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Thank you.

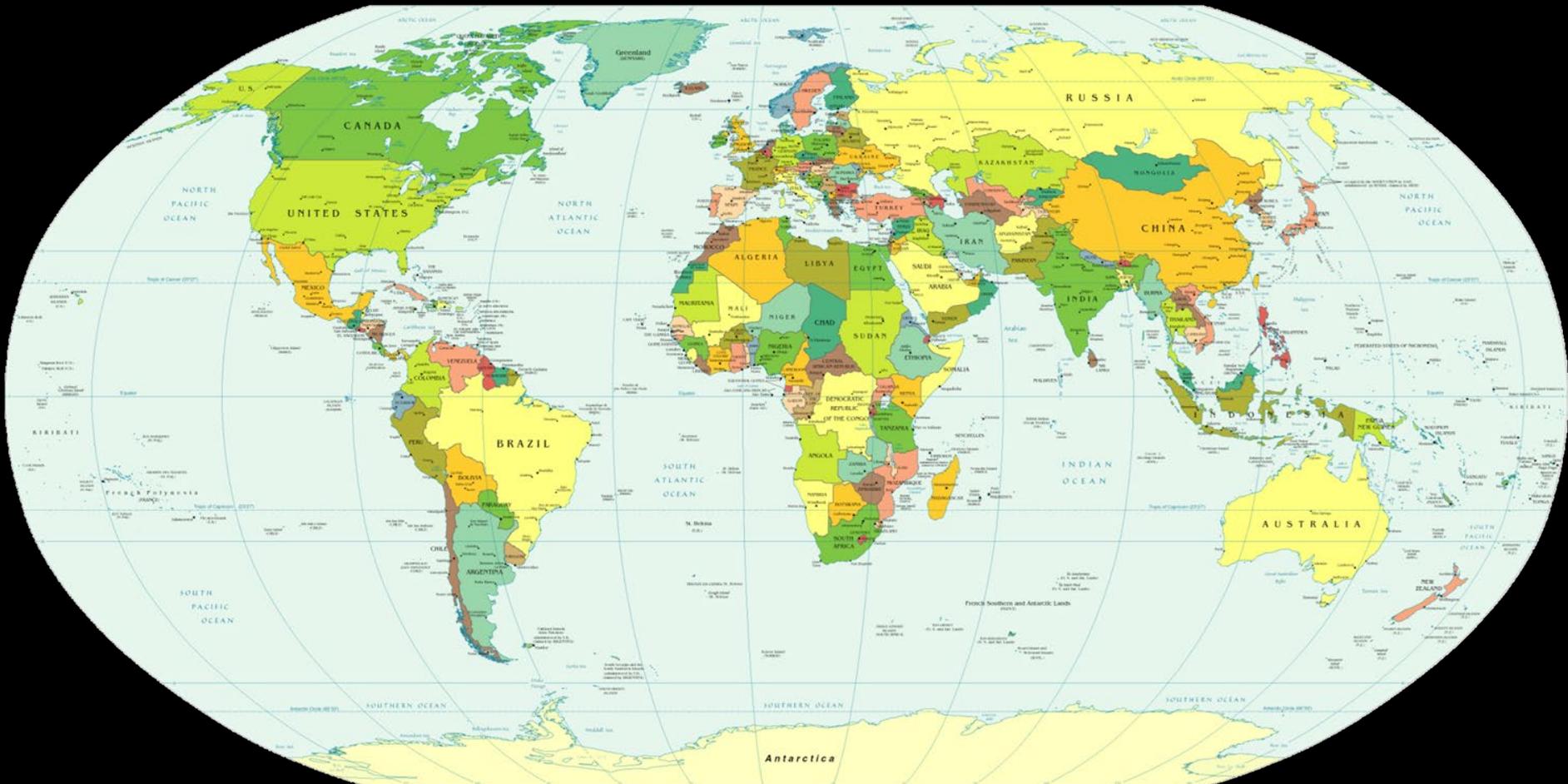


Defining and Managing River Boundaries and International Rivers



Professional training workshop No. 73
8-10 May 2024





CANADA

UNITED STATES

BRAZIL

RUSSIA

CHINA

INDIA

AUSTRALIA

Antarctica

NORTH PACIFIC OCEAN

NORTH ATLANTIC OCEAN

NORTH PACIFIC OCEAN

SOUTH PACIFIC OCEAN

SOUTH ATLANTIC OCEAN

INDIAN OCEAN

SOUTH PACIFIC OCEAN

SOUTHERN OCEAN

SOUTHERN OCEAN

The unstable world political map

- 770 territorial changes 1816-1980 (Goertz and Diehl)
- 31 new states since 1990
- 158 territorial disputes 1950-1997 (Blake)

Africa	41	East & Southeast Asia	22
Americas	25	Middle East	21
Central & South Asia	18	Europe	31
- 39 boundary/sovereignty disputes submitted to third-party adjudication since 1980
- c. 50% of maritime boundaries still to be delimited

The razor's edge

“Frontiers are indeed the razor's edge on which hang suspended the modern issues of war or peace, of life or death to nations.”



Lord Curzon of Kedleston

Viceroy of India 1898-1905 and British Foreign Secretary 1919-24

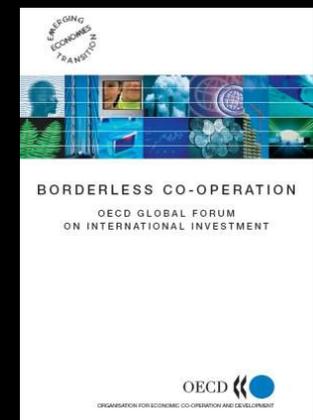
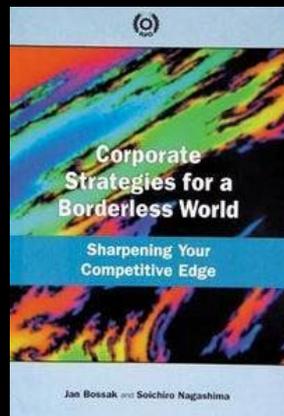
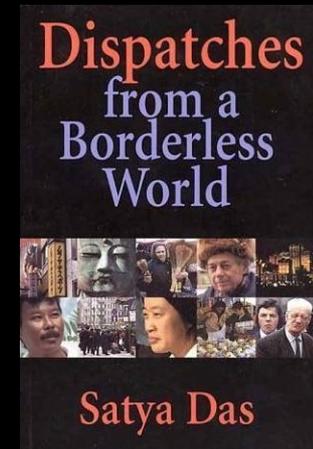
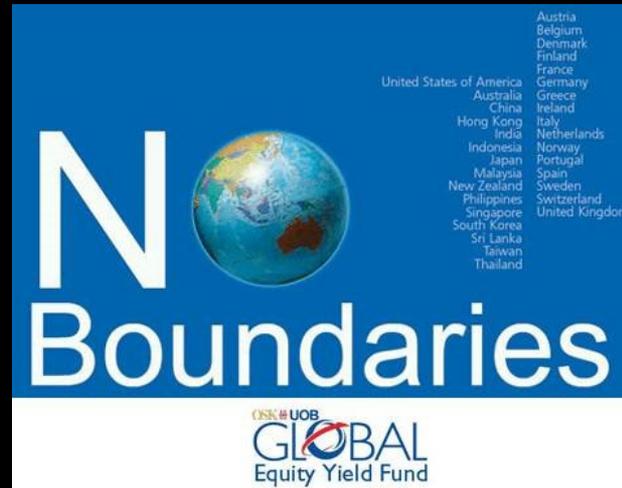
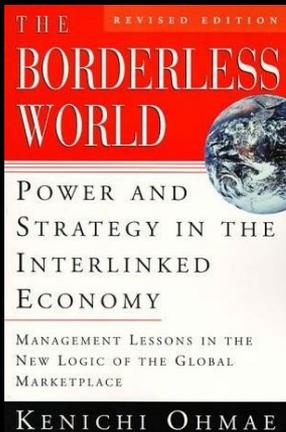
1907 Romanes Lecture, Oxford

The 'borderless world'

“You live in the age of interdependence.

