Caspian Futures: How real is the global rise of the Caspian Sea region?

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Caspian Futures: How real is the global rise of the greater Caspian Sea region?

- Global context of development
- National development vs Regional integration
- The case of regional environmental governance

Institute for Environmental Sciences

Black Marble RenditionVIIRS

Black marble rendition by visualizing urban area gives us and idea of territorialization of growth across the planet where new growth regions are emerging
These regions are increasingly interconnected and altering the established pattern of economic integration of markets based on a North- North and South- North divides.

1- Global context of development

- **UNDP HDR 2013: The rise of Global South**

2.5 times more trade (relative to GDP) than **in 1913** (22%)
Even more relative to tradable output. Pre-1913 FDI negligible, now ~$1.5 trillion; 3/5 in services

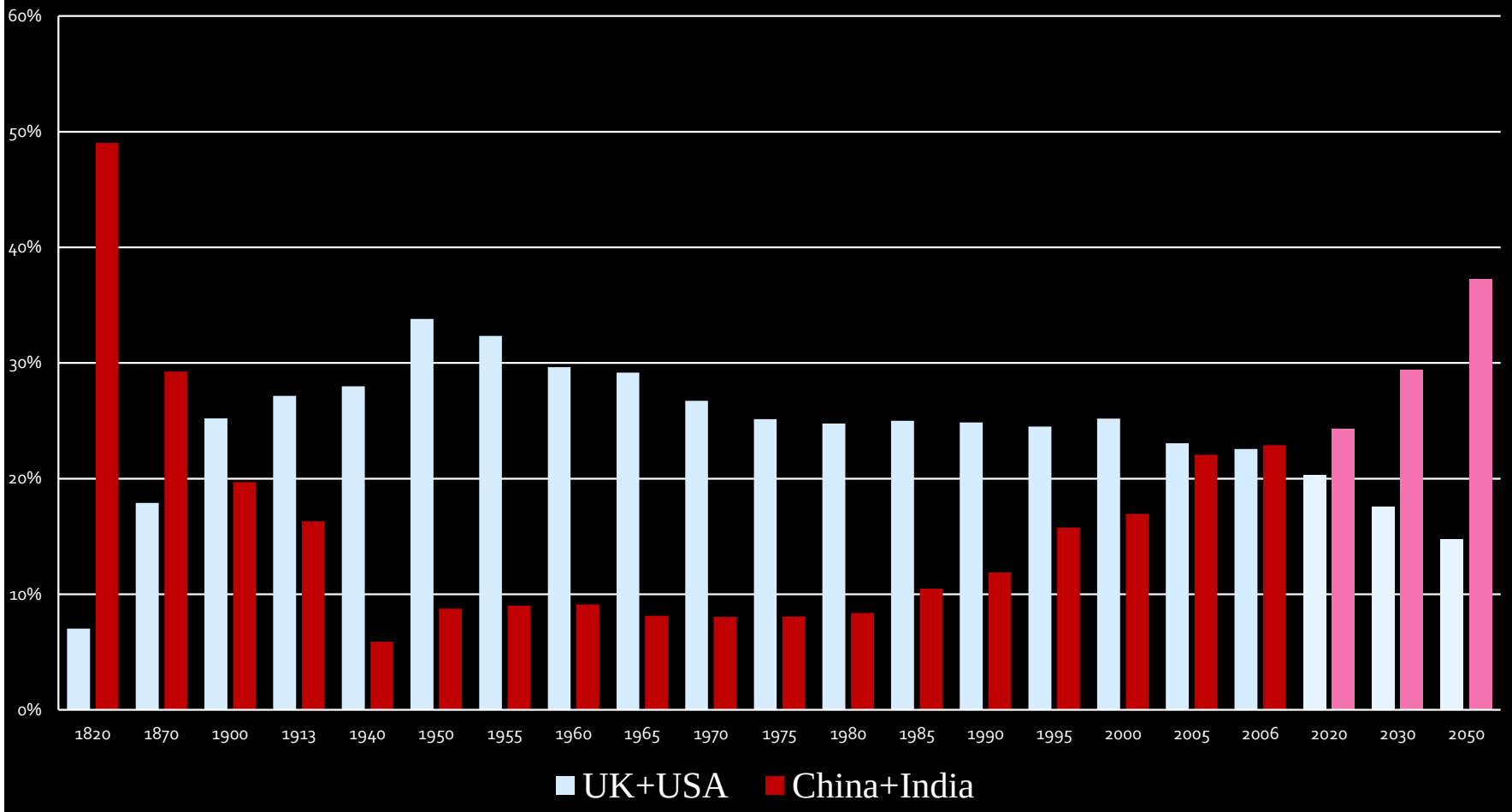
- Migration **60 million** between 1820-1920, largely from Europe
  In 2010: **215 million** immigrants from everywhere also South

