

Climate Change Impact on Biodiversity of a Land Under Conflict

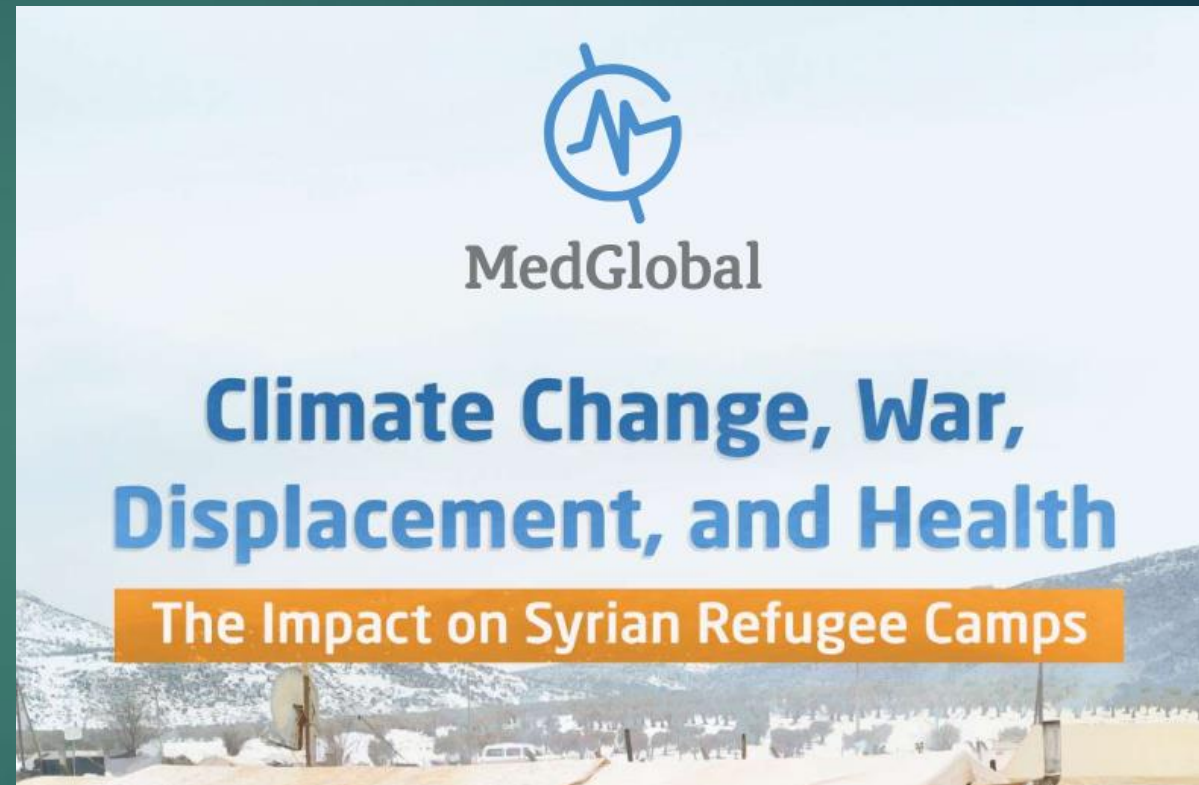
Mwaffak Chikhali (Dr.)
ELARD Syria



Multi-stakeholder Platform for Protecting Biodiversity: Inception Meeting
Beirut, Lebanon, 12-13 July 2023

