



10 INSIGHTS ON CLIMATE IMPACTS AND PEACE

A summary of what we know

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INTRODUCTION

Climate change is one of the most pressing political, economic and environmental issues of our time. Not only has our understanding of climate change and its direct impacts advanced significantly over the past decade, but so too has our knowledge of the relationships between climate change, security and peace.

This synthesis for policymakers provides an overview of the growing research on the links between climate change, security and peace. In particular, it answers the following questions:

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- *When and how can climate change contribute to more conflict and fragility?*
 - *On which points do scholars disagree and why?*
 - *Why is existing research likely underestimating climate-related security risks?*
 - *How can we expect climate-related security risks to develop in the years ahead?*
 - *What are critical gaps in our knowledge of climate-related security risks?*
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1. THE RISKS THAT CLIMATE CHANGE IMPACTS POSE TO INTERNATIONAL PEACE AND SECURITY ARE REAL AND PRESENT

- Climate change impacts inhibit peace by undermining human security and increasing the impact of other drivers of conflict and fragility.
- Current academic debates focus on the conditions under which specific climate change impacts contribute to causing, intensifying or prolonging conflict.

Climatic exposure and fragility overlap in many parts of the world, creating joint risks.



Climate exposure data sources: Global Precipitation Climatology Centre; UNEP/GRID-Europe; Viewfinder Panoramas; Fragility data sources: 2014 data from Center for Systemic Peace; CIA: Gibney et al.; Kaufmann, Kraay and Mastruzzi; Miller, Holmes and Kim; Pilster and Böhmelt; Political Instability Task Force; Marshall, Gurr, and Jagers; US Committee for Refugees and Immigrants; World Bank; Compilation of armed conflict datasets and consultations with conflict experts.

Taken from Moran, A., Busby, J. W., Raleigh, C., Smith, T. G., Kishi, R., Krishnan, N., Wight, C. and Management Systems International, 2018. *The Intersection of Global Fragility and Climate Risks*, p.20. Retrieved 11 June 2020 from https://pdf.usaid.gov/pdf_docs/PA00TBFH.pdf.

Whether increased competition over natural resources escalates into conflict depends on a number of risk factors.

» **A history of conflict & fragility**

Civil war, ethnic rivalries, and interstate conflict often establish a culture of violence, weaken cooperative mechanisms, and make arms easily available.



» **Inequality & Marginalisation**

Imbalances in power and rights can lead to differences in access to resources, which can entrench poverty and inequality. Inequality, or the perception of it, can spur conflict between 'haves' and the 'have-nots'. Marginalised groups are often excluded from formal methods of resolving resource conflicts.

» **High dependence**

Groups that are highly dependent on specific supplies of natural resources and lack alternatives may be more likely to pursue coping strategies that could spur conflict.

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2. CLIMATE CHANGE IMPACTS AFFECT COMPETITION AND CONFLICT OVER NATURAL RESOURCES SUCH AS LAND AND WATER

- Climate change impacts can create new disputes over natural resources, especially in areas where conflict management mechanisms are weak and where certain groups face political exclusion.
- Infrastructure development and increasing water withdrawal could harm downstream countries and spur diplomatic tensions. This necessitates closer cooperation across transboundary river basins.

