UNITED NATIONS

CLIMATE SECURITY MECHANISM

TOOLBOX

CONCEPTUAL APPROACH

DPPA Preventing Conflict. Sustaining Peace

UNDP

UN environment programme

UN CONCEPTUAL APPROACH TO INTEGRATED CLIMATE-RELATED SECURITY RISK ASSESSMENTS

This note seeks to contribute to a common understanding in the UN system of the complex interlinkages between climate change, peace and security. The conceptual approach presented here complements and connects existing analytical frameworks employed by development, humanitarian and peace and security actors. Its purpose is to help analysts better understand **how climate change impacts peace and security** in the broader context of their work. The focus is on the assessment of the interaction between climate change and socio-political, economic and demographic factors that can result in major livelihood and economic disruption, political instability and insecurity at different scales (e.g. local, national, transnational).

UN efforts at addressing the cascading effects of climate change on security can only be effective if they are coordinated across traditional policy areas. To facilitate coordination, this conceptual approach seeks to establish a common notion in the UN system for how to assess climate-related security risks and develop a shared understanding of the contextual pathways through which climate change impacts security. The conceptual approach is not intended as a stand-alone instrument: it does not cover the entire range of climate risks, and should not be seen as a substitute for comprehensive climate vulnerability assessments.

The conceptual approach supports analysts whose work informs decision-making at the policy, programmatic and operational levels of UN entities. It adds particular value at key junctures in **UN decision-making processes**, such as a Common Country Analysis or a strategic assessment in field missions, where a comprehensive risk analysis is critical. Given the range of possible contexts in which this type of analysis is useful, the conceptual approach presented here is designed in a broad and flexible manner that supports different requirements and encourages users to adapt it to their needs.

Please note that this note marks merely the starting point of an iterative process and the conceptual approach will continue to evolve over time. Any feedback is welcome.

1. A broad approach to climate-related security risk assessments

While climate change is rarely, if ever, the root cause of conflict, its cascading effects make it a systemic security risk at the local, national and international levels (see the Briefing Note of the Climate Security Toolbox for a more detailed discussion). Through its complex interaction with socio-economic, political or demographic factors, climate change can compound existing drivers of vulnerability. However, the existence of climate change does not always lead to security risks in a deterministic manner. Thorough analysis is required to identify whether or not a particular situation exhibits the conditions in which the impacts of climate change can increase security risks.

Where the interaction of climate change with other factors creates security risks, they can manifest in a number of different ways. Some will play out primarily at the sub-national level, often affecting the security of people and communities through pathways linked to livelihoods, natural resource competition and local grievances. Others will become evident

mainly at the national level, especially where climate change impacts interact with existing social divisions and lead to increased inequity between different groups. They may also play out at the transboundary or regional levels as climate change affects shared natural resources such as water or changes the magnitude and frequency of climate-related disasters. Analysts should either consider all three scales or else pre-select a single scale for a more focused analysis.

Based on this simplified categorization, the conceptual approach distinguishes between the assessment of (i) risks resulting from the direct and indirect effects of climate change, including consequences such as reduced crop yields or infrastructure damage but also impacts from the interplay of climate stressors and shocks with socio-economic, political and demographic factors; and (ii) risks resulting from the impact of climate change on complex systems, such as consequences of maladaptation and energy transition.

2. Security risks resulting from the direct and indirect effects of climate change

When analysing security risks from the direct and indirect effects of climate change, three risk dimensions should be considered:[1]

- **Climate stressor or shock:** includes erratic, extreme and/or changed rainfall patterns, temperature increase, storms, shifting seasonal patterns, and ecosystem degradation;
- **Exposure:** the presence of people, livelihoods, natural resources, infrastructure, or economic, social or cultural assets in places that could be adversely affected;
- **Vulnerability or coping capacity:** the propensity of exposed elements to be adversely affected and the ability of systems to manage and overcome adverse conditions.

To assess security risks resulting from the direct and indirect effects of climate change, analysts need to identify (i) the likelihood of climate stressors or shocks occurring and (ii) their potential impact on different systems (ecological, social, political, infrastructure). The potential impact is determined by the exposure of a given subject (communities, countries or assets) to climate stressors and shocks, combined with existing vulnerabilities and coping capacities (which influence the ability to absorb those stressors and shocks).

An in-depth understanding of the complex interplay between these three dimensions requires careful analysis of the driving factors in each dimension. Particular attention must be paid to the **interlinkages** between them. The inclusion of **feedback loops** helps to capture these interlinkages and expose the mutually reinforcing nature of different risk factors. The accumulation of risk factors over time can bring States and communities closer to socio-economic and political **tipping points**, where biophysical events (such as floods, drought) can trigger large changes in human systems.