Borders don't count for much or stop much, good or bad anymore.”

Bill Clinton, Harvard University, November 2001



'Schengenland'



The not so borderless world...



Israel-Palestine



India-Pakistan



Mexico-USA



Bangladesh-India



South China Sea



Moldova-Romania

The not so borderless world...

“Without borders, we don’t have a country”

Remarks by President Donald Trump at
Law Enforcement Roundtable on MS-13, 6 February 2018

Boundaries and borders still matter

Clearly-defined boundaries and well-managed borders remain vital for:

- National security
- Good international relations
- Efficient use of resources
- Effective environmental management
- Effective administration (trade, taxation etc)
- Borderland prosperity

Terminology: boundary

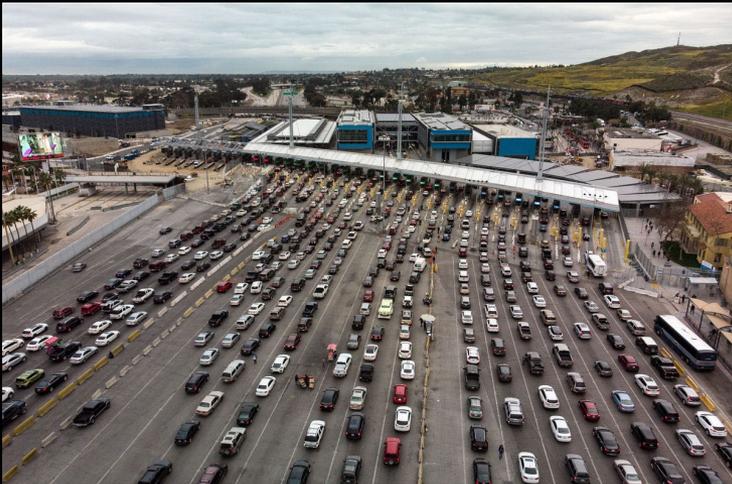
The line of no thickness where the territory or maritime space of two states meet.



Terminology: border

What you have to pass through to enter a neighbouring state.

- May not be located exactly on the boundary. May be hundreds of kilometres from the boundary (e.g. airports).
- Concept includes infrastructure, e.g. physical barriers, immigration controls, customs etc.



Terminology: border

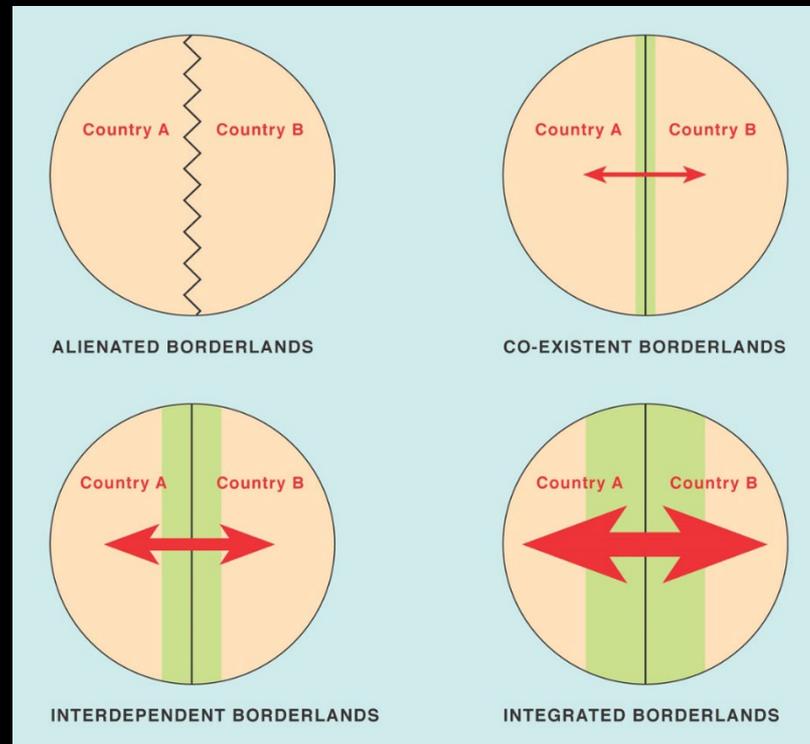
What you have to pass through to enter a neighbouring state.

- May not be located exactly on the boundary. May be hundreds of kilometres from the boundary (e.g. airports).
- Concept includes infrastructure, e.g. physical barriers, immigration controls, customs etc.



Terminology: borderland

A zone adjacent to a boundary in which the lives of the inhabitants are influenced by interactions with their neighbours on the other side of the boundary.



Terminology: frontier

A historical term for a boundary.

Also a zone of expansion, usually into previously unexplored or undeveloped territory.

