

Transboundary Climate Change Issues: Overview

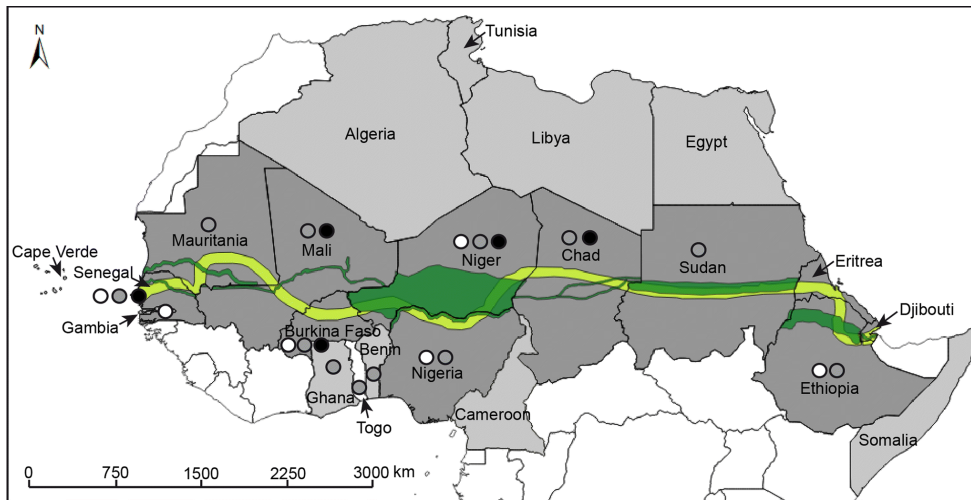
An aerial photograph of a large concrete dam with multiple spillways, situated in a lush green landscape. A large reservoir of blue-green water is visible behind the dam. In the foreground, there are some buildings and infrastructure near the dam's base.

Keith Bettinger
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Overview

- **Describing transboundary context and relevance to climate change**
- **4 general types of transboundary linkages**
- **Our focus: geographic (rivers and mountains) and sectoral (trade and transport)**
- **General challenges for tackling transboundary issues**
- **General ways forward**

The Great Green Wall



- Original GGW countries
- Extended GGW countries
- Original GGW path
- Updated GGW path according to national action plans
- Action Against Desertification
- BRICKS
- FLEUVE



The Great Green Wall for the Sahara and the Sahel Initiative

Transboundary climate change?

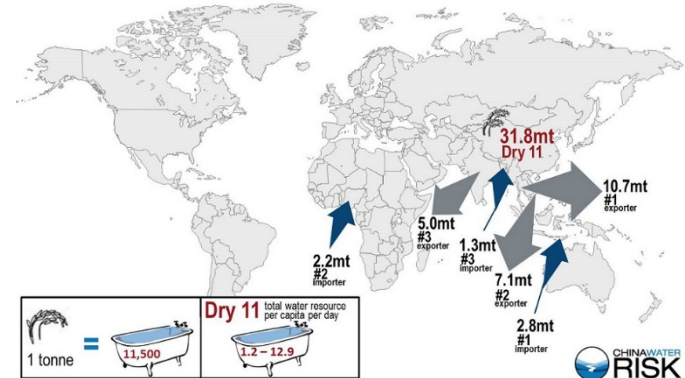
- Many aspects of human civilization and support systems transcend borders
- Globalization increases linkages and interdependencies
- Climate risks are shared across borders...transboundary climate risks are already detectable!
- Adaptation measures in one country may have negative effects on other countries!!!! MALADAPTATION!!!



Transboundary Rivers in Central Asia

GLOBAL RICE IMPORT & EXPORT SNAPSHOT

Export: 0.5mt, #10
Import: 0.6mt, #18



Relevant LEG Guideline:

- **C.4.B.: Identify and promote synergy in assessment, planning and implementation of adaptation at the regional level, as appropriate**

Types of transboundary linkages

- **BIOPHYSICAL: Ecosystem services: countries sharing forests, watersheds, wetlands, coastal ecosystems**
- **TRADE linkages: price, quality, availability of goods, supply chains. “TELECONNECTIONS”**
- **PEOPLE: Human linkages: groups living/moving across boundaries; tourists**
- **FINANCE: Impacts of investments, capital flows, remittances**
- **Upstream/downstream: sharing water resources, transport linkages**

Benzie et al, 2014, 2018 (SEI)

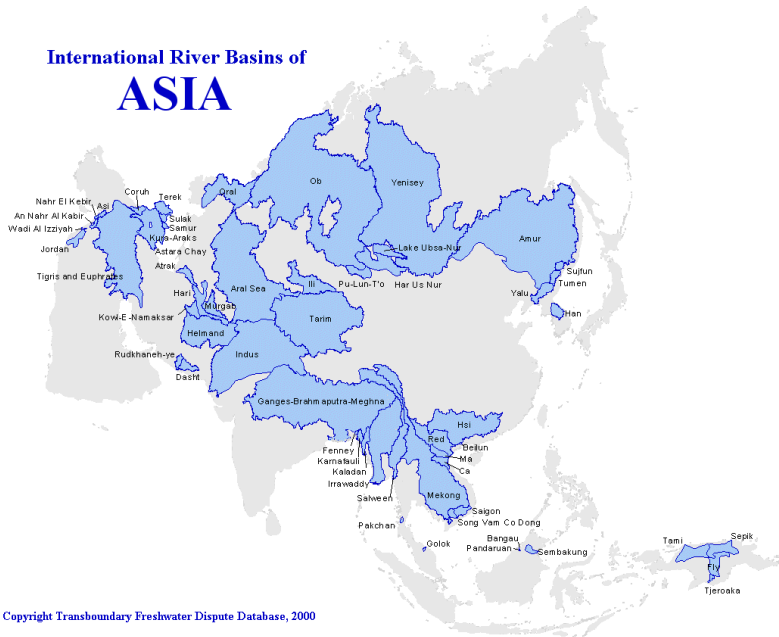


Our focus

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International River Basins of ASIA



