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The Frexus Approach Guidelines

Fostering Climate Security in Fragile Contexts

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The Frexus Approach Guidelines: Fostering climate security in fragile contexts

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THE FREXUS APPROACH GUIDELINES

Fostering Climate Security in Fragile Contexts

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1. Introduction

1.1. Climate-security nexus

How are climate change, natural resource management and security issues interconnected?

Climate change is not merely an environmental problem: it is a global threat to peace and security. As climate change induces *resource scarcity* – such as depleting water resources, declining agricultural productivity, and reduced availability of natural resources – it can trigger competition and conflicts among communities that hold the risk to escalate into broader security issues, including social unrest, displacement, and violence. Furthermore, climate change can exacerbate *environmental degradation*, such as deforestation, desertification, and biodiversity loss. This degradation makes communities more vulnerable to security threats, including food insecurity, water stress, and economic instability. For instance, sea-level rise, extreme weather events, and prolonged droughts can force people to flee their homes and induce migration. *Large-scale displacement and migratory movements* can strain social, economic, and political systems also leading to security challenges both within and between nations. Due to these indirect effects of climate change, the consequences can *disrupt economies* – particularly those dependent on climate-sensitive sectors such as agriculture, herding and fisheries – by causing economic decline, unemployment, and income disparities, that create a fertile ground for security threats, such as the decreasing opportunity cost of joining armed groups as a form of self-subsistence.

In recent years, the links between climate change-induced natural resource depletion and conflict have received increased attention in global, regional, national and local discourses among policymakers, the media, academics and the general public. For instance:

- The World Economic Forum has warned that failure to adapt to climate change and water crises in general are the most significant risks facing the world.[1]
- The security implications of climate change were highlighted in the IPCC's Fourth Assessment Report as exacerbating the drivers of conflict by deepening existing fragility within societies, straining weak institutions, altering power relations, and undermining post-conflict recovery and peacebuilding.[2]
- The G7-commissioned Armed Conflict Survey concluded that climate change is "the ultimate threat multiplier", exacerbating fragile situations and contributing to social upheaval and even violent conflict at all levels of governance. It also highlighted the compounding risks that arise when climate change impacts interact with other problems already faced by fragile states.[3]

Resource-related insecurity is increasing worldwide with water and climate as root causes for conflict and migration. Several hotspots can be identified where the conflicts over water, energy and food (WEF Nexus) are looming or erupting already, including the Sahel region. As pressures on natural resources increase, opportunities for development decrease and the risk of conflicts rises. With the growth of absolute or perceived scarcity, competition between different users becomes more prevalent. Natural resources competition easily leads to conflicts at all governance levels, from the local all the way up to the transboundary and the regional level.

[1] World Economic Forum (2016): The Global Risks Report 2016, Geneva
[2] IPCC, 2007: Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, Pachauri, R.K and Reisinger, A. (eds.)]. IPCC, Geneva, Switzerland, 104 pp.
[3] Armed Conflict Survey 2019, May 2019, The security implications of Climate Change, pages 37-46, IISS

How to understand Natural Resources-related conflict and implement related projects?

A framework to develop adequate responses that consider not only the resources and climate change aspects, but also the security dimension itself is therefore necessary. To understand natural resource-related conflict and implement related projects, a 3-step framework is recommended:

1. *A sound analytical approach is a prerequisite to understand natural-resource related conflicts*: not only to assess environmental degradation, but also to understand the multi-layered nature and context-specificity of the conflict.

2. *Minimising trade-offs and creating synergies between mitigation and adaptation measures is crucial*: to create integrated nexus solutions between for example water, energy and food security sectors.

3. *Applying an inclusive approach towards the local communities is an integral part of understanding and addressing climate-security issues:* participatory system analysis, decision-making and implementation are the pathway towards equitable and sustainable mitigation measures.

What is this guideline and who is the target audience?

This guideline promotes the development of strategies and the implementation of projects that aim to build resilience of societies affected by the adverse impacts of climate change-related security challenges. The aim of the working paper is to showcase the added value and interoperability of cutting-edge concepts of development work across topics, contexts, and regions – based notably on the experience of the Frexus project co-founded by the EU and BMZ and implemented by GIZ in three Sahelian countries (Niger, Mali and Chad). The present document is of use to inform development workers, non-governmental organisations, as well as implementing agencies The Guideline can also be used to mainstream climate-security nexus considerations in regard to projects and programs that aim to achieve self-induced peacebuilding. It also seeks to offer valuable lessons on effectively handling the connections between climate issues and security in real-world scenarios.