1. In line with standard risk management literature, this can be expressed in the form of an equation: Climate-related security risks = climate stressor/shock x exposure x vulnerability/coping capacity

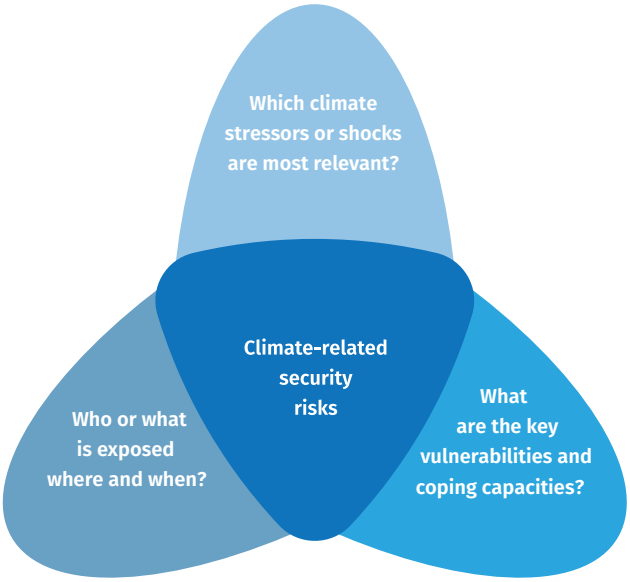
To analyse **climate stressors and shocks** in a given area, analysts need to review existing assessments and relevant scientific data (see the note on Data Sources in the Climate Security Toolbox). Based on this information and in collaboration with climate and environmental experts, analysts will determine how likely rapid-onset as well as slow-onset climate stressors and shocks are to occur. To capture the cumulative effects of climate change, a longer term lens will often be necessary. Having assessed the likelihood of occurrence for the most relevant stressors and shocks, analysts then look at their potential impact.

Exposure can be assessed through a combination of qualitative and quantitative data indicating the presence (or absence) of communities and assets in areas likely affected by climate stressors and shocks. In this context, geospatial analysis is important to understand the location of and relationship between ecosystems and natural resources. Where no one and nothing is exposed, there is no risk.

Where ecosystems, people, communities and States are physically exposed, however, their **vulnerabilities and coping capacities** can mitigate or exacerbate the impact. Vulnerabilities and coping capacities are shaped by the environmental, socio-economic and political context, including factors such as history of violent conflict and displacement, population density and level of health, government effectiveness and trust, social cohesion, gender inequalities, dependence on agriculture, levels of pre-existing environmental degredation, resource governance, and land tenure security. To best understand stressors and shocks, analysts can also adopt a multi-risk approach and include non-climate-related factors, such as existing conflict or displacement.

Examples of climate-related security risks resulting from direct and indirect effects of climate change include:

- Climate change effects can degrade the natural resource base and reduce economic activity. Where exacerbated by other factors, including demographic growth, urbanisation and weak governance, this can result in increased competition or even conflict over natural resources.
- Climate change can increase the frequency and magnitude of climate-related hazards, overwhelming government resonsce capacities and reducing effectiveness.
- Climate-induced changes in existing mobility patterns can adversely affect local arrangements and collaborative relationships between communities.
- Climate-driven migration to poorly serviced urban centers can be a driver of crime and instability through increased demand for services, infrastrcuture and employment.
- Climate-related reduction in economic opportunities and strategies can make populations vulnerable to recruitment tactics of non-state armed groups.
- Climate-related resource scarcity, combined with discriminatory norms, can increase violence against women and girls, and further decrease households' capacity to cope with shocks.



The visual on the left provides an overview of how to conceptualize this approach. Analysts need to understand all three dimensions of risk for a given context as well as the interplay between them. Where the three dimensions overlap, security risks are likely to emerge. Depending on the particular **context** of analysis, the three dimensions will vary and different factors will be relevant. It is important therefore to conduct localized, detailed research to understand contextual risk factors as well as the ability of systems to manage stressors and shocks.

Based on an analysis of these dimensions, analysts will be in a better position to understand the pathways through which climate change can contribute to security risks and social destabilization. While the ability of analysts to predict how these complex interactions will play out is limited, this approach enables them to flag risk factors and combinations of risks.

3. Security risks resulting from the impact of climate change on complex systems

Beyond the community or livelihood-centric level of analysis, it is important to also consider the more systemic impact of climate change. These effects will of course have repercussions at the local level too, but they can best be understood with a broader lens. The cascading effects of climate change on ecological, social, economic or political systems and conditions are non-linear and difficult to foresee, which increases **overall unpredictability and uncertainty.** In some situations, the consequences of climate change can disrupt complex systems, such as regional economies or the geopolitical balance. As individuals, communities, governments or other entities seek to adapt to these changes, their actions can themselves become a source of security risks. Where interventions made in response to climate change transpire (deliberately or unintentionally) as insufficient or unfair, they can reinforce existing grievances, escalate tensions or compound vulnerabilities.

