

Conflict management and water-related disputes



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Water Conflict Chronology Map - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.worldwater.org/conflict/map/

Water Conflict Chronology Map

Region: Select All Conflict Type: Select All Date Range: Select All

Map Satellite Hybrid Terrain

Showing 203 conflicts. (Credits)

1. Jerusalem and Babylon legends recount deluge from deity (since 3000 BC)
2. Egyptian-Greek border dispute involves water diversion (c.1800 BC)
3. Hammurabi's Code facilitates law on water (1790 BC)
4. Tigris River dammed (1700 - 1664 BC)
5. Euphrates River flooded by defeat of Sumer (c.1600 BC)
6. Pharaoh parts the Red Sea (c.1500 BC)
7. Assyrian king destroys Amorite irrigation network (728 - 705 BC)
8. Sennacherib raze Babylon (705 - 682 BC)
9. Hittite dig up springs in advance of Assyrian invasion (701 BC)
10. Assyrian King cuts off water of enemy (681 - 679 BC)
11. Assyrian King tries to engineer walls (649 - 626 BC)
12. Euphrates diverted to Babylonians (612 BC)
13. Nebuchadnezzar uses Euphrates River as defense (562 - 562 BC)
14. Athenian poison wells of enemies (5th Century BC)
15. Athens poison enemies' water (490 - 480 BC)
16. Cyrus diverts the Tigris River (530 - 528 BC)
17. Cyrus diverts the Euphrates (529 BC)
18. Spartans poison citizens of Persia (480 BC)
19. Alexander nears down Persia down (333 - 332 BC)
20. Rome's siege of New Carthage forces Roman (210 - 209 BC)
21. Jewish protector, killed by Roman troops in protest over stream diversion (10 AD)
22. Goths cut Roman aqueducts (507)
23. Seleuk cuts off Crusaders' water (1190)
24. Portugal draws plan to cut Poiss' water (1190)
25. Dutch flood land to reap (Spainish) (1573 - 1574)
26. Canal planned to divert shipping and save Dutch economy (1620 - 1621)
27. China floods rebel peasants (1642)
28. Dutch flood land to reap French (1672)
29. Fanny trouble War of Independence: New York water dispute (1748)
30. British attack New York water (1777)
31. Napoleon orders canal to divert trade to southern Netherlands (1804)
32. Russian bottleneck in (c) wide (1840)
33. Mob destroys reservoir in Ohio (1844)
34. New Hampshire residents attack dam (1900)

Map data ©2008 DeLorme Technologies

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Water as a potential source of conflict

Typical water conflicts

- Dispute of the quantity of the water (e.g. use of border rivers, common water table)
- Dispute of the quality of the water (e.g. pollution to rivers and ground water)
- Dispute of the use of the water areas (e.g. fishing)
- Dispute of the use of underwater areas (e.g. oil, natural gas)
- Dispute of the marine borders

Environmental impacts of the conflicts



Environmental impacts of war

Direct environmental impacts:



Bomb damage



Landmines and UXOs



Sabotage of resources



Depleted uranium



Military waste



Troop movements

Environmental impacts of war

Indirect environmental impacts:



Refugees



Sanctions



Collapse of management



Military exploitation



Corruption



Use of marginal lands

Three ways to look the problem

- Natural resources and environment triggering the conflicts
- How conflicts are influencing to natural resources and environment
- Natural resources and environment as a peace building tool

Natural resources and environment causing the conflicts

- Fight over oil or mineral resources
- Climate change causing environmental refugees
- Natural resources as a financing tool for conflict (forests, diamonds, oil etc.)
- Slowing down the peace processes due to the economic reasons (people benefitting of continued conflict)

Natural resources & conflicts

- Afghanistan
- Angola
- DRC (Congo)
- Indonesia, Aceh
- Liberia
- Sierra Leone
- Somalia
- Sudan, Darfur
- Forests, opium
- Oil, diamonds
- Diamonds, minerals, forests
- Forests, nature gas
- Diamonds, minerals, forests
- Diamonds, coffee, cocoa
- Fishing, charcoal
- Oil, climate change

Conflicts influencing to the natural resources & environment

- Direct influence (destroyed ecosystems, pollution etc.)
- Undirect influence (immigration, refugees, unsustainable use of natural resources etc.)
- Effecting the institutions (collapse of environmental management, increased corruption etc.)