- **Increased role of non-state actors : MNEs** 1/3 of world output; 2/3 of world trade; dominant in R&D Once led by Industrial countries,

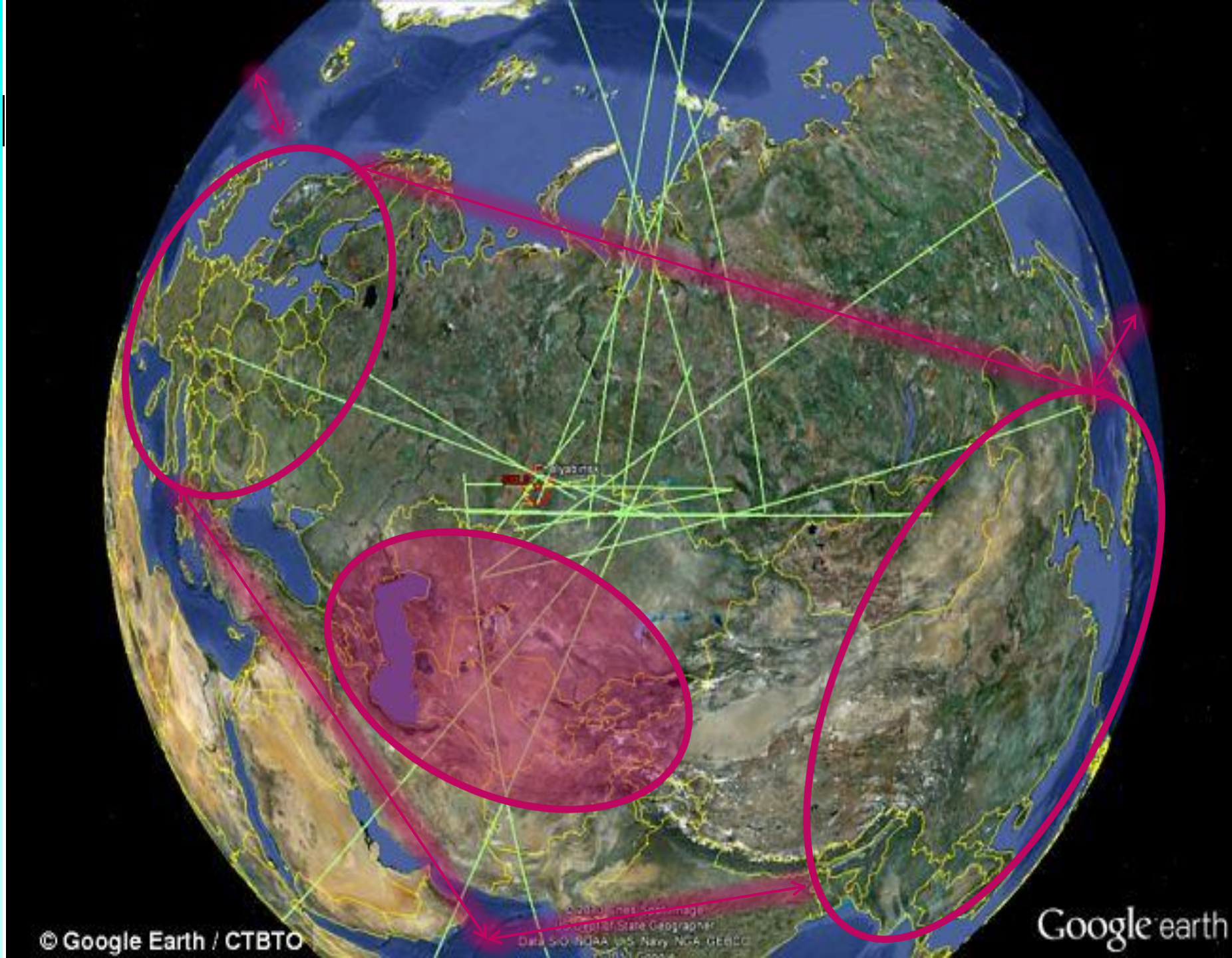
- **Developing countries are reshaping world economy today**

Global output: 43% in 2010; driving global growth
FDI inflow: 21% in 1990 to 45% in 2010
North-North trade: 50% in 1980; below 30% now

Historical rebalancing of global output share



What is the share / contribution of the region as a whole to global growth?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2- National growth vs. Regional integration

- **For last 2 decades regional countries have embarked on remarkable** development programs.