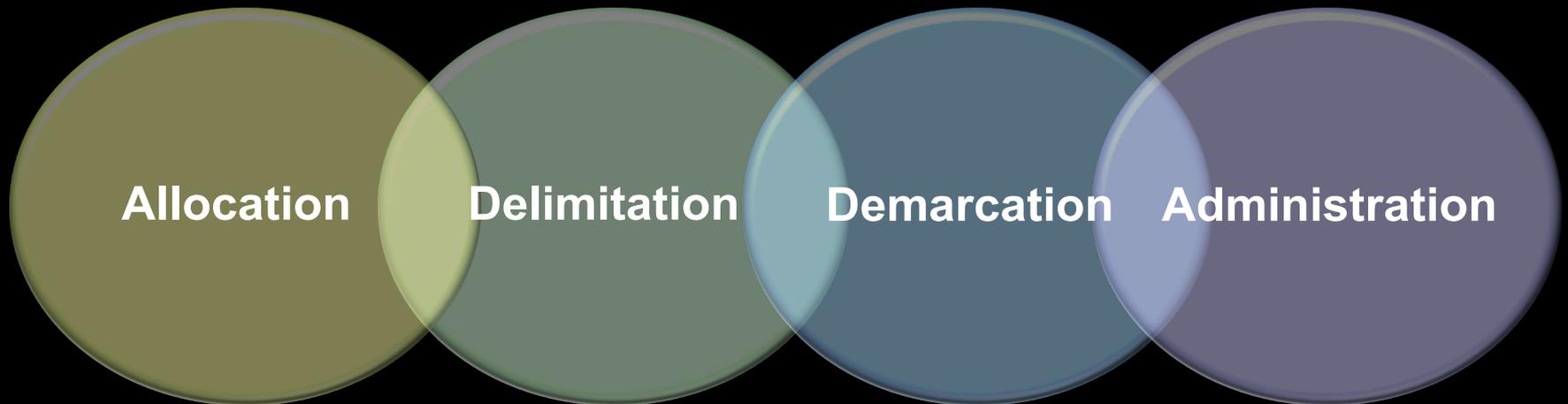


Boundary-making

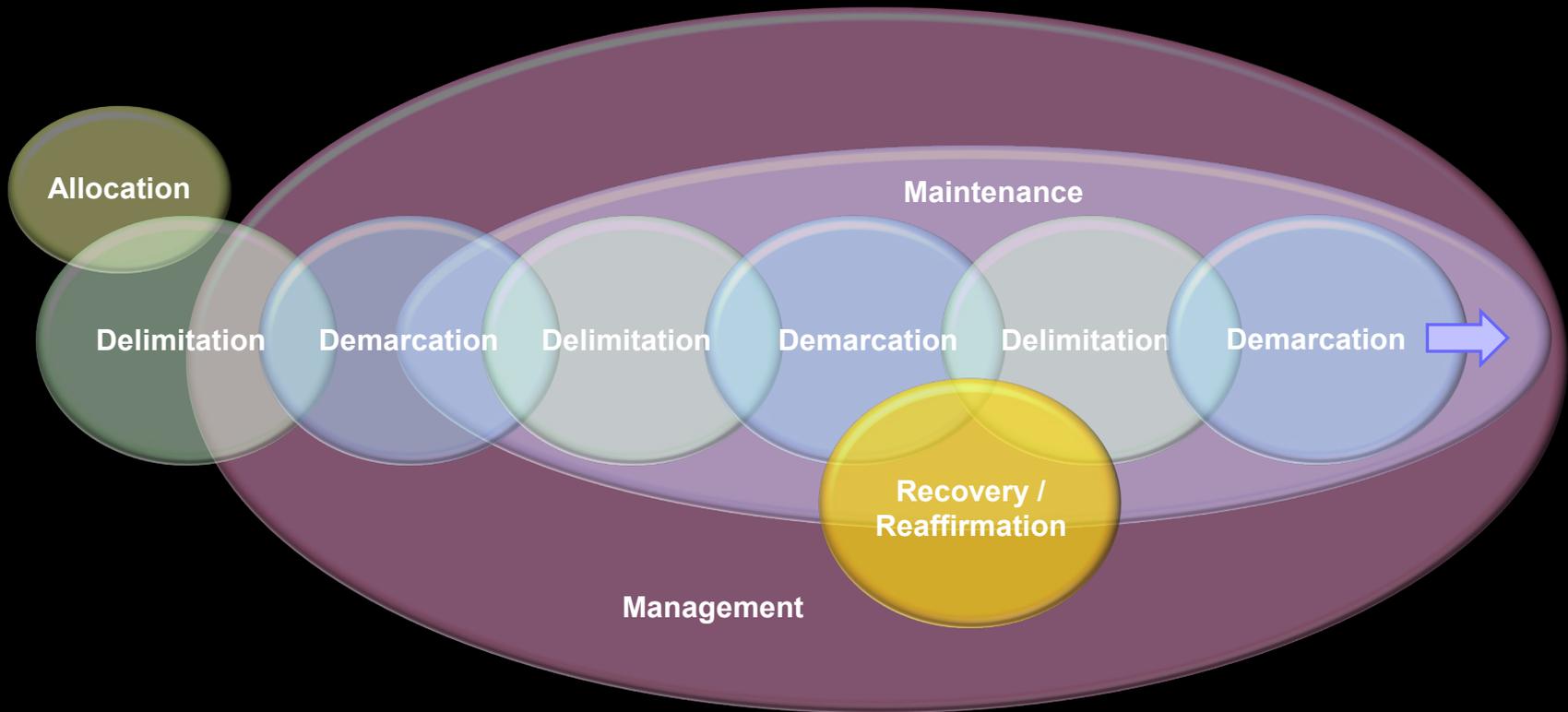
Thomas Holdich (1916) *Political Frontiers & Boundary-Making*

Stephen B. Jones (1945) *Boundary-Making: A Handbook for Statesmen, Treaty Editors and Boundary Commissioners*

(archive.org/details/boundarymakingha0000jone)



Developing the boundary-making model



Opening brain teasers

1. What percentage of the world's total land boundary length (c.255,000 km) is riverine?
2. Which continents have the longest and shortest total length of river boundaries?
3. Which continents have the largest and smallest percentage of river boundaries?
4. How many boundaries do you think are at least 70% riverine?
5. How many boundaries can you name which are at least 99% riverine?
6. Which boundary is the most riverine by length (may include more than one river)?
7. Which boundary has the longest single-river section?
8. Which river forms part of more boundaries than any other?
9. How many international river basins are there?

Opening brain teasers

What percentage of the world's total land boundary length is riverine?

255,000 km of international land boundaries around the world

Nearly 71,000 km of river boundaries (c. 28%)

Which continents have the longest and shortest total length of river boundaries?

Which continents have the largest and smallest percentage of river boundaries?

Africa: 25,773 km (32% of total)

