What is Water Diplomacy? An Academic Perspective

Aaron T Wolf, PhD
Program in Water Conflict Management
Oregon State University, USA

International Symposium on Water Diplomacy
Stockholm, Sweden
16-17 November 2016

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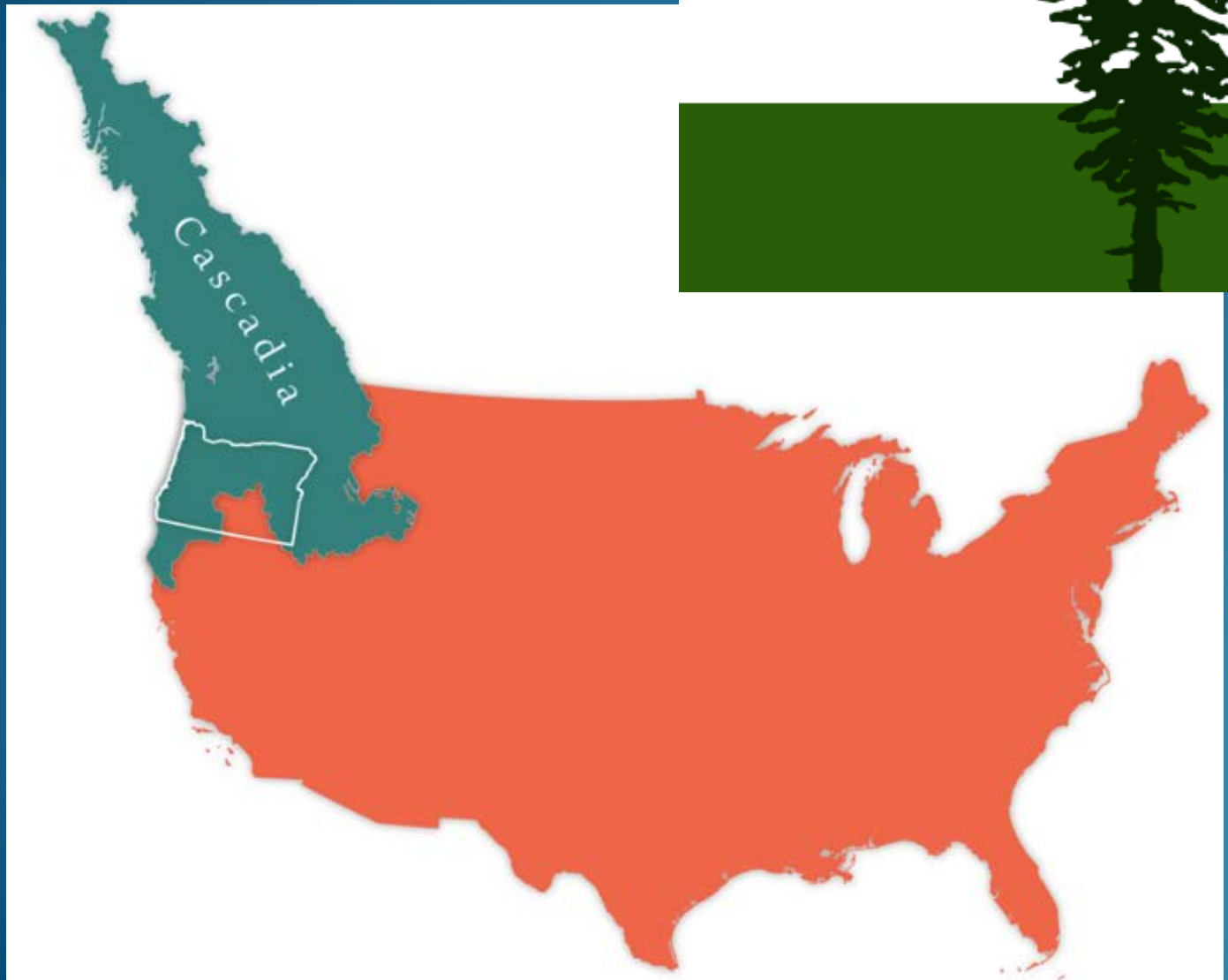
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~~An Academic~~ Pracademic-Perspective

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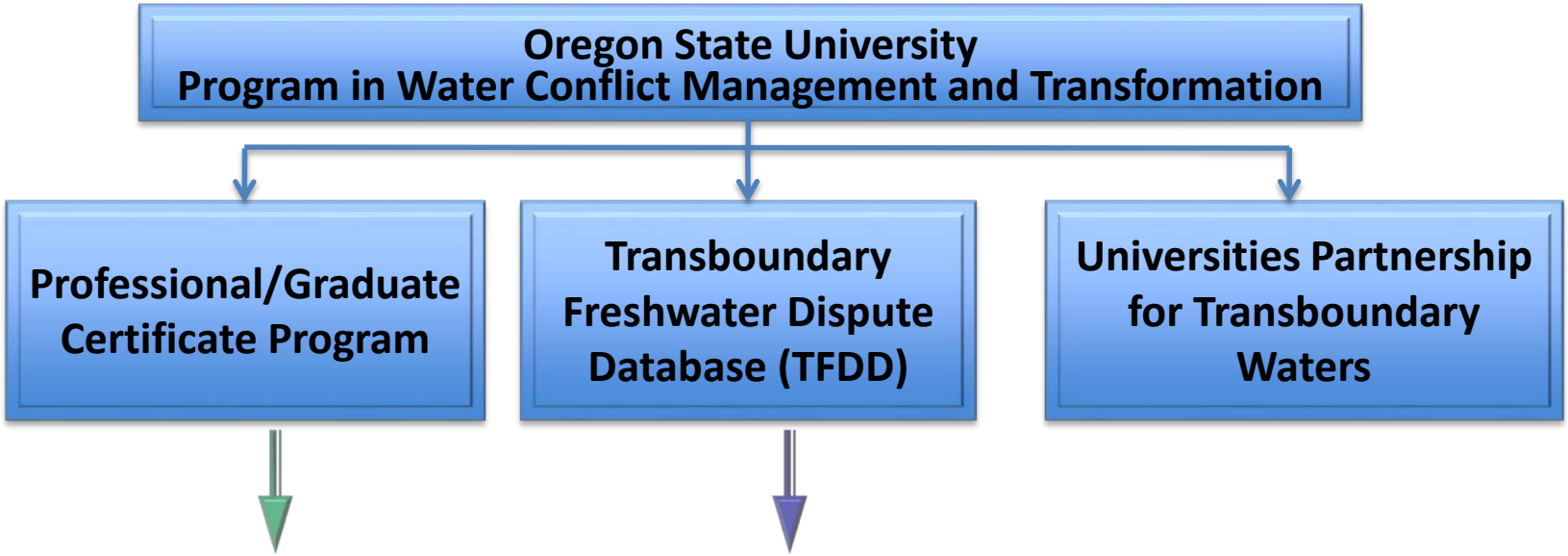


Certificate

- Skill-building training
- Practicum and real-world problem solving

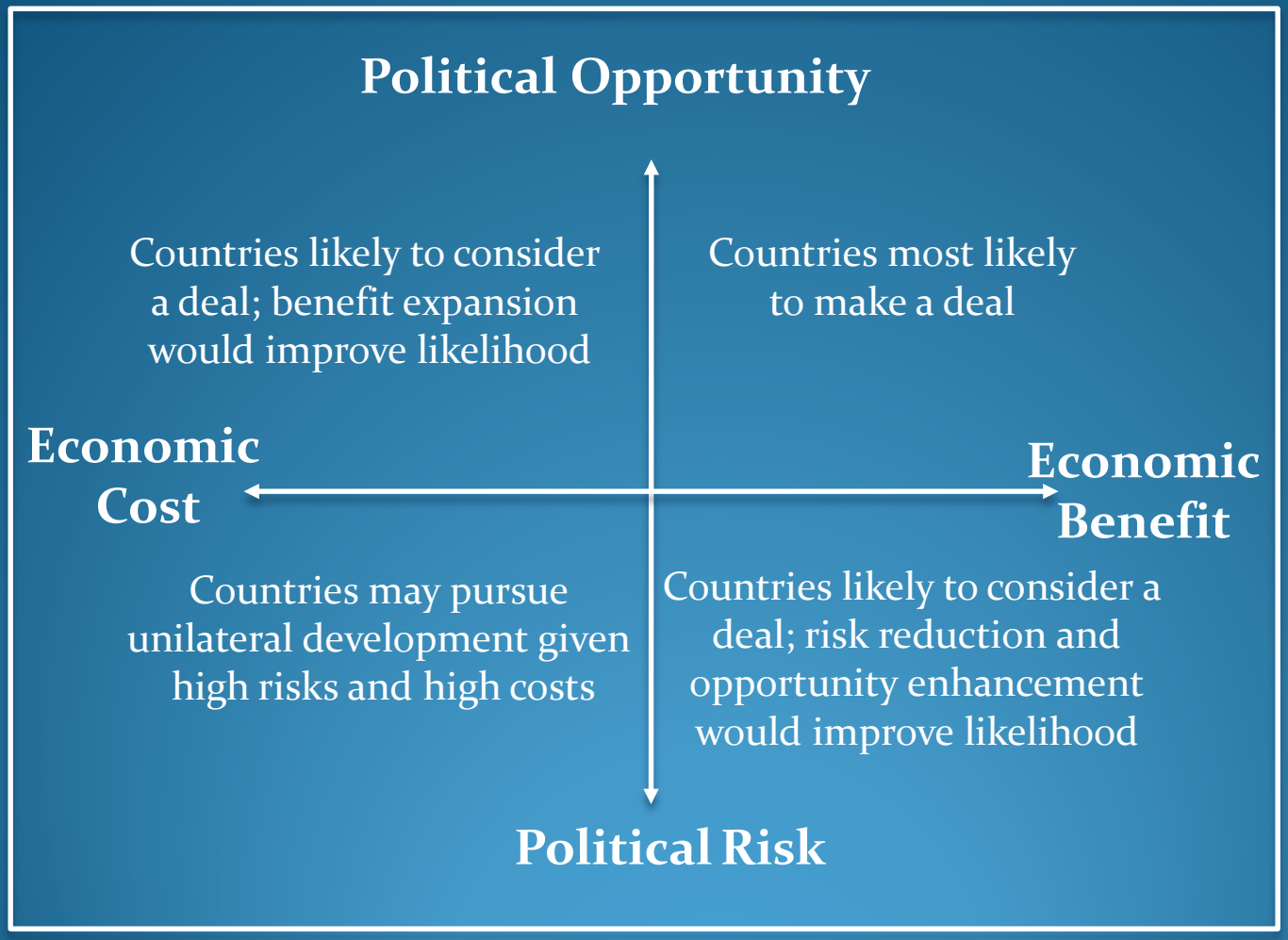
Collaborative Facilitations and Mediations