- **Oil and gas rich** Azerbaijan, Kazakhstan and Turkmenistan have registered double-digit growth rates and used the proceeds to invest in physical infrastructure.

- Even Tajikistan and the Kyrgyz Republic, have also made progress in developing market economies and state institutions and developed their hydroelectricity infrastructures.

- **What is lacking is pooling resources together to reach global status based on shared visions of progress and growth**

2- National growth vs. Regional integration

- Regional integration Success stories : EU and ASEAN
  - A successfully integrated region is one that develops a distinct identity (based on shared values), an institutionalized capacity and accepted legitimacy that turns the region into an acting subject and global actor.

  - Regional **integration is not only a state enterprise but also is embedded with Formal and informal exchanges between individuals, flow of people, ideas , attitudes etc. That shape and create new multiple channels of integration across political boundaries of states.**

- Caspian Sea Region
  - **Consensus based regional integration blueprint is impeded by conflicting and sometimes colliding regional aspirations of Caspian countries.**

  - **Oil and gas , highly territorial and geopolitically charged sectors have been ruling regional integration plans overshadowing other fields of collaboration and integration. (ex. Baku Summit on regional integration)**

3- Regional environmental governance: from discord to collaboration

PRELIMINARY ASSESSMENT OF THE LAND USE AND LAND COVER CHANGES IN CASPIAN SEA BASIN USING MODIS DATA

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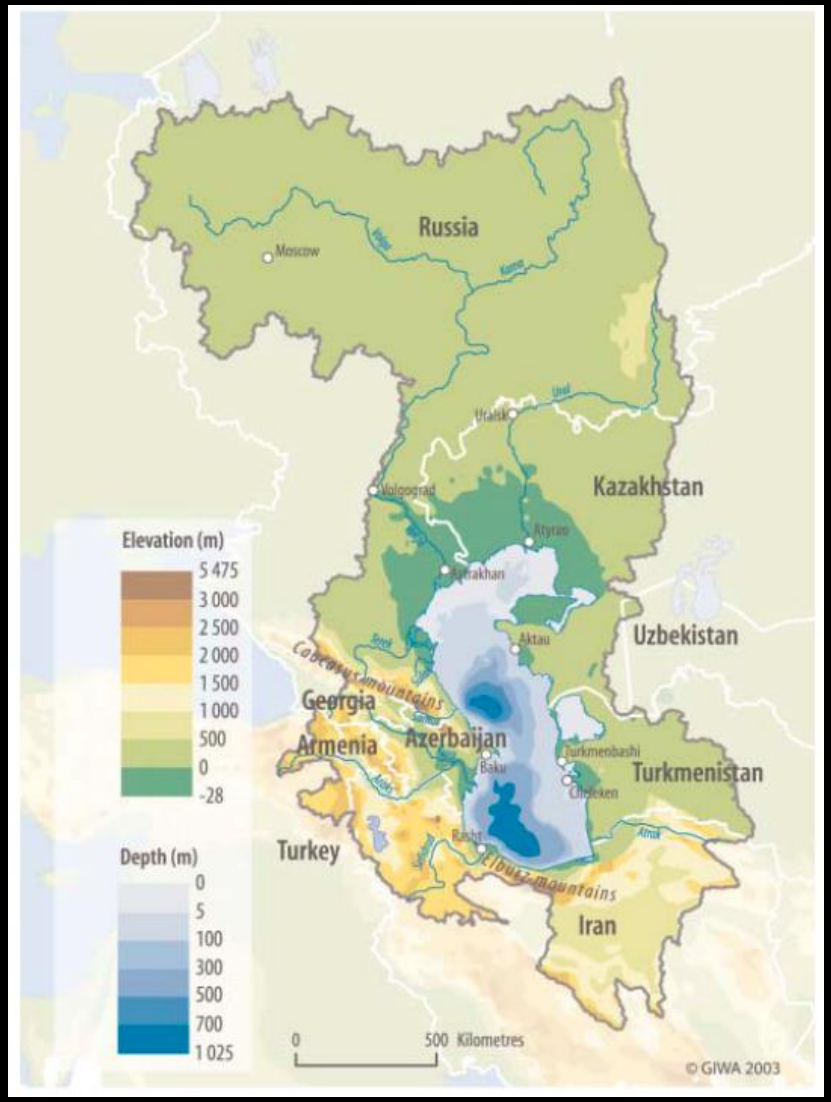
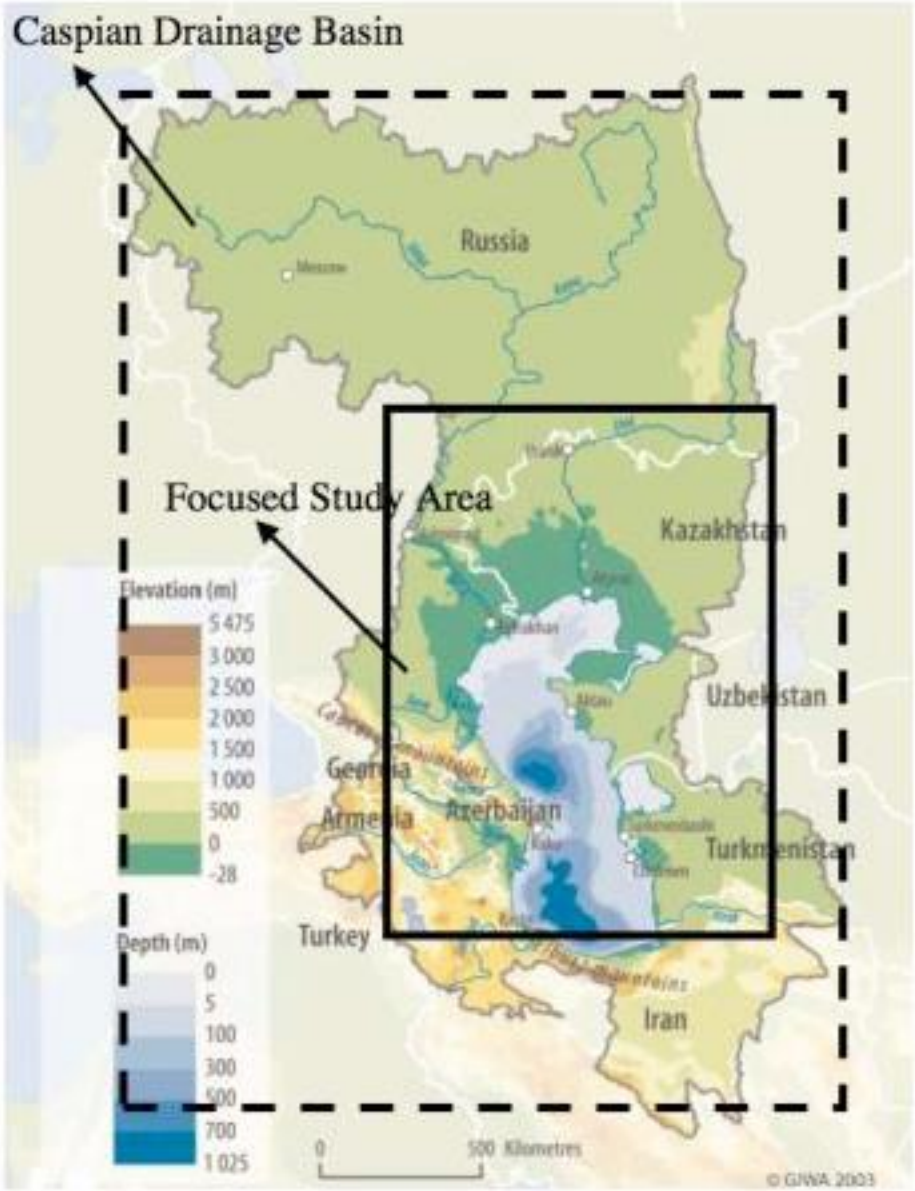
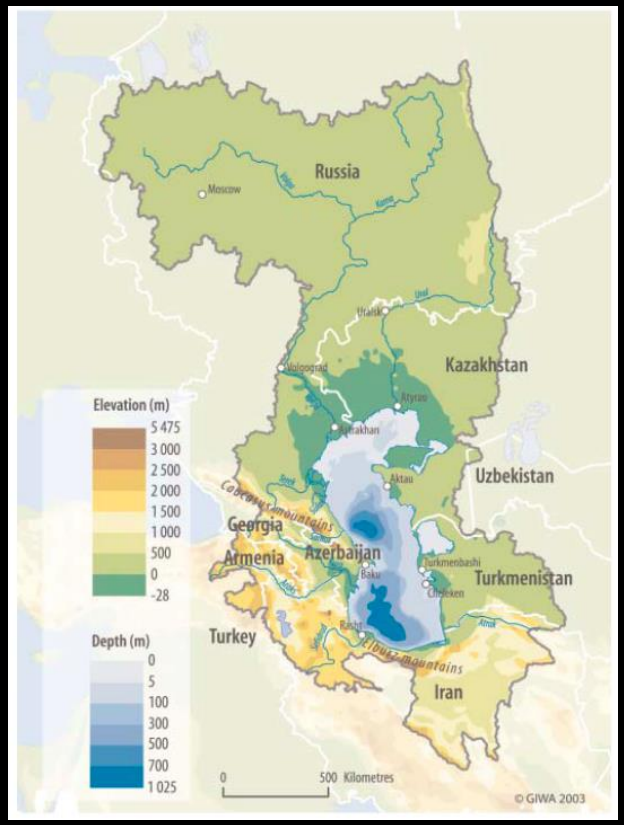




