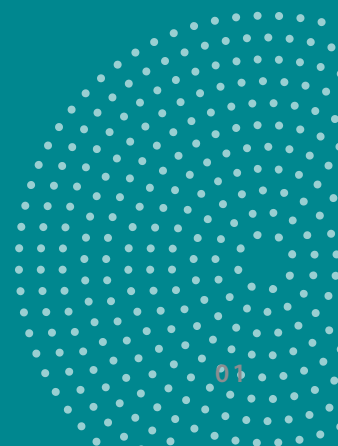




# CLIMATE-CONFLICT NEXUS IN NORTHWEST SYRIA

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# **UNDERSTANDING THE CLIMATE-CONFLICT NEXUS IN NORTHWEST SYRIA: A PRACTICAL AGENDA FOR ADDRESSING EXTREME WEATHER, RISK AND ADAPTATION.**

<b>INTRODUCTION</b>	<b>04</b>
<b>KEY DISCUSSIONS POINTS</b>	<b>05</b>
<b>CONCLUSION AND RECOMMENDATIONS</b>	<b>09</b>





# INTRODUCTION

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Syria serves as a prime example of the impact of climate change on pre-existing issues such as political instability, poverty, and scarce resources. Conflict in Syria has caused enormous environmental damage, leading to ground, water, and air pollution. Moreover, uprooting trees and destruction of agricultural land have further weakened the agricultural sector. All these factors affect Syria's humanitarian needs and the country's ability to promote future food and economic security when the war ends.

The failure of humanitarian actors in Syria to prepare for climate change and adapt to its conditions, could lead to dire negative consequences, impacting their ability to continue supplying basic needs, above all water and food. Moreover, problematic environmental factors and the absence of a suitable response will also hamper reconstruction efforts. Hence, for the early recovery phase in Syria, it is imperative that Syria is made more resilient by transitioning to more energy and water-secure infrastructure.

To provide more clarity on causal mechanisms behind the nexus of climate and conflicts and suggest more tailored policy responses and interventions. Nasaem Khair organization in collaboration with the Food Security and Livelihood Cluster (FSL), and the Syria Development Center organized a two-hour webinar presenting the strategic importance of understanding the links between conflict and climate change.

This session provided a unique opportunity for humanitarian actors in the Syria crisis to convene virtually and discuss the increasingly critical connections between conflict and environmental degradation. The overall objective of the webinar is to forge a collaboration that will inspire solutions through which action on environment restoration can be accelerated, towards climate change mitigation and peace in Syria.