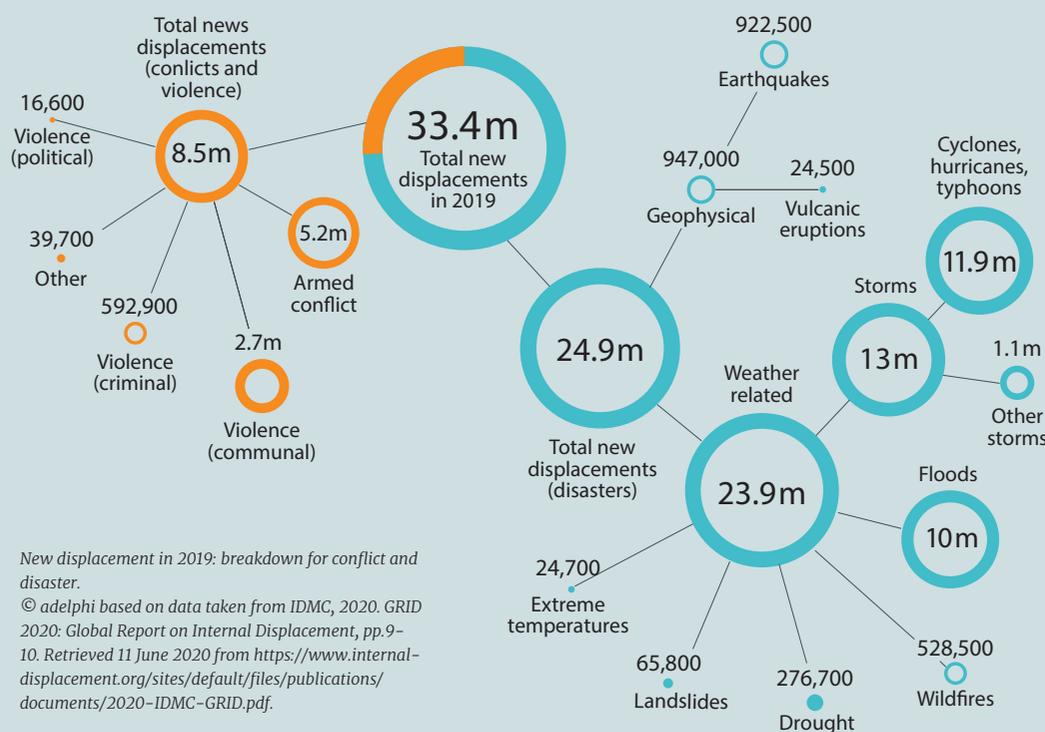


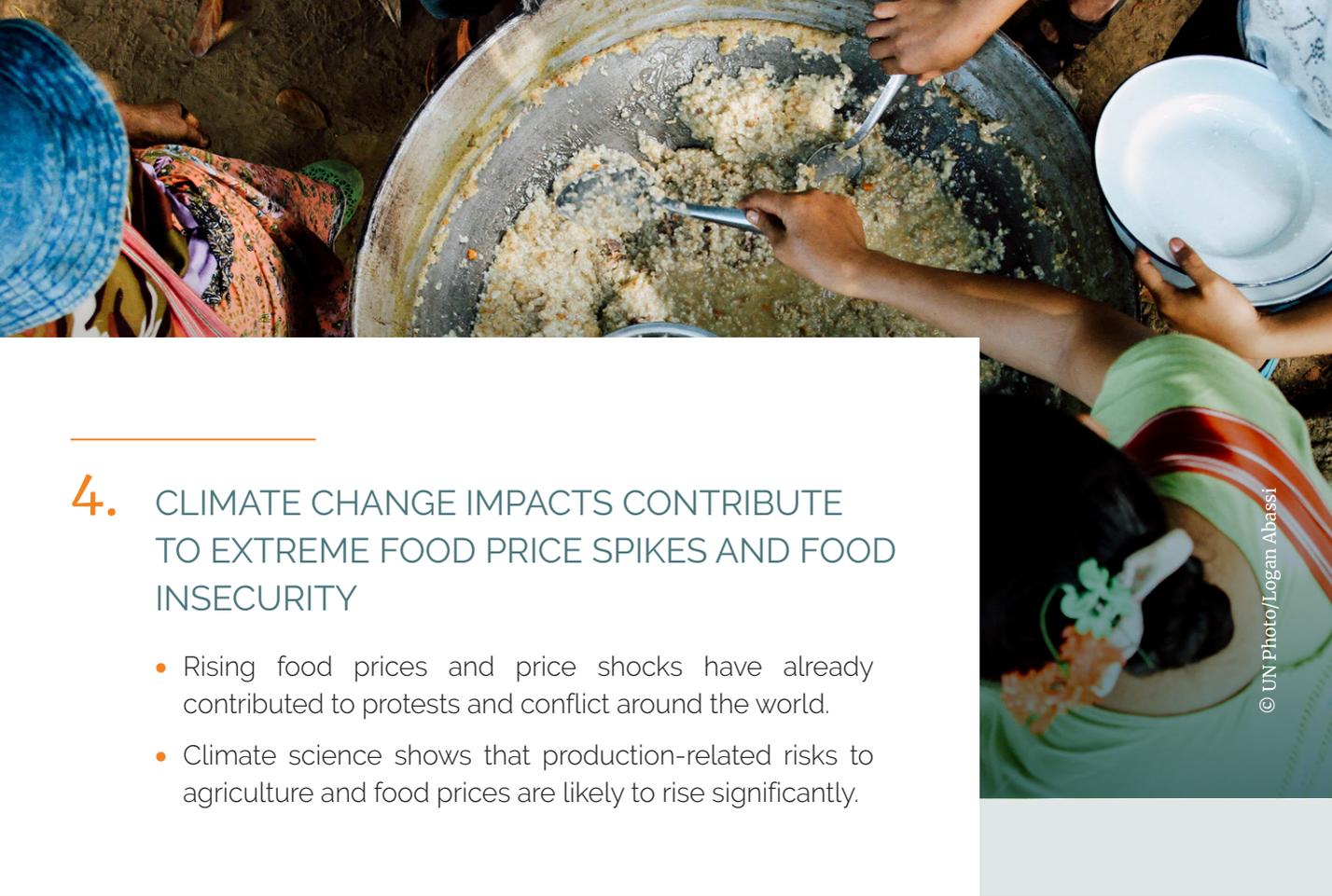
3. CLIMATE CHANGE IMPACTS UNDERMINE LIVELIHOODS, AFFECT HUMAN MOBILITY, AND PUSH PEOPLE INTO ILLEGAL COPING MECHANISMS

