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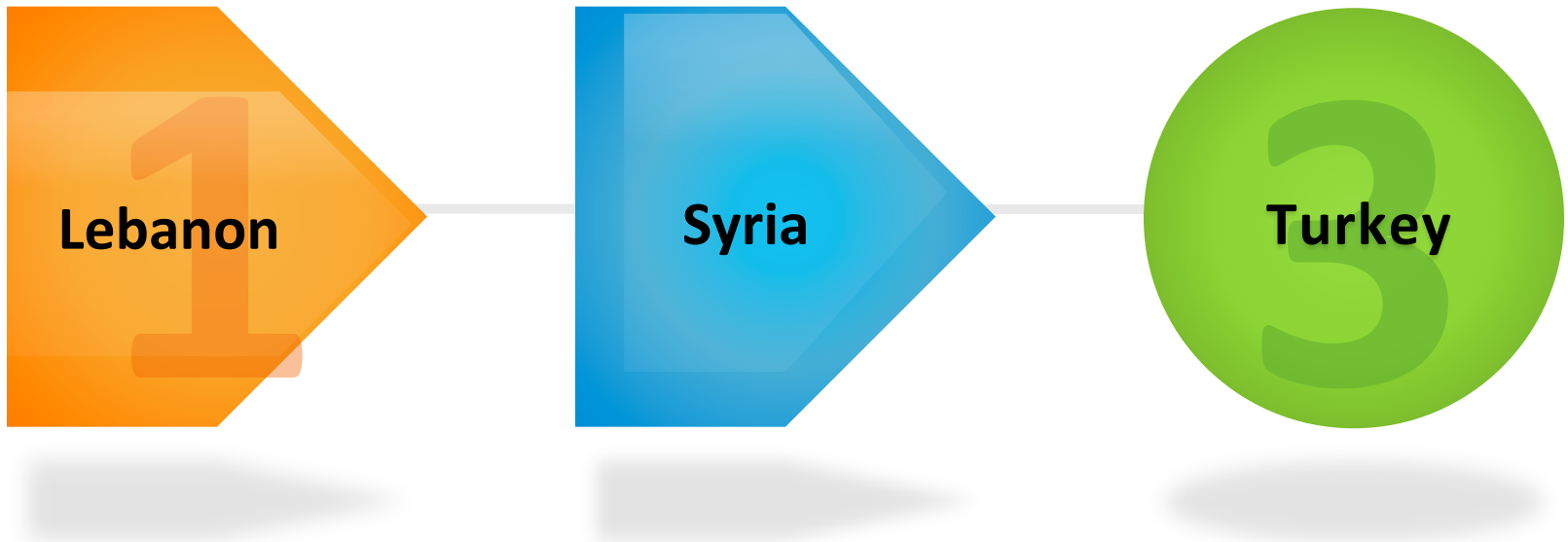
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**Effects of the Syrian conflict in the
Asi/Orontes basin in Turkey and
the role of the proposed scientific
network**



Orontes: transboundary river connecting communities in Lebanon, Syria and Turkey



A brief hydro-political history: inter-state relations between Turkey-Syria

- 1950s to 1980s: consolidation of domestic water policy and institutions
- 1980s to 1990s: competitive water policy and rise of tensions over water at transboundary level
- First decade of 2000s: political rapprochement and water cooperation:
 - *Adana Security Protocol*: improved security relations
 - *Agreement on Avoidance of Double Taxation* and *Agreement on Reciprocal Promotion and Protection of Investment* (2004).
 - *Free Trade Agreement* (2007): exports increased by three fold (Turkey  Syria)



Functional bilateral water cooperation in the Orontes basin (first decade of 2000s)

◆ *Memorandum of Understanding between the for the Construction of a Joint Dam on the Orontes River under the Name “Friendship Dam”.*

- Hydropower benefits for both Turkey and Syria; irrigation and flood control benefits only for Turkey
- As the downstream country, Turkey’s motivation to build a dam has been nurtured by frequent disastrous floods: due to the draining of the Amik Plain and the subsequent disappearance of this flood retention area, large floods occurred in 2002, 2003, and in 2012
- While the motivation of the Syrian delegation has been to reduce negative social (resettlement) and economic (agriculture, drinking water supply) impacts and related costs

◆ Already on February 6, 2011, the Prime Ministers of both countries celebrated the laying of the foundation stone of the Friendship Dam.

