International Collaboration in Shared Riverbasins

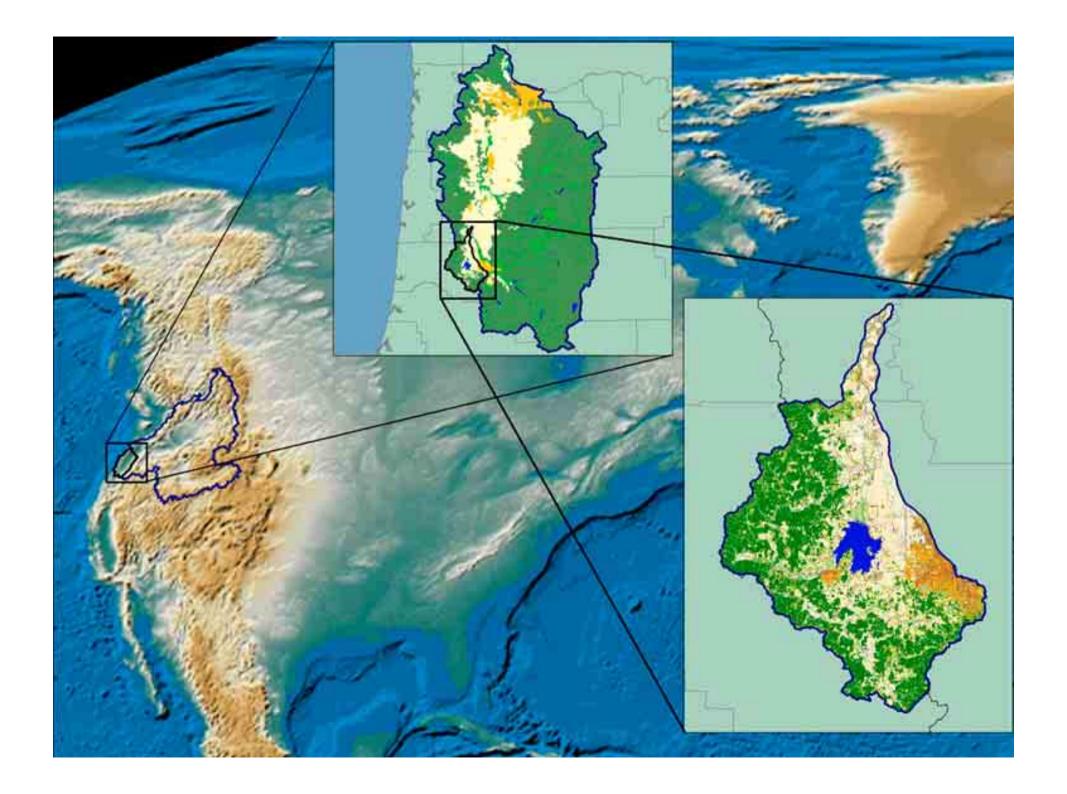
Marloes Bakker

Universities Partnership for Transboundary Waters
Transboundary Freshwater Dispute Database
Oregon State University

3 November 2004, Dakar.

263 international basins





Basins at Risk

Conflict and Cooperation Over International Waters

Principal Investigator: Aaron T. Wolf PhD Oregon State University

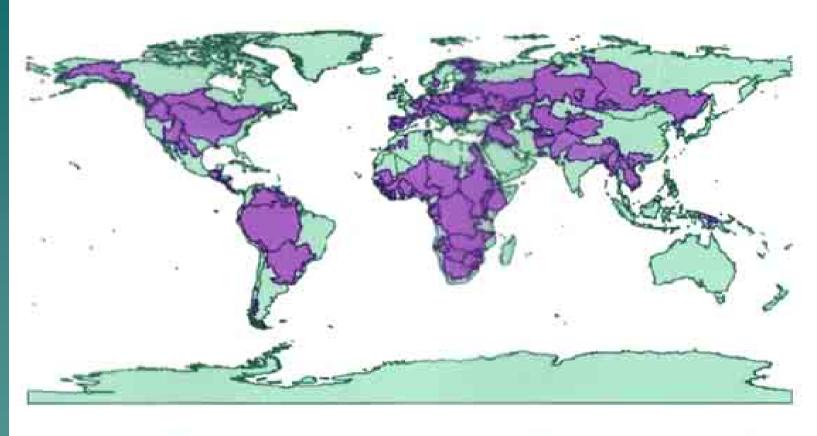
Research Associates:

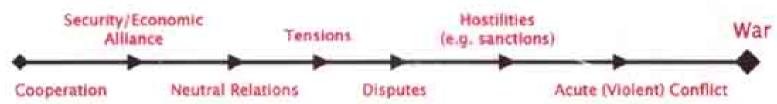
Shira Yoffe, Project Manager

Case Bowman
Kuuipo Burleigh
Greg Fiske
Mark Giordano
Meredith Giordano
Jeanne Hoadley
Kelli Larson
Kyoko Matsumoto
Marc Rothgery
Daniel Wise

TFDD: Basins at Risk Department of Geosciences Oregon State University

Scale of Conflict





Events Database

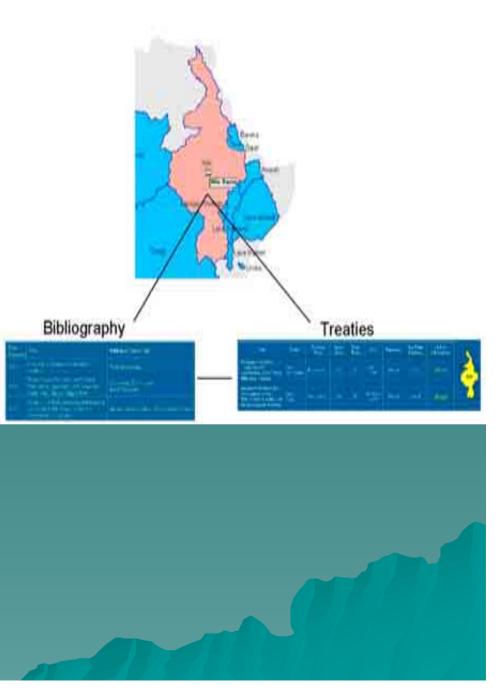
DATE	BASIN	COUNTRIES	BAR SCALE	EVENT SUMMARY	ISSUE TYPE
12/5/73	La Plata	Argentina Paraguay	4	PRY AND ARG AGREE TO BUILD 1B DAM, HYDROELECTRIC PROJECT	Infrastructure
1/1/76	Ganges	Bangladesh IndiaUnited Nations	-2	Bangladesh lodges a formal protest against India with the United Nations, which adopts a consensus statement encouraging the parties to meet urgently, at the level of minister, to arrive at a settlement.	Quantity
7/3/78	Amazon	BoliviaBrazil Colombia Ecuador GuyanaPeru Suriname Venezuela	6	Treaty for Amazonian Cooperation	Economic Development
4/7/95	Jordan	IsraelJordan	4	Pipeline from Israel storage at Beit Zera to Abdullah Canal (East Ghor Canal) begins delivering water stipulated in Treaty (20 MCM summer, 10 MCM winter). The 10 mcm replaces the 10 mcm of desalinated water stipulated Annex II, Article 2d until desalinization plant completed	Quantity
6/1/99	Senegal	MaliMauritania	-3	13 people died in communal clashes in 6/99 along border between Maur. & Mali; conflict started when herdsmen in Missira-Samoura village in w. Mali, refused to allow Maur. horseman to use watering hole; horseman returned w/ some of his clansmen, attacking village on 6/20/99, causing 2 deaths; in retaliation that followed, 11 more died.	Quantity

Transboundary Freshwater Dispute Database

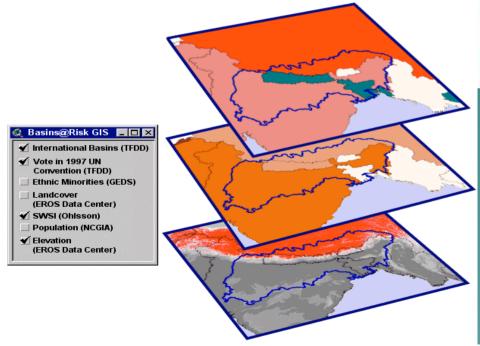
www.transboundarywaters.orst.edu

- Reference to 3,600 water-related treaties (805-1997)
- Over 400 full text treaties and 40 US compacts
- Detailed negotiating notes (primary or secondary) from case-studies of water conflict resolution
- Annotated bibliography of "State of the Art" water dispute resolution literature
- News files on cases of acute water-related disputes
- Indigenous methods of water dispute resolution