- Where livelihoods are lost due to climate change, people may turn to illegal coping strategies and non-state armed groups.
- Partly in response to climate change impacts, internal migration is likely to grow in the future. While this can be an important economic driver and coping strategy, it can also create tensions with underserved host communities and stretch capacities in rapidly growing urban areas.



Natural disasters and conflict newly displaced more than 30 million people last year.

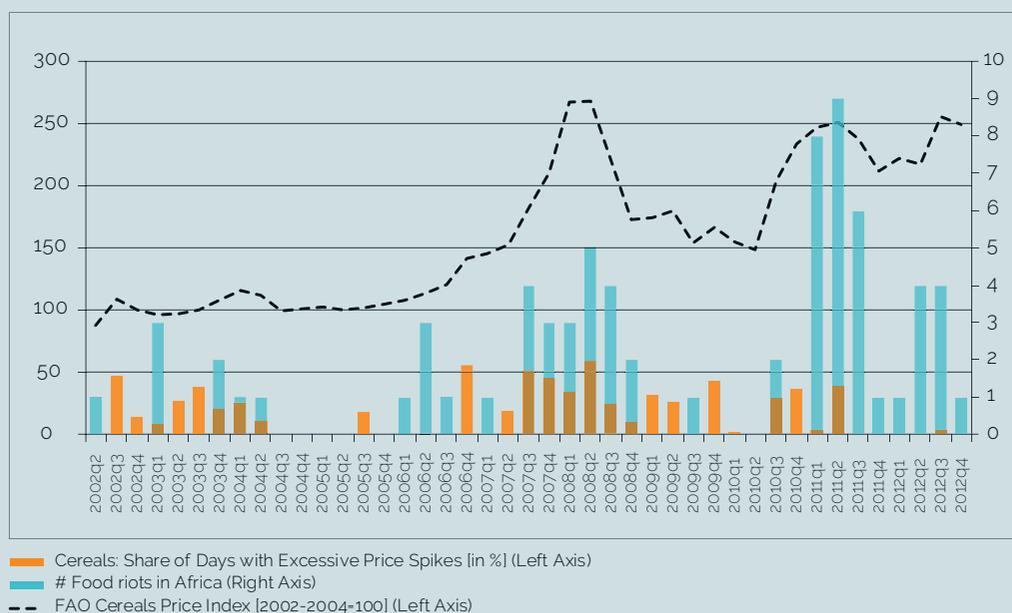




4. CLIMATE CHANGE IMPACTS CONTRIBUTE TO EXTREME FOOD PRICE SPIKES AND FOOD INSECURITY

- Rising food prices and price shocks have already contributed to protests and conflict around the world.
- Climate science shows that production-related risks to agriculture and food prices are likely to rise significantly.

Food production challenges will increase significantly due to climate change.



Food prices, excessive volatility and social unrests. Note: Average share of days with excessive price spikes for maize, wheat and rice futures returns as reported by IFPRI's NEXQ model (see explanation below in the text). All values per quarter. Source: Own illustration based on data from foodsecurityportal.org (excessive volatility), Social conflict in Africa Database (SCAD) and FAO. Taken from: Kalkuhl, M., von Braun, J. and Torero, M., 2016. Volatile and Extreme Food Prices, Food Security, and Policy: An Overview. In: Kalkuhl, M., von Braun, J., and Torero, M., eds., 2016. Food Price Volatility and Its Implications for Food Security and Policy. Cham: Springer, p.5.



