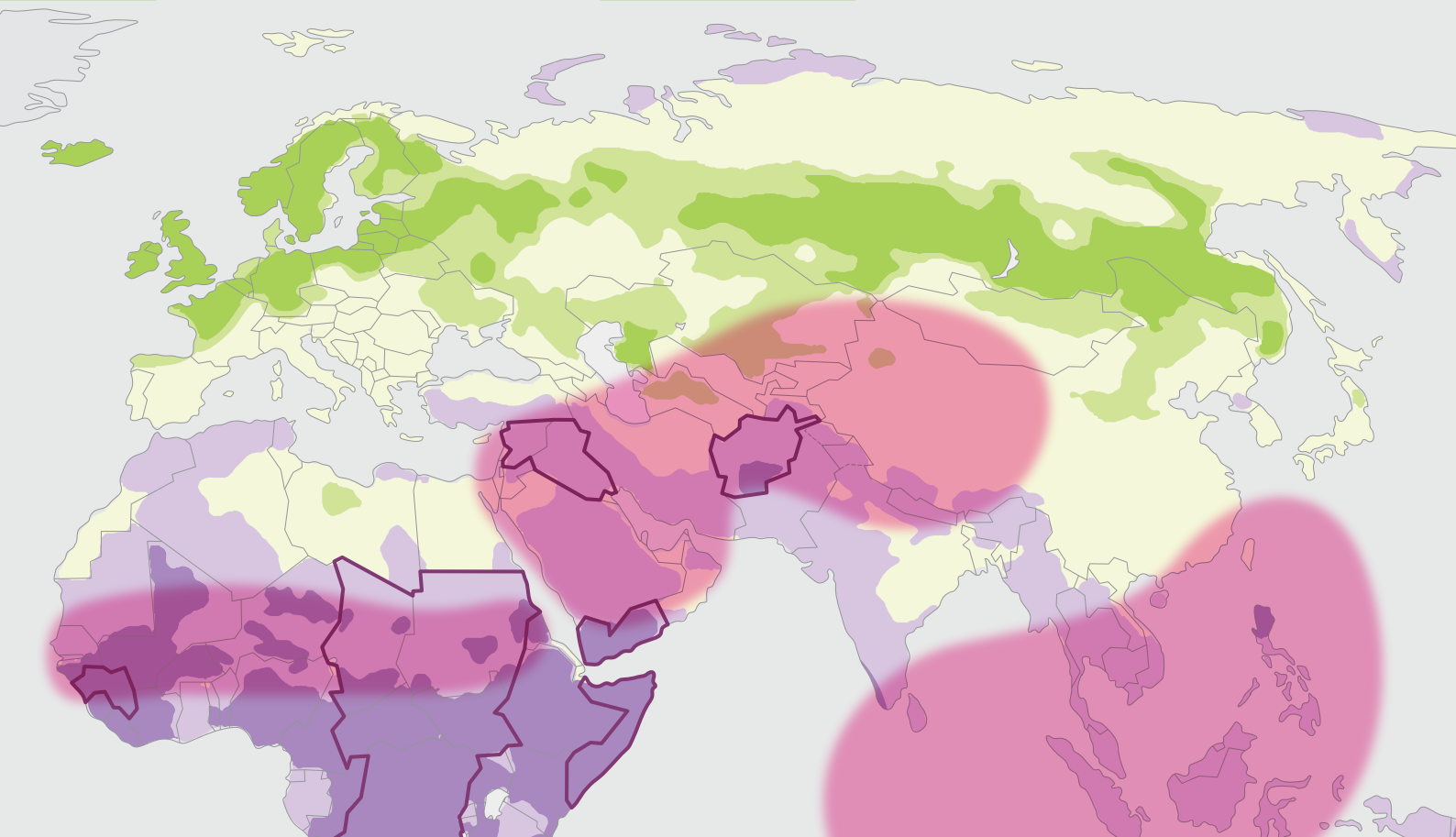


Nexus Brief, Nr. 5, July 2018

## Climate Change & Environment

# Fragility and Conflict



# Key Messages

Violent conflicts are increasing in number and intensity. Most are occurring in Africa, the Middle East and South Asia, and are the result of complex interactions among multiple factors, including some related to the environment.

Environmental degradation, exacerbated by climate change, does not automatically lead to conflict, but can affect such drivers of conflict as low rural incomes or food insecurity. Where society, institutions and governments are unable to manage the challenges related to these drivers, the risk of conflict increases. States of fragility often find themselves in this situation, but further research is necessary to better understand the relationships among the environment, climate change, fragility and conflict.

Numerous international actors, including the UN General Assembly, the UN Security Council, NATO, OSCE, the European Union, the African Union and the G7, have recognised the nexus of environment, climate

change, fragility and conflict. A dedicated international process on this nexus could improve the common understanding of the dynamics at work in the same way that the Nansen Initiative<sup>1</sup> responded to the challenges of displacement in the context of disasters and climate change.

The key to reducing the risk of conflict is a preventive approach. Managing shared water resources can increase confidence across borders, prevent conflicts and promote peace. Development cooperation can support local and national measures for sustainable agriculture, land restitution and democratic institutions.

Countries with a history of armed conflict have an increased risk of falling back into conflict. Where environmental factors are root causes or underlying reasons leading to the outbreak of an armed conflict, these factors need to be adequately addressed in conflict resolution and in respective peace agreements.

## Context

### Why this nexus brief

This nexus brief sheds light on the nexus of environment, climate change, fragility and conflict. In the last few years, this nexus has been increasingly discussed on the global, regional and national levels. This brief provides an overview of the complex interlinkages, and focuses on conflicts related to declining natural resources.