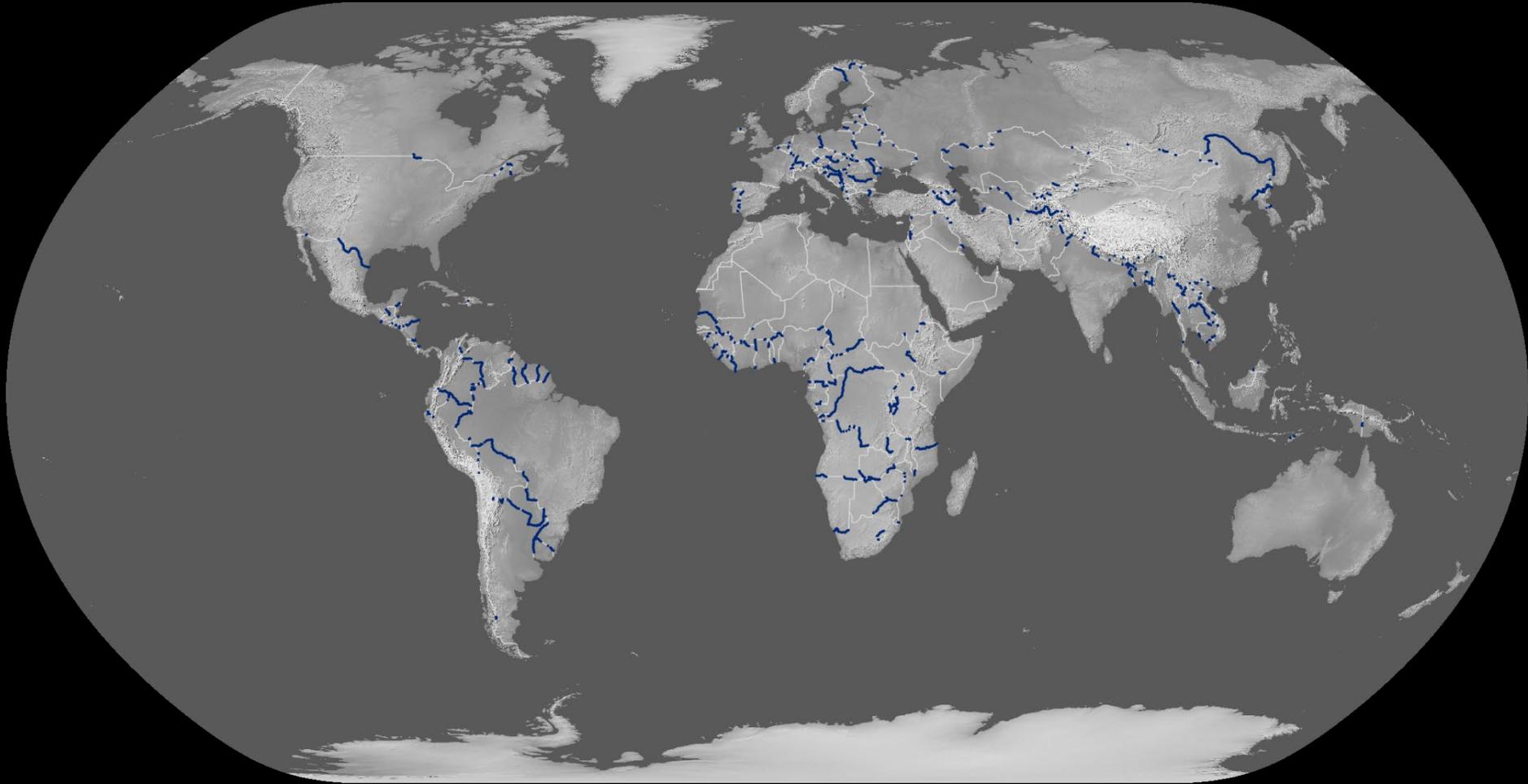
Asia: 15,700 km (18%)

South America: 15,398 km (43%)

Europe: 8,445 km (24%)

North America: 5,546 km (34%)

Major river boundaries around the world



Opening brain teasers

How many boundaries do you think are at least 70% riverine?

57 (out of 321)

How many boundaries can you name which are at least 99% riverine?

19

Afghanistan-Uzbekistan

Argentina-Paraguay

Argentina-Uruguay

Armenia-Iran

Azerbaijan-Turkey

Benin-Niger

Botswana-Zambia

CAR-DRC

Finland-Sweden

French Guiana-Suriname

Guyana-Suriname

Ivory Coast-Liberia

Laos-Myanmar

Mauritania-Senegal

Moldova-Romania

North Korea-Russia

South Africa-Zimbabwe

Zambia-Zimbabwe

(Jordan-Palestine)

Opening brain teasers

Which boundary is the most riverine by length?

China-Russia: 2,610 km

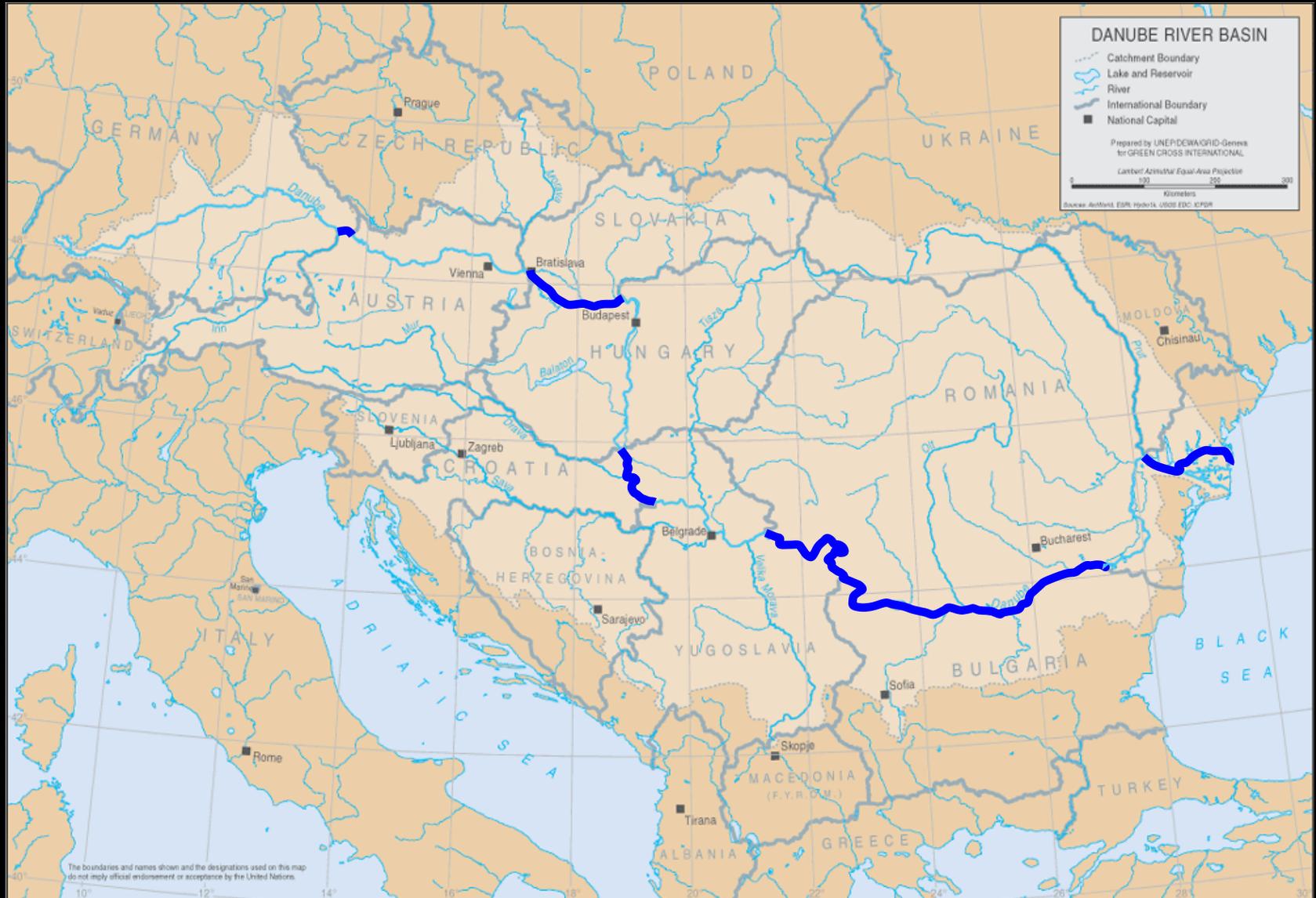
Which boundary has the longest single-river section?