- Skills-building workshops to promote cooperation between stakeholders

- A state-of-the-art GIS collection of international river basins
- Online databases documenting transboundary water treaties & events
- Can be used to better understand water-related conflict and cooperation

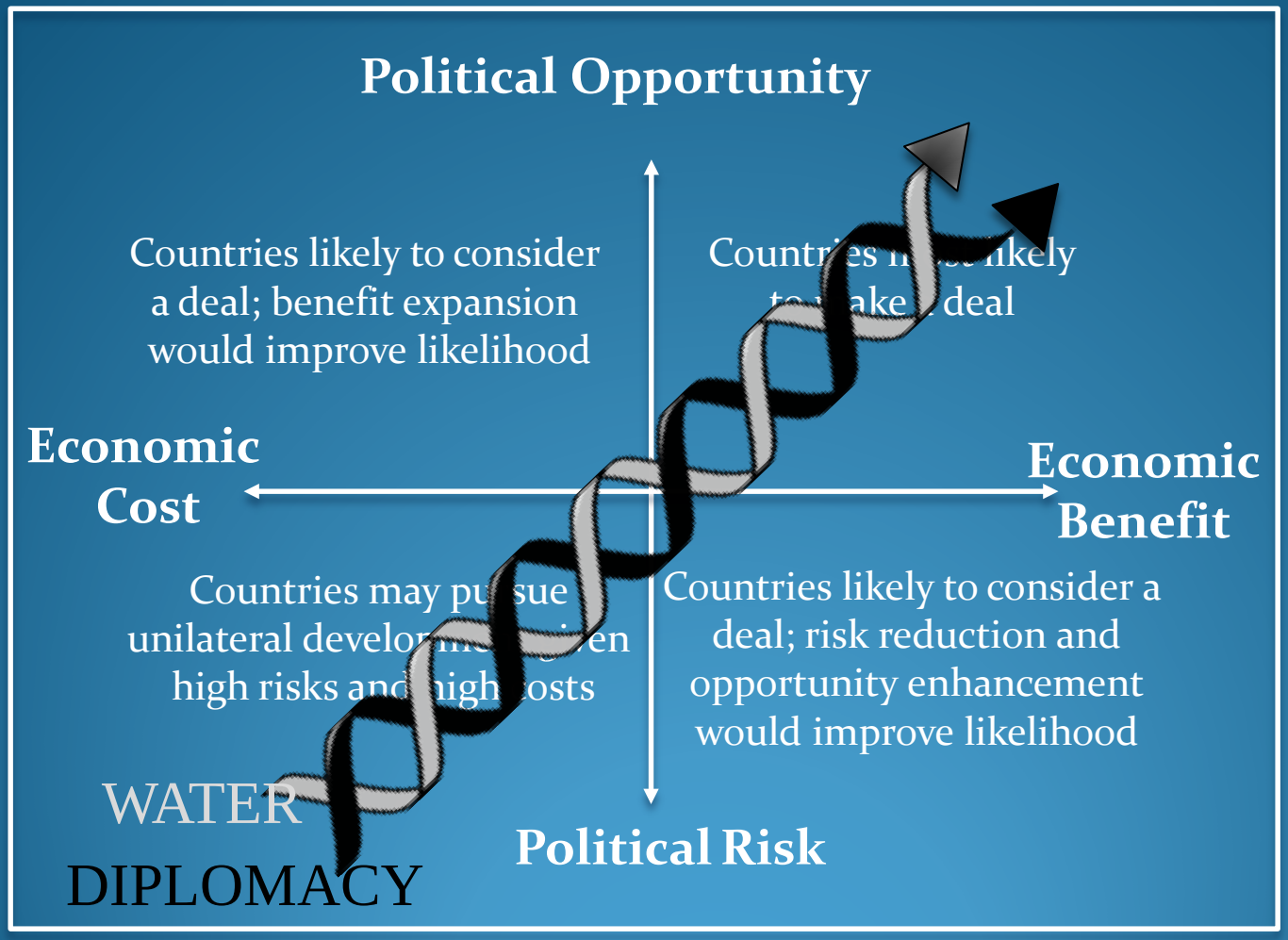
- Promotes a global water governance culture
- Facilitates "customized" solutions
- Enhance cooperation among stakeholders.
- 17 partners on five continents.

Framework for Analysis
Benefits, Risks, and Opportunities



Source: Subramanian, Brown & Wolf 2013

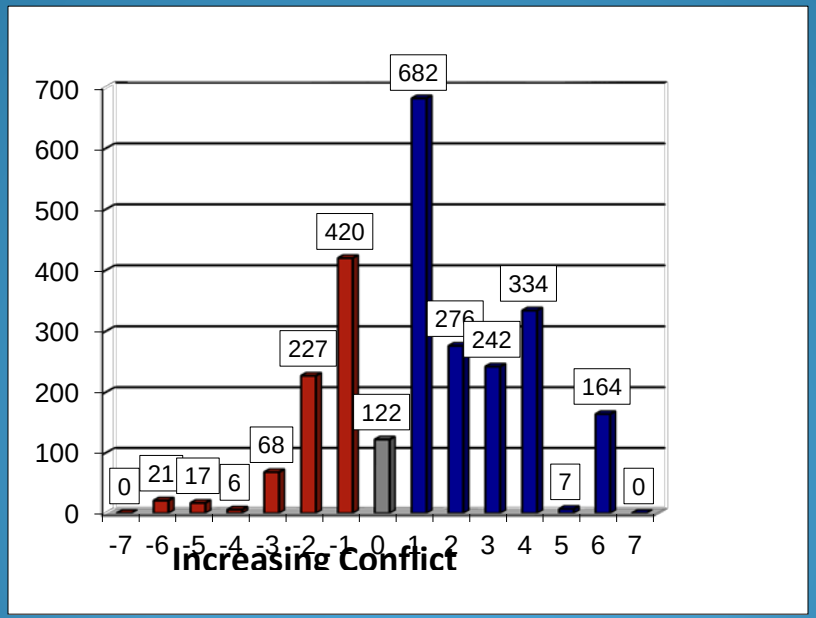
Framework for Analysis
Benefits, Risks, and Opportunities



Source: Subramanian, Brown & W

What have academics learned (while everyone else was doing all the work…)?