### Environmental problems can provoke tensions

The destruction and over-exploitation of natural resources and ecosystems can increase the risk of violent conflict. Competition over declining natural resources

such as fresh water, fertile soils, fisheries or forests may affect livelihoods and indirectly increase the risk for conflict. Climate change may exacerbate existing challenges, and has been addressed on international levels as a serious aggravating factor to violent conflicts (Behrend 2015). Generally, the risk of conflict is higher in fragile contexts than where governments or society have the capacity to cope with the challenges (Detges 2017).

Unchecked access to natural resources can fuel ongoing conflicts by providing the necessary economic and financial base (Mason et al. 2008). Conflicts may also

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<sup>1</sup> The Nansen Initiative completed its work in 2015. As a follow-up, the Platform on Disaster Displacement was launched in May 2016: <https://disasterdisplacement.org/>

## Figure 1: Interlinkages between environment and conflict

Produced by Zoë Environment Network, April 2018

Environmental / resource-use problems can **provoke tensions** and threaten security. Environmental policies can address these problems at source, thus reducing tension.

By **jointly addressing** environmental problems usually unrelated to conflict causes, the conflicting parties can help improve dialogue and strengthen mutual trust.

In armed conflicts, the environment is often a victim of **collateral damage**. By improving the environmental awareness and conduct of combatants, such damage can be reduced.



arise because of an abundance of natural resources such as fossil fuels or certain minerals. These resources may be used for funding armed non-state actors or dictatorial states, provide incentives for insurgencies or for separatism for the resource-rich part of a country, or lead to violent marginalisation and oppression of a regional population (Mason et al. 2008). These situations are often described as a 'resource curse' (WB/UN 2018).

### Jointly addressing environmental problems can improve dialogue and strengthen trust

Common problems regarding the state of the environment or the use of natural resources may bring people together in attempts to solve them (ENVSEC 2017). Joint efforts to improve the state of the environment and the management of natural resources may build confidence between communities and nations, and ultimately prevent conflicts and promote peace.

### In armed conflicts, the environment is often a victim of collateral damage

Military interventions cause environmental degradation and pollution both unintentionally and as part of a strategy to undermine livelihoods that are dependent on the environment. While the laws of war (Geneva Protocol I, Art. 54) prohibit certain practices such as

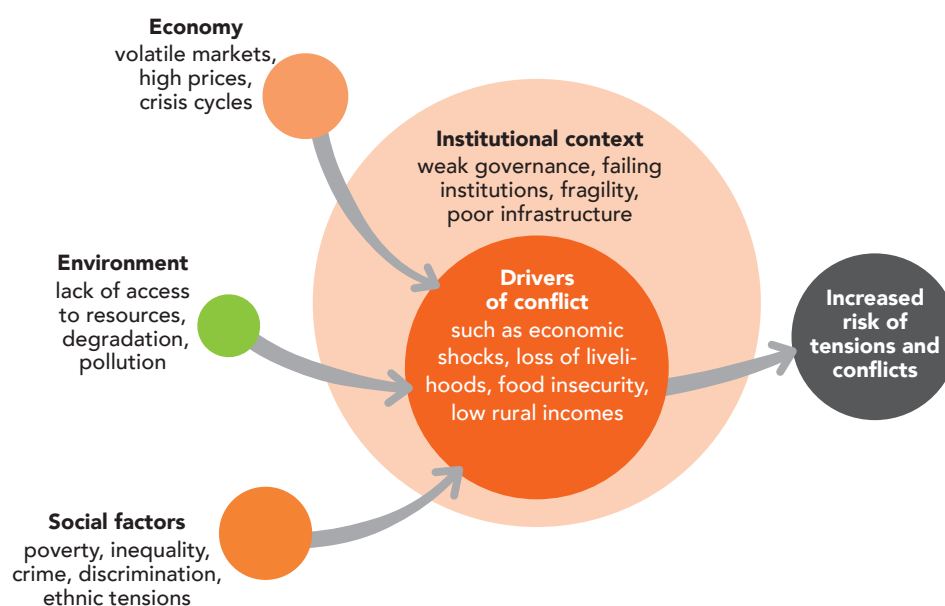
**Conflict:** Conflict is a 'relationship among two or more parties, whether marked by violence or not, based on actual or perceived differences in needs, interests and goals' (Means et al. 2002). Conflict is a normal part of societies and an important force for social change. If conflict escalates, however, it can develop into a negative force, destroying human life, the environment and social relations (Rüttinger et al. 2015).

**Fragility:** Fragility is the combination of exposure to risk and insufficient coping capacity of the state, system and/or communities to manage, absorb or mitigate those risks. It is multidimensional, factors from the economic, environmental, political, social and security dimension contribute to fragility. Further, fragility is not only relevant to developing countries, its challenges are universal. Fragility can lead to negative outcomes including violence, the breakdown of institutions, displacement, humanitarian crises or other emergencies (OECD 2016).

the deliberate destruction of agricultural lands, the environment is mainly protected indirectly by limiting the war's destructiveness through the principles of necessity, proportionality and distinction (Bodansky 2003).

**Figure 2: Environment among the factors of tensions and conflict**

*Produced by Zoï Environment Network, April 2018*



## **Multicausal relation between environment and conflict**

Conflicts are never the result of a single cause, but emerge from the interaction of multiple factors. Recent research focused on the link between climate change and conflict. While the research does not conclude that the link is direct and strong, the findings support the existence of indirect links (Adger et al. 2014). For example, climate change may affect drivers of conflict such as low rural incomes or food insecurity. In such circumstances, climate change is described as a 'threat multiplier': it increases the risk of conflicts by exacerbating existing trends, tensions and instability. The same can be said about environmental degradation in general (Behrend 2015). Low economic growth or the presence of other drivers of conflict, however, does not necessarily lead to violence. Context matters: inadequate infrastructure, ethnically divided societies or weak democratic institutions together with the inability of society, institutions and governments to manage the challenges posed by environmental degradation can increase the risks to livelihoods and stability and provide the context that increases the risk of conflict (Detges 2017). These conditions can often be found in states of fragility.