◆ Negotiations came to a halt with the Syrian crises which started in March of the same year.

Impacts of Syrian conflict on bilateral trade and economy: immediate trade volume and economic decline with some recent recovery

- Since the beginning of internal conflict in Syria (2011), bilateral trade dropped drastically
- However, Turkish exports to Syria have recently recovered to some extent:
 - outsourcing activities of Syrian companies
 - about a quarter of the companies having foreign shareholders that were established in Turkey in 2014 included Syrian investors
 - Aid supplies through Syria-Turkey border have also partly contributed to recovering of Turkish exports to Syria



Social and economic impacts in Hatay (Turkey)

- The exacerbating conflict in Syria has led to a massive influx of refugees since the arrival of the first group in April 2011. Hatay Governor stated that there are about 245.000 Syrians registered in the city, now constituting 15% of the provincial population (2014).
- The total number of Syrian nationals living in cities country-wide stands at about more than 2.2 million people (UNHCR 2015).
- A recent assessment on the economic impacts of Syrian migration into Hatay found out that without the migrant in-flux, imports would have been the same whereas exports from the region would have increased by 24% (ORSAM 2015).
- The same study also concluded that prices of goods in the city went up after the arrival of Syrian migrants.
- Nonetheless an econometric assessment by Akgündüz et al. (2015) found that while housing and to a lesser degree, food prices increased, employment rates of natives in various skill groups remained largely unaffected in the migrant-receiving cities of Turkey.
- Although this seems to be the case for the formal economy, as Arslan et al. (2015) showed recently illegal economic activity such as drug trafficking rose exponentially after the onset of the conflict in Syria with an increase of 84% from 2010 to 2011 followed by further significant increases in 2012 and 2013.

Impacts of conflict on water use in Turkey:

- Serious decline in agricultural activity in Syria suggests an **increase in water flow** (1 billion m³/year, DSI, 13 November 2014) **to Turkey**.
- This, along with the diminished industrial production in the region, may also contribute to an **amelioration** of the **quality of water entering Turkey**. However, while the water flowing into the Turkish territory has changed quantity and quality-wise, it has also changed the population dynamics and societal configuration downstream with more people and hence producing socio-ecological pressure on the water body along the 97 km long tract in Turkey.
- The refugee influx in Turkey has exacerbated water quality situation, with risks of open defecation, exposure to animal excreta, lack of adequate hygiene supplies and lack of garbage collection.
- **However, these predictions need to be tested and validated by systematic scientific studies.**



What could be/should be done during protracted conflict and post-conflict?

- Constituting the *Orontes scientific and technical network*: an “*epistemic community*”
- Epistemic communities are a “network of professionals with recognized expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge within that domain or issue-area.”
- The epistemic community approach regards scientists and scientific knowledge as the key elements in explaining and analyzing international reality.
- Epistemic communities can function very well across national boundaries because the scientific community has transnational traditions.
- Resource politics demand an interdisciplinary approach and a balance between the scientific study of the problem, subsequently generating solutions, and applying scientific solutions to society through the political process.