Mexico-USA (Rio Grande): 2,020 km

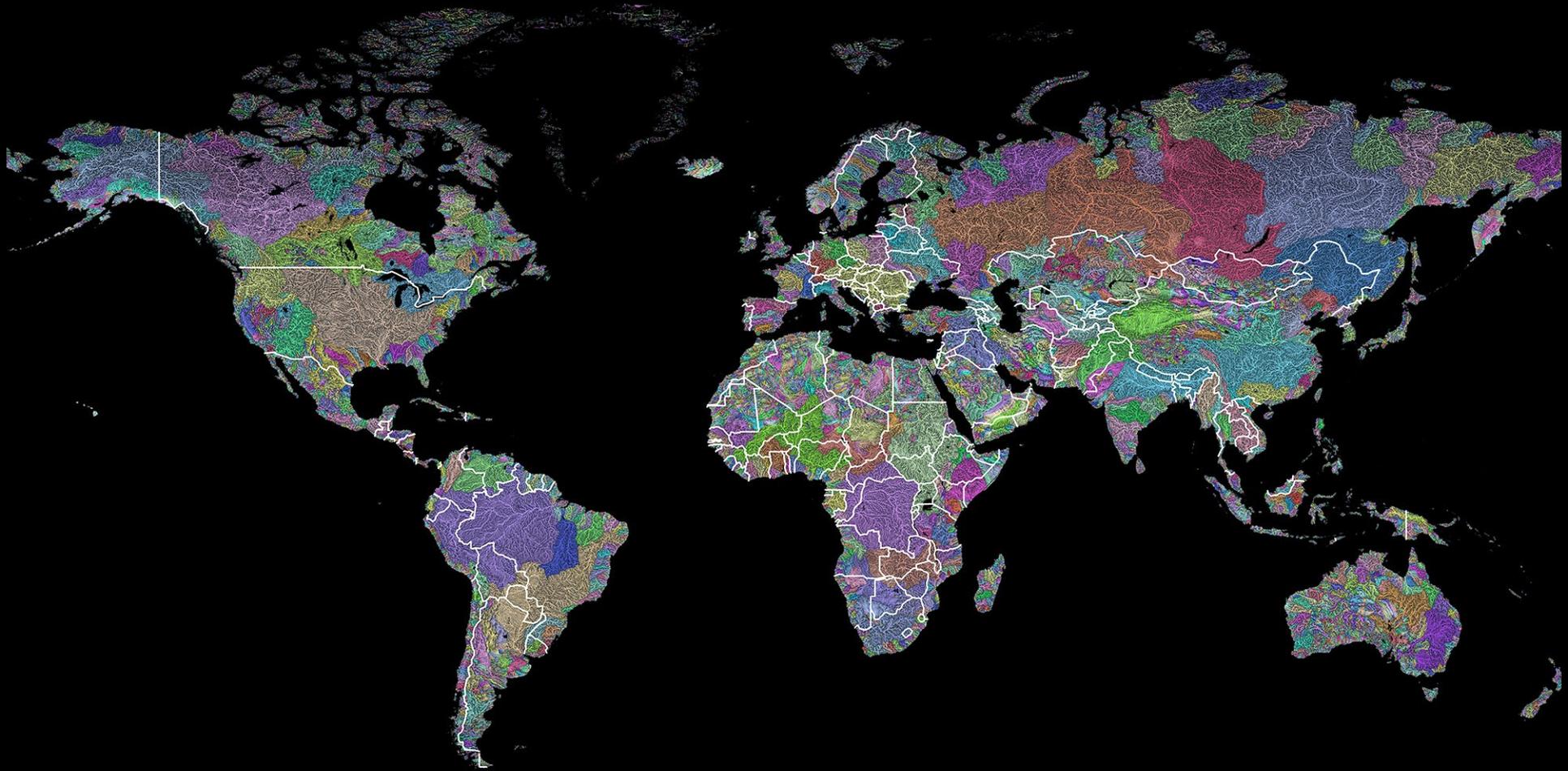
Which river forms part of more boundaries than any other?

Danube (7 boundaries)