Natural resources & environment in peacebuilding

- Sustainable use of natural resources (e.g. sharing of oil revenues to strengthen peace process)
- Sustainability in reconstruction (environmentally friendly buildings and energy solutions etc.)
- Dialogue and participatory processes (environmental cooperation over borders)

Conclusions

- Conflict prevention: sustainable use of natural resources, climate change adaption, peaceful way of solving conflicts
- During conflicts: help also environment, minimize risks
- After conflicts: environment as part of reconstruction, assess the environmental impacts of the conflicts



**Sediment sample from Danube River in FR
Yugoslavia, June 1999**



**Bomb damage at Novi Sad refinery,
FR Yugoslavia, May 1999**



Refugee camps in FYR of Macedonia, May 1999

Clean-up of environmental « hotspots »

With US\$ 12 million raised from the donor community, UNEP was implementing 15 high priority clean-up operations at three sites:

Pancevo Industrial Complex



EDC, mercury and hydrocarbon remediation, repair of wastewater plant, canal remediation, groundwater monitoring

Kragujevac Car Factory



PCB decontamination and treatment/disposal of hazardous wastes

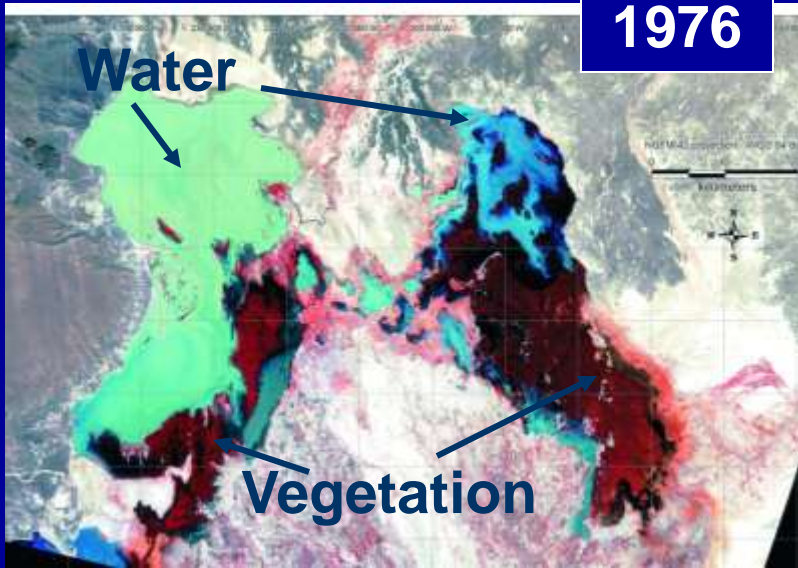
Novi Sad Oil Refinery



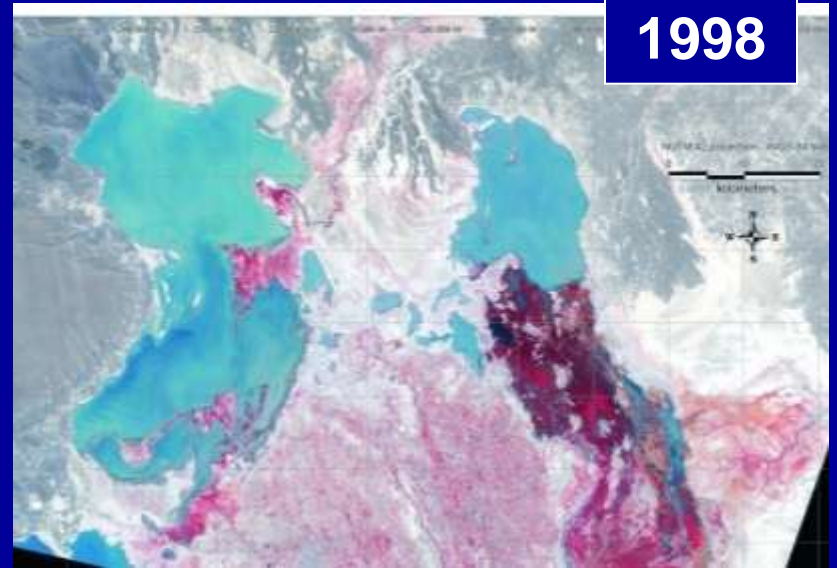
Hydraulic barrier construction, hydrocarbon remediation, repair of wastewater pipeline, groundwater monitoring

