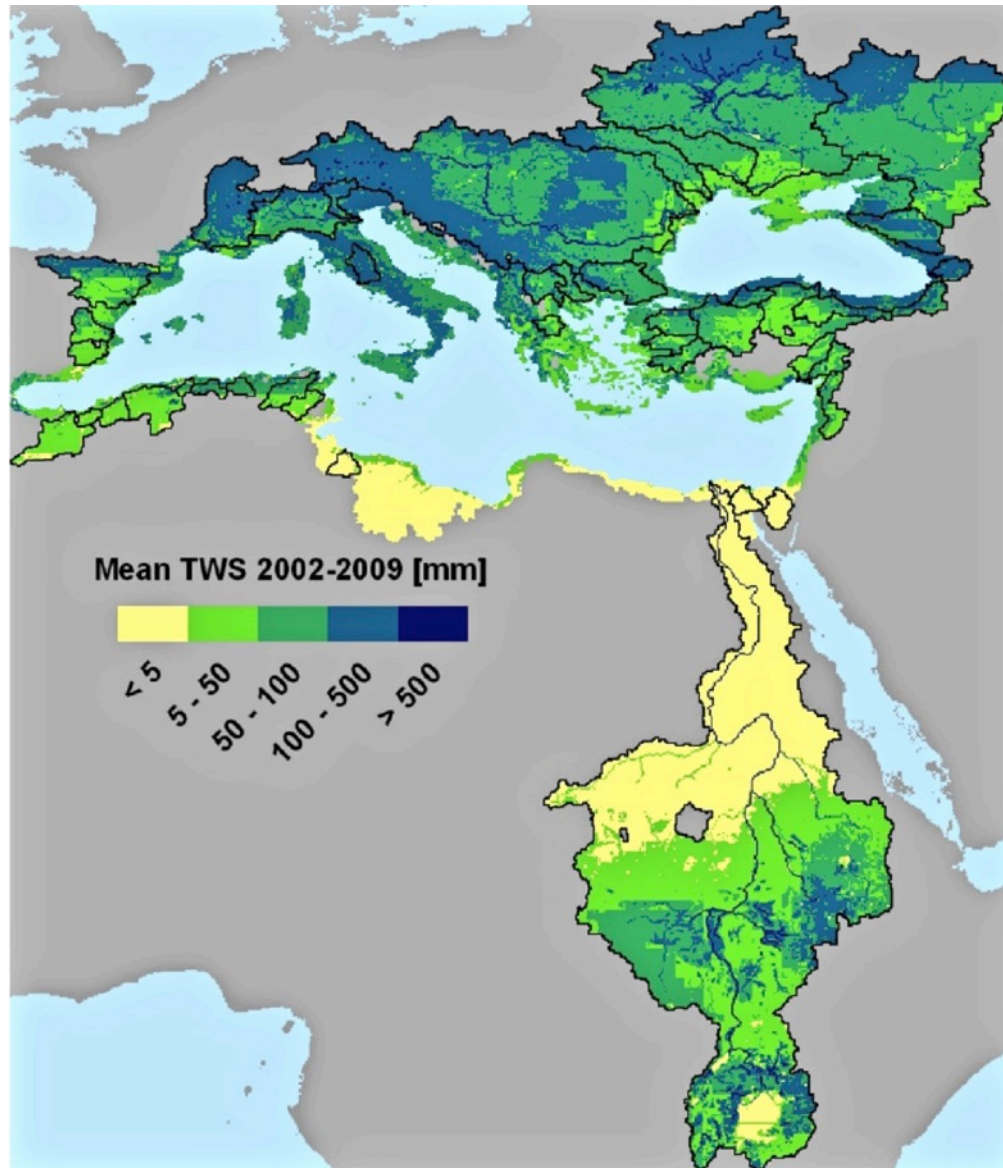
# Lakes (and inland seas)



Lake Geneva / Lac Léman

- Circulation of water (and pollution)
- Actions in the wider basin
  - Pollution, over abstraction

# Mediterranean basin



The health of the Sea is dependent on how the river basins that feed into it are managed

- Pollution
- Flows

## Mare Nostrum

The history and culture of the Mediterranean region are intimately linked to water. To ensure a sustainable future and provide for its growing population, the region must prioritize its water and energy management.

While the story of the Mediterranean has been a story of constant change, the water history has remained largely unchanged despite the region's diverse geographical features and the health of the sea is directly impacted by the water flowing into it. In addition, the Mediterranean water energy are today becoming increasingly important.

