

Knowledge about climate stress could counteract conflicts

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The border between Turkey in the north and Syria in the south has similar biophysical characteristics but shows a difference in vegetation greenness. Research at Lund University tries to find out why. Credit: SentinelHub

To find out why so many people have left their farms in north-eastern Syria, physical geographer Lina Eklund uses both satellite data and interviews.

"It is important to understand what can be linked to [climate change](#) and what are societal factors, so that we can better equip ourselves for the future."

Lina Eklund has specialized in remote sensing, which enables her to determine what happens over large land areas over time by studying satellite images and measurement data. Images of the region between Syria, Turkey and Iraq show a marked difference on either side of the border. Dry and brown in Syria, green and fertile on the Turkish side. Eklund wanted to move beyond the simplistic correlation that many people see between drought and conflicts in society. The countries in the region managed climate stress manifested through the [severe drought](#) of 2007–2009 in different ways.

"Nobody has been able to prove that the drought that happened almost 15 years ago was what caused so many people to move from their homes in north—eastern Syria, but nobody has been able to disprove it either," explains Lina Eklund.

Through the Climate Stress Syria project, researchers want to find out what happened to these people after they moved. What happened to their land? Did they own the land, was it sold or taken over by relatives? Will they ever move back home?

Adaptation and support

There are many factors that affect the management of natural disasters and negative climate impact. Lina Eklund mainly studies how land systems have been affected by drought, for example in changes to the cultivation of various grains.

"Some of the systems are more vulnerable than others and there are natural variations, such as differences in temperature and precipitation.

But there are also demographic differences: who lives where and how much support they get from public authorities and the state."

Many Kurds live in north-eastern Syria. As a doctoral student, Lina Eklund studied the same drought from a [different perspective](#)—from the other side, in Iraqi Kurdistan. Among her informants there, almost none of them had migrated because of drought.

That the same challenges can have different consequences in different parts of a region is clearly noticeable in comparisons between Turkey and Syria.

Broad knowledge needed

Leading a research project within the framework of the Centre for Middle Eastern Studies is a fantastic asset, according to Lina Eklund. She can access specialist knowledge and different perspectives from political scientists, historians and religious studies scholars, which has given her insights and ideas for her own research.

"I have thought about how I can contribute to the climate-conflict with my studies in remote sensing, because sometimes it feels as though we are just in a loop and not moving forward. It is quite a dark subject with serious issues. But it is also important and it drives me onward—it deals with people being affected by factors over which they had no influence."

In order to capture the perspectives of those affected by events, interviews are conducted on-site, where possible. That has been a challenge both during the conflict and the pandemic.

"We were forced to be creative and find other ways to gather valuable data. We got help from a Syrian guy who tried to conduct interviews via Skype, but it was difficult to get it to work. Now we are collaborating

with an organization in Turkey which is collecting information from Syrian migrants."

Their answers are then linked to analyses of [satellite data](#) clearly showing two years of failed harvests linked to the drought, after which the land could be cultivated again. The damage was not permanent. The same thing happened after a similarly severe [drought](#) in 2000, although that did not lead to conflicts such as popular unrest, insurgency or full-scale civil war.

Nuanced debate is important

The debate on the link between climate and conflict is layered. There is a group that bases its arguments on large amounts of hard environmental data and shows the potential consequences of events such as one degree of global warming. Other researchers believe that we need to understand what is happening on the ground as well. Different economic systems, societal norms and traditions often play a major role.

However, everyone agrees that climate change will lead to more conflict, they just don't know exactly how.

"We hope to be able to produce a few recommendations, but our project is not a policy project. On the other hand, our contribution could lead to increased learning and knowledge to carry forward and contribute to a more nuanced debate," summarizes Lina Eklund. "The most important thing of all is to learn from past events to be able to meet similar crises in the future."

New fieldwork awaits the Climate Stress Syria project in January 2022.

More information: Climate Stress Syria.
[popenvmiddleeast.wordpress.com ... imate-stress-syria/](http://popenvmiddleeast.wordpress.com...imate-stress-syria/)

Provided by Lund University

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