

**Draft policy brief for Planetary Security working group on the economics of planetary security (WG 11).**

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## Policy Brief

# The Economics of Planetary Security

## *Climate Change as an Economic Conflict Factor*

Alice van de Bovenkamp and Christopher Frattina

### Summary

Over recent years, increasing attention has been paid to the relationship between conflict and climate change, as well as the economic impact of climate change. There is, however, often overlap between these factors. For example, economics often plays a crucial role in the intricate relationship between conflict and the environment as well. If for instance responses to climate change are not coordinated correctly, they could, in their own right, result in unexpected economic changes and in turn contribute to conflict risk. This policy brief discusses the *economics of planetary security* and will reflect upon the challenges and opportunities in this field. This is done with the view to improve the understanding of the economic resilience of countries and its relation to the effects of climate change. The objective is to facilitate the formulation of effective policy responses and coordinated action between the public and private sector.

## 1. Introduction

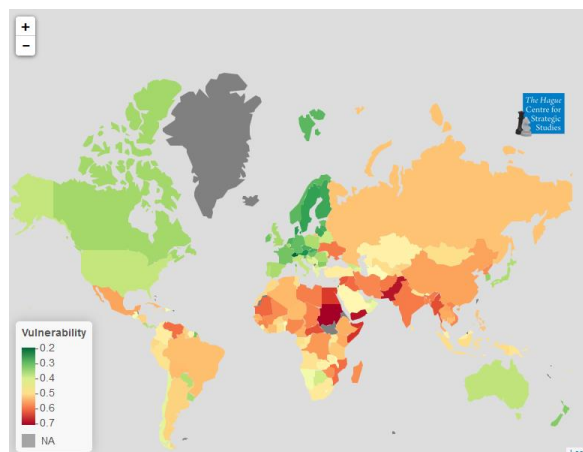
In the face of a rapidly-changing geopolitical landscape, contemporary perspectives on security have drastically changed in reaction to new conflict factors that have arisen out of, and are related to, unpredictable patterns of climate change. Terrorism, small-to-large scale disputes between nations and ethnic groups, and the recent economic and financial crisis of 2008, have shaken the confidence of many in the robustness of international relations, and in the global financial system. In addition to this, the potential risks of climate change give impetus to the rise of unease and uncertainty as to how the future of the world will eventually take shape. This bears more weight as fundamental changes on a global level hardly ever come about smoothly and are likely to have far-reaching effects.

Already, in both the short and long term future, it is increasingly likely that conflict will result from a multitude of stress factors. Environmental stress, and in particular stress caused by climate change, is only one of these factors. Nonetheless, in light of its diverse and multiplier impacts, it remains an important one.

Economics often plays a crucial role in this as both armed conflict and climate change have a large economic impact. Economic developments may in turn influence conflict risk through the effects of resource distribution, which has an effect on the vulnerability of nations. This concept of the so-called *economics of planetary security* has so far remained relatively underexplored, but could provide valuable insights on how to enhance the conflict resilience of states. To this end it is important to:

- **Assess** and identify the underlying stress factors in a region;
- **Identify** the appropriate adaptation and mitigation strategies to address these factors;
- **Pursue** a coordinated response between public and private sector actors.

In order to facilitate this process, a quantitative framework has been developed which identifies risks and provides an indication of how the resilience of states may be enhanced (Figure 1).



**Figure 1. An Image of the Economics of Planetary Security Monitor (see [Economics of Planetary Security Monitor](#))**

This policy brief, intended for policy makers and business professionals, outlines the concept of the economics of planetary security, the stress factors that may influence conflict risk, the obstacles for progress, the current response strategies and finally recommendations for future courses of action.

## 2. Challenges

Conflict in relation to planetary security is usually understood to be armed conflict. In relation to the economics of planetary security it may also refer to the potential effects of climate change on the global economic system as a whole. Such economic conflict can be induced by either contributing to changes in the global economic system, which impact the system as a whole (e.g. a collapse of the global banking infrastructure), or by influencing the existing balance within a state's economy through for example trade embargoes, sanctions and the prohibition of investment. In this respect, economic conflict may become a precursor to armed conflict.

In the intricate relationship between the environment and conflict, the former often acts as a stress factor to the latter. However, the reverse may also be true. Additionally, both climate change and economics can act as stress factors that enhance conflict risk in their own right. In the short and long term future, conflict is therefore expected to result from a multitude of interrelated stress factors.

### 2.1 Environmental stress and climate change as conflict factors

Environmental stress is being increasingly identified as a systemic factor contributing to

conflict. This stress is not necessarily the result of climate change. Resource availability, management and extraction processes may also play a role in this. In this context, mismanagement of resources can catalyse distributional issues involving government inefficiency, societal divides and increased authoritarianism, which may destabilize a country.

Conflict risk in relation to climate change plays out on a more global scale, both in terms of its causes and the measures required for mitigation. Even though climate change by itself may not necessarily be a direct threat to the stability of a country, it can function as a threat multiplier. Local resource competition and the unintended effects of climate policies are examples of such critical climate-fragility risks, which may fuel distributional or identity-related issues, that could result in (long-term) violence.