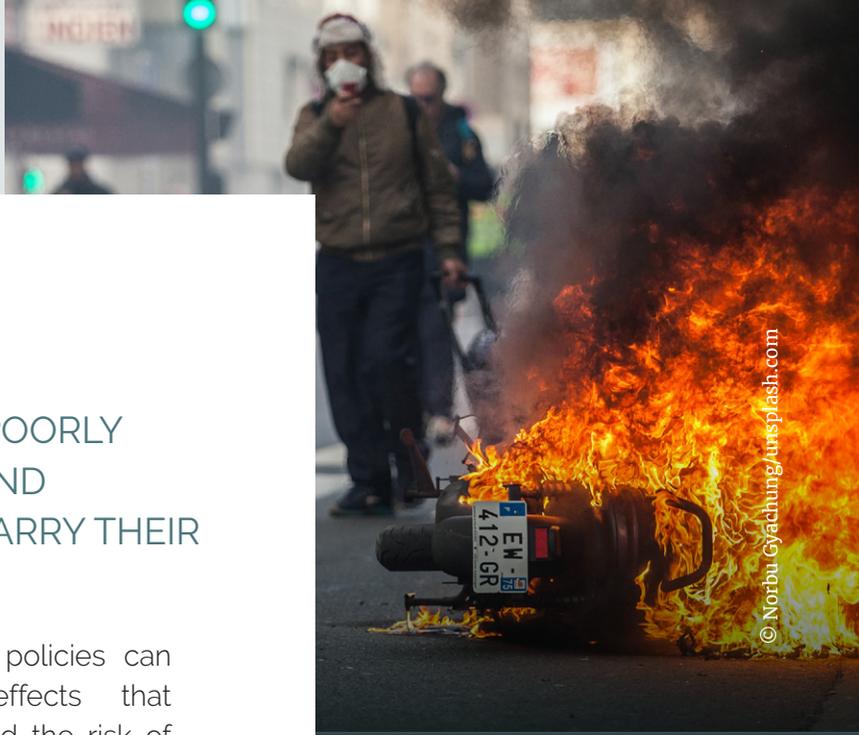
5. EXTREME WEATHER EVENTS CHALLENGE GOVERNMENT EFFECTIVENESS AND LEGITIMACY

- Adequate government responses and relief can avoid grievances and prevent large negative impacts following disasters and extreme weather events.
- Insufficient management can reduce the opportunity costs of joining non-state armed groups, create budgetary pressures and large public debts, and divert resources from development policies, spurring tensions and grievances.

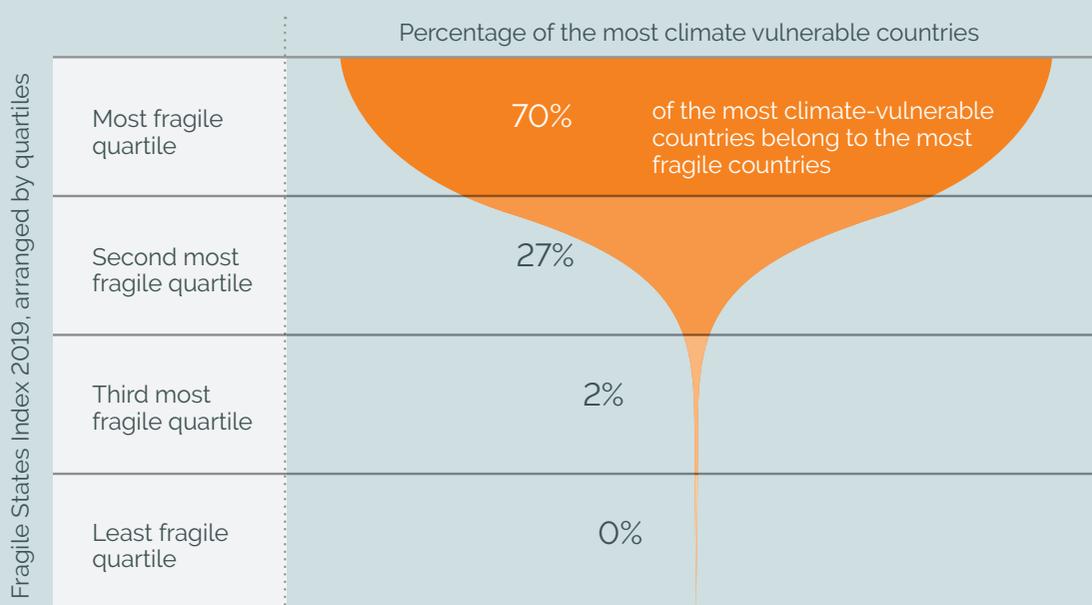


6. THE UNINTENDED CONSEQUENCES OF POORLY DESIGNED CLIMATE AND SECURITY POLICIES CARRY THEIR OWN RISKS

- Mitigation and adaptation policies can have unintended side-effects that increase social tensions and the risk of conflict.
- Military responses to conflict can add further pressure on climate-sensitive livelihoods if planning disregards climate vulnerability.