The working paper will provide you:

- insights of the specificities of climate-security nexus projects,
- a practical working aid when designing and implementing such projects,
- inspiration for upscaling and mainstreaming.

1.2. The Frexus project

1.2.1. Introduction

The scarcity or poor governance of resources, conflicts and instability are mutually reinforced to form a vicious cycle, and initiatives that address the latter are often lacking a conflict and security dimension. This is why the Frexus project has been designed to support the peaceful resolution of social tensions and conflicts between population groups in Mali, Niger and Chad – caused or exacerbated by climate change in fragile areas – by using a participatory, intersectoral approach, as well as conflict- and climate sensitive action plan development.

For the past few years, the Sahel region has been facing a set of challenges, consequences of political, institutional, and social fragility, while climate change exacerbates these weaknesses and accentuates the causes of conflict. These crises render societies more vulnerable, alternate power relations, and make peacebuilding and post-conflict reconstruction more difficult. **The objective of the Frexus project is to provide adequate tools to address these challenges, avoid their negative consequences and create new opportunities for peace and sustainable development in the areas of intervention.**

Project ID

Objective

Improve security and resilience to climate change in fragile contexts through the Water-Energy-Food Security (WEF) Nexus.

Intervention zones

Mali | Inner Niger River Delta, Bellen, Konna et Soboundou communes.

Niger | Dosso Region, rural communes of Falmey, Farrey and Sambéra.

Chad | Mao, Nokou and Mondo communes.

Implementation Period

July 2019 to June 2023

Budget

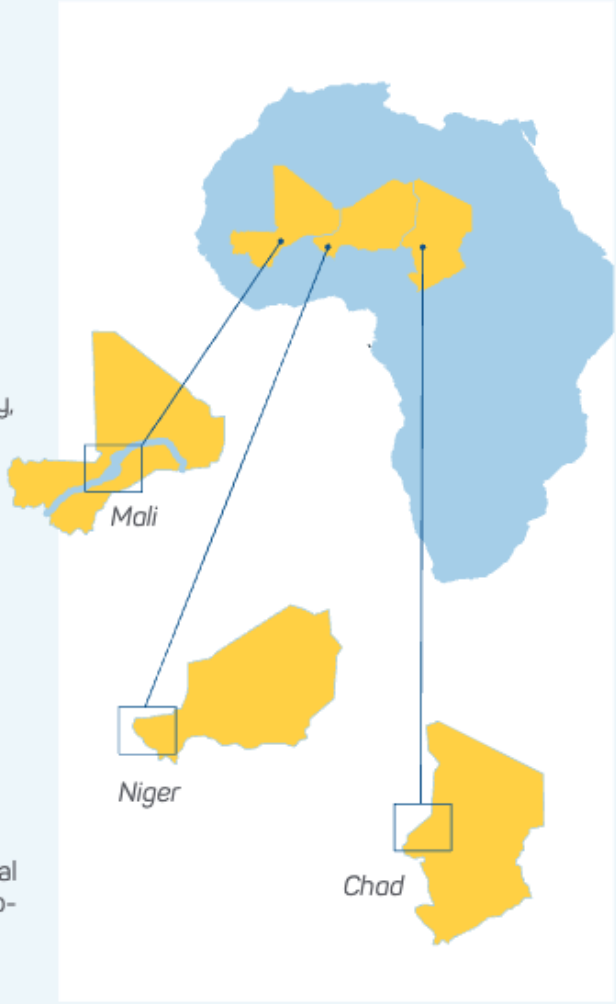
Total 5.038.785 €

EU Contribution 4.000.000 €

BMZ Contribution 1.038.785 €

Financing

European Union (EU), DG FPI and German Federal Ministry for Economic Cooperation and Development (BMZ).



Partners

International, regional, national, and local.