## 2.2 Economics of climate change as a conflict factor

Both armed conflict and climate change can have a large economic impact. For example, the 2016 Global Peace Index estimates that the global economic impact of armed conflict amounted to \$742 billion in 2015.<sup>1</sup> The 2006 Stern Report estimates that the long term costs of climate change will amount to a 5% yearly loss of global GDP. Taking a wider range of risks into account, this figure increases to a potential yearly loss of 20% or more.<sup>2</sup>

In reverse, the relation between climate change and conflict has many economic components by affecting the distribution of resources. Overall, three general routes of economic impact of climate change contributing to conflict can be distinguished:

1. Direct effects by intensifying land, water and resource scarcities;
2. Indirect impacts by affecting international business and the financial sector;
3. Indirect effects as a result of unintended outcomes of climate change and low-carbon policies.

All impact conflict risk by increasing the vulnerabilities of nations, especially when they

occur in combination with other conflict factors in countries that have little economic resilience (Figure 1).

Overall, the economics of planetary security is an interconnected system of climate change, the economy and conflict, with negative domestic and international impacts. Nevertheless, both public and private actors may be able to mitigate the effects of the stress factors that influence this system in a given country. These responses must be coordinated correctly between the relevant public and private sector actors to prevent them from becoming the source of disruptive economic change that could, in its own right, contribute to conflict risk (for instance by destabilising countries that are currently heavily dependent on fossil fuel rents).

## 3. Analysis

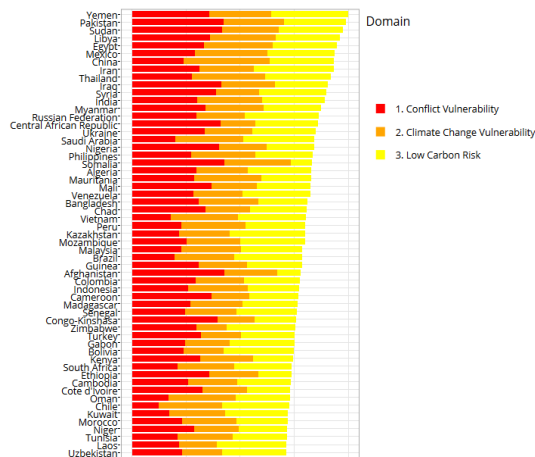
The economics of planetary security is a concept still in its infancy. The concept has two dimensions. The first dimension recognizes the economics of planetary security as an interconnected system of climate change, the economy and conflict, and its negative domestic and international impacts. It also includes the ability of public and private actors to mitigate the effects of stress factors in a given country. The second dimension quantifies the reactive policy capacities of public and private actors through the incorporation of economic data.

In order to assess the (economic) resilience of countries and identify the most pressing vulnerabilities, a multi-layered quantitative framework has been developed (this addresses the second dimension). This framework consists of four layers that each illustrate a core tenet of the economics of planetary security. The first three layers: *Conflict Vulnerability*, *Climate Change Vulnerability*, *Low Carbon Risk*, taken together, form the *Consolidated Risk Layer*, which indicates the vulnerability degree of countries (Figure 2).

The fourth layer gives an indication of the economic resilience of countries and will be described as the *Climate Change Economic Resilience Monitor*. By combining these two, a *Consolidated Risk and Resilience Layer* is created, which illustrates the degree of overall resilience to climate change effects.

<sup>1</sup> Institute for Economics & Peace. (2016). *Global Peace Index*. Sydney: IEP.

<sup>2</sup> Stern, N. (2006). *The Stern Review: The Economics of Climate Change*. London: HM Treasury.



**Figure 2. An Image of the Consolidated Risk Layer results**

The multi-layered framework underscores that risks from climate change are not solely the result of externally generated circumstances to which a state responds, but are rather the result of complex interactions between the population, the environment and the economy. These layers combined form a consolidated risk and resilience layer: the [Economics of Planetary Security Monitor](#) (Figure 1). This monitor provides an indication on how the resilience of countries may be enhanced. The monitor as well as its indicators are still in the experimental stage and we aim to evaluate and improve them over the coming years.

The Economics of Planetary Security Monitor can be used by policy makers and businesses alike to assess vulnerabilities and resilience capacities of countries. For national and multilateral policy makers this could result in actions to address the main identified vulnerabilities. For the business sector, use of the monitor could contribute to assessing investment risks in particular countries under consideration, and provide a more holistic understanding of what factors need to be incorporated in business implementation plans. Overall the public and private sector have diverging motivations for wanting to engage in ventures to address climate change and different means of doing so. As a result, a coordinated response is often lacking.