Orontes scientific and technical network: mission

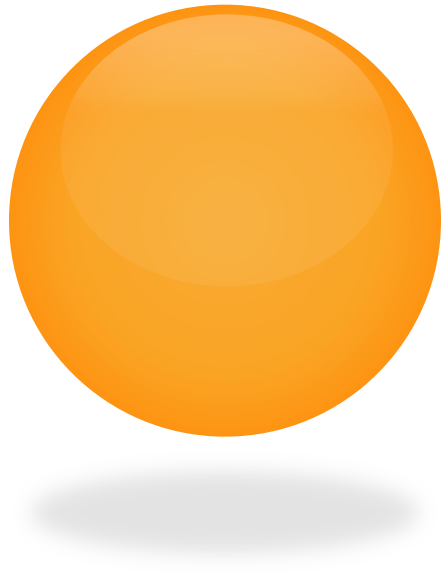
- One of the first task of the network could be to address conflict related water hazards in Hatay; and exchange of information and data between Turkish and Syrian experts in relation to water hazards in Hatay:
 - water flow and quality
 - state of water infrastructure
- One priority area is the need to gain an understanding of how disruptions to services affect people's livelihoods, food security, human security and health.
- Many government and humanitarian agencies have programmes targeting the direct impact of these disruptions but not the indirect or cumulative impact on the broader nexus of interrelated humanitarian issues of concern.



Orontes scientific and technical network: composition

- Members of the ***network*** could consist of Turkish-Syrian experts academics and former technocrats from the (ministries of water resources and the agriculture)
- The network, in fact, convened an international workshop on the issues and challenges in the Orontes/ Asi basin on 13-14 November 2014 in Istanbul.
- Since then they keep up informal contacts and work on a joint publication of the *proceedings* of the workshop.





AN EXAMPLE OF A SCIENTIFIC NETWORK: EUPHRATES-TIGRIS INITIATIVE FOR COOPERATION-ETIC

<https://euphratestigrisinitiativeforcooperation.wordpress.com>





Euphrates-Tigris Initiative for Cooperation ETIC



- Academics from Iraq, Syria, Turkey held meetings and workshops in the years 2003, 2004 and 2005 to work out a new approach for sustainable cooperation on regional development.
- These activities culminated in founding an initiative in May 2005 known as the Euphrates Tigris Initiative for Cooperation (ETIC).



ETIC is Unique

- ▶ It is the only cooperation initiative for the Euphrates-Tigris region for the benefit of the *riparian* countries.
- ▶ It is a *track-two* effort whose aim is to facilitate *dialogue* and *mutual understanding* among the riparian stakeholders and decision-makers.
- ▶ It uses a *development focus* and avoids contentious themes.
- ▶ It is a *neutral and facilitating* platform.

Vision

- **The quality of life for people in all communities, including rural and urban areas, is improved, and harmony among the countries and nature in the Euphrates and Tigris Region is achieved.**