1.2.2. Components of the Frexus approach

The Frexus project was designed to simultaneously address several cross-cutting issues of international development cooperation. The following components at the intersection of different aspects of development cooperation have been used to ensure the effectiveness and sustainability of the Frexus project:

- Climate sensitivity
- Conflict sensitivity
- Holistic WEF Nexus approach
- Stakeholder involvement

A. Climate-sensitivity

- **What is it?**

  A climate-sensitive approach is guaranteed by carrying out a local climate risk assessment[4] in the areas of intervention to assess the risks for user groups related to climate change, as well as their impact on the socio-economic development in the intervention zones. It serves to:

  - identify climate-related hazards, vulnerabilities and exposures, and their chain of impact on the project's target groups
  - analyse climate risks and the adaptive capacity of populations

- **How does it apply to development projects in a fragile[5] context?**

  It is crucial to outline the factors of climate change vulnerability and -resilience related to climatic conditions, while analysing the balance between them. Evaluating the capacities and adaptation strategies of the populations in a fragile context facilitates informed decision-making at the community level to respond to current climate risks and implement measures considering future climate climate-related hazards, vulnerabilities and exposures.

  What is its added value compared to non-climate sensitive development approach?

  Naturally, environmental conditions are a key element of natural resource-related development projects. Therefore, defining indicators for climate-related risk and population adaptation serves as a reference for measuring the project's impact in a climate-centric manner. The weighting and aggregation of selected indicators allows for the development of chains of impact, while accounting for risk factors in action plan development ensures long-term functionality of the implemented measures.

B. Conflict-sensitivity

- **What is it?**

  To achieve a conflict-sensitive approach of the Frexus project, a conflict analysis was conducted in all intervention zones. By using this tool to identify the factors and actors of the conflict at hand, the interventions are driven by a thorough understanding of the – often invisible and perception-based – causes and dynamics of the conflict. Conflict analysis processes not only enable the evidence-based identification of potential peace drivers and ensure the project's adherence to the *Do No Harm* principle of

[4] Example of methodological approach: the "Sourcebook Vulnerability" reference guide and its "Complementary guide to vulnerability: the concept of risk" developed by GIZ for developing countries. It is based on the concept of vulnerability universally recognised by the IPCC in 2007. It can be found here: https://www.adaptationcommunity.net/wp-content/uploads/2017/10/GIZ-2017_Risk-Supplement-to-the-Vulnerability-Sourcebook.pdf

[5] European Union (EU): Fragility refers to weak or failing structures and to situations where the social contract is broken due to the state's incapacity or unwillingness to deal with its basic functions, meets its obligations and responsibilities regarding service delivery, management of resources, rule of law, equitable access to power, security and safety of the populace and protection and promotion of citizens' rights and freedoms.

development cooperation, but (when conducted in a participatory manner with stakeholders) they also drive a better understanding of the specific conflict drivers.

- **How does it apply to development projects in a fragile context?**

  Conducting a conflict analysis is a core prerequisite when planning and implementing projects in fragile contexts. Along the same lines as in climate sensitive-planning, conflict analysis enables to define and address the context-specific attributes of the situation and highlight the challenges of the development initiative. With respect to the fact that conflicts in fragile areas are multi-causal and multi-layered, the conflict-sensitive approach does not aim to create a streamlined, objective understanding of the conflict, but should lead to more transparent perceptions, constructive reflection, clearer communication and ideas for conflict resolution mechanism.

- **What is its added value compared to non-conflict sensitive development approach?**

  The findings of the conflict analysis contribute to a better understanding of the context and consequently, provide guidance for future action. By providing a framework for peace and conflict drivers, they allow for more targeted programming and maximise the efficiency of resource usage.

C. Holistic WEF Nexus-approach

- **What is it?**

  The Water-Energy-Food Security (WEF) Nexus-approach involves taking into account the totality of resources available for water, energy and food security to enable holistic planning and incentivise the most efficient use of natural resources to meet human and conservation needs. The aim is to support the populations with adequate tools to respond to challenges of resource scarcity and climate change and avoid negative interactions between the WEF sectors.

- **How does it apply to development projects related to climate change and natural resources?**

  The WEF Nexus-approach addresses our complex reality and recognises that water, energy and food security can only be achieved through safeguarding, protecting and upholding natural resources. Adhering to this intersectoral/interconnected approach development projects can avoid competition over resources, conflicting and lost development opportunities, and ensure sustainable outcomes – even under the restraining effects of climate change.