## Facts & Figures

This section presents data on important elements in the causal chain between environmental degradation and conflict. In addition, short case studies on the Arab Spring and Darfur provide insights on the complexities of the causal relationships.

### Impacts of environmental degradation on people

Healthy ecosystems are vital to survival, well-being and prosperity, and conversely, declining ecosystems may increase the risk for conflict. Examples of declining ecosystems are not hard to find.

Forests are critical ecosystems that filter fresh water, prevent flooding and soil erosion, produce wild foods and fuelwood, and lock up vast amounts of carbon. Since 1990, losses of natural forests add up to 129 million hectares – an area larger than South Africa. Counting the changes from natural forests to planted forests, this figure rises to a total of 239 million hectares of natural forest that have been lost (WWF 2016).

The world's food and water supply is greatly dependent upon good quality of soil. About 30% of global land areas have experienced significant degradation (WWF 2016).

Access to fresh water is important for domestic life, agriculture and industry. Nearly 50 countries experienced water stress or water scarcity in 2014, up from just over 30 in 1992 (WWF 2016).

More than 3 billion people obtain up to 20% of their animal protein from fish. The share of fish stocks within biologically sustainable levels decreased from 90% in 1974 to 69% in 2013.

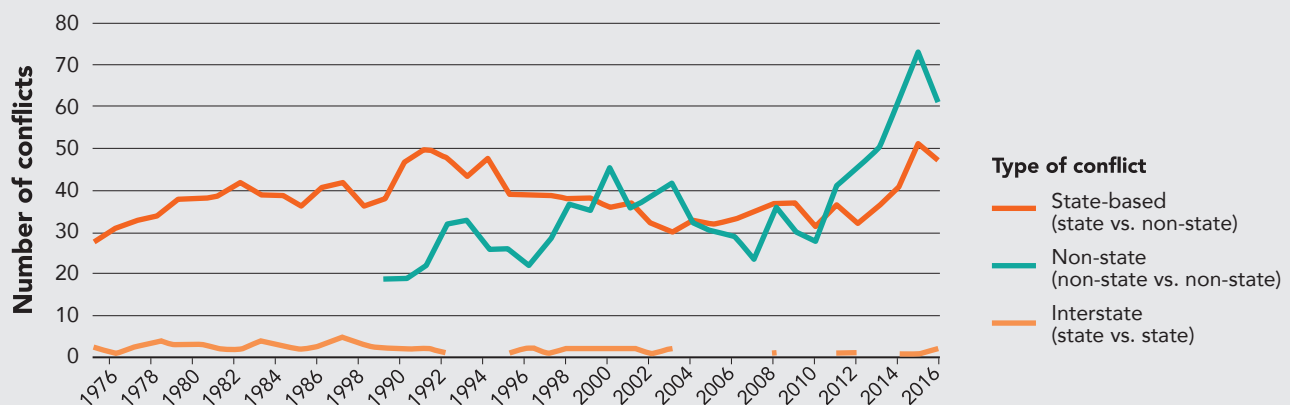
### The number and intensity of violent conflicts is increasing

Since the end of the Cold War, the number and intensity of most types of violent conflict steadily declined. That trend stalled in 2007, however, and has reversed since 2010. The number of interstate violent conflicts remains low, with no more than two in any given year, but the number of violent conflicts within states has been increasing. These conflicts are occurring among a growing number of armed groups and between non-state groups and the state, and increasingly involve some form of external intervention (WB/UN 2018).

**Figure 3: Violent conflict worldwide by type of conflict, 1975–2016**

Figure adapted from WB/UN 2018

Data sources: Allansson, Melander, and Themnér 2017; Gleditsch et al. 2002; Sundberg, Eck, and Kreutz 2012



The data presented in Figure 3 do not provide any indication of the role of environmental degradation or climate change in the number and type of conflicts.

Violence in various forms can also be found in contexts unaffected by political armed violence and not typically considered fragile (OECD 2016). In fact, in absolute numbers in 2015, more people died violently in large countries such as Brazil and India, which were not experiencing conflict, than in Syria (Small Arms Survey 2016). In addition, only 6 of the 37 countries most affected by lethal violence in 2012 were emerging from or recently experiencing conflict (Geneva Declaration Secretariat, 2015).

Ukraine

Syria

Afghanistan

Iraq

Pakistan

Libya

Mali

Nigeria

Cameroon

Central African Rep.

Congo

South Sudan

Somalia

Yemen

Sudan

Kenya

Swaziland

Lesotho

South Africa

Venezuela

Brazil

Honduras

El Salvador

Guatemala

● Terrorism

▬ Conflict

● Terrorism and conflict

● Homicide

### **Climate change, food price shocks and conflicts: The Arab Spring**

In the chain of events that led to the Arab Spring, climate change played a role, even if it was not a sufficient trigger on its own. In 2010–11 global weather extremes<sup>2</sup> led global wheat prices to more than double. Five of the world's six largest wheat exporters suffered from incidents that substantially damaged or diminished their harvest (Bailey and Wellesley 2017). There were record rainfalls in Canada, drought and bushfires in Russia, drought in Ukraine, storms in the US and La Niña-induced record rainfalls in Australia. The Middle East and North Africa region is particularly vulnerable to fluctuations in food prices. The region has little arable land, scarce water supplies and – with 25–50% of its food imported – has the highest per capita proportion of imported food. While not the principle cause, food prices can be described as an aggravating factor in the turmoil of the region. Protests in Egypt, for example, were principally aimed at President Mubarak's regime, but bread provides one-third of the caloric intake in Egypt, and almost 40% of household income is spent on food (Sternberg 2013). The Arab Spring would likely have come one way or another, but global warming might have caused it to come sooner rather than later (Johnstone and Mazo 2013).