Sistan Basin Wetland

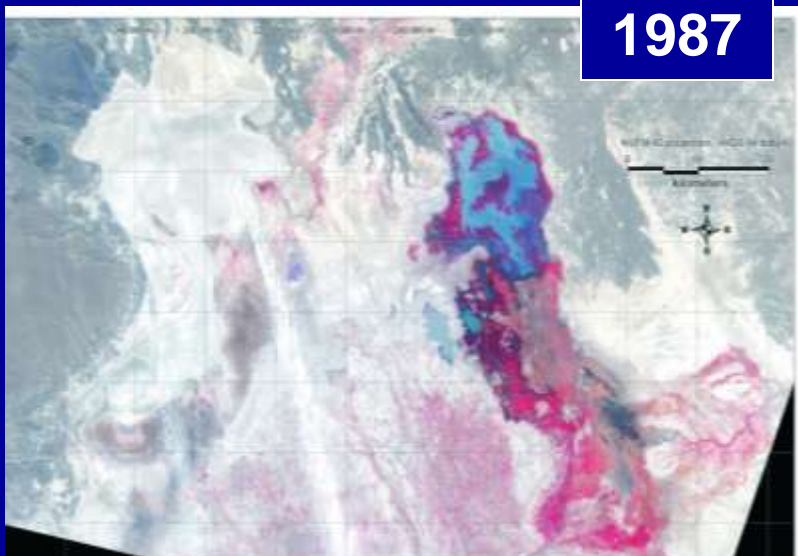
1976



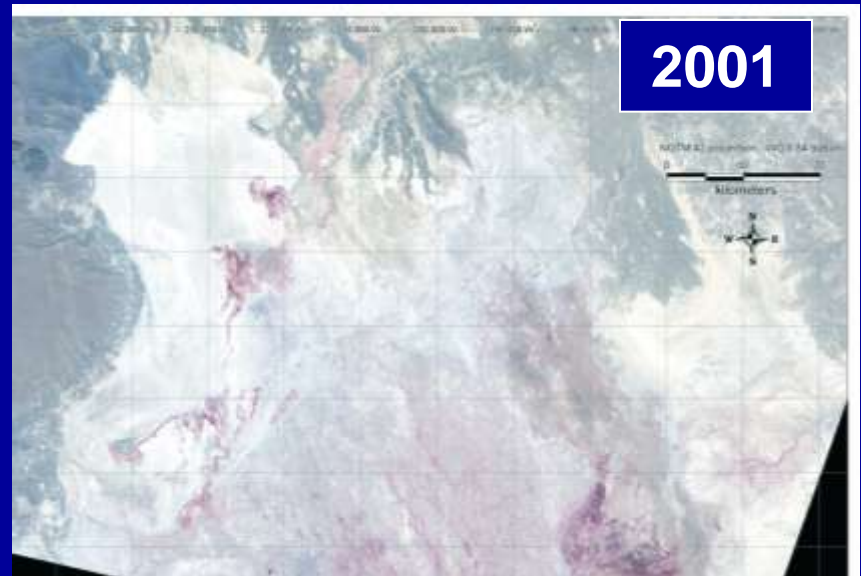
1998



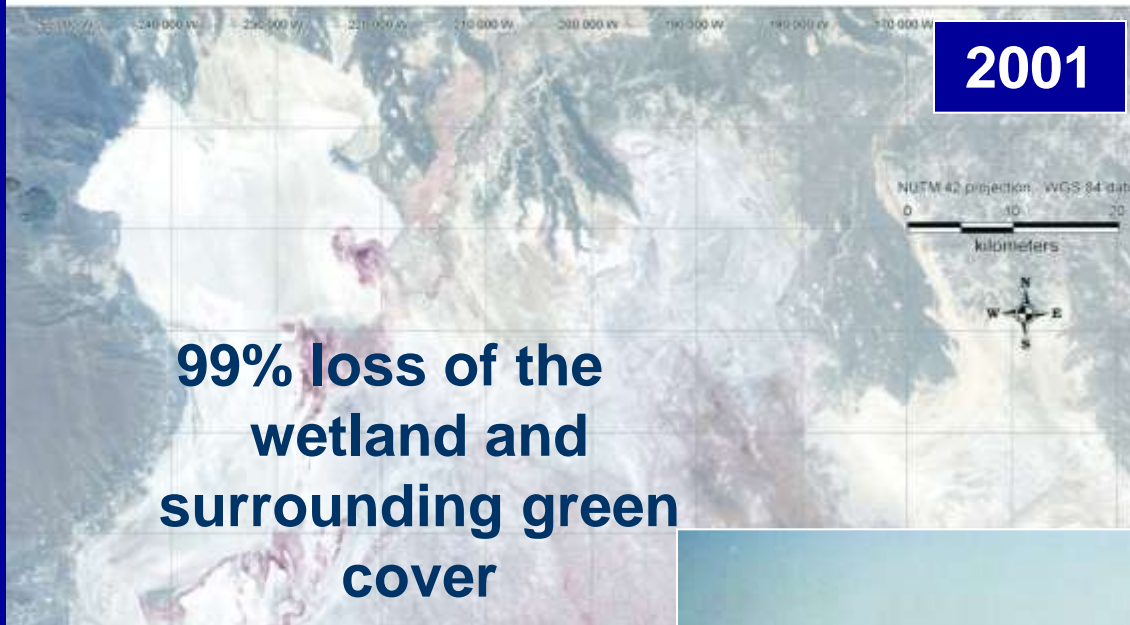
1987



2001



Sistan Basin Wetland



Kole Hashmat Khan Wetland

1976 repeat
photography



2002 repeat
photography



- Urban and agricultural encroachment
- Uncontrolled water extraction
- Drainage ditch

