



## SCIENCE FOR POLICY BRIEFS

# Megatrends interlinkages - Briefing “*Security and geopolitics in a changing climate*”

## Changing security paradigm, Climate change and environmental degradation, Aggravating resource scarcity, Increasing significance of migration and Growing consumerism

### State of play and trends: what do we know?

The elements presented in this brief analysis are not exhaustive. They represent a starting point to explore the complexity of the drivers affecting these megatrends and their possible future evolution.

### Headlines

- Climate change and increasing competition for natural resources are transforming security concerns, while challenging EU's strategic autonomy.
- The competition for rare earth elements and fertile land is intensifying, with negative consequences for the people living close to mines and land that has been grabbed.
- Conflicts related to natural resources and/or environmental degradation [are twice as likely to return to violence](#) within five years.
- [Climate change displacements](#) are mostly short-term and short-distance, rarely crossing national borders.

The security dimension of environmental change is increasingly dominating national and international agendas, shifting defence and geopolitical paradigms.

Since 1970, the world is in *ecological deficit*<sup>1</sup>. Today, humanity's annual demand on the earth's ecosystems consumes the equivalent of what 1.7 planet earths would provide. In 2019, [Earth Overshoot Day](#) occurred as early as July 29. Since 2001, this date has been moving forward by an average of 3 days per year. In addition, on current trends, the

UN estimates that the world's population could reach 8.6 billion people by 2030 (compared to 7 billion today), out of whom 5.6 billion would be middle class, with increasing purchasing power. This would lead to vastly increased demands on the planet.

At the same time, increasing competition for natural resources, along with climate change are recognised as [threat multipliers](#) for global peace and stability. These threat multipliers interact with existing pressures such as social inequalities and conflicts, demographic imbalances, fragility of many states, migration, food prices etc., and contribute to raising the levels of existing risks.

The risks associated with climate-related disasters do not represent a scenario of some distant future. Climate change is already multiplying existing pressures in various regions, where communities have started to suffer from extreme weather conditions, sometimes forcing them to relocate temporarily in the surrounding regions. Between 2008 and 2018, [floods and storms](#) have been the two main triggers for displacements.

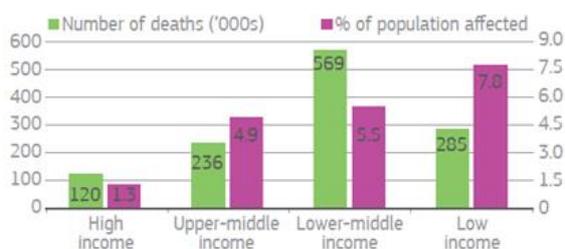
On the other hand, it is generally assumed that there is a strong link between climate change and environmental degradation and migration. While there is evidence that [climate change and extreme weather events trigger displacement](#), these movements are mostly short-term and short-distance, rarely crossing national borders. Although there are many different estimates of the number of people who have been and could be displaced by climate change in the future, [there is no agreed upon scientific method to provide conclusive data](#). Many of these estimates are therefore too vague and unreliable. While scientists agree that the impact of environmental change on migration will increase in the future, depending on circumstances, [environmental stress can lead to more as well as less migration](#). The link is indirect and depends on multiple factors such as the success of adaptation strategies to cope

<sup>1</sup> Ecological deficit occurs when the footprint of a population exceeds the biocapacity of the area available

to that population, which means that population is using much more natural resources than it should.

with slow-onset climate phenomena or access to resources needed for migration.

The [UN Security Council](#) notes the adverse effects that climate change and greater competition for scarce resources have on the stability of many countries in Western and Central Africa such as Mali, Somalia or Sudan. People in poorer countries are on average 6 times more likely to be displaced, evacuated or require emergency assistance due to climate-related disasters than those in rich countries.



Source: UN Office for Disaster Risk Reduction (UNISDR) and Centre for Research on the Epidemiology of Disasters (CRED), *Economic Losses, Poverty & Disasters, 1998-2017*.

Consequently, climate change and increasing competition for natural resources are transforming the security concerns, making harder and harder to distinguish geopolitical turbulences from conflicts and disasters caused by climate change.

In the meantime, 'land grabbing' is expanding as richer countries and corporations acquire fertile land in developing countries, thus worsening water and food security, and threatening the livelihood of people in already fragile states.

At the same time, the competition for some rare earth elements (REE) is intensifying, fed by the growing demand from Information and Communication Technologies (ICT), military defence systems, clean energy technologies and other advanced and emerging technologies. Moreover, China, the USA, the EU and other countries, are all highly reliant on imports for the same materials (e.g. niobium, chromite ore, platinum, palladium, rhodium, tantalum). Currently, [over 85% of the global REE production](#) is concentrated in China, which raises serious questions regarding the strategic autonomy of the EU and other continents

## What could happen in the future?

The UN estimates that [40% of civil wars](#) over the past 60 years were related to natural resources. Additionally, conflicts related to natural resources and/or environmental degradation [are twice as likely to return to violence](#) within five years. At the same time, as the [top five global risks in 2020 are linked to the environment](#), it is getting harder to distinguish geopolitical turbulences from conflicts and disasters caused by the changing climate.

In the coming decade, [the disruptive impact of a changing climate](#) with all its effects on the economy, standards of living and especially security will be felt more strongly.

In addition, by 2050, [the global amount of arable and productive land per person is estimated to be a mere quarter of what it was in 1960](#). As the Earth's soil erodes, so does its ability to filter water, absorb carbon, and feed people. Not only will less food be available, but it will also be lower in vital nutrients – impacting most heavily on the globe's poorest, forced to look for food in other places.

At the same time, conflicts over increasingly scarce natural resources depend on factors like institutional and social resources. In one case, scarcity may drive conflict and short-distance displacements, while in another [it may forge innovation, cooperation and encourage behavioural change](#).

## Possible implications for European public policies?

In view of the above, should public policies reframe climate change as a core national security issue? This would suppose bridging more environment and climate security policies, while developing a comprehensive approach to climate-related security risks. As planetary changes translate into burning health issues, exorbitant financial costs, exacerbated global inequalities, tensions and conflicts, and potential migratory flows, are governments doing enough to adjust priorities and integrate longer-term perspectives into security public policies?

Could Governments make it easier for people to act in a climate-friendly way? In a world where innovative solutions, emotional appeal, participative approaches and social incentives can make people to change, which tools to be used by policymakers?

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