### **Drought, land management and conflict: Darfur**

In 2007, the then UN Secretary General Ban Ki-moon wrote that "the Darfur conflict began as an ecological crisis" (Null and Risi 2016). In 2003, the conflict in Darfur, Sudan, escalated, but the origins can be traced back to major changes in rainfall that happened 20–30 years earlier.

Originally, conflicts over resources were mediated through a local governance system, which was administered by the ruling tribes. Each man would receive a piece of land, but grazing rights and access to water points remained communal. Customary authorities would meet to negotiate adjustments to the grazing patterns of different tribal groups once the rainfall patterns became clear. A tribe that was hit by poor rainfall could use the land in the territory of another tribe (WB/UN 2018).

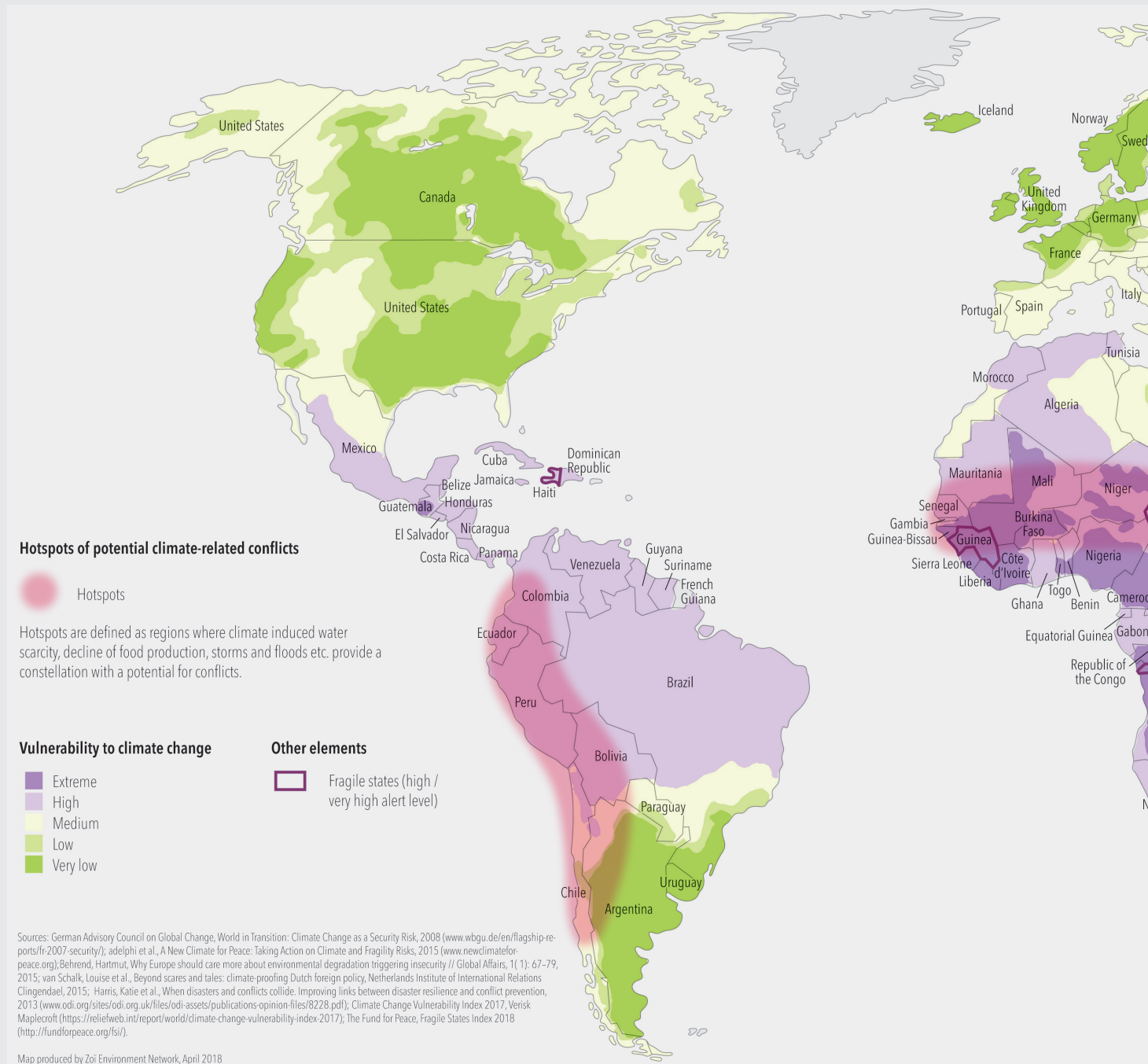
Drought and famine in the 1970s and 1980s created new migration patterns for nomadic herders. The camel-owning Zaghawa pastoralists of North Darfur, for example, migrated beyond their traditional grazing ranges in the south and thereby displaced other herders. In addition, migrants began to claim land rights under a new statutory law, ignoring customary law. In turn, farmers prohibited access and evicted nomads (Null and Risi 2016). Finally, a decision of the national government in 1971 made local authorities ineffective and created a vacuum that led to the collapse of the intertribal system for land use management.

Drought has contributed to the complex ongoing crisis in Darfur. At the same time, the fragile situation has undermined the maintenance of the mechanisms for natural resource management (Harris et al. 2013).

<sup>2</sup> While individual extreme weather events cannot be unambiguously attributed to climate change, the series of events in 2010–11 is exactly what we should expect to happen with increasing frequency as the world's temperature warms.