Landsat ETM circa 2000

3- Regional environmental governance: from discord to collaboration

Phase 1: Assessment of impacts of land cover /land use change on CS watershed
Phase 2: Simulation of Caspian Hydrology



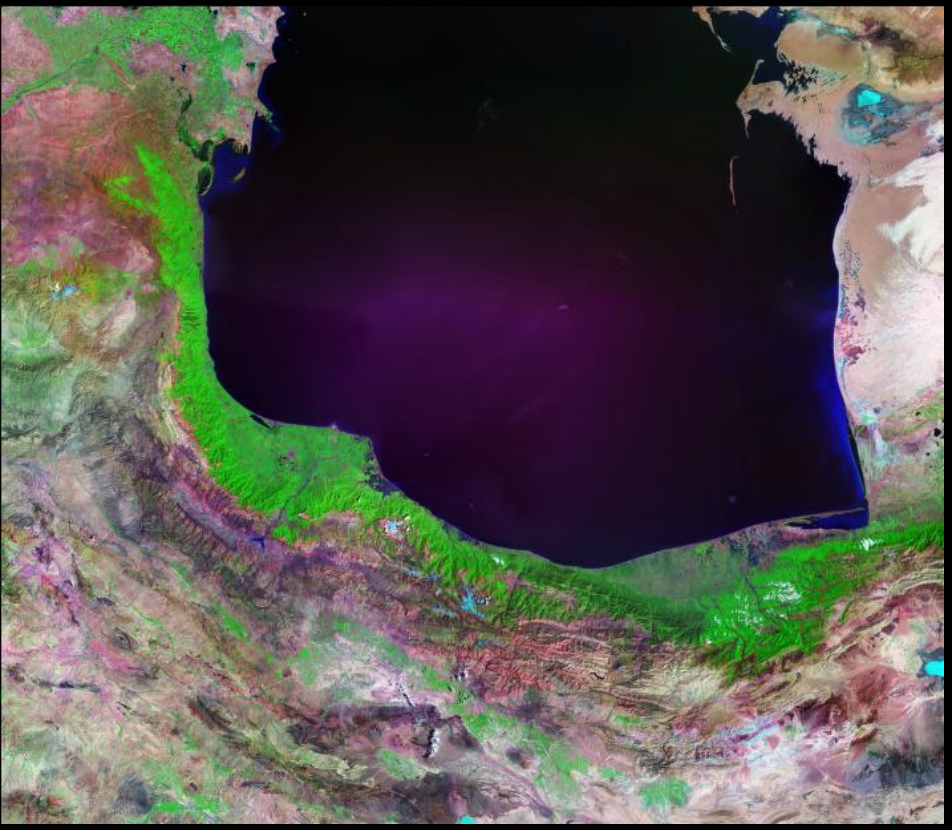
1. Largest land-locked body of water on earth

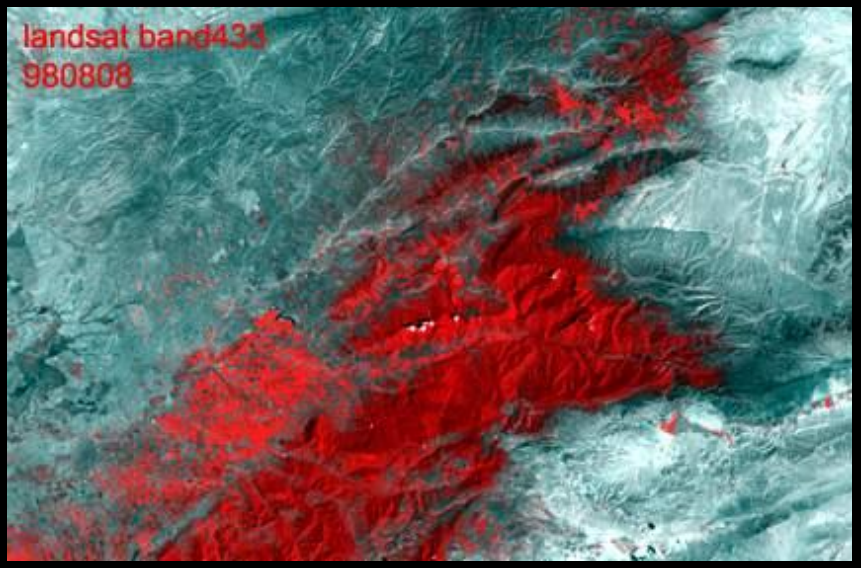
2. Caspian drainage basin is ~ 3.5 Million km2 (world's largest watershed, and annual runoff) with 130 rivers flowing into the sea with Volga contributes 80% of runoff.
3. Being a closed body and large basin, the system can filter high frequency water budget and is a good indicator of long term climate change
4. Being a closed system hydrological and biogeochemical processes are intimately linked (water, energy, resources)