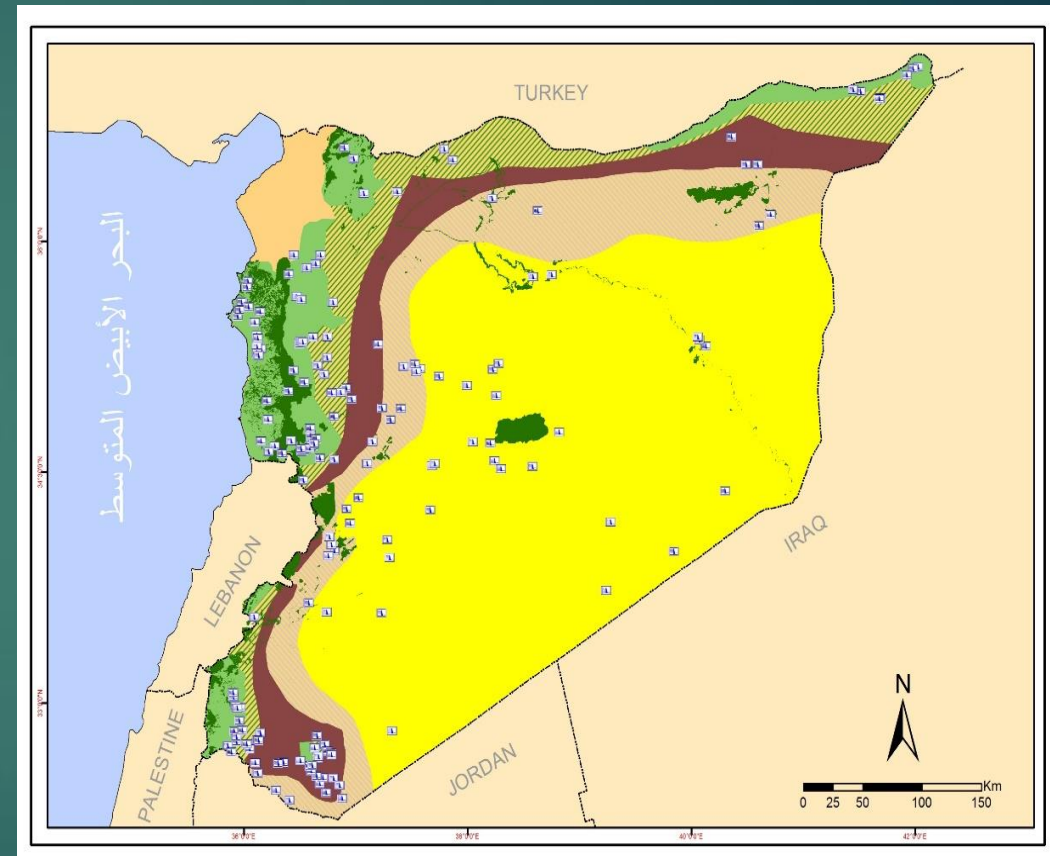
Human-induced climate change was and continues to be a major factor in the longevity of the Syrian conflict, stemming from extreme drought in the region which contributed to large-scale migration and displacement, and aggravating the already unstable socio-economic conditions and increasing risks of civil strife.

Relief inter. 2020



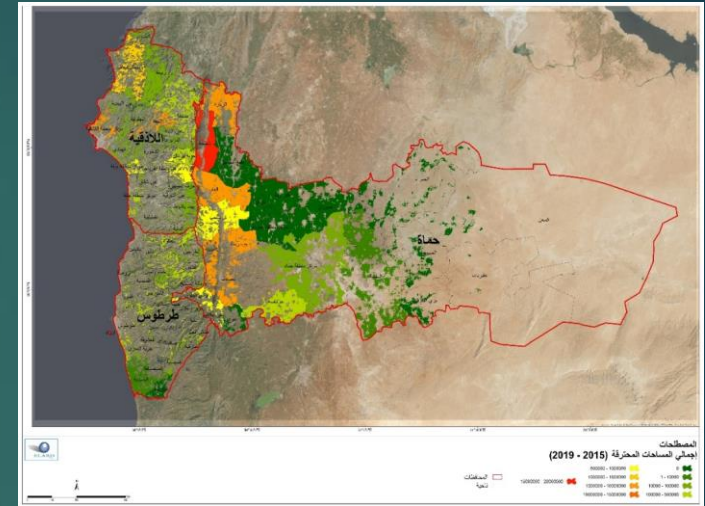
Syria Biodiversity in few Words

- 5 main agro climatic subdivisions
- 10 million ha of dry to semi dry lands
- 7 Large rivers & 170 water bodies
- High Mountains (Hermon, Ant-Lebanon, Golan highs and other)
- 3600 of wild plant species (243 endemic)
- More than 3200 wild species animals (125 mammals, 360 birds, 1500 insects etc)
- Center of Origin for wheat, Barley, and others
- 250k ha of forest and open forest like area