- **What is its added value compared to a non-multisectoral development approach?**

  Adopting a Nexus approach to resource use and project planning helps to avoid undesirable impacts between the water-energy-food security sectors, minimises the conflict-potential among them, and improves the efficiency of natural resource use for human livelihoods and the conservation of ecosystems. As a result, it contributes to a climate resilient and resource efficient future for all.

D. Stakeholder involvement

- **What is it?**

  The Frexus project envisaged an inclusive approach in developing and implementing its priority actions. The participatory process is based on the definition of a common understanding of the situation, while the data and information collected contributes to the exchange between stakeholders and the reaching of a consensus on the priority actions to be implemented. This method creates a deeper understanding of the interconnection between natural resource scarcity, impacts of climate change that affect it, and local conflicts that are consequently generated or exacerbated.

- **How does it apply to development projects in general?**

  Bottom-up, grassroot initiatives that meet the criteria of local participation, ownership and governance of development projects establish communities that can manage their lands, natural resources, and ecosystems in a sustainable and peaceful manner. The inclusion of and accounting for the most vulnerable segments of the population – especially women and youth – is of great importance in this context: it is crucial in establishing equitable, sustainable, and peaceful management of resources.

- **What is its added value compared to a top-down development approach?**
  The communities are empowered to address the challenges – for instance competition and conflicts over resources – and create opportunities for sustainable development. As this bottom-up approach ensures local participation and ownership of the project mechanisms, the likelihood of a self-induced and sustainable development is increased.

1.3. Theory of change

- **What is the theory of change of the Frexus project?**

  The Frexus project takes into account the complex interactions between climate change, security, and broader social, economic, and political dynamics. The project theorizes that the vicious cycle of scarcity, competition, conflict and instability can be turned into a virtuous cycle of resilience, sustainable resources management, cooperation and security. Via its multi-layered approach to address climate-related fragility in the intervention zones, Frexus aims to achieve a reduction of conflict, improve local's capacity to manage resources peacefully, promote strong social ties and conclude social agreements.

Figure 1: Theory of change

The theory of change in climate-security nexus projects should revolve around the understanding that climate change and security are interconnected, and that addressing climate-related risks can contribute to peace, stability, and human security.

- Climate Risk assessment and early warning tools facilitate the understanding of the climate-related factors and their potential security implications.
- Conflict analysis supports to identify resolution strategies that take into account climate-related factors – such as resource management, land tenure, and equitable access to resources.

2. Step One: Assessment of the context

2.1. Diagnostic phase

Objective: To understand and establish a consensus on the context-specific environmental and conflict factors of environment-security nexus issues in a fragile context.

- **How to establish a consensus on peace and conflict drivers, and their interdependencies?**

Systemic Conflict analysis[6]

A conflict analysis is a tool to analyse a specific context and develop strategies to reduce or eliminate the impact and consequences of violent conflict. It is necessary for a more in-depth understanding of the issues that may give rise to conflict and the dynamics that have the potential to foster peace in different project areas. In addition, it aims to minimise the risk of interventions that could intensify conflict and therefore do more harm than good. Conflict analysis processes allow stakeholders to better understand the drivers of conflict and gain insight into the drivers of peace that need to be supported, allowing for more targeted programming and more efficient use of resources. To conduct this systemic conflict analysis in the Sahelian context, it's advised to employ traditional analytical methods. Following interviews, discussions, and stakeholder engagement, crafting a comprehensive "peace vision" becomes pivotal for understanding the sought-after positive future scenario.

In this context, conflict analysis should provide guidance for future action, either by using it individually or in a participatory group way. The analysis does not lead to an objective understanding of the conflict, but should lead to more transparent perceptions, constructive reflection, clearer communication and a proposed conflict resolution mechanism. The aim of this study is to carry out a systemic analysis of conflicts in the project area by drawing up an inventory of existing knowledge on conflicts, as well as peaceful processes and their dynamics.

Toolbox

In light of the focus of natural resource conflict projects, the following steps should be carried out:

1. Identify the factors and actors of conflict and peace.

   This is a general identification of the main factors and players involved, which serves to define the scope of the analysis. This phase makes it possible to gather information on the drivers of conflict and peace, as well as on the main players, and to get a rough idea of their behaviour, their motivations/interest and their groups of influence.