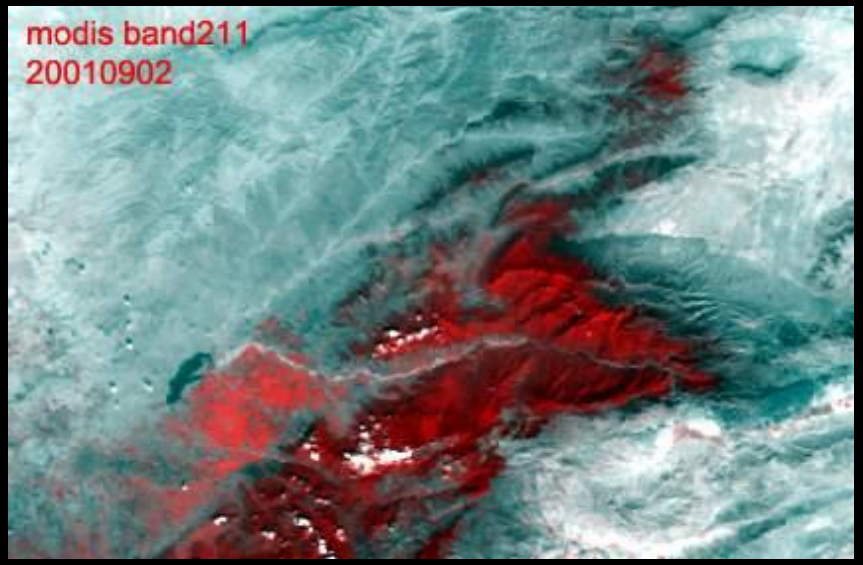
Any changes in land impacts the hydrology and ecosystem & vise versa.

5. The basin is diverse in ecosystems, natural habitats, large river systems, major wetlands with high level species endemism and diversity.
6. Caspian has drastic sea level change due to climate and hydrological processes.

Deforestation and Agricultural Development



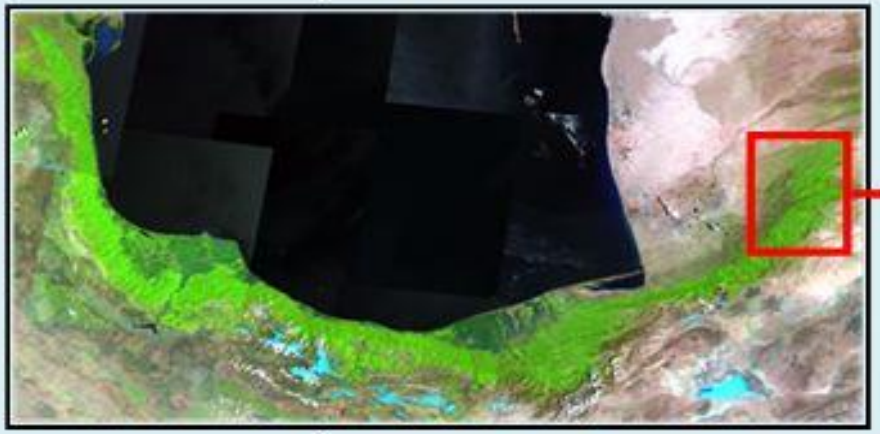


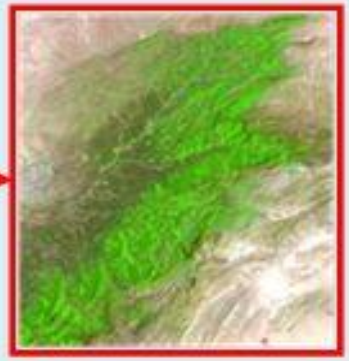


- **Caspian forest in 1963 was 3,420,487 ha .**
  In 1980, total area reduced to 1,900,000 ha,
  Current estimate is 1,,800,000 hectares
- **975,000 cubic meters of forests of Gilan are burnt Every year**
- **Average biomass reduction frm 300 tons/ha to 100 tons/ha**
- **Government movement of 6000 forest dweller families to outside forests (5-year plan 1997-2001)**
- **Recent development plans by real estate sector.**