Vulnerability to climate change and state fragility correlate strongly and can feed each other.



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Based on: Fund for Peace Fragile States Index (2019), ND-GAIN Vulnerability country rankings (2017). Lists adjusted to match respective entries, 175 total countries, 44 countries per quartile (ND-GAIN bottom quartile).

7. CLIMATE-RELATED SECURITY RISKS ARE PARTICULARLY SIGNIFICANT WHERE GOVERNANCE MECHANISMS ARE WEAK OR FAILING

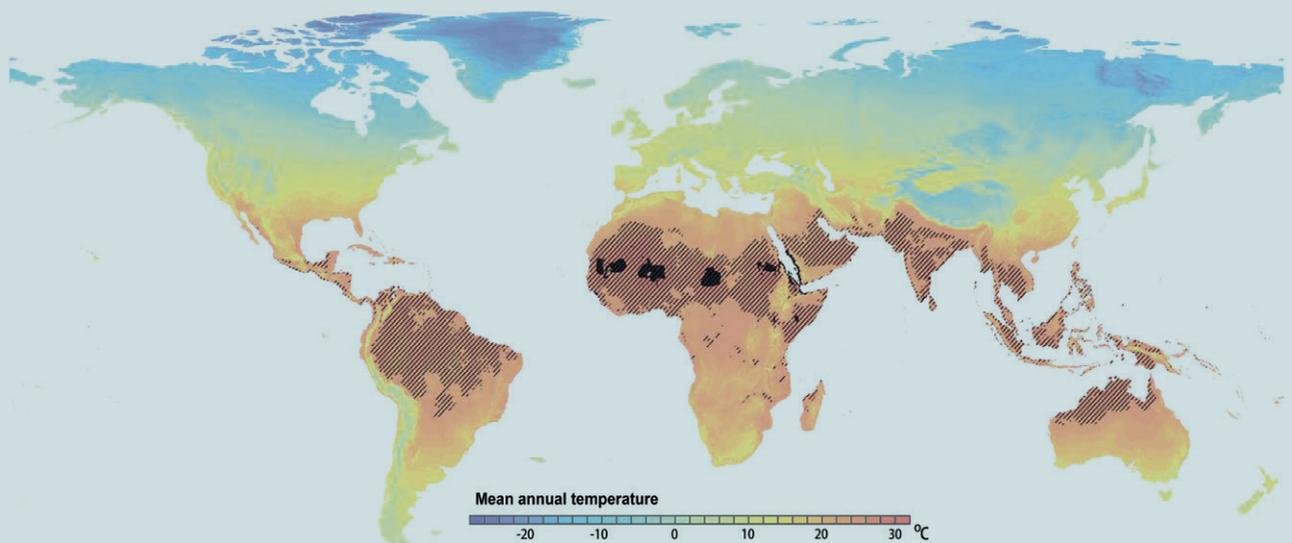
- Across compound risks, context and governance play a large role in determining how climate-related security risks manifest. By adding to existing pressures, climate change impacts inhibit peace.

8. WE ARE VERY LIKELY UNDERESTIMATING THE SCALE AND SCOPE OF CLIMATE-RELATED SECURITY RISKS

- Many climate-related security risks remain under-researched because of the complexity of cascading risks, and the difficulty of clear attribution.
- Climate change impacts might also contribute to conflict in indirect ways through, for example, their effects on inequality and health.



Who manages the risk that densely populated parts of the world may become uninhabitable, and its political consequences?