For analysts at a regional or national level, examples of climate-related security risks resulting from the impact of climate change on complex systems include:

- **Political elites may exploit climate change** impacts for their own benefit. At the national level, populist leaders may run misinformation campaigns or exploit existing grievances in an attempt to undermine state-society relations and foster public discontent. At the more local level, elites may exploit existing grievances and manipulate competition over diminishing resources to shore up political support.
- **Inadequate or unilateral government adaptation** policies can heighten security risks. A measure that helps one community to adapt to water scarcity through dam construction, can, for example, increase water scarcity for another community downstream. As such changes become evident, tensions between riparians may increase and affect security.

- The increasing frequency and intensity of climate stressors put a severe strain on the resources of governments around the world. Where **governments become overwhelmed** by the additional strain brought on by climate change, repeat failure to safeguard critical infrastructure, respond to humanitarian needs and protect people from the worst impacts can undermine the legitimacy of public institutions. In extreme situations, this can contribute to state breakdown or failure.
- Without appropriate planning, including environmental and social safeguards, the **transition to low-carbon economies** can create economic disruption as it may contribute to the loss of existing jobs and government revenues from fossil fuels. For instance, the global energy transition may deeply affect some states in North Africa and the Middle East that rely on fossil fuel rents and have made limited progress towards diversifying their economy. The greater and faster transitions play out, the greater the risk of insecurity.

The examples above demonstrate the potential of climate change to trigger systemic risks, including through the responses by individuals, communities and states to the challenge of climate change. The three dimensions used to analyse security risks resulting from the direct and indirect effects of climate change do not provide a sound framework for the assessment of such complex climate-related security risks. Instead, the focus is on the **broader macro-economic and political dynamics** at the national or regional level.

Key questions for the analysis of complex impacts include:

- How will the combined impact of climate mitigation and adaptation policies affect the political economy and social cohesion of a country/region? Who stands to gain and lose?
- Will different social groups (e.g. men and women, youth and older people etc.) be affected differenty? Will existing inter-group cleavages, grievances and inequities be amplified?
- How dependent is the economy and/or the government's budget on fossil fuels or other natural resource rents?
- Does the government have the capacity and legitimacy to develop and execute major climate mitigation and adaptation policies?
- Do climate mitigation and adaptation policies take existing grievances (real or perceived) into account through participatory processes? How inclusive is the process of mapping grievances (e.g. women, youth, minorities)?
- Is the public discourse about climate mitigation and adaptation divisive? Are certain actors seeking to utilize this as a wedge issue to foster public discontent?

4. Good practices

The conceptual approach is flexible and analysts will need to adjust it to fit their particular needs. In broad terms, good practices for its application include the following:

- Climate-related security risk analysis should not be understood as a linear process, but rather as a dynamic, iterative approach. Before beginning an analysis, it is important to define a concrete objective. This will allow a targeted analysis and later help find entry points for response.
- Gender inequality, discriminatory norms and deep-seated power dynamics shape how women and men of different backgrounds experience the impacts of climate change and insecurity. Analysts must consider, at every step of the analysis, how intersecting factors (gender, age, socio-economic status, race and ethnicity) may leave some groups disproportionately exposed to climate-related security risks.
- The conceptual approach seeks to help build an understanding of how the security of people, especially those most vulnerable, is affected by climate change. Soliciting inputs directly from communities affected by climate change impacts is critical.
- Climate change impacts differ across the geography of a country or region. As a result, a spatial approach to data analysis is needed to understand the spatial distribution of climate-security risks across different ecosystems, natural resource and livelihood groups.
- Joint analysis, information sharing and a collaborative and multisectoral approach is needed to complete a comprehensive climate-security and integrated risk assessment. This includes actors in the areas of development, climate change, disaster risk reduction, and peace and security.
- Due to the complexity of climate-related security risks, a thorough analysis requires a combination of quantitative and qualitative data. Relevant information can be obtained from a variety of national databases and reports, including national climate and disaster risk analyses and plans (see the note on Data Sources in the Climate Security Toolbox).
- Analysts should conduct climate-security risk assessments with a view to guiding action. An assessment should identify positive factors that could be strengthened as well as current gaps that offer entry points for interventions. The design of comprehensive response strategies may require an analysis that is separate from the assessment of risks.
- In many contexts, the sheer magnitude of climate change will make substantial socio-economic and political transition necessary. Analysts should focus on understanding and finding ways to manage such transitions in a fair and effective manner, rather than preventing transitions from occurring.