[6] https://www.water-energy-food.org/frexus-improving-security-and-climate-resilience-in-a-fragile-context-through-the-water-energy-food-nexus

Image 1: Niger: the local community has gathered to discuss the major conflict drivers in its region

- What factors work against peace or in favour of conflict? What factors, problems or elements cause conflict and/or divide people, and how?
- What forces currently exist that can be used to promote the movement towards peace? What currently connects people across the lines of conflict? How do people cooperate? Who provides leadership for peace, and how?
- Which individuals or groups are in a position to have the most (negative or positive) influence on how the conflict will evolve? Who can decide to oppose peace? Who can decide in favor of peace?

2. Determine the most relevant factors of conflict.
   - Would this conflict be significantly different or improved if certain conflict factor did not exist?
   - If this conflict were eliminated, would certain conflict factor not exist or improve considerably?
3. Identify cause-effect relationships between key factors of the conflict.
   - What are the interaction and relationship of the different key factors?
   - What is the impact of certain factor? Why is this factor important? (Effects)
   - What has led to this factor? Where does this factor root from? (Causes)
4. Codevelop causal loops between key (f)actors of the conflict.

The cause and effect relationship between the key factors should be visualised in chains and/or loops as the next step of conflict mapping. Using the links identified in the previous step, the determining factors, causes, effects and key players are to be arranged in the correct order to form a loop. The result will be a visual representation of the conflict.

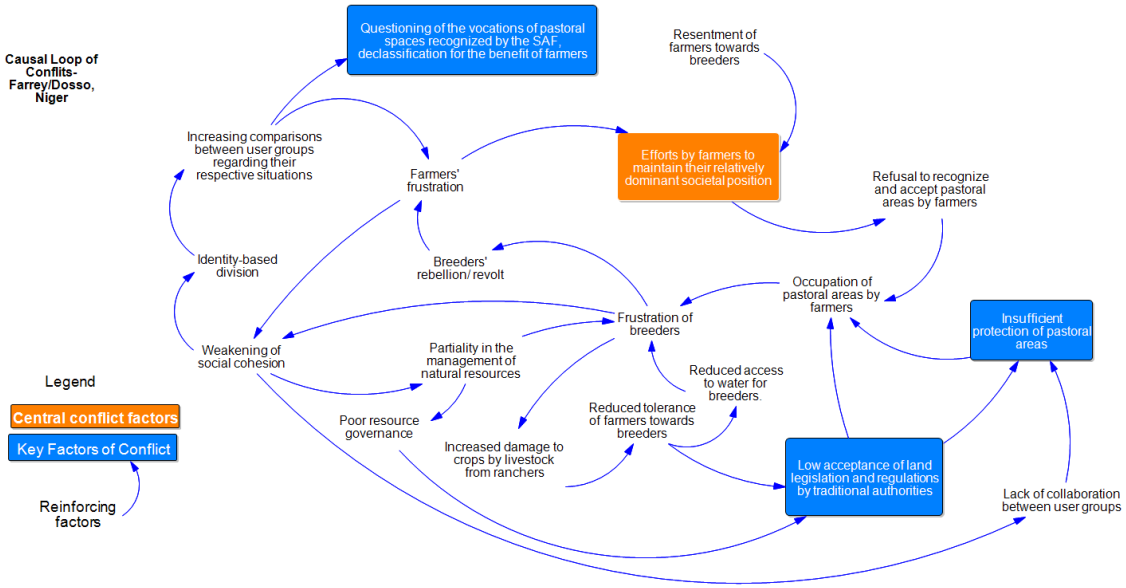


Figure 2: Identification of the key factors in a specific case. Causal loop of the natural resource-related conflict factors in Farray (Dosso, Niger) developed during the diagnostic phase of the Frexus project.

5. <u>Determine the most relevant factors of peace.</u>

   - What are peace factors that slow down or attenuate vicious cycles?
   - What are the factors that impact the dynamics of a peace equilibrium?