1. More cooperation than conflict; water as entry way to dialogue



London School (Zeitoun, Mirumachi, et al.):

2. Relationships are more complicated than events -> water interactions
3. Not all conflict is bad, not all cooperation is good
4. Agreements can solidify power imbalances: “hydro-hegemony”

Politics is the art of the possible, or Everything you thought you knew is wrong:

- Hydro-hegemony ?
  -> Counter-hegemony (Petersen-Perlman)
- Polluter pays?
  ->Whoever has $$ pays
- Transparency?
  -> “creative ambiguity”
- RBO? Not necessarily
- Basin-wide agreement? Ditto

You do what works, now

Lesson 1:
Hydro-politics is about hydro AND politics…
and all politics is local

(or, countries don't make decisions, people do)

- Hydromet (1961), entirely technical, eventually led to:
- Undugu (1983), and,
- Tecconile (1993) – annual academic meeting, and finally to:
- Nile Basin Initiative

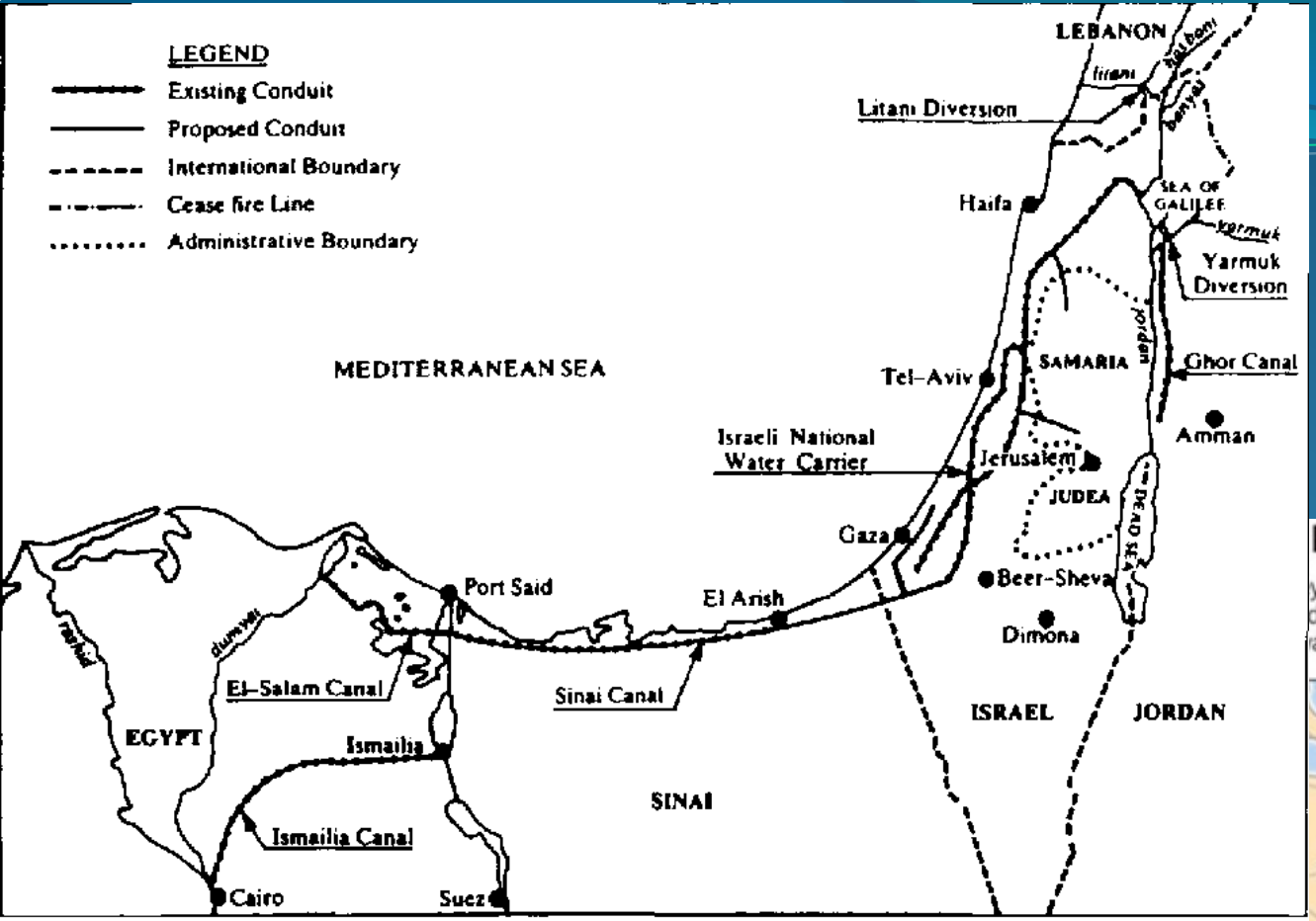
NILE BASIN INITIATIVE
Initiative du Bassin du Nil

Annex on Article 14(b) to be resolved by the Nile River Basin Commission within six months of its establishment

At the end of the negotiations, no consensus was reached on Article 14(b) which reads as follows: *not to significantly affect the water security of any other Nile Basin State*, all countries agreed to this proposal except Egypt and Sudan.

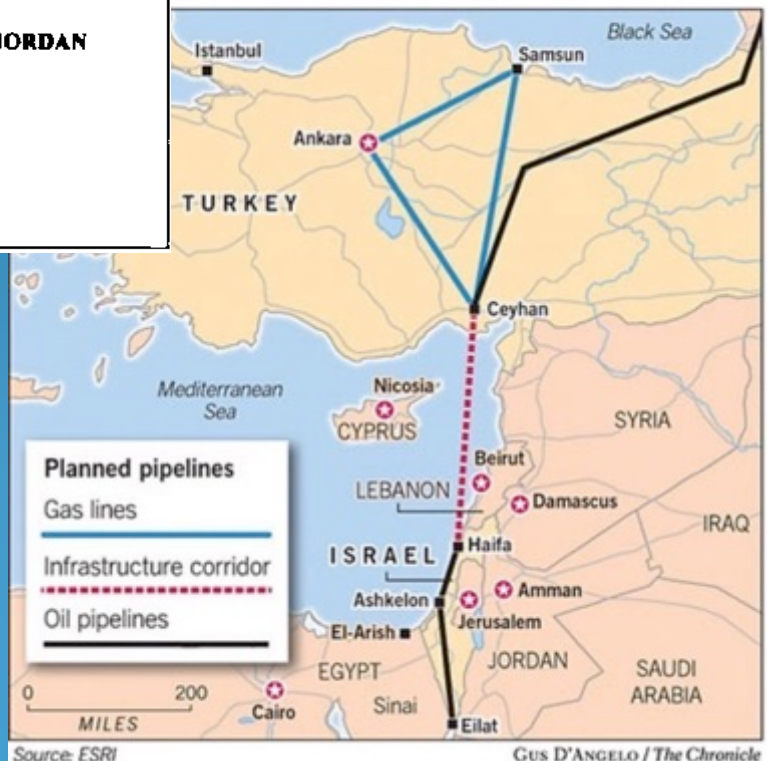
Egypt proposed that Article 14(b) should be replaced by the following wording:
(b) not to adversely affect the water security and current uses and rights of any other Nile Basin State.

Sudan
Lake
Tana
Bahir Dar
Roseries Dam
and reservoir
GERD Project Site and
Projected Reservoir Extent
Abay River (Blue Nile)



Mideast pipelines

y are teaming up to construct four parallel pipelines diterranean Sea capable of carrying crude oil, natural gas, ater more than 500 miles into the heart of the Mideast.