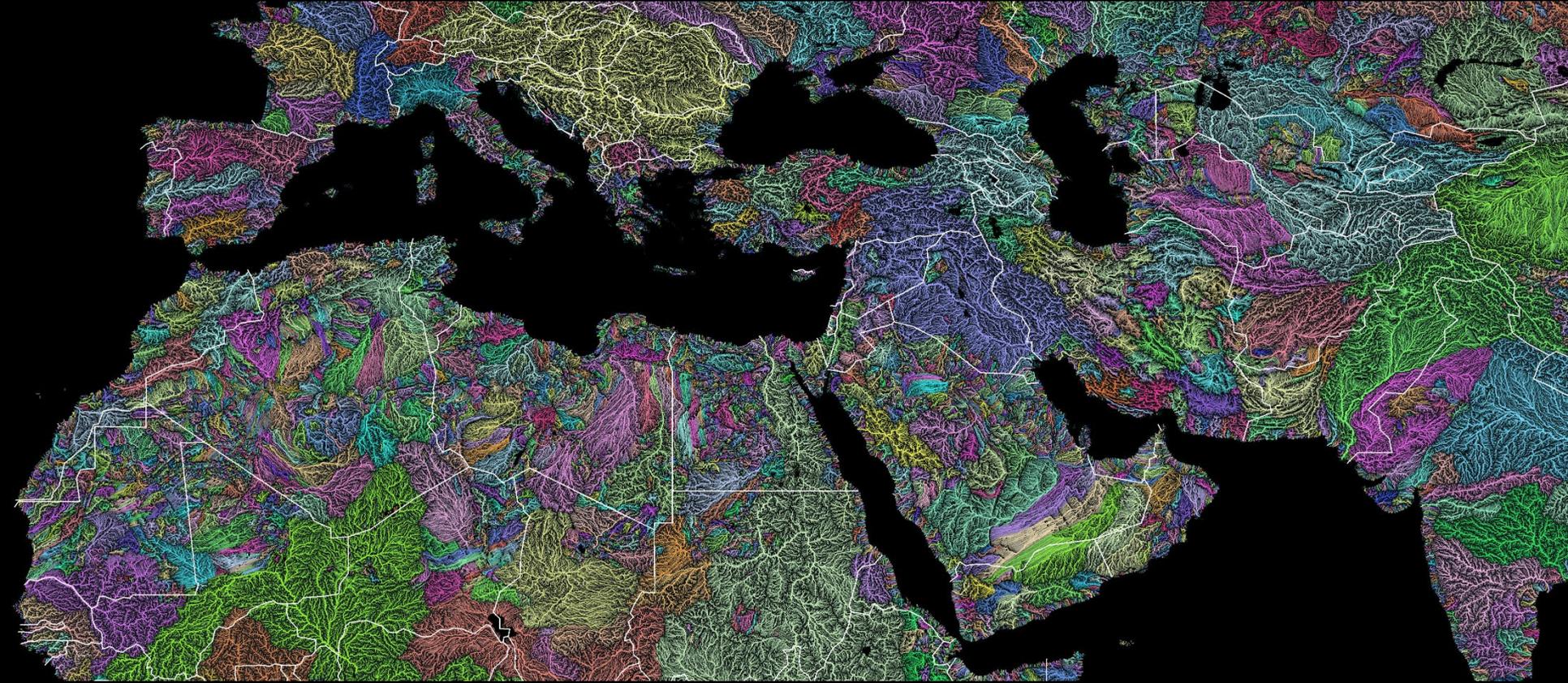
Danube river boundaries



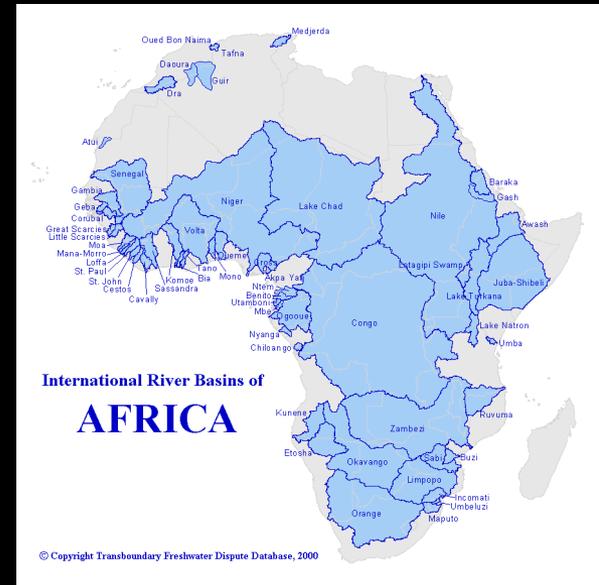
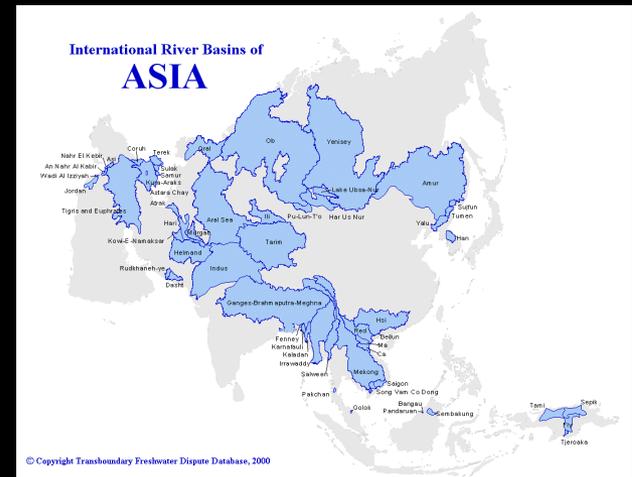
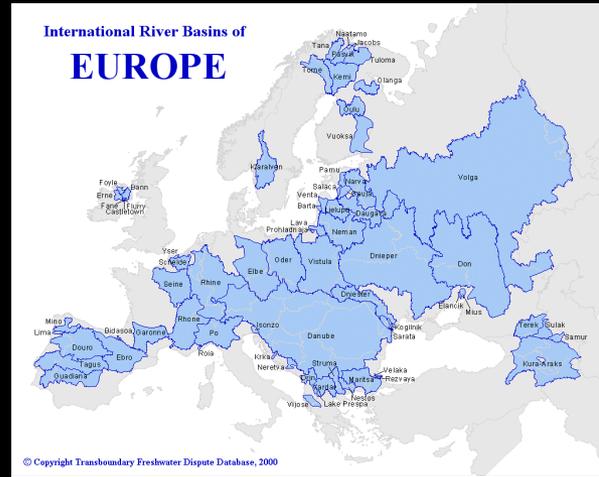
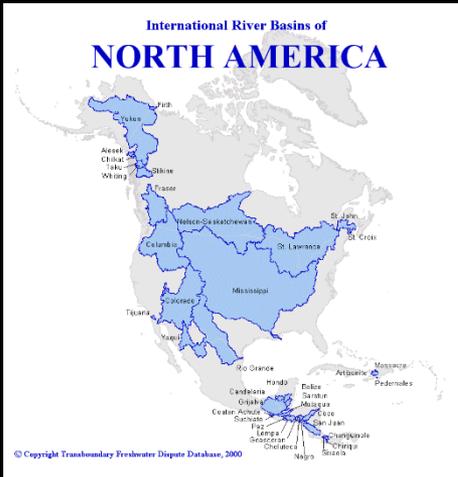
International river basins



International river basins



International river basins



- 310 (?) international basins
- 21 states entirely within international basins
- 64 states at least 70% within international basins
- 19 basins shared by 5 or more riparian states

Challenges in river boundary definition

- Which river were treaty-makers referring to?
- Where in the river is the boundary?
- What happens when the river changes course?
- Who owns islands?
- What legal regime applies?
- Does the boundary need to be demarcated?

Examples of disputes over river boundary definition

- Botswana-Namibia: Kasikili/Sedudu island *
- Cameroon-Nigeria: various river sections *
- Benin-Niger: boundary in the Niger and Mekrou rivers *
- Croatia-Serbia: old or current course of Danube?
- Guinea-Sierra Leone: bank of Makona at normal or high flow?
- Guyana-Suriname: which is the true Corentyne?
- Namibia-South Africa: middle or north bank of Orange?
- DR Congo-Uganda: Semliki river mouth and boundary in Lake Albert

* = dispute submitted to International Court of Justice

Challenges in river boundary and international river utilisation and management

Navigational uses

- Travel
- Commerce
- Recreation

Non-navigational uses

- Domestic use
- Fishing
- Minerals
- Irrigation
- Hydropower
- Industry
- Flood control

Examples of disputes over international river usage

- Bolivia-Chile: status and use of the waters of the Silala *
- Argentina-Uruguay: construction of pulp mills on Uruguay *
- Costa Rica-Nicaragua: navigation and other activities on San Juan river *
- India-Pakistan: hydro-electric project on Kishenganga river **
- Hungary-Slovakia: Gabčíkovo-Nagymaros project on the Danube river *
- Turkmenistan-Uzbekistan: water-sharing on Amu Darya
- Nile basin states: water usage and allocation

* = dispute submitted to International Court of Justice

** = dispute submitted to arbitration

See also :

Transboundary Freshwater Dispute Database

tfddmgmt.github.io/tfdd

CIA World Factbook International Disputes section

www.cia.gov/the-world-factbook

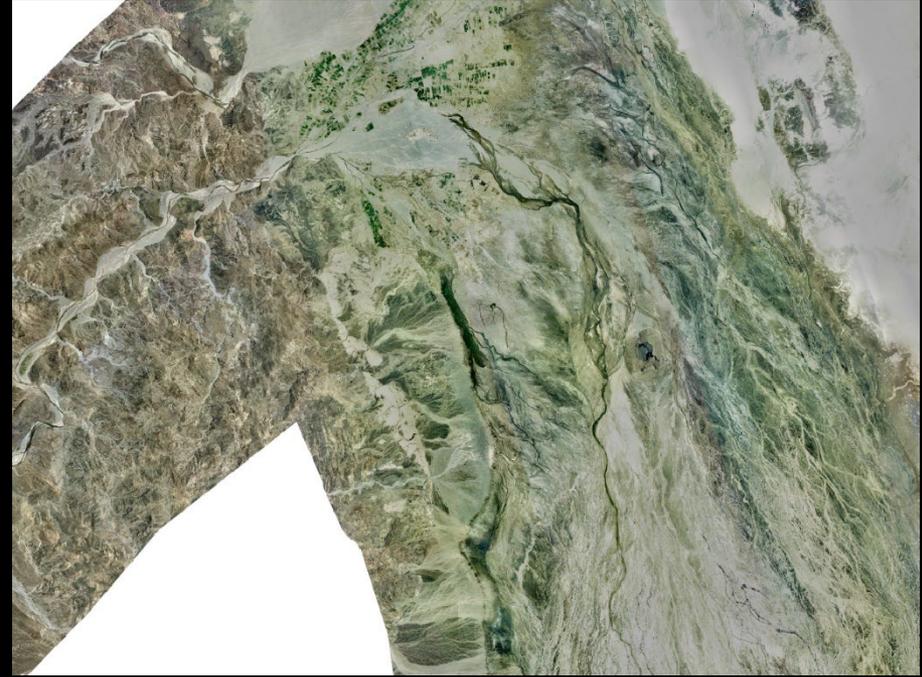
Growing populations and demand for natural resources



Climate change



Rio Grande (Mexico-USA)



Endeli River (Eritrea-Ethiopia)

Water wars?