Numerous other obstacles also hamper the (effective) implementation of measures to counter the effects of climate change. These are likely to remain, even with the monitor as a potential tool to identify them:

- **Pre-existing instabilities and conflict.** Pre-existing (political and socio-demographic) instabilities and conflict may prevent governments from taking decisive action. The greater the inability of a government to act, the greater the overall vulnerability to conflict.
- **Lack of funding.** In addition to stability, the ability of a government to act and transition to renewable energy is also heavily predicated on access to funds and its ability to mobilize sufficient and appropriate resources.
- **Carbon risk.** Some countries are heavily invested in carbon and non-renewable energy, with the export of fossil fuels often being key in maintaining economic prosperity. Policy makers in these countries seeking to transition to a low-carbon economic model may face high (up-front) costs, risk economic setbacks and face domestic resistance. As a result they might prefer not to undertake such a transition.
- **Unintended consequences.** Policies intended to address climate change may have unforeseen consequences that could develop into new sources for conflict (risk). Previous policies with such effects (such as biofuel policies) may keep policy makers from engaging in new ventures.
- **Unfavourable framing.** Ventures and policies that could address climate change have not been marketed effectively as being beneficial business opportunities, compared with those encouraging the exploitation of non-renewable energy sources. This may keep actors from engaging in such projects.

Future climate change policies could also potentially introduce new dependencies on certain resources, impacting relationships between countries or weakening regimes heavily dependent on fossil fuel rents. While the unforeseen side-effects of climate change policies can never be fully prevented, a comprehensive geopolitical assessment of climate change policies targeting conflict factors could help minimize such 'collateral damage.' The Economics of Planetary Security Monitor could play an important part in this.

#### **4. Opportunities and Recommendations**

As indicated in the preceding sections, the Economics of Planetary Security Monitor is still in its early development stages and needs to be improved upon further. For instance, the inclusion of new data (sources) and indicators, as well as the development of new methodologies might be desirable in time, to better capture the layers as presented in the monitor. There is for example a consistent lack of representative data for the private sector, which is not expected to be resolved in the short term. Were this to change, this data could provide important insights for future evaluations.

Nevertheless, based on the results of the monitor, three general country categories have been identified. The purpose of this categorization is to provide a guideline for policymakers and businesses in the formulation of their policies. Overall, the following recommendations can be made:

##### *Category A - Peace First, Development and Climate Resilience Later*

The countries within this category include: Sudan, Pakistan, Afghanistan, Somalia and Yemen. These countries are characterized by high conflict vulnerability, high environmental stress and low economic resilience, and are also usually affected by war. For these countries, conflict is the overriding risk factor. When dealing with conflict-affected areas it is advisable for policy makers to prioritize establishing a stable foundation of peace before proceeding with policies targeting the reduction of environmental stress or the enhancement of economic resilience. For business professionals, this provides a contextual understanding of the country in which they may wish to invest.

##### Recommendations:

1. Increase resilience by identifying and addressing underlying pressures, which can feed into tailored and precise policy making;
2. Investigate and identify joint responses of public authorities and the private sectors in managing the process of conflict transition.

##### *Category B - Economies at Risk in a Low-Carbon World*

The countries within this category include: Saudi Arabia, Russia and Australia. These countries are heavily invested in carbon and non-renewable energy, with the export of fossil fuels often as a key ingredient in maintaining their levels of economic prosperity. Optimally, policymakers in these countries should prioritize establishing a good benchmark for transitioning into a low carbon economy without having long term damaging effects by expanding the degree of economic diversity domestically. The underdeveloped nature of certain economic sectors, such as Russia's renewable energy sector, could provide business professionals with ideas as to what they may best invest in.

##### Recommendations:

1. Identify, address and align climate change policy and the transition towards a low-carbon economy, while addressing and streamlining actions combatting climate change effects;
2. Develop capacities for economic resilience: introduce policies transitioning to a low carbon economy. This is both an opportunity and challenge to both the public and private sector;
3. Diversify the economy of fossil fuel dependent countries, especially those in the MENA region prone to conflict. For more economically resilient countries and transnational corporations: develop tailor-made capacities or support for such countries.

##### *Category C - Synthesizing Climate Change Mitigation with Development*

The countries within this category are: China, Mexico and Thailand. These countries possess a strong economical basis with which they can develop policies that address both climate change resilience and development schemes. These could include implementing infrastructural programs that could increase domestic employment in order to combat hurricanes, for instance. Business professionals could audit such a process using our monitor in order to see the long term effects of changing development implementation schemes.

##### Recommendations:

1. Undertake a domestic analysis of the causes of maladies in the current situation of the country in question to ensure policies are

effective. Policy has to address the driving factors of the different layers of risk in the monitor.

2. Prevent climate change mitigation and adaptation policies from becoming a new source of conflict through, for instance, addressing stove piping of climate change policies. This feeds into the need for comprehensive and balanced policies.

## **5. Conclusion**

From the analysis it becomes apparent that the economics of planetary security can be a valuable concept, for policy makers and businesses alike, to approach the analysis of conflict risk in countries affected by climate change. As such, it is also clear that this concept merits and requires further research and development. This will facilitate the assessment and identification of underlying stress factors in a region, as well as the appropriate adaptation and mitigation strategies. It is our hope that it will assist public and private sector actors in the pursuit of a coordinated response to address the conflict risk factors of the economics of planetary security.

*We understand that the conclusions and recommendations of this policy brief are formulated openly. We intend to address and improve them during the working group. It is our hope that they will become a starting point for discussion that will allow for further exploration and operationalisation of the economics of planetary security.*