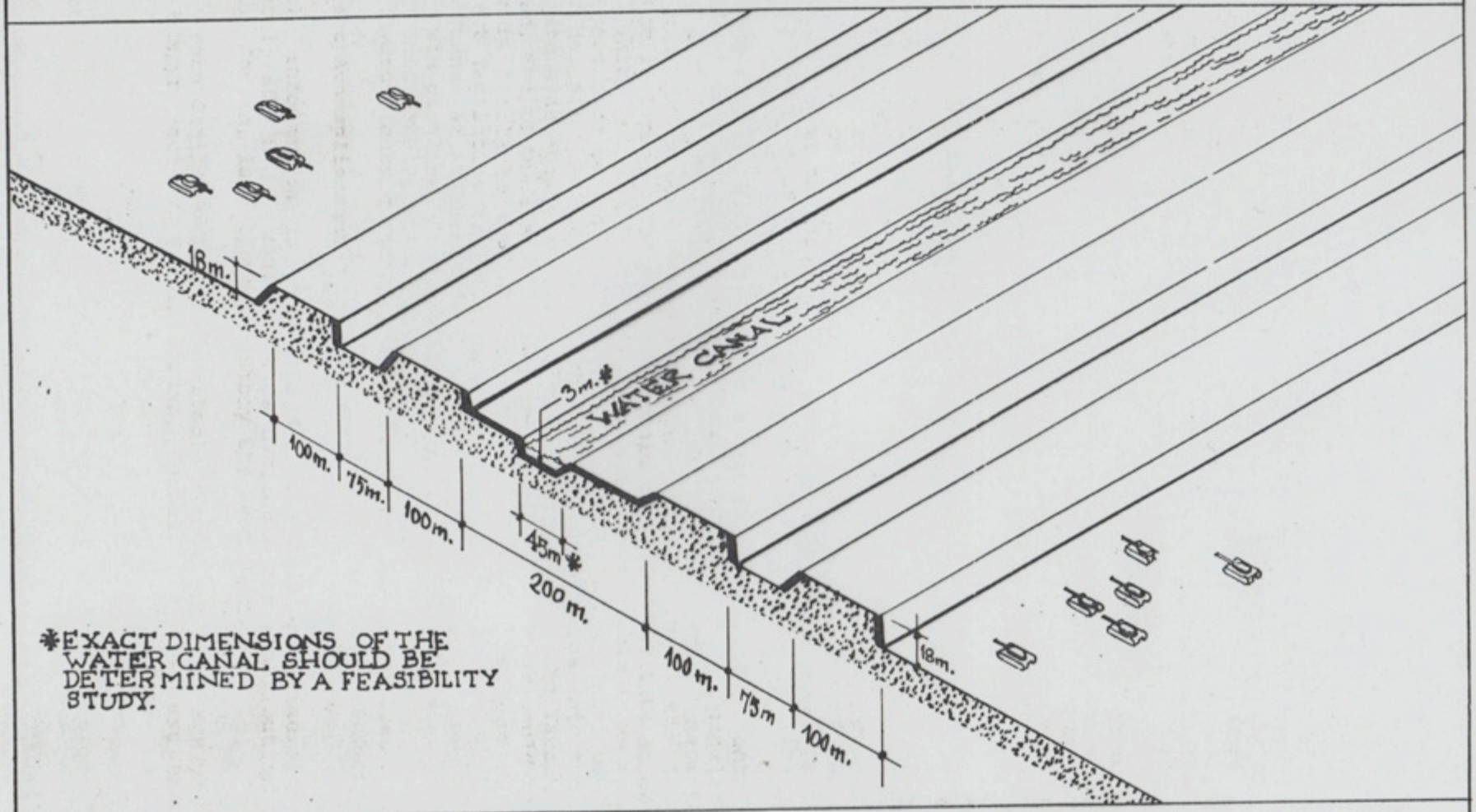


Source: ESRI

GUS D'ANGELO / The Chronicle

PEACE CANAL ON THE GOLAN HEIGHTS

ISOMETRIC VIEW OF WATER CANAL / TANK BARRIER /SECTION



*EXACT DIMENSIONS OF THE WATER CANAL SHOULD BE DETERMINED BY A FEASIBILITY STUDY.

PROPOSED BY: BOAZ WACHTEL & ASSOC. 360 EAST 50 STR. 4C NY., NY 10022. PHONE/FAX: 212 888 0579

PRESENTED BY: TUNC AKSOY, ARCHITECT. 1411-33 WEST 4 STR. F6. BROOKLYN., NY. 11204. PHONE: 718 256 0472

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Region Under Study.

Source: Oak Ridge National Labs (1967)

Desalination:
The New Regional Water Supply Alternative
for Israel, Jordan, Gaza, and the West Bank

Lesson 2:
If you get stuck on a problem, make it bigger…

Eritrea
Khartoum
Omdurman
Sudan
Kassala
Asmara
Sanaa
Lake
Tana
Taizz
Mekele
Assab
Aden
Gonder
Lake
Tana
Bahir Dar
Djibouti
Djibouti
Roseries Dam
and reservoir
Abay River (Blue Nile)
Berbera
Dire Dawa
Hargeysa
Somalia
Malakal
GERD Project Site and
Projected Reservoir Extent
Addis Ababa
Ethiopia