**Figure 5: Potential for climate-related conflicts**

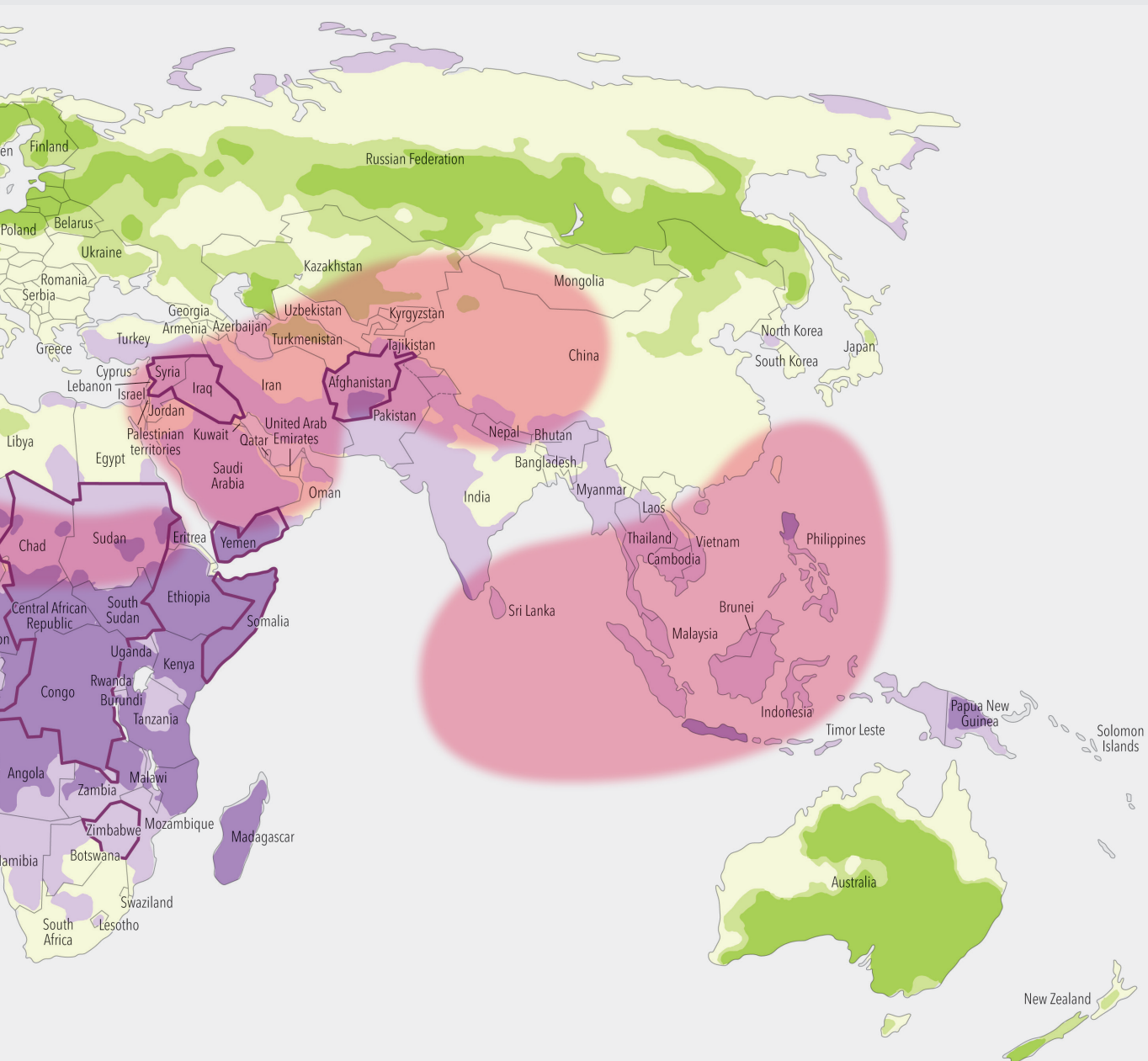


## Where climate change vulnerability meets fragility

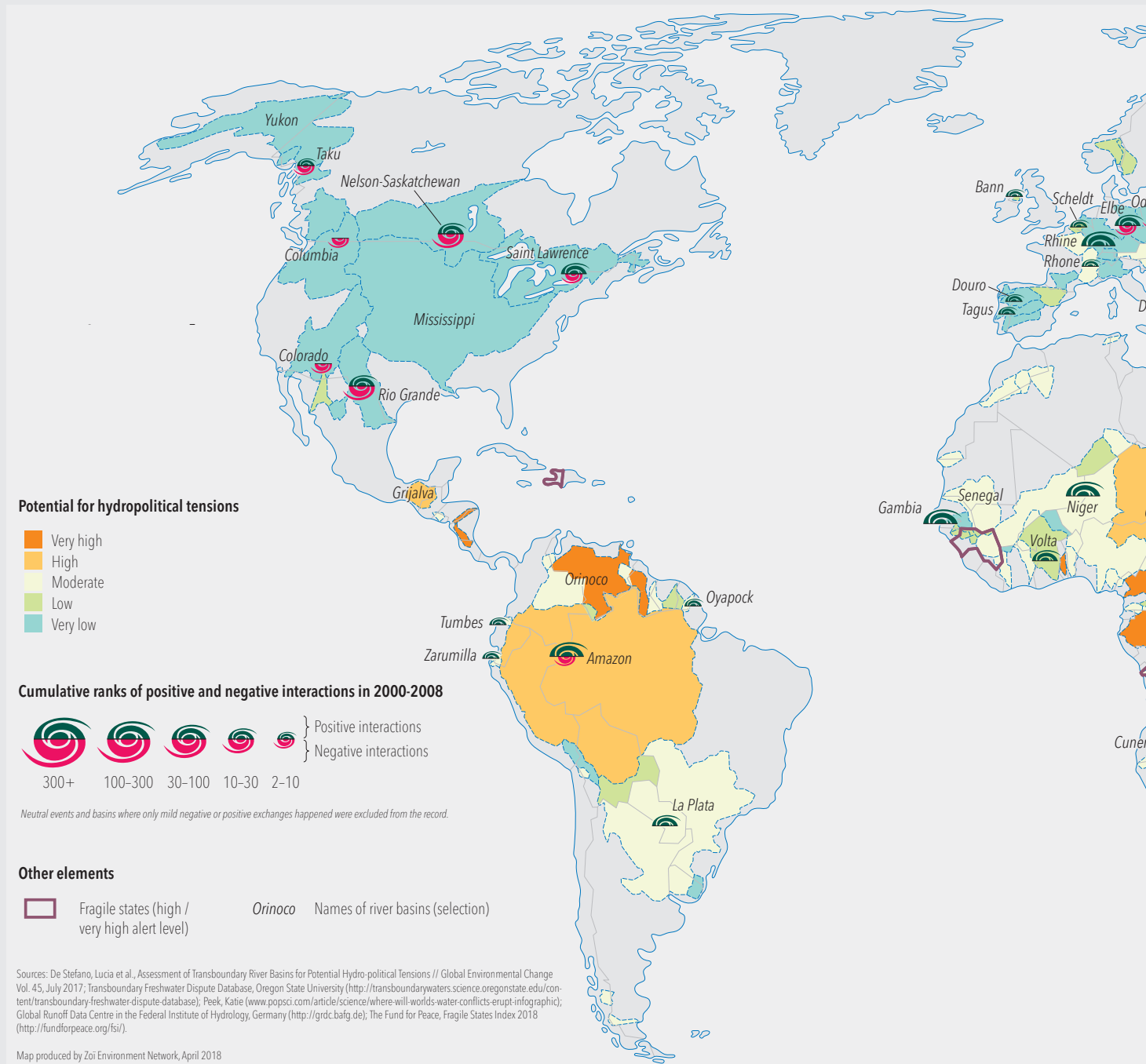
The numerous and profound changes brought by climate change to natural and human systems may make societies more prone to tensions, disputes or disagreements. States of fragility – where basic state functions are lacking, confidence in state institutions is low and inequality is high – are particularly vulnerable. The risk factors related