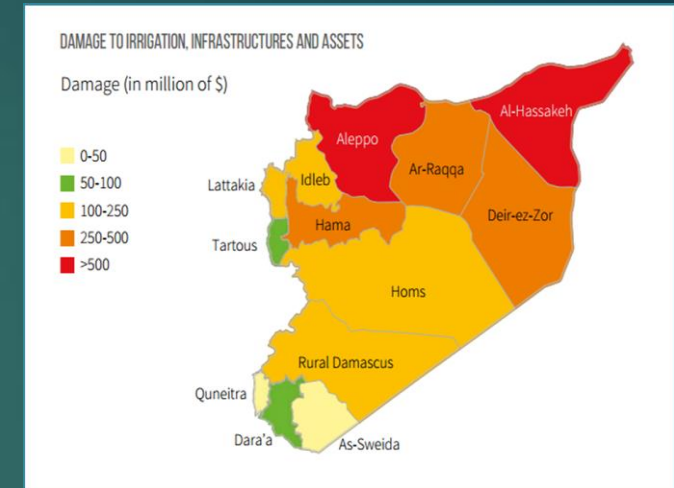
War, Sanctions and Earthquakes

- 5 million Displacements
- Mono Lateral and Western Sanctions;
- Large forest fires 2020
- Power and heating fuel shortage
- 90% of Syrian are under poverty line



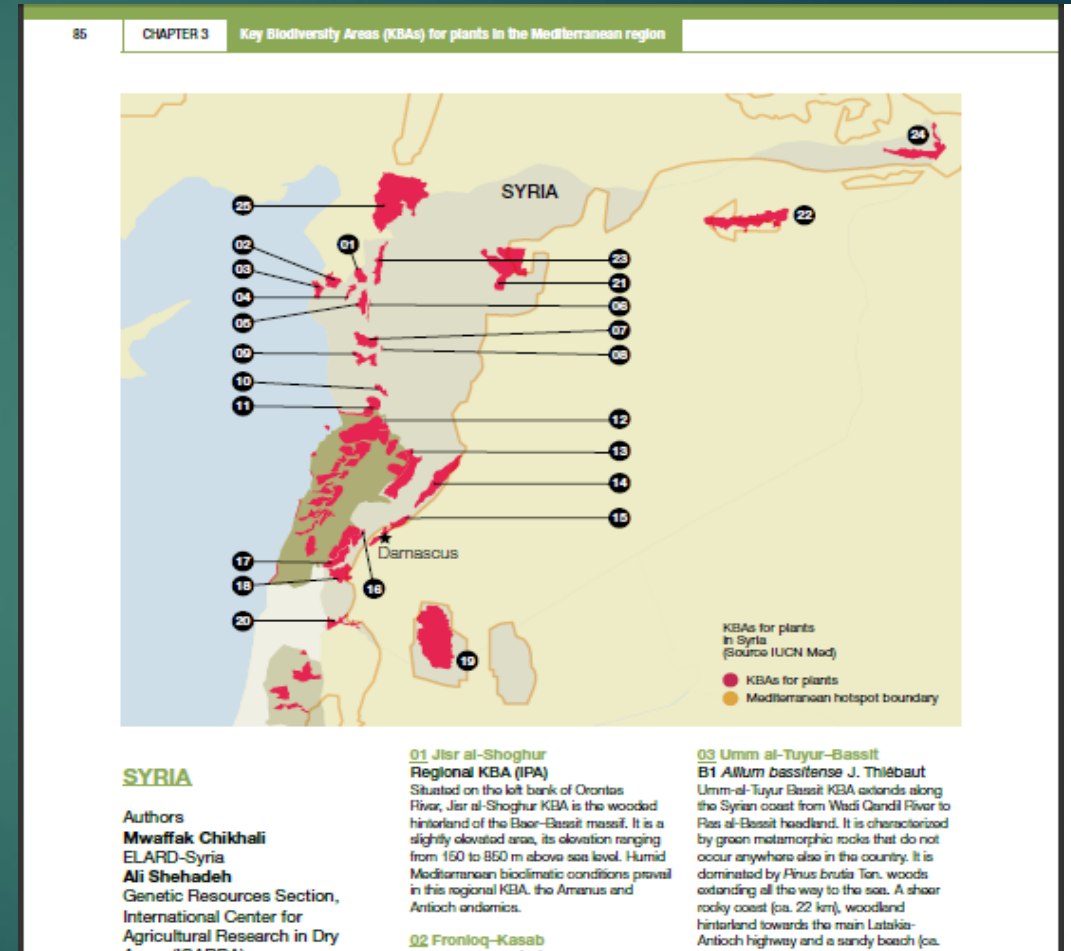
Land, water and conflict

- 15 Billion \$ of damages in irrigation networks
- More than 5000K burned and uprooted fruits trees
- Reduce the wheat production to less than 20% of the annual production.



KBA and Protected Areas

- 23 Key Biodiversity Areas have been listed.
- 26 protected areas (mountain, steppes, wetlands, and marine).
- 280K ha of total surface area.
- Climate change, drought, fire, uprooting and transform into crops lands.