Dams and Hydroelectric Schemes

Source: *UNEP/DEWA/GRID-Europe 2006*

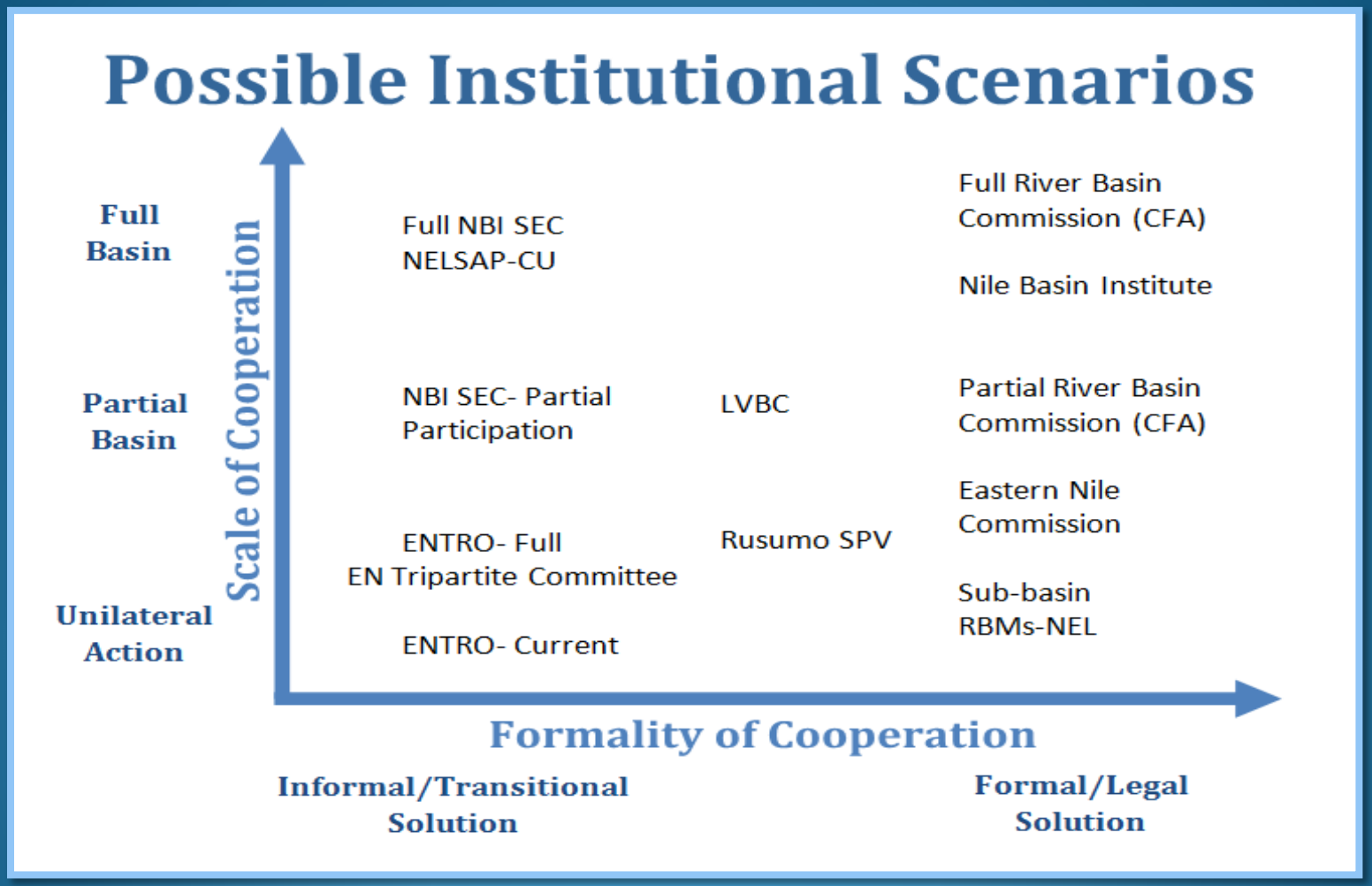
Regional Power Development Strategy

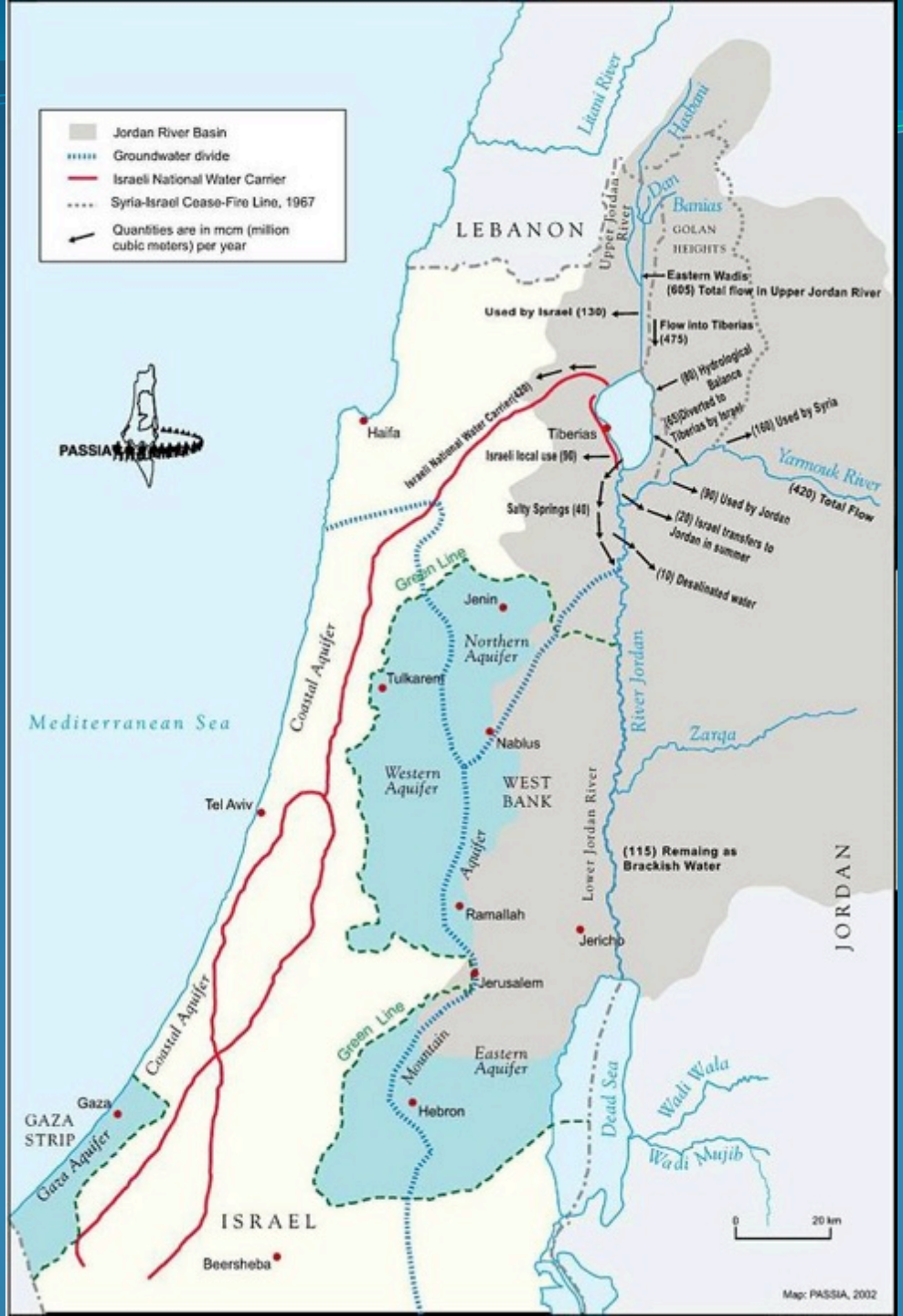
Source: NBI RPTP 2011

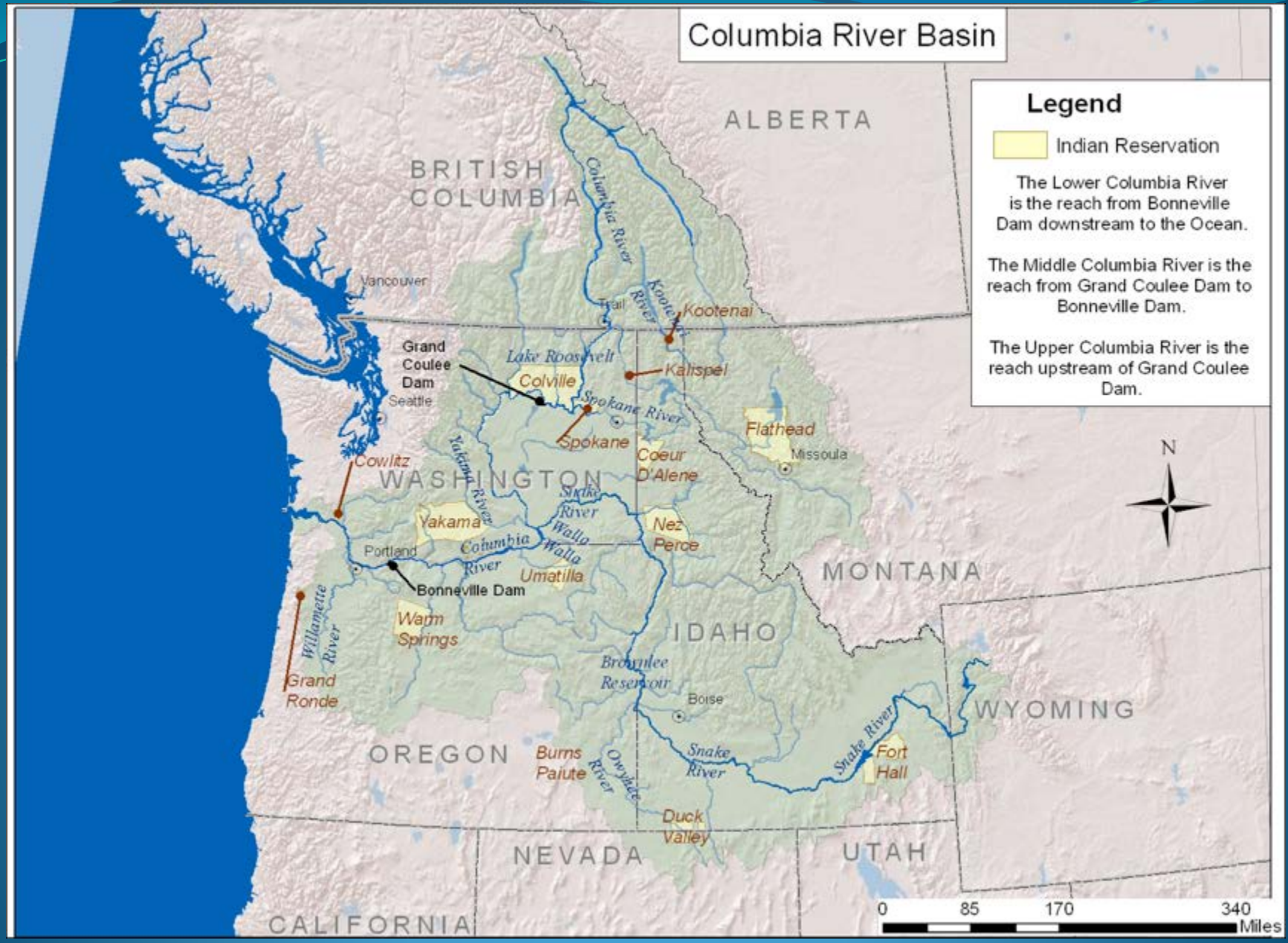
Lesson 3:
If you get stuck on a problem, make it bigger…
…or smaller

IBRD/BIRD 30785
NILE RIVER BASIN
BASSIN DU NIL
SELECTED CITIES / VILLES
NATIONAL CAPITALS / CAPITALES NATIONALES
MAIN ROADS / AXES ROUTIERS PRINCIPAUX
Mediterranean Sea
Red Sea
LIBYA
ARAB REP. OF EGYPT
CAIRO
CHAD
SUDAN
KHARTOUM
ERITREA
ASMARA
DJIBOUTI
ETHIOPIA
ADDIS ABABA
CENTRAL AFRICAN REPUBLIC
SOUTH SUDAN
JUBA
UGANDA
KAMPALA
KENYA
NAIROBI
SOMALIA
DEM. REP. OF CONGO
RWANDA
KIGALI
BURUNDI
BUJUMBURA
TANZANIA
DODOMA
INDIAN OCEAN
Lake Victoria
Lake Turkana
Lake Tanganyika
Lake Nasser
Blue Nile
White Nile
Bahr El Ghazal
Sobat
Atbara
Port Sudan
Mombasa
Dire Dawa
Gondar
Aswan
Luxor
Aswan Dam
High Aswan Dam
Jebel Aulia Dam
Roseires Dam
Sennar Dam
Fincha Dam
Tekeze Dam
Beles Dam
Koga Dam
Eddeem
Merowe Dam
Kajbar Dam
Upper Atbara Dam
Khashm El Girba Dam
Owen Falls Dam
Gibe III Dam
Gilgel Gibe I Dam
Gilgel Gibe II Dam
Omo Kuraz Dam
Karuma Falls
Murchison Falls
Victoria Nile
Albert Nile
Lake Albert
Lake Kyoga
Lake Edward
Lake Kivu
Lake Rukwa
Lake Malawi
Victoria Falls
Kariba Dam
Kafue Gorge Dam
Itezhi-Tezhi Dam
Kafue Flats
Kafue River
Zambezi River
Luangwa River
Shire River
Cahora Bassa Dam
Kafue
Lusaka
Livingstone
Lilongwe
Blantyre
Tete
Beira
Chimoio
Harare
Bulawayo
Gweru
Kariba
Chirundu
Lusaka
Mozambique
Zambia
Zimbabwe
Malawi
Namibia
Botswana
Angola
Democratic Republic of the Congo
Tanzania
Kenya
Uganda
Rwanda
Burundi
South Africa
Lesotho
Swaziland
0 200 400 Kilometers
0 100 200 300 Miles
APRIL / AVRIL 2013

Manage through Existing Institutions?