Woodlands deforestation

- Extreme deforestation observed across the country
- Soil erosion/floods are increasing
- **Regeneration is prevented by extensive grazing and cultivation.**



Takhar Province, Farkhar

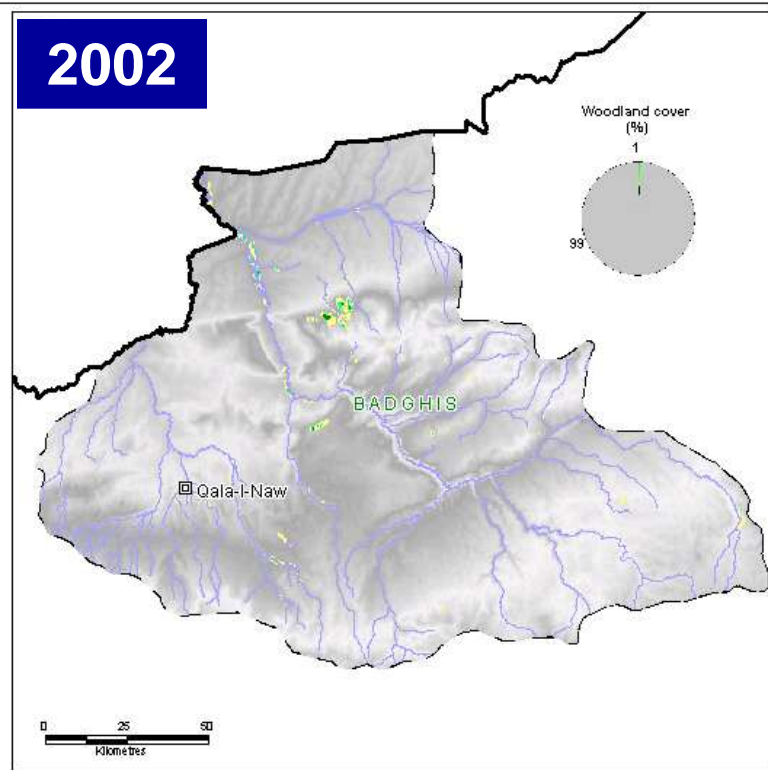
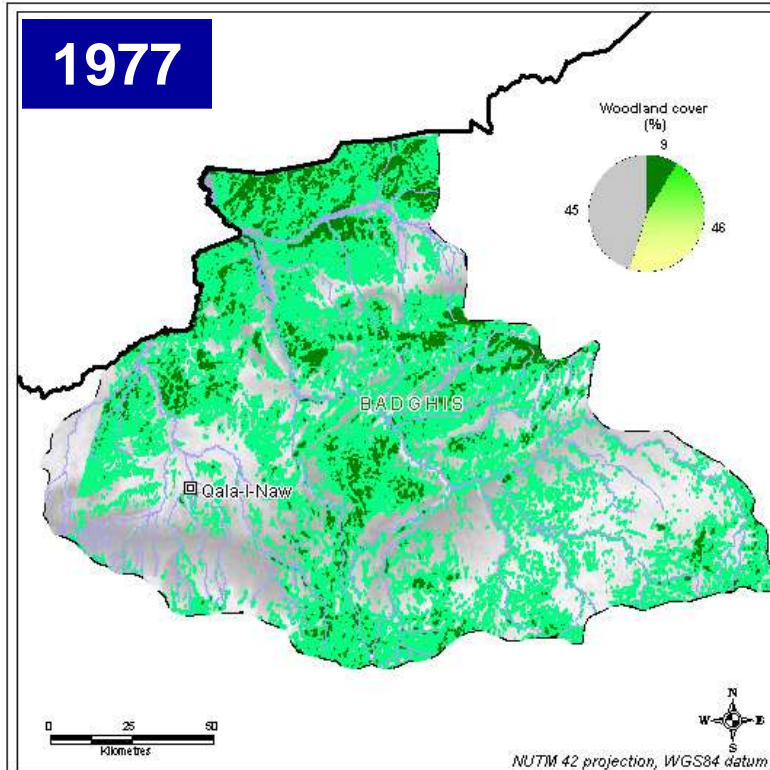


Badghis Province, Qala-i-Nau



Woodlands deforestation

Satellite analyses in Badghis province



- Woodland (tree cover > 40%)
- Woodland low density (20% < tree cover < 40%)

- Woodland very low density (10% < tree cover < 20%)
- No woodland detected (0% < tree cover < 10%)



Wadi Gaza outlet channel – untreated waste water is polluting Mediterranean



Groundwater in Gaza is polluted by agrochemicals and leakages from dumpsites



Open burning of wastes at a temporary landfill in the West Bank

First time in 29 years....



Iranian and Iraqi delegations in Geneva May 18, 2004