Pilot Case: Northern Bald Ibis

The Northern Bald Ibis (*Geronticus eremita*) is a critically endangered species according to the IUCN criteria.

It was rediscovered in palmyra in 2002 after being claimed to be extinct from the wild in late 1980s from Syria.

Efforts were dedicated to protect the species in the wild and preserve the 7 individuals seen through protecting their breeding grounds near Palmyra and the wintering grounds in Ethiopia.

After ISIS control on the area, The last female spent the spring 2015 alone in the area but was never seen again and no more Ibises are seen in the area and its surrounding since then.



Pilot Case: Flora Syria On Line

- www.fsol.net.sy
- Plant biodiversity of the country in an easy-to-use format.
- Launch activities in research, data collection, information exchange and documentation of Syria's flora
- It is using the Arabic language to describe plant biodiversity in Syria on the species level.
- It is a step to compile the updated taxonomical and geographic information to issue a revised Flora of Syria



Flora Syria On Line

Is a web site on the natural wild plant species of Syria.

Fsol mission is to launch activities in research, data collection, information exchange and documentation of Syria's flora.

Fsol provides on each species the scientific name, the local arabic name, the life cycle, the flowering period, the distribution and Eco-geographic origin, with Description and Characterizations AND Picture's".

Fsol is using the Arabic language to describe plant biodiversity in Syria on the species level.

Fsol aims to provide a unified description of the Syrian plants, with photos and illustrations of most species.

Fsol's data cover all Syrian territories.

Search Fsol

- Plant (s) in Syria and/or in an area (s) of Syria. Distribution area for a plant
- Flowering plants in a month/months
- Trees or species of a life cycle in an area.
- Species of an economic value
- Species of a genus/or family.