Jordan River Basin
Groundwater divide
Israeli National Water Carrier
Syria-Israel Cease-Fire Line, 1967
Quantities are in mcm (million cubic meters) per year
LEBANON
Litani River
Hasbani
Dan
Banias
GOLAN HEIGHTS
Upper Jordan River
Eastern Wadis
(605) Total flow in Upper Jordan River
Used by Israel (130)
Flow into Tiberias (475)
(80) Hydrological Balance
(45)Diverted to Tiberias by Israel
(160) Used by Syria
Yarmouk River
(420) Total Flow
Haifa
Israeli National Water Carrier(420)
Tiberias
Israeli local use (90)
Salty Springs (40)
(90) Used by Jordan
(20) Israel transfers to Jordan in summer
(10) Desalinated water
PASSIA
Green Line
Jenin
Northern Aquifer
Coastal Aquifer
Tulkarem
River Jordan
Mediterranean Sea
Nablus
Zarqa
Western Aquifer
WEST BANK
Tel Aviv
Lower Jordan River
(115) Remaing as Brackish Water
JORDAN
Aquifer
Ramallah
Jericho
Jerusalem
Green Line
Mountain
Eastern Aquifer
Dead Sea
Wadi Wala
Gaza
GAZA STRIP
Hebron
Gaza Aquifer
Wadi Mujib
ISRAEL
0
20 km
Beersheba
Map: PASSIA, 2002

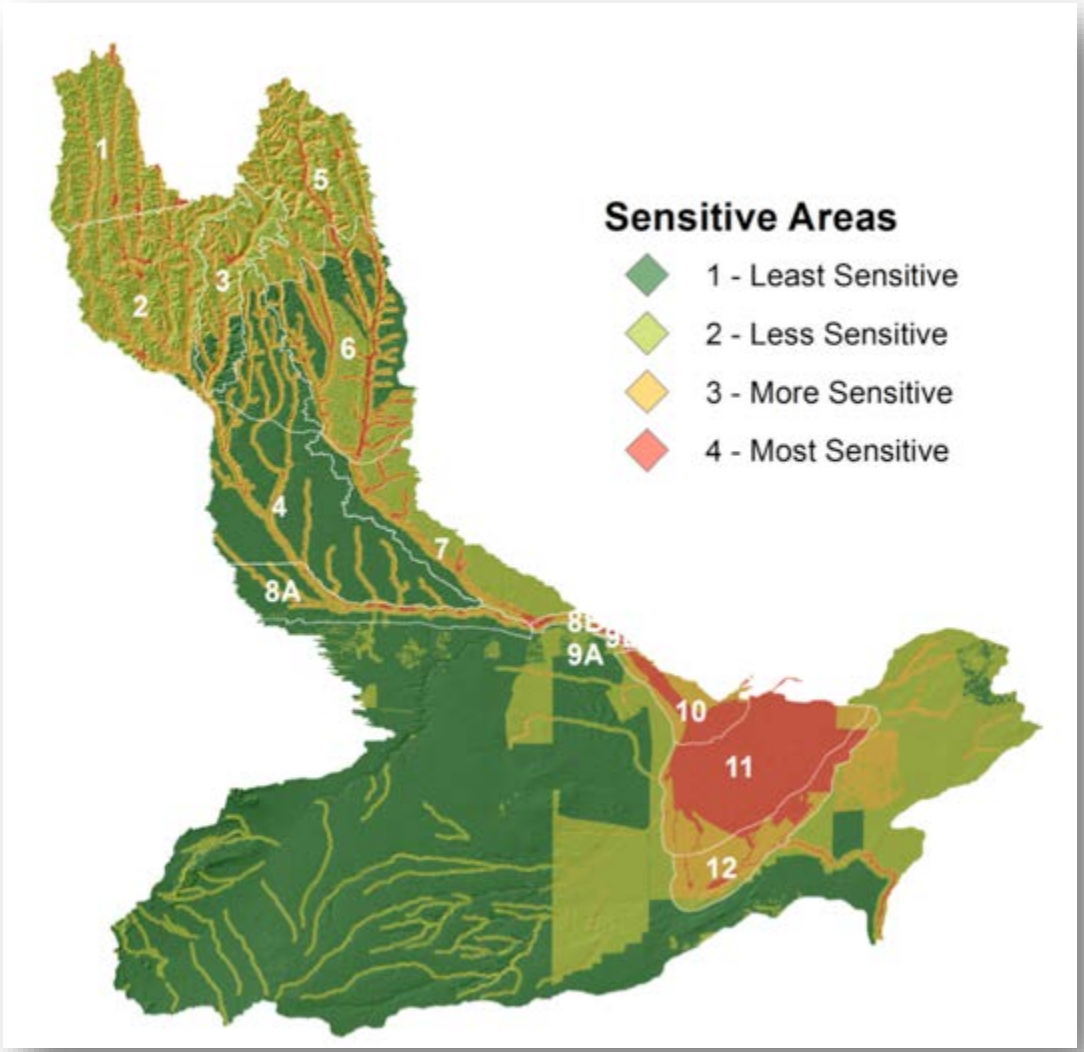

Columbia River Basin
Legend
Indian Reservation
The Lower Columbia River is the reach from Bonneville Dam downstream to the Ocean.
The Middle Columbia River is the reach from Grand Coulee Dam to Bonneville Dam.
The Upper Columbia River is the reach upstream of Grand Coulee Dam.
ALBERTA
BRITISH COLUMBIA
WASHINGTON
OREGON
CALIFORNIA
NEVADA
IDAHO
MONTANA
WYOMING
UTAH
Vancouver
Seattle
Portland
Trail
Missoula
Boise
Columbia River
Kootenai River
Kootenai
Grand Coulee Dam
Lake Roosevelt
Colville
Kalispel
Spokane River
Spokane
Flathead
Coeur D'Alene
Cowlitz
Yakima River
Snake River
Yakama
Columbia River
Walla Walla
Nez Perce
Umatilla
Bonneville Dam
Warm Springs
Willamette River
Grand Ronde
Brownlee Reservoir
Burns Paiute
Owyhee River
Snake River
Fort Hall
Duck Valley
N
0
85
170
340
Miles

100°0'0"E
110°0'0"E
China
30°0'0"N
20°0'0"N
10°0'0"N
Myanmar (Burma)
Laos
Thailand
Vietnam
Cambodia
Mekong International River Basin

Negotiated Basin Development Space

Environmental Sensitivity Rankings

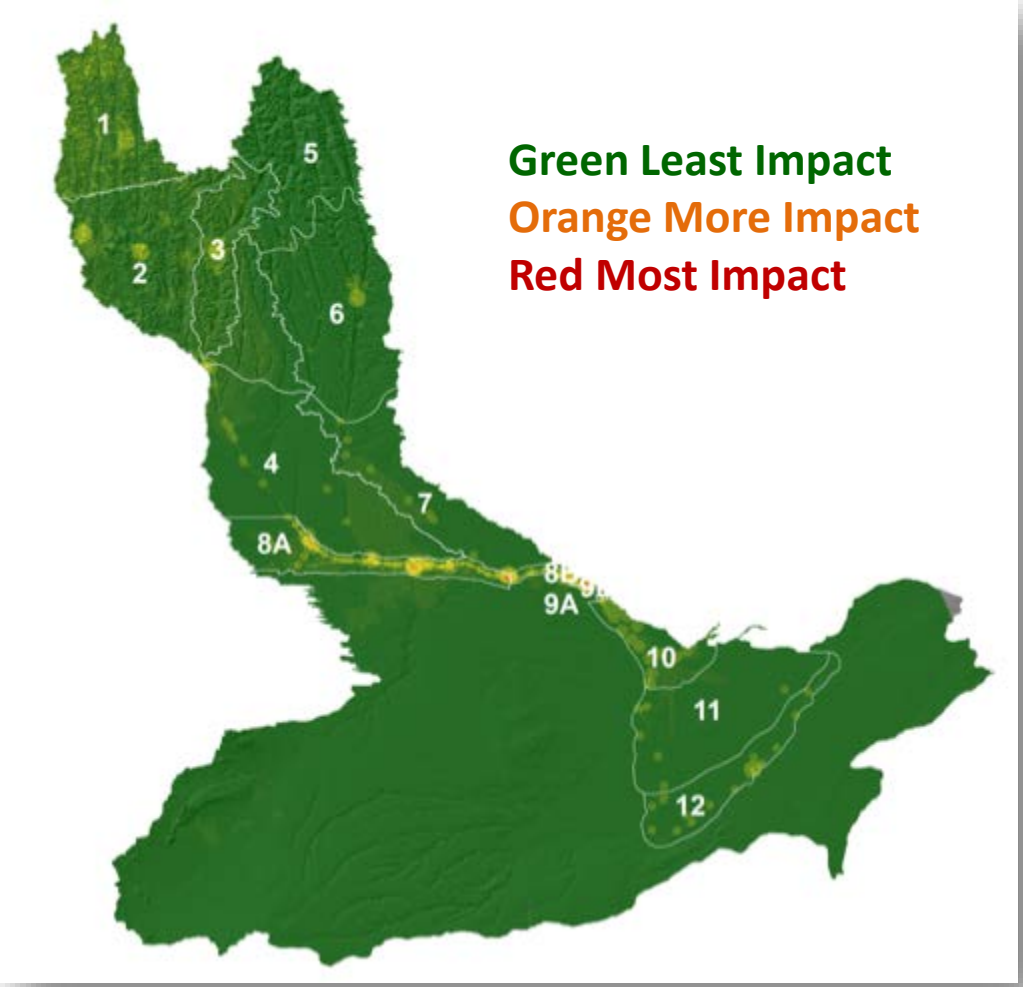
(Reflecting Interest and Values)



Negotiated Basin Development Space

Development Pressure Rankings

(Reflecting Interest and Values)