to climate change range from an increased frequency of droughts, floods and storms to growing water stress, diminished food security and forced migration. Areas at risk include large

parts of Africa, the Middle East, Central and South-East Asia, the Caribbean and the Andes. Accelerated melting of Arctic ice brings the additional challenge of increased competition over valuable resources and transportation routes.





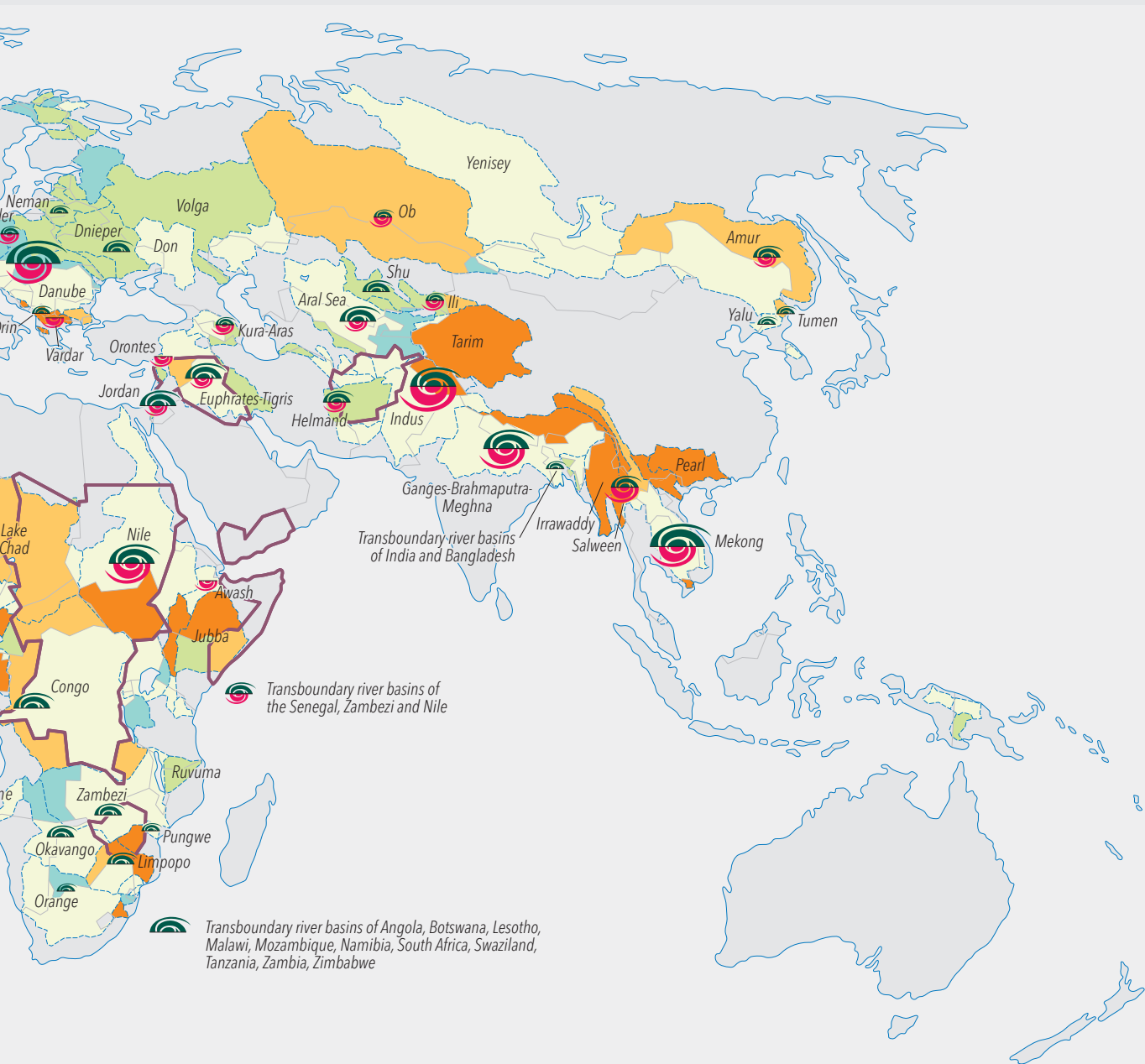
**Figure 6: Tension and cooperation in transboundary basins**