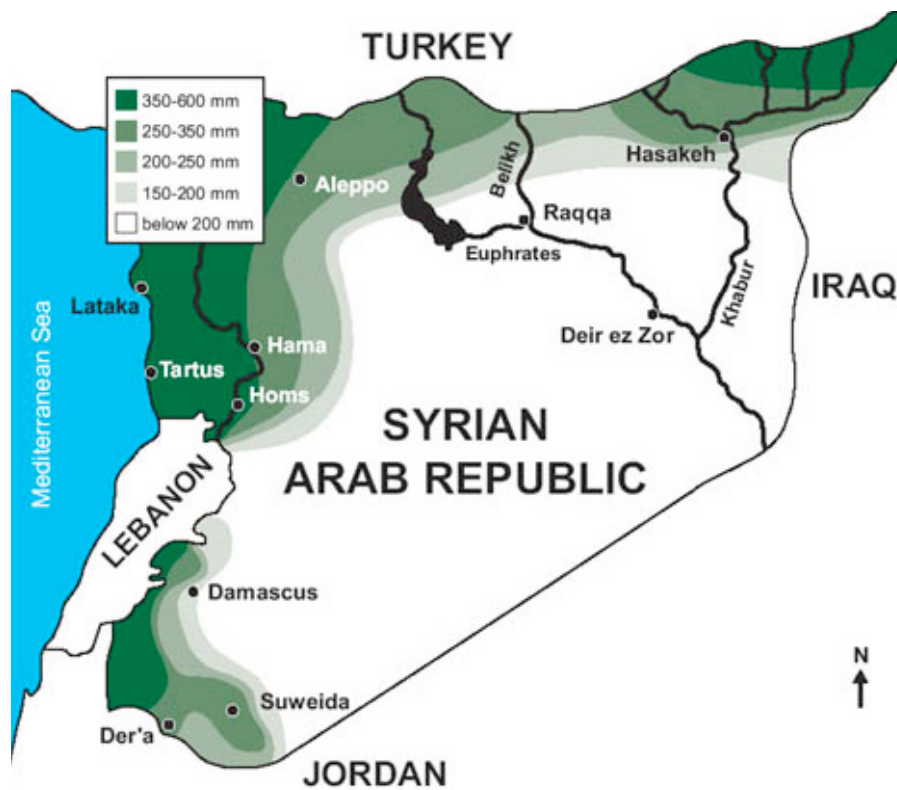




# KEY DISCUSSION POINTS

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- There is growing recognition of the interrelationship between climate change and conflict. Research and field experience are demonstrating that these dynamics are often particularly acute in countries that are fragile, or conflict affected. It is important, therefore, that humanitarian actors working in the Syria context be aware of how climate change may affect security and stability, and how dynamics of conflict, fragility, and peace may either support or hinder efforts to address climate change. Examining the climate change–conflict nexus can help avoid unintended outcomes that undermine humanitarian objectives and illuminate opportunities to strengthen efforts to promote both peace and climate resilience.
- Climate change has also been claimed to play a complicating role in Syria crisis, though no conflict has a single motivating factor. Climate change will continue to be a ‘risk multiplier’ of conflict, insecurity, and fragility unless it is effectively embedded into the management of risk and building of resilience.
- What determines whether (or how) climate change will lead to conflict lies in the ‘intermediary factors’ which affect the relationship between climate and conflict. The effects of climate change, such as more frequent natural disasters, and long-term changes in precipitation and temperature, could combine with other factors to increase the risk or prevalence of violent conflict. Increased vulnerability to conflict depends on a mix of factors: the context of poverty, effectiveness of governance and institutions, adaptive capacity, political inclusion, and financial management. These factors affect the capacity of individuals and institutions to adapt to climate change and manage conflict in a peaceful manner.
- Examining the climate change–conflict nexus can help avoid unintended outcomes that undermine humanitarian and development objectives to promote both peace and climate resilience. Moreover, understanding the vulnerability of people, infrastructure, and ecosystems to climate change can illuminate the potential for existing social tensions to be exacerbated, or for new tensions to emerge.
- Based on the information in FSL, between 2020 and 2021 the number of people in need of humanitarian assistance in northwest Syria has increased from 2.9 to 3.4 million people.
- In northwest Syria, more than 2.8 million are IDPs (Internally Displaced Persons), many of whom are living in overcrowded locations with limited access to essential services. Approximately 1.7 million IDPs are living in 1,385 camps or informal sites. Due to displacement the availability of agriculture land for farming has decreased and thus reducing the capacity of producing food for people in NW Syria.



Agricultural stability zones in the Syrian Arab Republic

- Effects of climate change in NW Syria (on agriculture and livestock sectors) include but are not limited to:
  1. The low and unstable rate of rainfall in NW Syria
  2. Low levels of ground water
  3. Fire crops
  4. Increase in random wells
  5. Decrease in the vegetable index, while there was increase in the desertification rate
  6. Increase in soil salinity
  7. Frost in the winter season