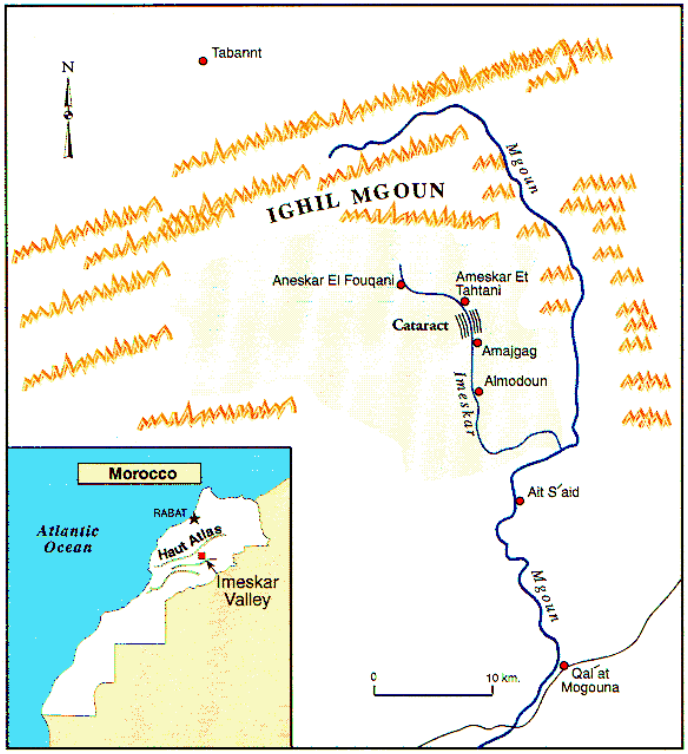


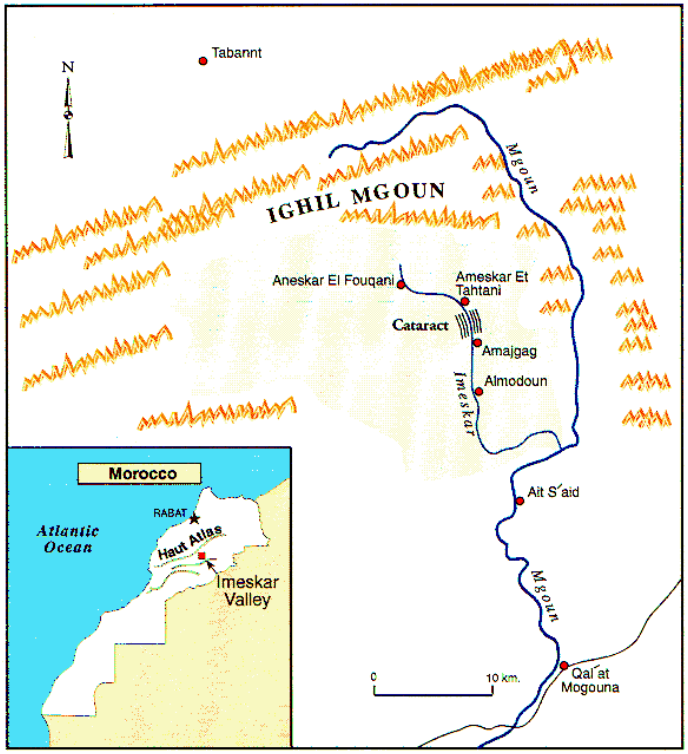
Lesson 4:
Secrecy is dead…

s of Terrestrial Water Storage Anomalies

LESSON 5:
Don’t forget the spirit – and fun! – of water

Water is sexy!!


N
Tabannt
IGHIL MGOUN
Mgoun
Aneskar El Fouqani
Ameskar Et Tahtani
Cataract
Amajgag
Almodoun
Imeskar
Ait S´aid
Mgoun
Qal´at Mogouna
0
10 km.
Morocco
RABAT
Atlantic Ocean
Haut Atlas
Imeskar Valley

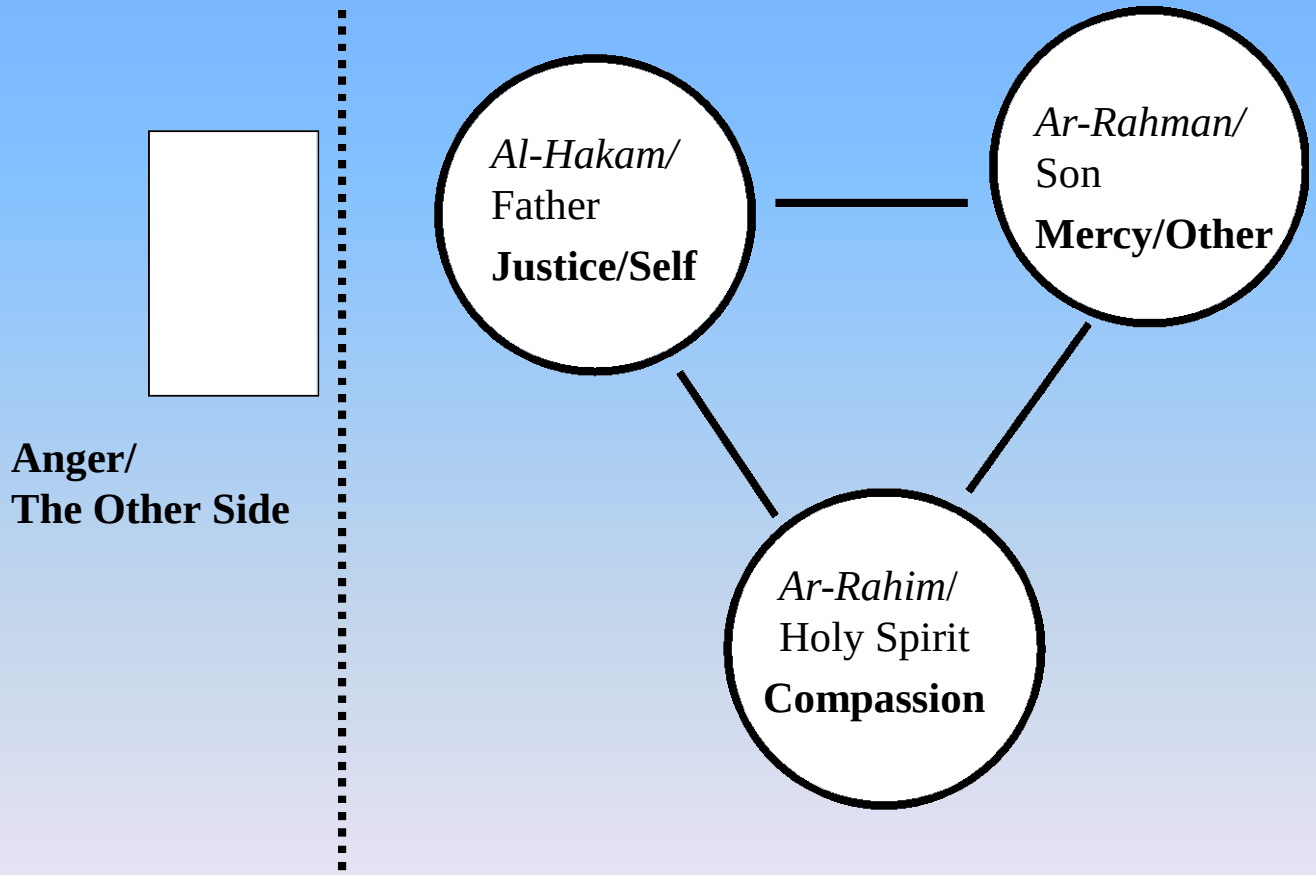

N
Tabannt
IGHIL MGOUN
Mgoun
Aneskar El Fouqani
Ameskar Et Tahtani
Cataract
Amajgag
Almodoun
Imeskar
Ait S'aid
Mgoun
Qal'at Mogouna
0
10 km.
Morocco
RABAT
Atlantic Ocean
Haut Atlas
Imeskar Valley

STARBUCKS
COFFEE
TM

pepsi

Enjoy!
Coca-Cola
® Coca-Cola Ltd.