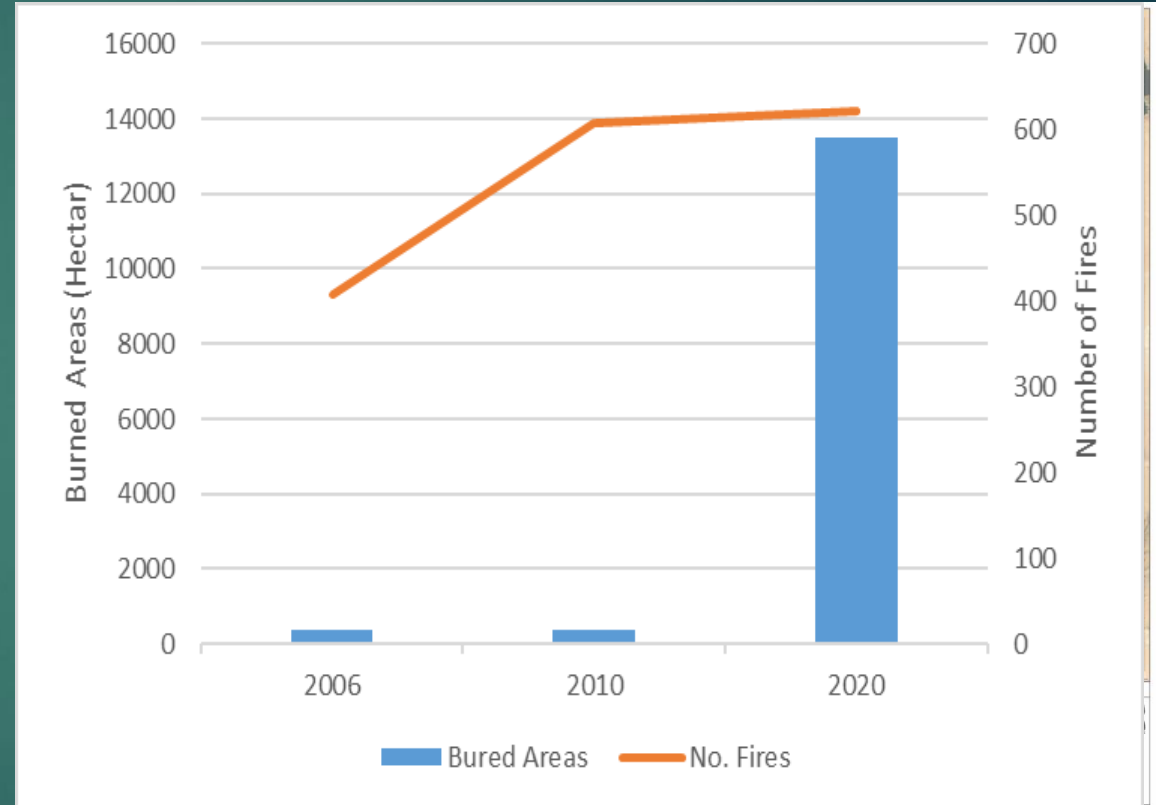
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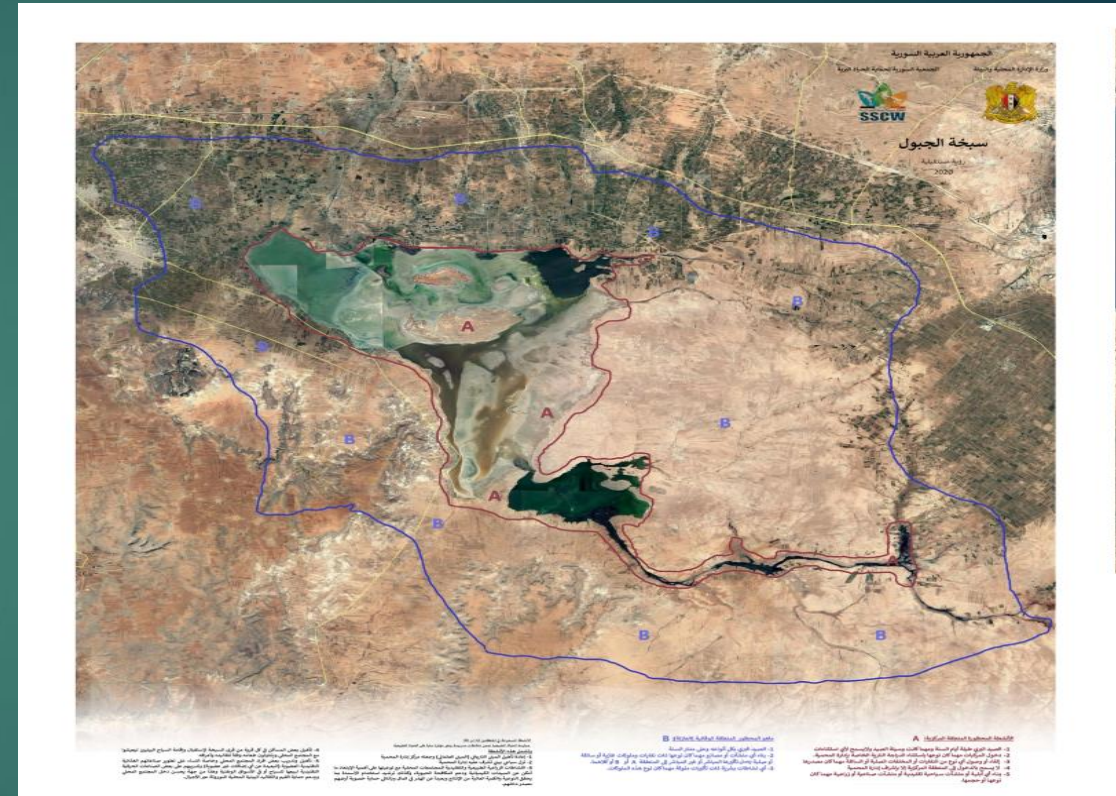
Pilot Case: Forest Fire and Climate Change

- About 15K ha in 2020
- More than 500K of impacted local residences
- The Syrian forests are the habitats of several endangered wild flora and fauna (Cedrus, Quercus, deer, falcon, Aleppo pine and Syrian and Vilonia oak).
- Decrease the annual rainfall, hot dry winds, low financial resources, terrorism and armed conflict.



Pilot Case: WetLands (Jabol Lake)

- A Ramsar protected area since 1998
- An important site on the line of migration of birds between Asia, Africa and Europe (the neck of the bottle).
- Challenges: water scarcity, destroy the natural habitat, industrial water, illegal hunting and man made fires to capture the birds.
- Actions: Restore the water banks, Support the local community to develop the site as eco tourism economy, support the research and monitoring programs



**Environmental
Post Conflict
Assessment**

**Recognize the
impact of
conflict on
biodiversity**

**Links between
SDG 15: Life on
Land and SDG
16: Peace,
Justice and
Strong Institutions.**

**Integrate
environmental
and climate
security action**

**Human
Resources and
Capacity
Building**

**Networking
with Syrian
experts, NGOs
and other
players**

**View
Biodiversity
positive
activities as a
potential
opportunity
to support
peacebuilding**

**Include
Women and
Young people
in Action**

**Build
Collaborative,
coherent
information
sharing
networks and
Databases**

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