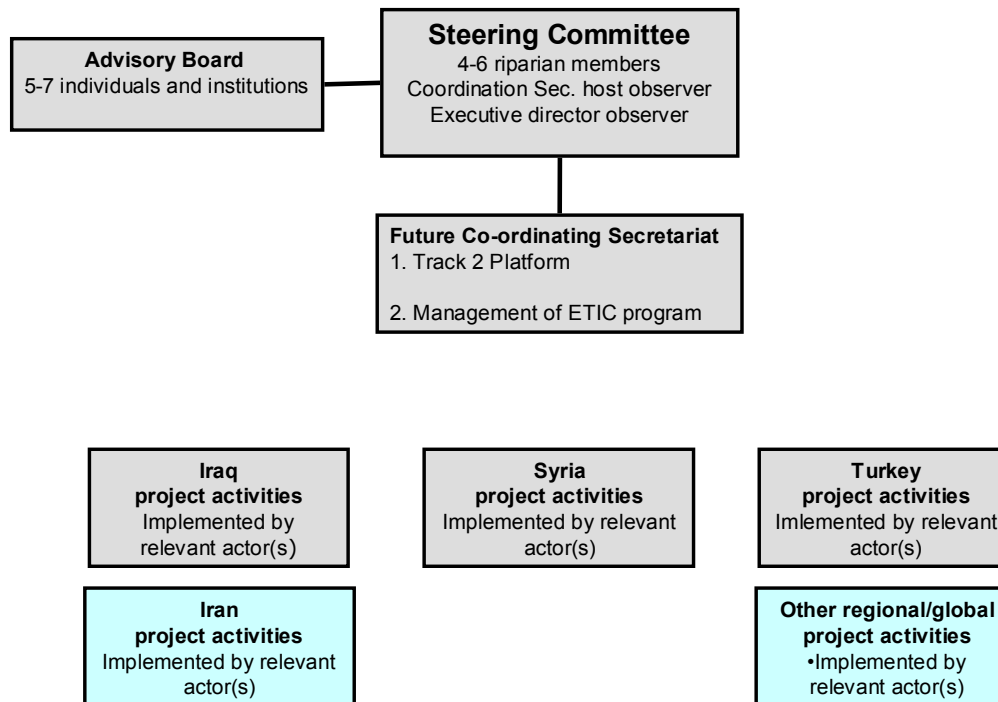


Mission

- To mobilize collective expertise, catalyze processes and develop appropriate partnerships to encourage riparian cooperation and development through track 2 non-official diplomacy



ETIC Organizational Chart



ETIC has been supported by

- ▶ Kent State University
- ▶ University of Oklahoma,
- ▶ UNESCO,
- ▶ Bahcesehir University,
- ▶ SIWI,
- ▶ FAO,
- Italian Government,
- Japan Water Forum,
- US State Department,
- ABRI/USAID,
- University of New Mexico



Participants in the Training program on Dam Safety: Iraq, Iran, Syria and Turkey Istanbul, Turkey, *Feb. 2006*



Workshop on Knowledge Technology

Gaziantep, Turkey, 13-15 March 2009



مبادرة الفرات ودجلة للتعاون
Firat-Dicle Isbirligi Girişimi
Euphrates Tigris Initiative for Cooperation

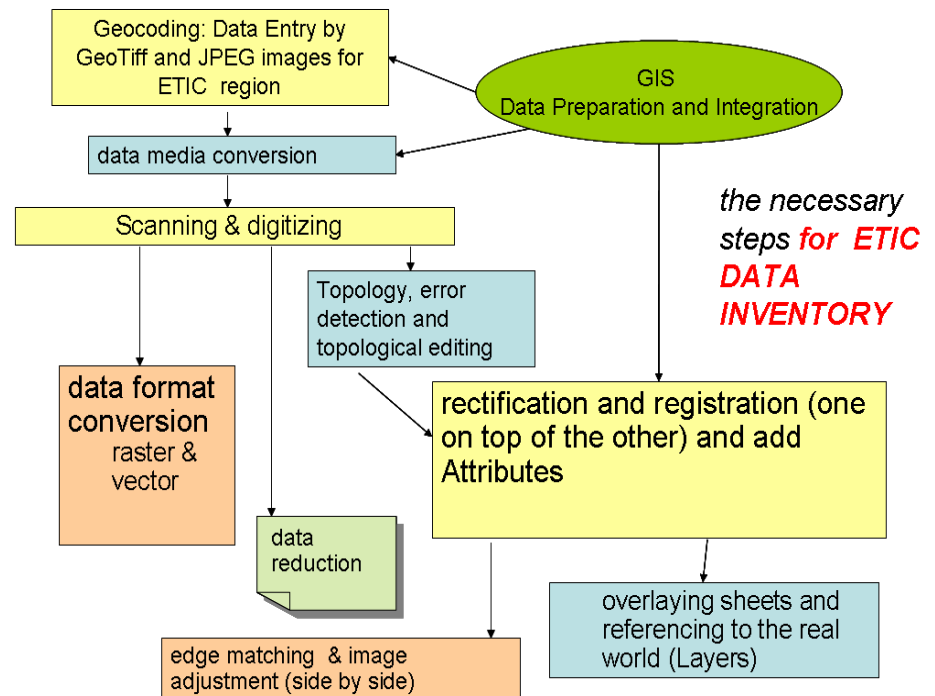


- The goal of the workshop is to explore the conditions in the ET region related to water and the environment and the use of GIS, mathematical modeling and website technology with a view to identify a framework for improvement.



GIS Training Workshop in Aleppo, Syria

January 2010



In brief, ETIC

Is a

- Track 2
- Academic
- Neutral
- Non-imposing
- Riparian initiative

Which aims to

- Increase dialogue and mutual understanding through sustainable socioeconomic development.