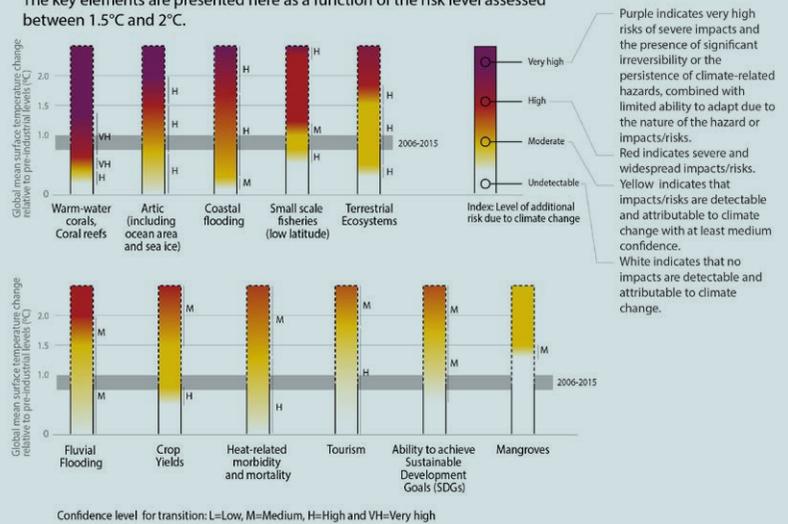
Expansion of extremely hot regions in a business-as-usual climate scenario. In the current climate, MATs >29 °C are restricted to the small dark areas in the Sahara region. In 2070, such conditions are projected to occur throughout the shaded area following the RCP8.5 scenario. Without migration, that area would be home to 3.5 billion people in 2070 following the SSP3 scenario of demographic development. Background colours represent the current MATs. Taken from: Xu et al., 2020, p. 11352 | © PNAS [CC BY-NC-ND 4.0]

The impacts of climate change will grow significantly in the future.

The dependence of risks and/or impacts associated with selected elements of human and natural systems on the level of climate change, adapted from Figure 3.21 and from AR5 WGII Chapter 19, Figure 19.4, and highlighting the nature of this dependence between 0°C and 2°C warming above pre-industrial levels. The selection of impacts and risks to natural, managed and human systems is illustrative and is not intended to be fully comprehensive. For more information, see Hoegh-Guldberg, O., Jacob, D., Taylor, M., Bindi, M., Brown, S., Camilloni, I., Diedhiou, A., Djalante, R., Ebi, K. L., Engelbrecht, F., et al., 2018. Impacts of 1.5°C Global Warming on Natural and Human Systems. In: Masson-Delmotte, V. et al., eds., 2018. Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. In Press, p. 252.

Risks and/or impacts for specific natural, managed and human systems

The key elements are presented here as a function of the risk level assessed between 1.5°C and 2°C.



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9. CLIMATE-RELATED SECURITY RISKS WILL INCREASE AND MULTIPLY IN THE FUTURE

- As temperatures rise, many impacts of climate change will intensify, while other effects will only materialise over decades to come. These increasing pressures imply further risks for peace and security.
- Climatic tipping points are creating large uncertainties over future climatic changes and their effects on societies. They might be a source of sudden and large risks.



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10. OUR CAPACITIES TO ASSESS AND MANAGE CLIMATE-RELATED SECURITY RISKS LAG BEHIND THE CHANGING RISK LANDSCAPE

- Assessment tools and early warning systems rarely address climate-related security risks.
- Conflict-affected countries are not sufficiently accounted for in funding and programming: The ten most fragile countries receive a mere 4.5% of all climate funding, while few projects address climate-conflict links.

CONCLUSION

There is ample evidence that climate change undermines international peace and security. However, we must assume that we continue to significantly underestimate these risks because of gaps in our capacity to fully appreciate important effects. Moreover, we also know that the impacts of climate change will increase considerably over the coming decades. This does not imply that climate change by itself is a direct or the most significant single driver of conflict. Instead, it exacerbates many drivers of conflicts and fragility, thereby challenging the stability of states and societies and, ultimately, threatening international peace and security.

This implies that, if we do not act swiftly, climate change will mean more fragility, less peace and less security. The risks that climate change presents to international peace and security need to be addressed across the entire impact chain – by mitigating climate change, attenuating its consequences on ecosystems, adapting its socio-economic systems, better managing the heightened resource competition it will bring about, and strengthening conflict management institutions. As this report shows, every dimension of the response needs to be conflict-sensitive – just as peacebuilding, humanitarian responses and socio-economic development need to become climate-sensitive.

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adelphi research gemeinnützige GmbH
Alt-Moabit 91, 10559 Berlin
+49 (030) 8900068-0
office@adelphi.de
<https://www.adelphi.de/en>

Potsdam Institute for
Climate Impact Research (PIK) e.V.
Telegraphenberg A 31, 14473 Potsdam
Germany
<http://www.pik-potsdam.de>

CONTACT

Barbora Sedova
sedova@pik-potsdam.de

Benjamin Pohl
pohl@adelphi.de

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STUDIO GRAFICO

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