- **River systems: Asia has 57 transboundary river basins**
 - Most facing climate related pressures
- **Mountain systems: Critical for water resources in multiple countries**
 - Highly sensitive to climate change
- **Trade: trade in Asia has increased by 20% per decade**
- **Transport: economies and livelihoods in Asia rely on the movement of people and things**

**HIMALAYAN
GLACIER
MELTING
END IN 2035**



General Challenges

- Existing knowledge on transboundary impact lacking
- NAPs and NAP processes don't focus on transboundary issues
 - Previous support for “country-led” NAPs
- In some cases, no regional cooperation foundation exists
- Most financing flows to countries
- “Economic” vs. “Financial” benefits

Why is this in my country's best interests?

- **Failure to build transboundary collaboration:**
 - **Disruption of international supply chains**
 - **Chaotic migration**
 - **Damage to financial systems**
 - **Regional instability**
 - **Degradation of ecosystem services**

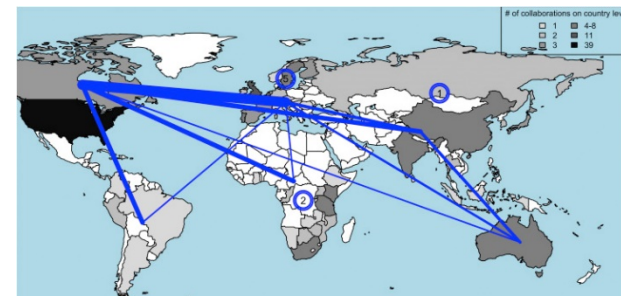
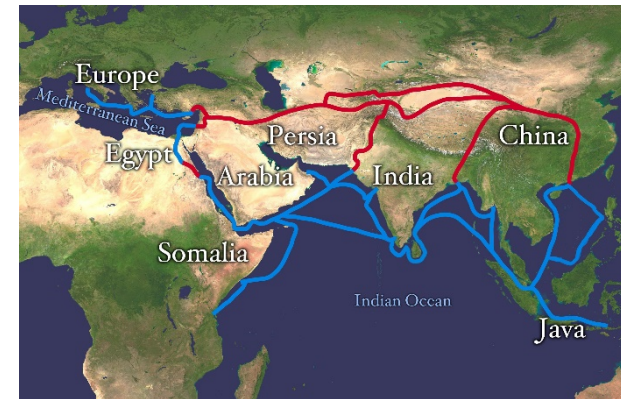


Moving towards incorporating transboundary considerations

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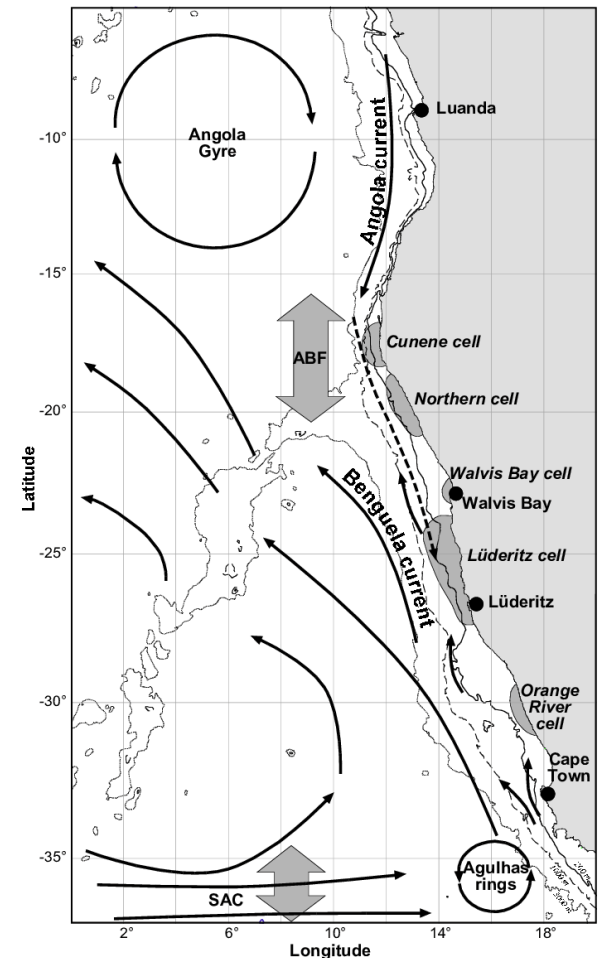
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- **Building linkages between countries (stepwise)**
- **Analyze entire basin or ecosystem as a unit of analysis, planning, and action**
- **Understand gaps in national planning that transnational planning could fill**
- **Identifying specific benefits accruing to countries through transnational collaboration**



Examples from NAPs & NDCs

- **Sudan:** recognizes that the Nile and groundwater are main sources of water, and transboundary nature of the Nile can contribute to vulnerability
- **Nauru:** economy is reliant on imports of fuel and food, making it vulnerable to external forces
- **Brazil:** seeks to promote South American regional cooperation among adaptation plans and strategies to promote exchanges of best practices and expansion of regional knowledge
- **Benguela current fisheries system project (GEF-FAO)**



MAHALO!!!

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