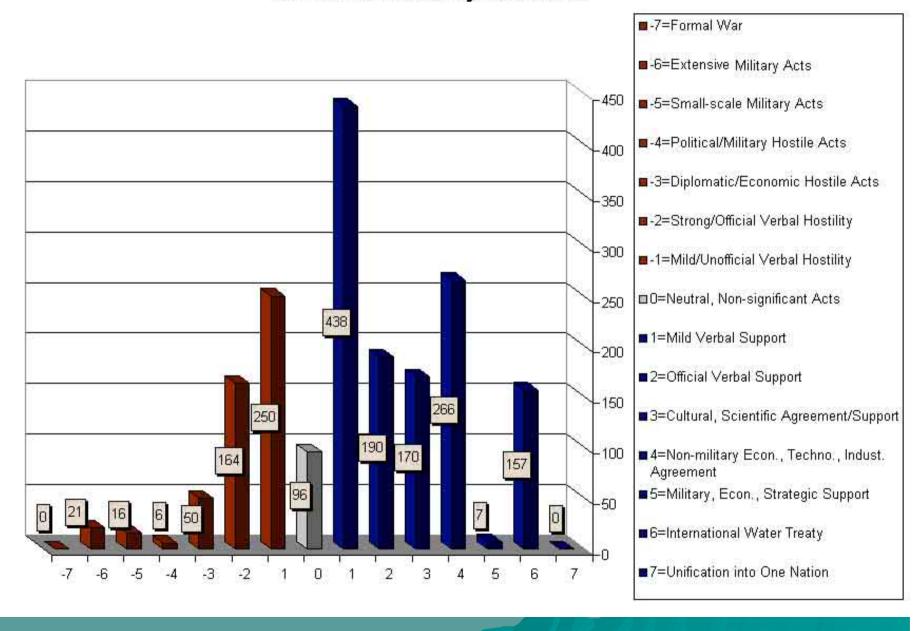
The database links each river basin to its biophysical attributes, socioeconomic conditions, and incidents of cooperation and conflict



Interactive Search Interface



Number of Events by BAR Scale



Parameters which seem **not** to be indicators:

- Climate
- Water stress
- Population
- Level of development
- Dependence on hydropower
- Dams or development per se
- "Creeping" changes:
 - general degradation of quality
 - climate change induced hydrologic variability

What are indicators?

- Sudden physical changes or lower institutional capacity are more conducive to disputes:
- Uncoordinated development: a major project in the absence of a treaty or commission
- "Internationalized basins"
- General animosity

Transboundary water institutions are resilient over time, even between hostile riparians, even as conflict is waged over other issues.

Conclusion

River basin organizations are key to cooperation!

UNEP project International Collaboration in Shared Riverbasins

- The current study focuses on the number and nature of transboundary waters institutions around the world
- Indicators of strong institutions and collaboration: institutional resiliency
- Results are starting to come out for Latin America and Africa

Events of Collaboration South America – visualization?

Results so far South America

- 59 international basins
- 42 basins with initiatives (17 without):
 - 107 cooperative events
 - o 30 organizations
 - 74 other initiatives

Summary of Events South America

- RBO's; differences in
 - phases of existence
 - ◆ Lake Salto Grande; Comision Technica de Mixta de Salto Grande: 1946
 - Chira; Binational Developmental Plan for the Border Region
 (Plan binacional de desarrollo de la región fronteriza): 1999
 - goals and level of activity
- Projects
 - Overall very broad projects
 - Recurring theme: joint management
 - Donors: mostly GEF and OAS

Events of Collaboration Africa – visualization?

Results so far Africa

- 61 international basins
- 15 basins with initiatives (46 without)
 - 83 cooperative events
 - o 32 organizations
 - 51 other initiatives

Summary of Events Africa

- ◆ RBO;s: differences in
 - phases of existence
 - ◆ Niger; Niger Basin Authority (formerly the Niger River Commission (RNC)): 1980
 - Orange; ORASECOM (Orange/Senqu River Commission): 2000
 - goals and level of activity
- Projects
 - Overall very broad projects
 - Recurring theme: joint management
 - Donors: GEF, Green Cross, IUCN, EU

Please share your expertise

- Is everything included?
 - International basins
 - RBO's and other organizations
 - Projects
- What makes a good cooperative basin according to you?

Contact Information

Marloes Bakker

Universities Partnership for Transboundary Waters
Transboundary Freshwater Dispute Database
Oregon State University

104 Wilkinson Hall
Department of Geosciences
Oregon State University
Corvallis, Oregon 97333 USA

Phone: +1 541 737 7013 Fax: +1 541 737 1200

Email: bakkerm@science.oregonstate.edu