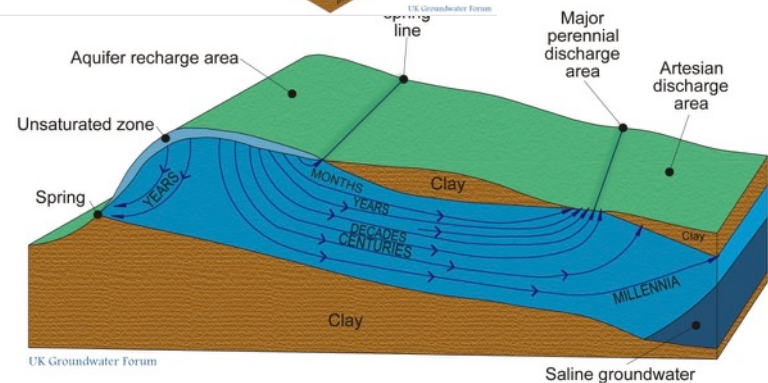
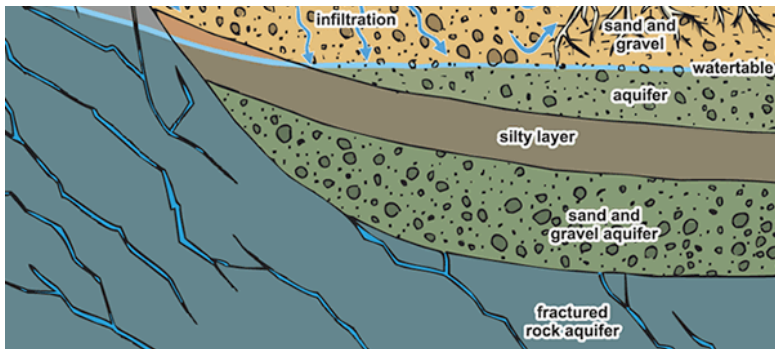
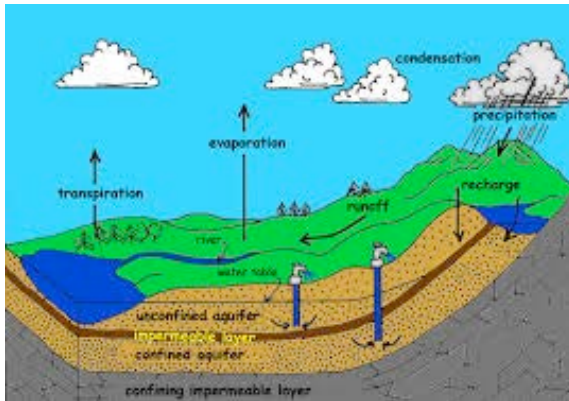
More than the Mediterranean region in many ways, the Mediterranean Sea has been important for trade and trade for centuries, particularly for connecting east to west, and between the three continents which surround it: Europe, Asia and Africa. The sea is an important source of food, freshwater, and other resources in their own right, and of their nations in their own right, and of their dependence on customer trade and energy, which is also significant across the region, in particular in the case of the Mediterranean region.

In many areas, the availability of water is a constant and growing concern due to the increase of growing populations and water. The most water, however, is used in the most developed countries, where water is critical for economic growth and for the environment.

An essential part of the water system of the Mediterranean region is the water system of the Mediterranean region. Depending on the water system, water is used in many ways, and water is used in many ways, and water is used in many ways.

10 [www.undp.org/water](http://www.undp.org/water)

# Groundwater bodies



- Groundwater is not in underground rivers and lakes (except in special cases)
- Water passes through tiny spaces in cracks and between grains of rock

- Impacts of abstraction can travel across the basin and upstream
- Pollution travels slowly, but very difficult to remove

# Scale of groundwater bodies

igrac

Transboundary Aquifers of the World  
Special Edition for the 7<sup>th</sup> World Water Forum 2015



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# Examples

- Danube
- Murray Darling
- Rosumo Falls, Rwanda
- India and Bangladesh – multiple rivers

# Danube Basin



- World's most international river basin
- The river passes through 10 countries
- The river basin includes parts of 19 countries
- Passes through 4 national capital cities: Vienna, Bratislava, Budapest and Belgrade (+ others within basin)
- 81 million people live within the basin

# Danube



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# Danube issues

- Floods (made worse by loss of flood plains)
- Shipping and transport
- Tourism (leisure and nature)
- Food resources (mainly fish)
- Hydroelectric power
- Water resources (abstraction and wastewater discharge)
- Ecosystem services