“Whiskey is for drinking. Water is for fighting over.”

Mark Twain

“The wars of this century were fought over oil.
The wars of the next century will be fought over water”

Ismail Serageldin, World Bank Vice-President 1995

“The consequences for humanity are grave.
Water scarcity threatens economic and social
gains and is a potent fuel for wars and conflict.”

Ban Ki-moon, UN Secretary General 2008



Boundary & territorial disputes: Pratt's maxims

- No piece of territory is too small or too remote to cause a dispute.
- Disputes are easily triggered and can escalate rapidly.
- No boundary dispute is ever straightforward and few are quickly resolved.
- Unambiguous delimitation, appropriate demarcation and creative border management are the keys to dispute prevention.

Why river boundaries?

- ‘Natural’ boundaries
- Defendable
- Easily identifiable / inexpensive to demarcate
- Known linear features in poorly-mapped landscapes
- A valuable resource for both sides

Rivers as 'natural' boundaries?

(The intention of the two neighbouring states)

“that this River being in the middle between them, should, as a natural Boundary, part them from one another.”

Hugo Grotius 1715, De Jure Belli ac Pacis, Book II p. 72

“As the creation of nature, in contradistinction to the creation of man, no Frontiers are more natural. But in another sense, namely, that which is in accord with the natural habits of man, rivers are not natural divisions, because people of the same race are apt to reside on both banks.”

Lord Curzon of Kedleston, Frontiers, 1907 (www.dur.ac.uk/resources/ibru/resources/links/curzon.pdf)

Rivers as defensible / identifiable / inexpensive to demarcate?

“The position of the river is unmistakable, no survey is required to identify or describe it and the crossing-places frequently admit of fortification.”

Lord Curzon, Frontiers, 1907

“The selection of natural features such as streams and rivers has many advantages, not the least of which is that far fewer boundary pillars are required.”

Letter 2 Dec 1908, W.E. Goschen to von Schoen, UK National Archives FO 403/403B

River Tweed (England-Scotland)



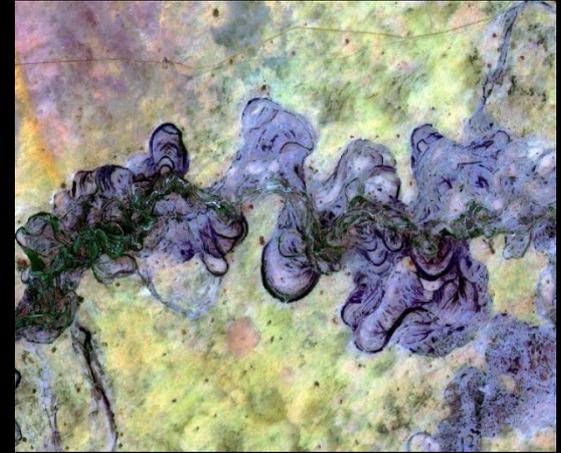
River boundaries in Africa



Endeli (Eritrea-Ethiopia)



Mbomou (Central African Republic-DRC)



Komadugu Yobe (Niger-Nigeria)



Congo (Congo-DRC)



Moa/Makona (Guinea-Sierra Leone)

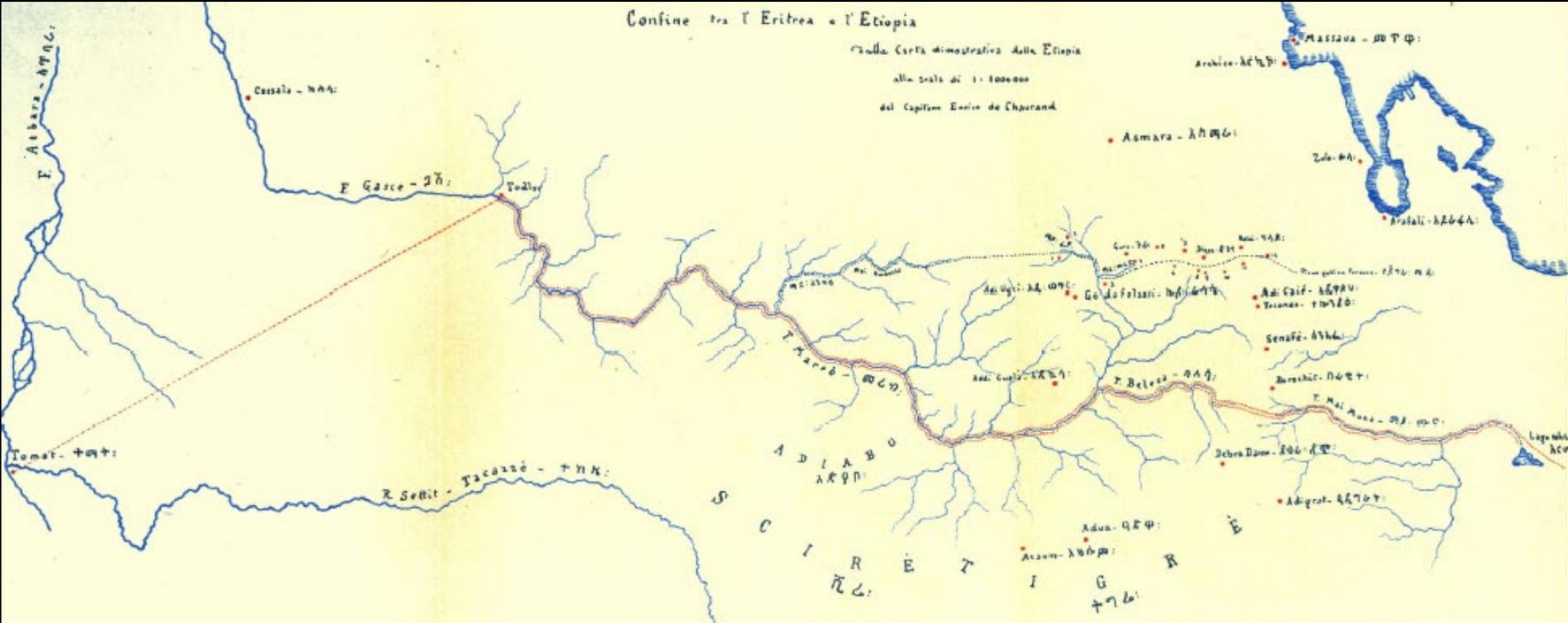


Orange (Namibia-South Africa)

Rivers as known linear features in poorly-mapped landscapes

Eritrea-Ethiopia boundary treaty, 1900

“The line Tomat-Todluc-Mareb-Belesa-Muna, traced on the map annexed, is recognized by the two Contracting Parties as the boundary between Eritrea and Ethiopia.”