## Water scarcity and conflicts

Shared waters can and do cause disputes among riparian states, but they can also foster cooperation. Basins with major new facilities, such as dams or hydropower plants, and where basin-wide institutions for interstate cooperation are weak or weakening are at higher risk of a conflict. The potential for tensions can be further exacerbated by the impact of climate change, previous conflicts, and the overall political and economic situation. Yet the latest available data for the 2000–08 period (shown on the map

as symbols, the size of which is proportional to the number and importance of interactions in each basin) demonstrate that cooperation in shared waters usually prevails over conflict.



## Policy Development and Responses

### Recognising the interlinkages of environment, fragility and conflict

The interlinkages of environment, climate change, fragility and conflict have been discussed and recognised in several international forums. In 2009, the UN General Assembly discussed the impact of climate change on security. In addition, with the adoption of the Sustainable Development Goals in 2015, member states in the UN General Assembly recognised the interlinkages between goals such as SDG 16 on peace, justice and strong institutions as well as SDG 13 on climate action, SDG 6 on clean water and sanitation, or SDG 15 on life on land. The UN Security Council held several formal and informal discussions on the environment, climate change, fragility and conflict nexus over the past ten years. Recently, in Resolution 2349 on Lake Chad, the Security Council recognised the negative impacts of climate change on the stability in the region. Another recent example is the Security Council's high-level briefing on preventive diplomacy and transboundary waters in 2016. The interlinkages between environmental issues and security have also been recognised by other international actors including NATO, OSCE, the European Union, the African Union and the G7.

### Development cooperation projects tackle specific components of the nexus

Project implementation has so far mostly addressed the environment, climate change, fragility and conflict separately, but there are many development cooperation projects that address important links in the causal chain of environmental degradation and conflict.

Rural incomes seem to play a key role in connecting environmental degradation, climate change and conflict in some countries (Detges 2017). Development projects supporting farmers in the use of more resistant crops, restoring degraded lands or setting up insurance schemes that compensate for production shortfalls may help prevent a crisis that leads to conflict.

States of fragility and weak institutions provide a context in which environmental degradation may lead to conflict. Building and stabilizing state structures allows

governments and their institutions to take the necessary actions in a crisis and to support their populations. Development projects supporting effective and accessible local authorities who provide basic services may improve the relationship and trust between the people and their state.

### Climate and Water Diplomacy

Some countries are maintaining climate or water diplomacy, which integrates the issues of water or climate change into foreign policy in order to address broad, long-term objectives such as stability within a region. Japan's Foreign Ministry, for example, does not see climate change as an environmental issue, but as a threat to peace and security, and has initiated work to integrate climate change into its foreign policy agenda (adelphi 2018). Similarly, Germany's Foreign Office recognises that climate change may increase the risk of conflict and has, among other steps, raised the question in the UN Security Council and searched for preventive solutions through development cooperation (Federal Foreign Office 2017). Another example is Switzerland's water diplomacy, through which the country not only supports developing countries in improving their water management and coordination across borders, but also launches international dialogues on the water and conflict nexus (EDA 2015).

## Key Issues

### Key Issue 1: Environmental degradation is a threat multiplier

Conflicts emerge from the interaction of multiple factors, one of which may be access to natural resources. Environmental degradation, exacerbated by climate change, can have negative effects on rural incomes and livelihoods. Where institutions are weak and the government and society are unable to deal with the challenges, the risk of conflict increases. Such conditions can often be found in fragile contexts.

### **Key Issue 2: Closing the knowledge gaps in the causal chains calls for more research**

The relationship between environmental degradation and conflicts is complex. Lack of access to natural resources may indirectly increase the risk of conflicts by affecting one or more of the well-documented drivers of conflict. There is good evidence about many of the discrete links in the chains of causality, but systematic and comprehensive information on issues such as local institutions, management of natural resources, adaptive efforts or migration patterns is often missing. More quantitative research, case studies and theory-oriented research are needed to better understand the causal relationship (Detges 2017).

### **Key Issue 3: The common management of water resources may prevent conflicts and promote peace**

The joint management of water resources may have a positive effect on the stability of a region and help build confidence across borders. Historically, sharing water resources has more often led to cooperation than to violent conflicts (Yoffe et al. 2003, Barnaby 2009). Increasing demand and the effects of climate change on the availability of water may, however, change this situation.

### **Key Issue 4: Including resource management in peace agreements can be a stepping stone to lasting peace**

Countries with a history of armed conflict have an increased risk of falling back into conflict (Webersik and Levy 2016). In order to sustain peace, the parties need to address the root causes or underlying reasons that led to the outbreak of an armed conflict. Such factors as inter-ethnic discrimination, denial of access to natural resources, mass poverty and poor governance that leads to the plunder of natural resources all require attention. Integrating specific provisions into a peace agreement allows for tailor-made solutions, and can be seen as a stepping stone to lasting peace. The mechanism for post-conflict natural resource management needs to be adaptable to new developments, including more democratic policymaking, and the implementation of peace agreements needs to be monitored and enforced by third parties (Webersik and Levy 2016).