The Danube needs good communication for effective cooperation



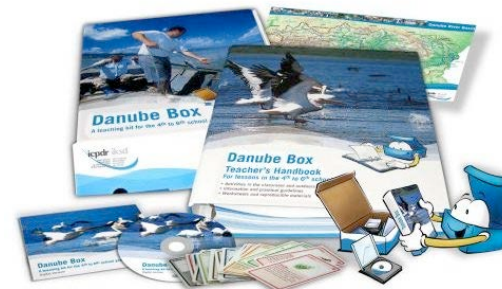
# ICPDR

## International Commission for the Protection of the Danube River



- All about communicating mutual benefits to many stakeholders and the general public
- Respect and pride

- 14 member countries
- Joint River Basin Management Plan (RBMP) under the EU Water Framework Directive
- Danube Watch magazine
- Annual Danube Day (29<sup>th</sup> June)
- Danube Box
- Etc, etc



# Danube Day (29<sup>th</sup> June)

- Celebration of healthy rivers, which has grown since 2004, into the biggest river festival in the world.
- 350 events in 14 countries with support from >900 organizations
- Families, children and young people engage in recreational or cultural activities linked to rivers or lakes.
- Key message: hard work and cooperation help improve water quality and flows, making rivers more enjoyable and beneficial for all.
- Connecting people and their rivers and raising awareness of their transboundary nature and of international and local efforts to protect them.



# Danube - children



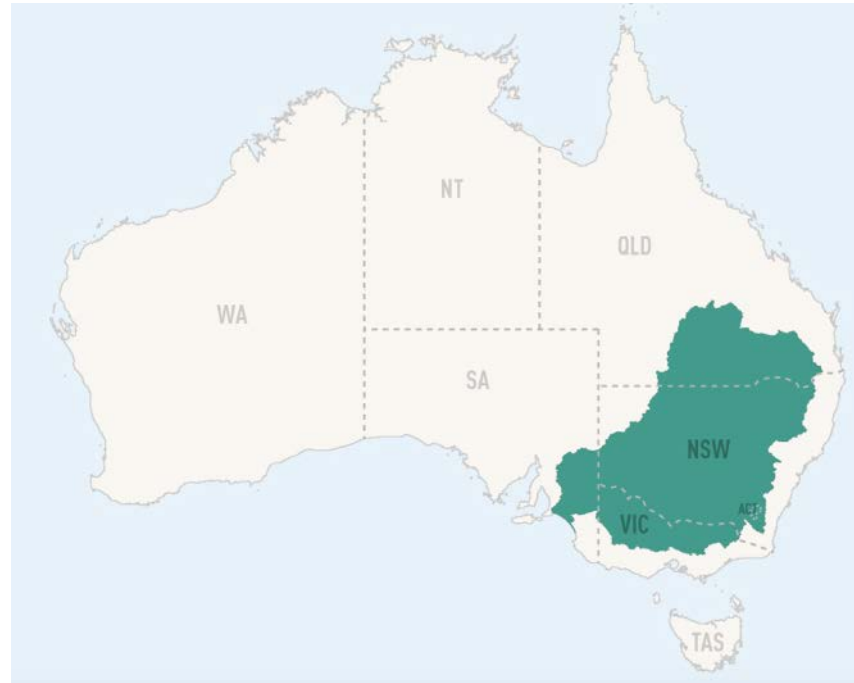
# Danube: benefits of communication and cooperation

- Water quality improvement (surface and groundwater) through construction of >1000 of wastewater treatment plants
- Improve fish migration at 120 locations
- >50,000 ha of floodplains and wetlands restored improving flood protection
- Preparing the next generations to continue the work

These improvements will continue in the future, with particular emphasis on reducing flood risk

For more, see [www.icpdr.org](http://www.icpdr.org)

# Murray-Darling basin, Australia



- The Basin spans 14% of Australia's landmass, covering parts of South Australia, New South Wales, Victoria and Queensland and all of the Australian Capital Territory.

# When poor communication leads to trouble

- Murray-Darling Basin Authority (MDBA) created in 2007
- To achieve 'water sustainability' to protect the natural environment, a policy was introduced to reduce water abstractions by around 30%, with no pre-communication or consultation
- Result? Angry farmers protested and burnt copies of the new policy
- Huge costs in consultancies and 'corrective' community consultation



# Murray-Darling basin

## Lessons learnt

- The authority now applies much more intensive communication and engagement
- Comprehensive informative website in plain language
- Explains the need to protect the natural environment, but to balance this with human and economic needs
- Explains how restrictions on water use can be offset by improved efficiency