Imperial boundary-making...

“[We] have been engaged in drawing lines on maps where no white man’s foot ever trod; we have been giving away mountains and rivers and lakes to each other, only hindered by the small impediment that we never knew where the mountains and rivers and lakes were.”

Lord Salisbury, 1890

Rivers as known linear features in poorly-mapped landscapes

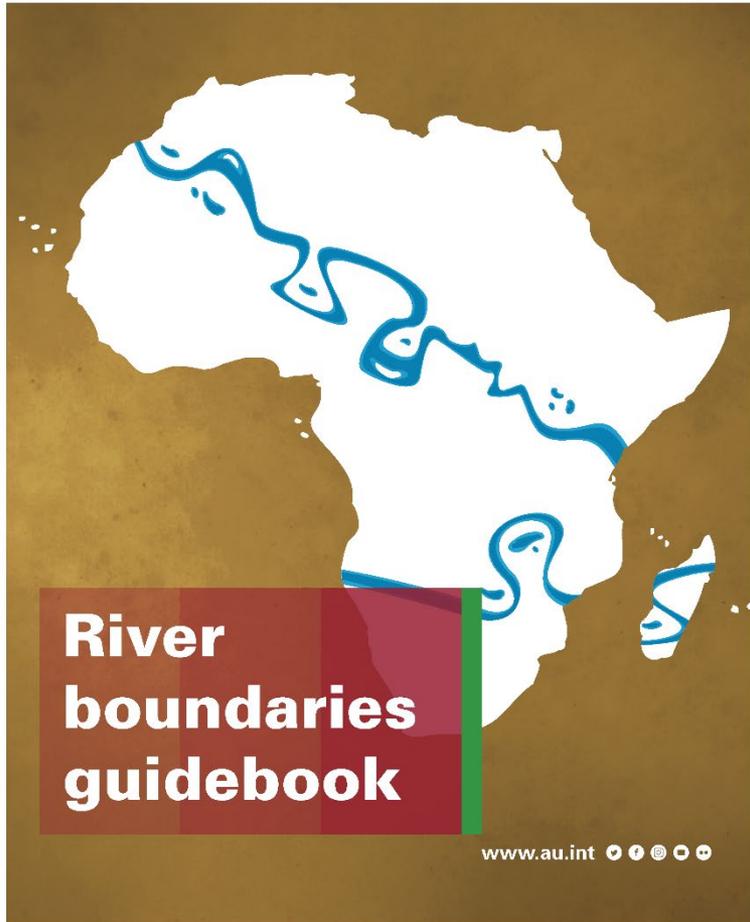
“A large proportion of river and geometrical boundaries in a region is a strong indication of absentee boundary-making on the basis of inadequate maps.”

Stephen B. Jones, *Boundary-Making*, 1945

Rivers as a shared resource

- Transportation
- Domestic use
- Irrigation
- Power
- Food
- Minerals

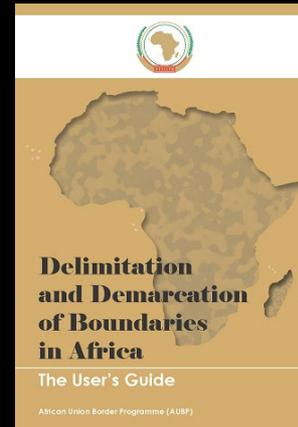




River boundaries guidebook

www.au.int 

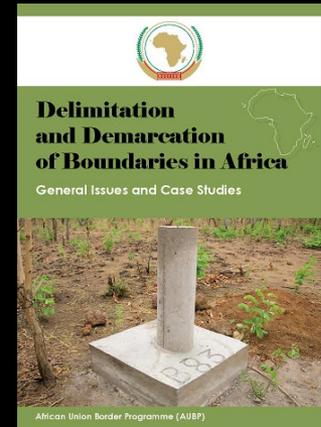
African Union Headquarters P.O. Box 3243, Roosevelt Street, W21K19, Addis Ababa, Ethiopia Tel: +251 (0) 11 551 77 00 Fax: +251 (0) 11 551 78 44



Delimitation and Demarcation of Boundaries in Africa

The User's Guide

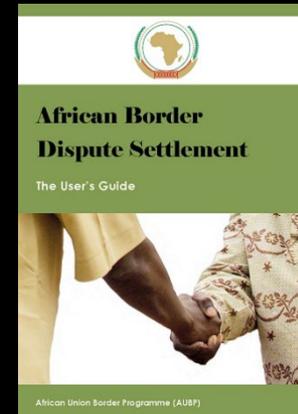
African Union Border Programme (AUBP)



Delimitation and Demarcation of Boundaries in Africa

General Issues and Case Studies

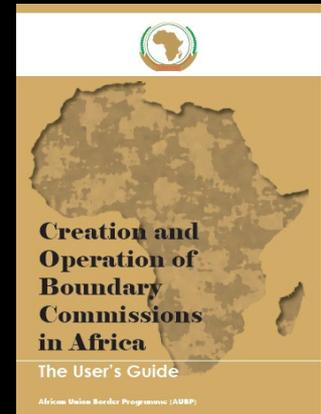
African Union Border Programme (AUBP)



African Border Dispute Settlement

The User's Guide

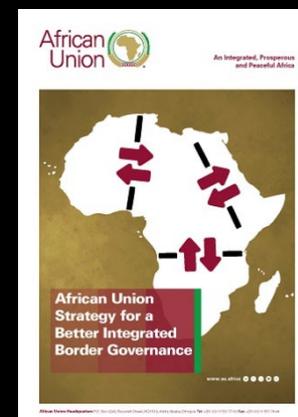
African Union Border Programme (AUBP)



Creation and Operation of Boundary Commissions in Africa

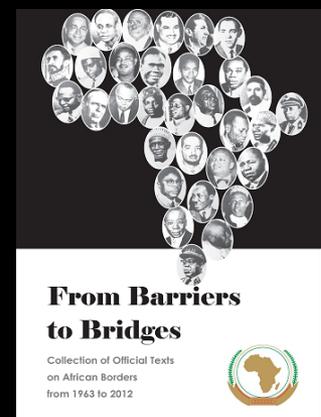
The User's Guide

African Union Border Programme (AUBP)



African Union Strategy for a Better Integrated Border Governance

Photo: UN Photo/Markus Schaub



From Barriers to Bridges

Collection of Official Texts on African Borders from 1963 to 2012



Programme

- Wednesday:
- River systems and their complexity
 - River boundary definition
 - Practical exercise: river boundary definition and alignment
- Thursday:
- The utilisation of boundary rivers and international rivers
 - Case study: Thailand's experience of defining and managing river boundaries
 - Case study: the Mekong River Commission
 - Practical exercise: transboundary river management
- Friday:
- Locating and analysing river boundaries
 - Resolving disputes related to river boundaries
 - Managing river boundaries