Deforestation of the Caspian Forest

Caspian Sea Forest Belt in the 1990s (LandSat TM, band 543)





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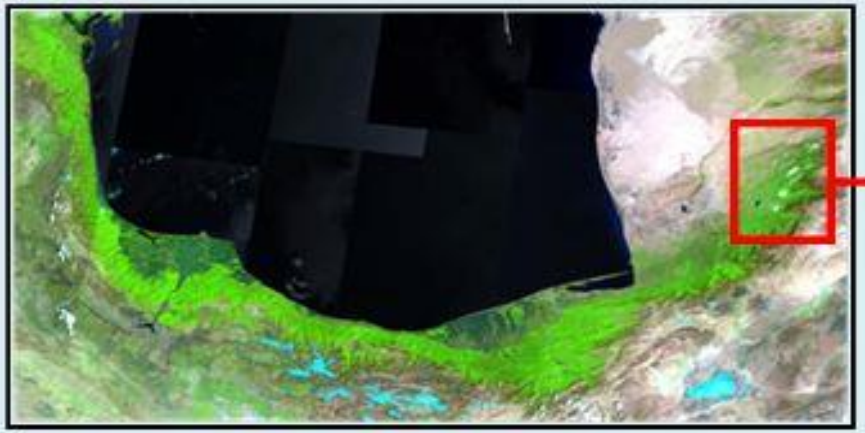

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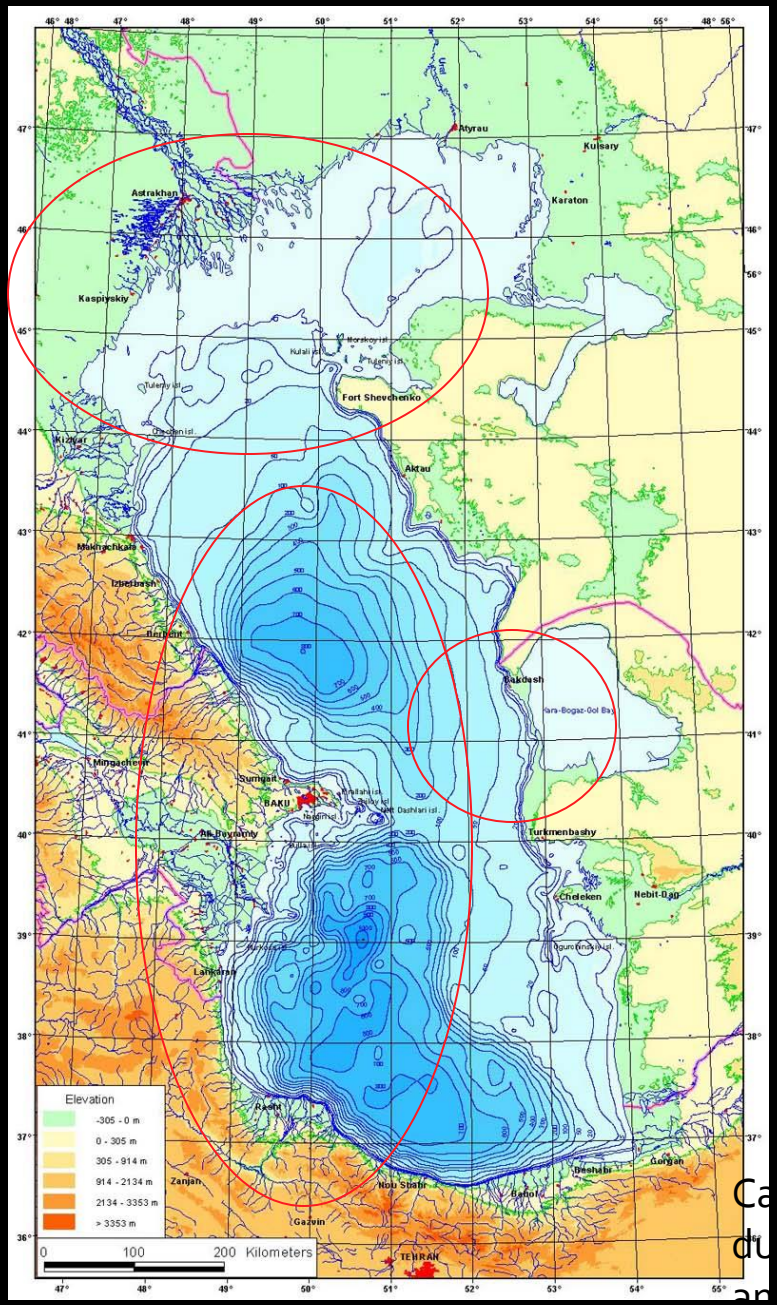
Deforestation added to land cover and land use change are extensive in particular in South Caspian with wide areas of forest being replaced by urban and agricultural land

Hydrological Cycle of Caspian Basin –Shiklomanov et al 1961-2002.