8. Shift from wheat planting to cash crops
  9. Shortage of drinking water for livestock
  10. Decrease in fodder crop production and increased prices
  11. The main local impact of climate change was low productivity in all crops, and in particular wheat crop that are considered as the main crop in Syria
  12. There have been some initiatives and projects supported by UN agencies and other donors/actors to mitigate climate change in NW Syria, such as:
  13. Supporting irrigation projects, including rehabilitation of irrigation canals
  14. Supporting agricultural interventions, including value chain support
- There is much that can be done to ensure that climate change does not lead to increased conflict, insecurity, and fragility, even in the absence of downscaled climate forecasts at the local level. Addressing the root causes of vulnerability to climate change impacts – such as the lack of livelihood diversification, unsustainable management of natural resources, weak or inflexible institutions and inequitable policy processes – can help ensure local plans for uncertainty and peacefully manage a range of possible futures which climate change presents.
  - Taking account of the links between conflict, climate and environment is central to building resilience in conflict affected areas. Better policy responses are required to ensure conflict prevention initiatives take account of climate changes, and to use climate change adaptation in support of stability. Practical steps, such as ensuring that all climate change adaptation is conflict sensitive and that all conflict programming takes account of medium- to long-term climate change predictions, will help minimise the risk of interventions inadvertently doing harm. However, given the multiple levels of uncertainty a comprehensive risk management approach is required.
  - Gaps in evidence exist on how to build resilience to climate change. There is a lack of well documented examples, at scale, on how to achieve ‘resilience to climate change’ in order to support resilience building for the whole of Syria. For example, what are the policies and programmes that have positive outcomes on adaptation and development progress.
  - People living in places affected by violent conflict are particularly vulnerable to climate change.

Evidence shows that large-scale violent conflict harms infrastructure, institutions, natural capital, social capital, and livelihood opportunities. Since these assets facilitate adaptation to climate change, there are strong grounds to infer that conflict strongly influences vulnerability to climate change impacts.

- Climate change impacts natural resource-dependent livelihoods most directly. For example, through a decrease in agricultural yields, the gradual unsuitability of traditional grazing grounds, or the drying up of important water bodies. As well as threatening jobs connected with climate-sensitive natural resources, this can contribute to serious declines in agricultural production, and erode food security.
- Climate change affects directly and indirectly in many aspects of food security, particularly in the agricultural and livestock sectors. In Syria, droughts and worsening weather, could put millions of people at risk of food insecurity.
- Agriculture is the main source of income and employment for the large portion of the poor in north Syria. Agriculture is therefore the sector most vulnerable to climate change, directly impacting the economic activity in north Syria and increasing the risk of hunger and malnutrition. However, agricultural development is also the most effective tool against hunger and poverty, as it is two to four times more effective than other sectors at increasing the income of the poorest groups.
- Various types of adaptation can be distinguished, including anticipatory and reactive adaptation, private and public adaptation, and autonomous and planned adaptation. Unlike mitigation, adaptation cannot be considered from a global perspective. Every region has its own peculiarities, with the adaptation measures required varying from place to place. The challenge of adapting is much more difficult for developing countries because, in addition to being more exposed to the effects of climate change and being more vulnerable, they have weaker institutions and limited access to technology and markets.
- There is a wide gap between the cost of adapting agricultural systems to climate change and the finance provided. Action is required to ensure that financing mechanisms combating climate change consider the agricultural sector and food security.
- In Syria, based on meteorology studies, droughts will be more frequent and more severe and protracted, also, extreme weather events could be more frequent and more unpredictable, this will increase the unpredictability of climate in the region.







# CONCLUSION & RECOMMENDATIONS

- In Syria, agricultural production systems and livestock should undergo a transformation to adapt to climate change, contribute to mitigation without compromising food security and nutritional status of the populations and achieve sustainable development of farming.
- There is an urgent need to identify the direct impact that climate change will have on agricultural production in different regions, as this will impact significantly on the design and funding of policies to combat climate change. This is the only way in which measures can be implemented to make agricultural systems more resilient to the climate, and to achieve efficient resource usage that does not undermine future food security. Consequently, it was stated that the farming sector in north Syria should focus on the following areas:
  1. Analysis of “hot spots”
  2. Improvement and integration of weather forecasting systems
  3. Early warning systems for serious weather conditions
  4. Appropriate handling of risks resulting from natural disasters and the preparation of contingency and social aid plans
  5. Incentives and the adoption of best farming and land use practices.
  6. Improvement of water storage and conservation systems
  7. Water reuse
  8. Increased efficiency of water use and irrigation
  9. Changes to planting cycles for different crops
  10. Improvements to land management to avoid soil erosion
  11. Implementation of disease monitoring systems to warn of possible outbreaks
- Measures to ensure food security in the face of climate change must aim to achieve sustainable and robust agricultural development, taking into consideration the needs of the most vulnerable, such



as women and children, whilst improving nutritional quality, as appropriate nutrition helps make the population more resistant to the consequences of climate change, such as disease outbreaks and poor hygiene.