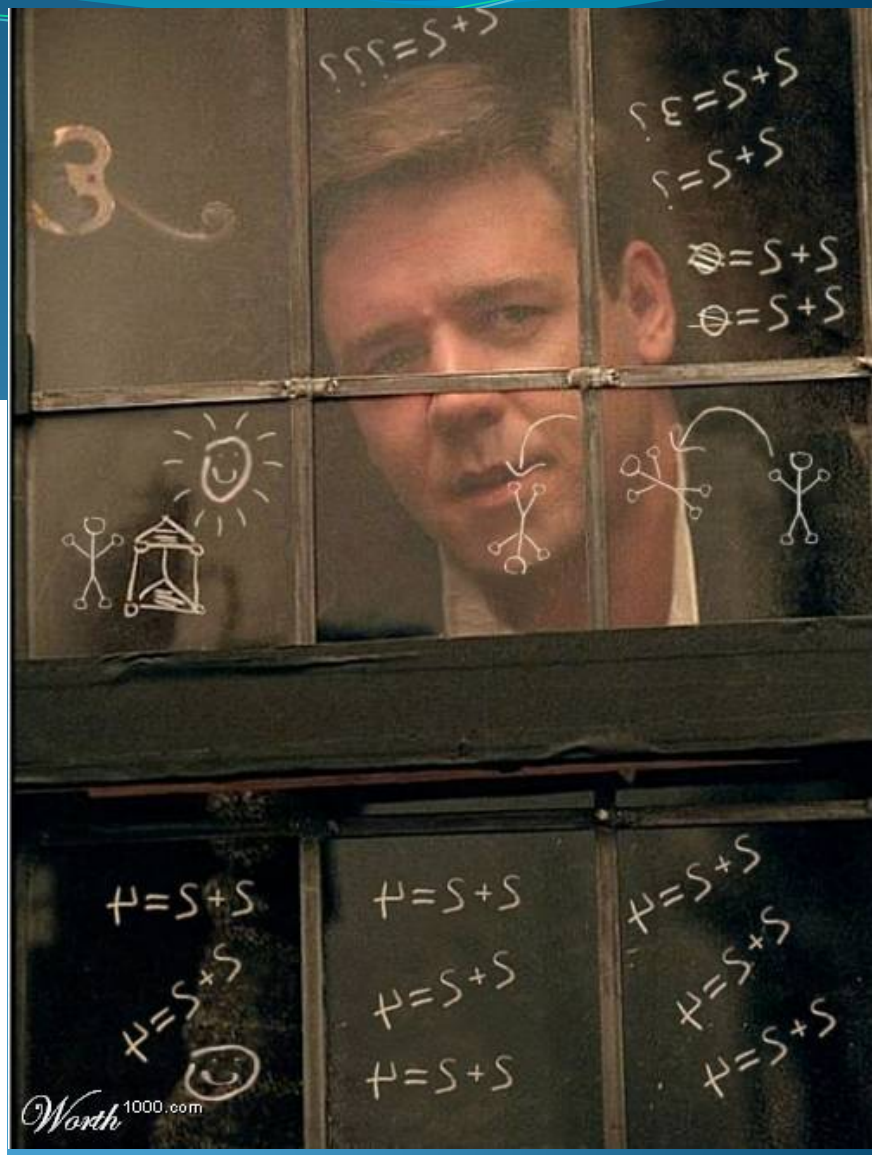
Balance in Conflict

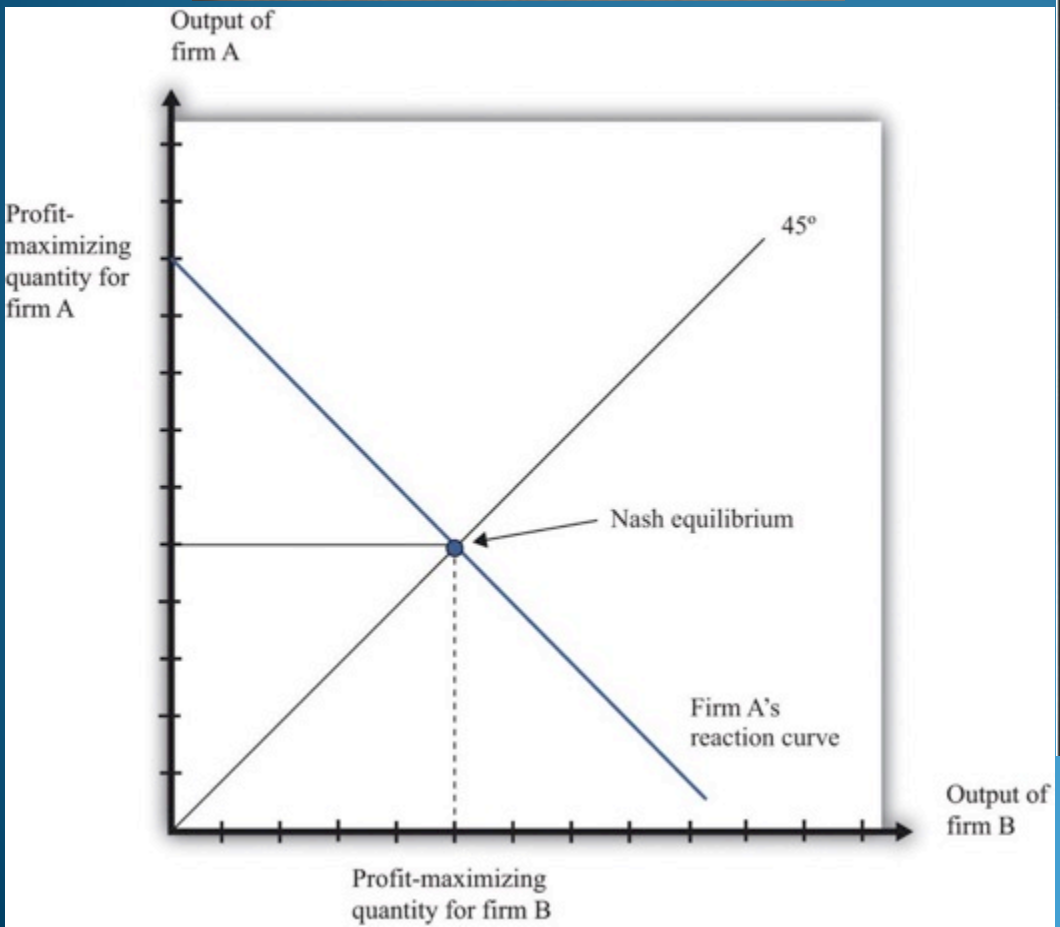


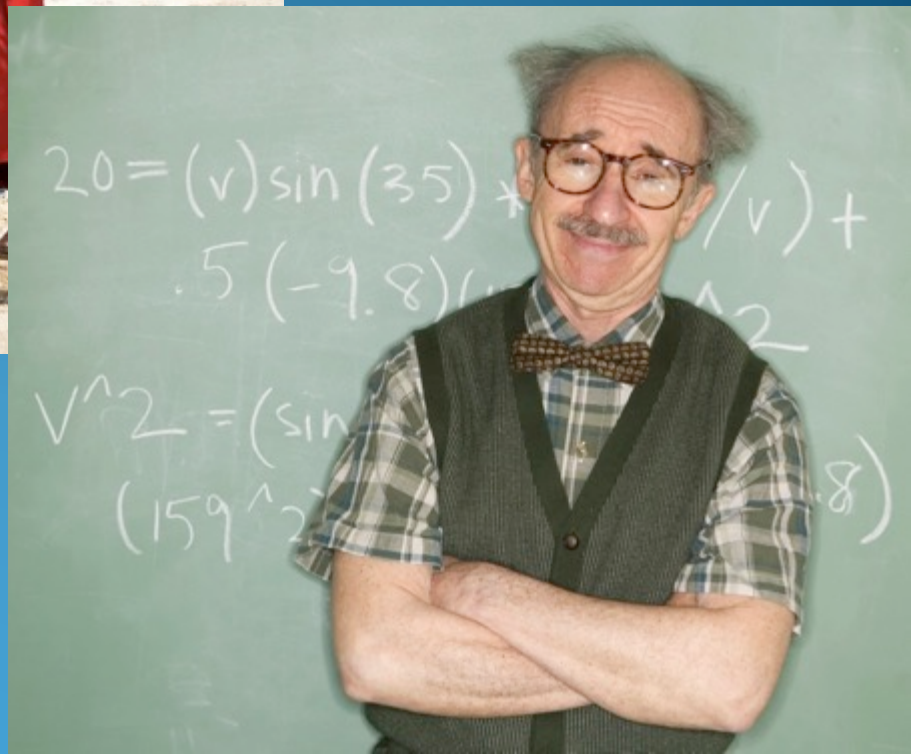
Universal?

Yin Yang

Prof. Dr. John F. Nash Jr.


Worth1000.com


Output of firm A
Profit-maximizing quantity for firm A
45°
Nash equilibrium
Firm A's reaction curve
Output of firm B
Profit-maximizing quantity for firm B


20=(v)sin(35)
.5(-9.8)
V^2=(sin

Egyptian Coptic Church tapped to play the role of mediator in Nile River dispute

Coptic Pope Tawadros II (R), head of the Coptic Orthodox Church, shakes hands with former army chief Abdel Fattah al-Sisi upon Sisi's arrival for a visit the night before Easter, in Cairo, April 19, 2014. Sisi was elected president a month later. (photo by REUTERS)

Sulha: Reconciliation

- From *musalaha*, reconciliation: hostilities ended, honor re-established, and peace restored in the community.
- Two basic elements: rights and honor.
- *Tarrahdhin*: “Resolution of a conflict that involves no humiliation.”

Kampung Spirit: Singapore Kindness Movement

- Spirit of neighborliness of village life
- Being revived for vertical living
- Community Mediation Centre – 70% of cases resolved
- Community Disputes Resolution Tribunals, since Oct. 2015

NATIONAL POLICY STATEMENT

for Freshwater Management 2014

issued by notice in gazette on 4 July 2014

newzealand.govt.nz

NEW ZEALAND NATIONAL POLICY STATEMENT for Freshwater Management 2014

- "Addressing tāngata whenua values and interests across all of the well-beings, and including the involvement of iwi and hapū in the overall management of fresh water, are key to meeting obligations under the Treaty of Waitangi (1840)."
- All things in the natural world have mauri (life force) and wairua (a spiritual dimension). Respect for the spiritual integrity of the environment and the atua (God) that created it will ensure that the taonga (treasure) can be protected and passed on to succeeding generations.

Thank you!