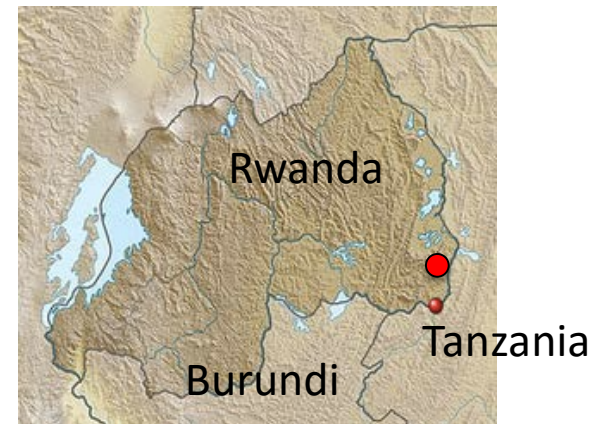


*“The MBDA aims to manage the sustainable use of the Basin's water resources in a manner that protects the environment, its communities and the industries that depend on it. We take a Basin-wide, collaborative approach to managing water in the Murray-Darling system.”*

# Not only about water

## Rusumo Falls hydroelectric project

- Providing essential electricity to Burundi, Rwanda and Tanzania
- <20% access to energy grid in Rwanda and Tanzania
- <10% access in Burundi
- Providing 80 MW to share between the three countries
- Burundi, the poorest, not be required to contribute financially
- Benefits:
  - communication between countries has led to benefits to millions of people in terms of energy supply
  - Science diplomacy: in a region with a troubled history, improved cooperation





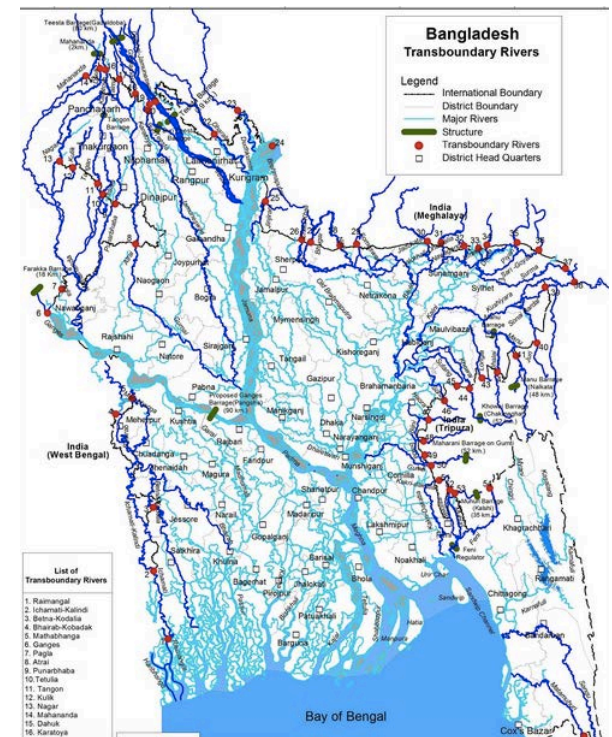
# India and Bangladesh

- The two countries have 54 officially recognised transboundary rivers and plan to include another 10 - through the Joint River Council (JRC)
- Communicating and sharing information about the rivers leads to benefits for both countries

The countries share information on flows, water levels, erosion, pollution and navigability, helping managers to take proper and preventative actions

Example 1: Heavy silting at the lower end of rivers (in Bangladesh) causes backing-up of flows and flooding in India during monsoon. Solution: shared knowledge allows for planned dredging.

Example 2: India shares 'real time' water level data with downstream Bangladesh, allowing for improved flood forecasting to protect millions of people.



Remember: It's the duty of the communicator to  
be understood

*The writer does the most good who gives his reader the most  
knowledge and takes from him the least time*

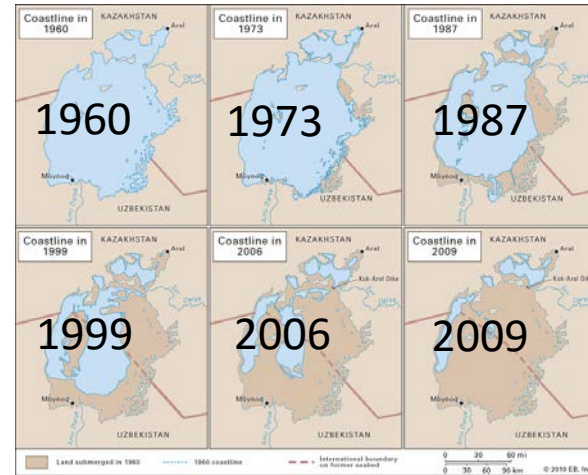
*Sydney Smith (1771-1845 England)*

*If you can't explain it simply, you don't understand it well enough*  
*Albert Einstein*

*Too much valuable knowledge is lost through poor and complex  
communication*

*Peter Easton*

# Why we must communicate and cooperate



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[Revolve.media.com](http://Revolve.media.com)

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