### **Key Issue 5: A preventive approach increases the capacity to cope with challenges**

Reducing the risks of conflict through preventive measures is key (WB/UN 2018). Such measures can include local and national efforts across a range of activities – equal access to water sources; land restitution; sustainable farming practices that provide decent rural incomes; reforestation to avoid landslides and other natural disasters; support for democratic institutions; and the prevention of forced migration. Integrating the nexus of environment, climate change, fragility and conflict into development cooperation could be helpful in designing effective projects. Preventing additional increases in risk calls for further engagement on the international level over such global issues as climate change, biodiversity, ecosystem management, and – indeed – security.

### **Key Issue 6: An international process on the nexus of environment, climate change, fragility and conflict may help identify common priority areas**

Like the Nansen Initiative on climate change and forced migration, an international process on the nexus of environment, climate change, fragility and conflict could help develop a common understanding and identify what measures need to be implemented (Rüttinger and Pohl 2016). While the interlinkages are often discussed in various forums, a more focused process could be helpful. One important element would be the clarification of concepts in order to reach understandings across disciplines and policy areas (Mobjörk et al. 2016). This in turn could improve the collaboration and knowledge necessary to tackle the challenges, and could help identify implementation measures and common priorities.

## Relevance for SDC

The strategic objectives of Switzerland's development cooperation include the prevention and management of the consequences of crises, disasters and fragility, and the promotion of conflict transformation (Der Bundesrat 2016). The Swiss Agency for Development and Cooperation (SDC) has increased its engagement in fragile contexts. About half of the countries and regions where Switzerland is active can be considered fragile, as they suffer from the effects of internal or external conflict, frequent natural disasters, weak or unstable state institutions, extreme poverty, violence and political arbitrariness (SDC 2017a). According to the peace-building and state-building strategy for SDC's work in fragile and conflict contexts, one of the five thematic priorities deals with conflicts related to natural resources (SDC 2015).

For each of SDC's priority country a context analysis forms the basis for a country strategy (SDC 2013). Data on the environmental conditions such as the natural resource base, degradation or natural disasters are gathered. In addition, the different fragilities of a context are analysed and the importance of addressing these fragilities is assessed. This is the basis for a conflict-sensitive programme strategy, and is important for development cooperation in fragile contexts.

An example of SDC's engagement in a fragile region with a link to natural resources is the African Great Lakes region where the goal is to help stabilise the situation after the crises and conflicts of the 1990s. One of the projects is fostering transboundary water cooperation in the Sio-Malaba-Malakisi sub-basin of the Nile shared by Kenya (upstream) and Uganda (downstream). Issues of concern are catchment and water degradation due to unsustainable agricultural practices and the over-exploitation of resources (SDC 2017b). After an assessment demonstrating the benefits of transboundary water cooperation, a participatory process was launched to develop further scenarios for collaboration.

Through its Global Programme Climate Change and Environment, SDC is addressing the consequences of climate change and environmental degradation that are increasingly threatening development achievements and poverty alleviation. SDC enables people to

adapt and prepare for climate and environment-related hazards (SDC 2017c). Promoting the 'environment and climate proofing' of development operations establishes a link to SDC's engagements in fragile context and conflicts.

Other Global Programmes of SDC also deal with aspects relevant in the nexus of environment, climate change, fragility and conflict. In its food security programme, for example, SDC helps small farmers produce sustainably and use natural resources efficiently, and works to make them more resilient. Another programme deals with the different aspects of migration, including the protection that migrants need in the event of conflicts and natural disasters.

The link between competition over declining natural resources and conflicts is more explicitly made in SDC's Global Programme on Water. The equitable management of water resources is recognised as a precondition for sustainable development, stability and peace. Thus, Switzerland is working in water crisis hotspots, and links political dialogue between countries at the highest level with joint water management measures. The activities are embedded in the lines of action of FDFA on water and security (SDC 2017b).

Swiss interventions already address the linkages between environment, climate change, fragility and conflict to a certain extent. Nevertheless, the context analysis for the country strategies might profit from a stronger focus on the environmental dimension of fragility. In addition, Switzerland does have experience in several specific areas relevant to the nexus, such as fragility, disaster risk reduction, adaptation to climate change, environmental degradation and water security. This expertise could be used to improve the understanding of the interlinkages worldwide and in the priority areas for Swiss development cooperation, and to support measures designed to avoid conflicts and promote stability and peace.



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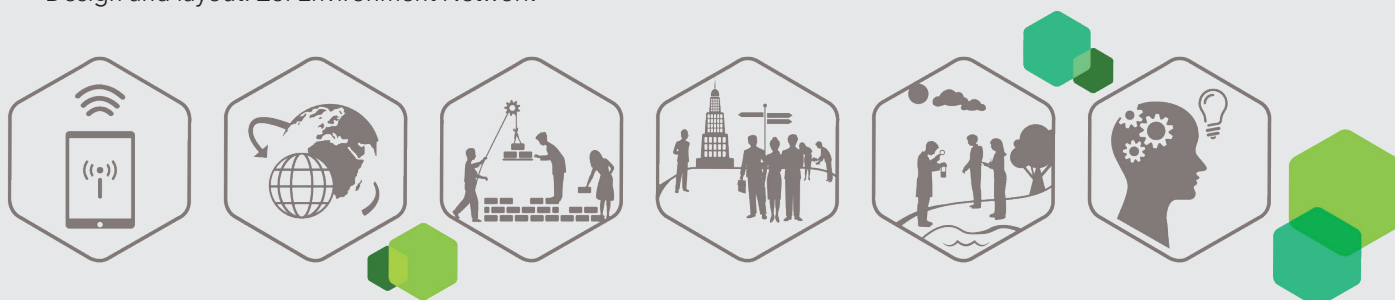
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## Contributors

Authors: Anik Kohli (INFRAS), Myriam Steinemann (INFRAS), Nickolai Denisov (Zoï Environment Network)  
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