- Investment in the agricultural sector must aim to contribute to food security, considering sustainable development, adaptation to climate change and its contribution to mitigation. These factors are included in what called “Climate-smart agriculture”. The smart-agriculture concept includes aspects related to improving production systems, policy coordination locally, nationally and internationally and finance for the transformation needed by agriculture. The speakers set out the key factors required for sustainable agricultural production. These include:
  1. Appropriate soil and nutrient management, based on practices that reduce needs for synthetic fertilisers
  2. Improvements to the management of ecosystems and agricultural biodiversity
  3. Use of genetic resources, both through preservation of natural genetic resources and the generation of new varieties that are more resistant to adverse climate conditions, pests, and diseases, and adapting production cycles
  4. Improved post-harvest preservation, both in storage and distribution.
  5. Implementation of agricultural conservation
  6. Spreading information amongst agricultural communities on sustainable agricultural practices, together with information from early-warning systems for bad weather
- More efficient energy use in agriculture, in particular the management of nitrogen and manure fertilisers as well as cultivated land. The main measures suggested by experts to achieve this efficiency are:
  1. Increasing the productivity of livestock systems to avoid deforestation and degradation of pasture land
  2. More effective management of livestock waste
  3. Replacement of fossil fuels by renewable energies in the food sector

- Building resilience and managing risk should become the new mantra of the post2021- era in Syria, bringing with it opportunity to improve policy action on the intersection of conflict, climate, and environment.
- Suggested ways to improve policy and practice on the climate–conflict linkages include: i) the integration of climate change considerations across humanitarian plans; ii) the inclusion of climate change risk into multi-hazard risk assessments and analysis of stability; and iii) the application of conflict sensitivity and Do No Harm approaches to disasters and climate programming.
- Guidelines, standards, and tools exist on how to address climate and environmental risks in humanitarian programming.
- Support metrological ground stations that can measure rainfall, as well as support research centres dealing with climate change impacts (drought, flood, crop fires
- Humanitarian interventions should be based on careful analysis of the links between climate change, conflict, and development. Climate-related conflicts are typically complex and multi-layered, and prior assumptions about the role of climate change in conflicts often turn out to be wrong or only part of the story. Thorough analysis is therefore needed prior to interventions.
- Mainstreaming of climate change mitigation and adaptations aspects in all humanitarian and development interventions.
- Adopting cross-sectoral approach. Addressing climate-related conflicts will typically take its outset in the ‘green’ sectors, i.e. agriculture, natural resource management and environment, etc. However, conflict prevention and resolution require engagement with other sectors, e.g. protection, WASH, education, health, and early recovery.
- Building resilience to climate change requires long-term perspectives. It was discussed that there are three main approaches to building long-term climate resilience: delivering activities over long timeframes, promoting long-term climate-resilient planning, and accessing long-term finance for climate-resilient investments.
- Gender equality and economic inclusion is vital for reducing long-term vulnerability to climate change. Promoting gender equality and ensuring equal rights and opportunities for women and men to access economic resources and benefits and promoting capacity building and appropriate



gender relevant technology are all essential to building the resilience of both women and men.

- Investing in locally managed organisations and businesses and supporting local access to products and services that support the better management of climate risk is crucial in building climate resilience at the local level.
- The importance of shifting towards the holistic way of thinking to address the issues within the water, food, and energy nexus.
- It is important for both policymakers and practitioners to recognize the potential intersections between conflict-affected situations and climate change, and to proactively design approaches that minimize negative outcomes and maximize positive ones.
- Ending the conflict requires an integrated approach, including greater humanitarian aid and economic development efforts to mitigate climate change effects.