1. Temperature
2. Salinity
3. Evaporative Rate
4. Kara Bogaz Lake Fluctuations
5. River runoff
6. Caspian Bathymetry and warming & cooling cycle
7. Climate fluctuations

1. Annual precipitation change : Wetter north dryer south Caspian
2. Annual Runoff Change Mixed
3. Annual Air temperature change : Warmer
4. Annual Evapotranspiration Change: Mixed increase in north constant in south Caspian

4- Difficulties of triggering change through cooperation

Dealing with environmental issues is more than simply finding problems and fixing them:

- **An increasingly complex system of governance frames global and local responses to emerging environmental challenges.**

- **Scientific knowledge by its own does not circumvent the debate on global environmental pressures as well as other global challenges. Institutions , politics and dynamics between actors do also matter deeply in dealing with Env Change.**

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Framework for action:

- The five littoral have shown an increasing interest in joint cooperation for the protection of the Caspian Sea and its coastal regions.

- In 1998, the Caspian Environment Program (CEP) was established with the aim to halt the deterioration of environmental conditions of the Caspian Sea and to promote sustainable development in the area.

-CEP facilitated to negotiate and finalize the Framework Convention for the Protection of the Marine Environment of the Caspian Sea, also known as the "Tehran Convention" in 2003.

-Tehran Conv. lays down the general requirements and the institutional mechanisms for environmental protection in the Caspian region.

-

-An interim secretariat for the Convention has been set up within UNEP's Regional Office for Europe in Geneva and has a vast network of partners in the Caspian region. The further development and promotion of the Caspian Environmental Information Center (CEIC) as platform for public information exchange is underway.

4- Difficulties of triggering change through cooperation

Objectives of Tehran Convention:

…" environmental preservation, restoration, protection an monitoring, the littoral States are required to take all appropriate measures to achieve these objectives individually or jointly and to cooperate with international organizations to that end"..

- Since 2004, four ancillary Protocols have been developed to give substance to the Tehran *Framework* Convention, covering the four priority areas of concern,

1) Pollution from Land based Sources and Activities,
2) Oil Pollution Incidents,
3) Biological Diversity, and
4) Environmental Impact Assessment in a Trans-Boundary Context.

Until now, only the first two protocols (on pollution from land-based sources and oil pollution) have been signed. The other Protocols (on biological diversity and environmental impact assessment in a trans- boundary context) are expected to be finalized over the next few years.

4- Difficulties of triggering change through cooperation

Objectives of Tehran Convention:

- Despite the progress in the signing and implementation of the Convention and its protocols, the environmental degradation of the Caspian Region is disturbingly increasing jeopardizing the livelihood of many and hindering prospect of long-term growth .

Key challenge 1 : => Lack of Trust

-In the case of managing environmental data, distrust can result in both withholding gathered data and questioning the accuracy of data that partners deliver.

Key challenge 2: ➔ Short term economic and political priorities

Prevailing short-term economic and political priorities of each Caspian State (e.g. with regards to oil extraction) are contributing to long- term environmental volatility of the region.

4- Difficulties of triggering change through cooperation

Key challenge 3 : => lack of systemic overview of instruments

The instruments need a comprehensive review in order to establish how they can be effectively implemented and developed in the future.

Key challenge 4: => Unified Reporting Format for the instruments, a monitoring system needs to be put in place and a fully functional and operational platform for sound State of the Environment (SoE) reporting needs to be further developed and promoted.

Key challenge 5 : => Gap in coordinated research.

There is neither a holistic approach towards gathering data on environmental performance nor a collective understanding of these data, e.g. in the form of common parameters and methodologies

Key challenge 6: => lack of capacity to link upward (global instruments and action plans) and downward reality on the ground

. 'Downward' linkages between regional environmental governance of the Caspian Sea and local and national governance (including by civil society) on the one hand, and between the regional governance and 'upward' regional and global governance (e.g. with the European Environmental Agency, the International Maritime Organization, the Convention on Biodiversity and other global sustainability initiatives) on the other hand have not been well established.[20]

Conclusion remarks…

- A global powerhouse region needs to proces the risks of many insecurities
- Environmental

- The forms of this regional integration are radically different from the integrationist models initiated during the Cold War period. The global canon is often equated to processes of economic integration across the world…

- …Nevertheless, the formation of new regions can also announce new alliances and coalition of likeminded people across national boundaries.

Back to Harmony...

THANK YOU