6. <u>Integrate key factors of peace and conflict into causal loops.</u>

   The causal loop developed so far is now to be completed by the key factors for peace identified in the previous step and by "weighing" the relationships between the key factors. Having described the key factors for conflict and peace in a connected loop, the result will be an appropriate visualisation (i.e., map) of the conflict with indications of the possibilities for strengthening the peace factors.

Image 2: Joint discussion of the outcomes of the conflict analysis in Niger.

7. Establish baseline situation of conflict factors.

   This procedure is to establish a baseline situation in terms of conflict and peace (actors, dynamics and perceptions) in the intervention area, which will be repeated at the end of the project in order to measure its impact.

8. Validate the analysis.

   - What is the conflict narrative told by the causal loop?
   - Are the captured central dynamics the right ones, or is there something else more important?
   - Are there essential elements missing that need to be added? Is it necessary to eliminate something less important?
   - Is there anything incorrect, distorted or misrepresented? Has any "wishful thinking" been incorporated into the loop? Is the loop overly "negative"?

- **How to identify and assess local climate risks?**

Climate risk assessment

The evaluation serves to assess the risks related to users/social groups associated with climate change in the areas of an intervention. It is to take place in the context of conflicts that can be attributed to resource poverty. The specific aims of the study are to:

a) Identify and classify the risk components as danger, vulnerability and exposure, as well as establish their respective impact chain for the target groups in the intervention zones;

b) Analyse climate risks and the adaptive capacity of populations in each intervention zone;

c) Determine risk and adaptation indicators for each intervention zone, which will serve as a reference for the project's impact evaluation.

Toolbox

Based on the above objectives, the climate risk assessment consists of the evaluation of the below factors:

1. Identify the context-specific factors of local climate risks.

   - What is the **time horizon** of the project considering the reference periods and national climate projections of the intervention?
   - What are the **key sectors** of socio-economic development in the intervention zone?
   - What are the **local climatic and biophysical factors** determining current climate variability and future climate change conditions?
   - What are the relevant **socio-economic factors** influencing the adaptive capacity of populations?
     - For example: population density, use of vulnerable natural resources, income, food security, access to drinking water and sanitation, access to education, existing traditional coping mechanisms, geographical distribution of (female-headed) households, existence of user groups and active local agricultural collectives, existence of active local water user groups, regular access by farmers to climate information (weather and seasonal forecasts, extreme weather events).

2. Develop impacts chains and quantify the risk factors.

   The cornerstone of this step is the involvement of local communities in the development of the causal relationship between the risk factors – as the participatory approach ensures locally relevant contextualisation of climate-related dangers, vulnerabilities and exposures. Based on the identified risks that could be sources of conflicts among communities whose activities are affected by climate events, a participatory analysis was conducted for each risk. This analysis helped develop the impact chain for each risk, starting from the climate signal to the

intermediate effects created, as well as the vulnerability factors (sensitivity and adaptation strategies) that contribute to exacerbating or mitigating the risk. Additionally, the exposure elements to each risk were identified.

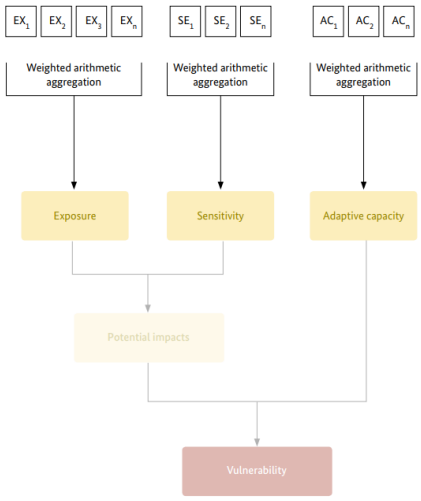


Figure 4: The Vulnerability Sourcebook's approach to aggregating the two vulnerability components exposure and sensitivity to potential impact[7].

3. <u>Exploit data available for the intervention zone and report on the state of the art in climate change knowledge.</u>

   The available data and its empirical analysis facilitate the classification of risk factors into different risk categories.

Niveau de risque de 0 - 1	Classe de risque de 1 à 5	Description
0-0,2	1	Très faible
0,2-0,4	2	Faible
0,4-0,6	3	Intermédiaire
0,6-0,8	4	Elevé
0,8-1	5	Très élevé

Figure 5: Risk Scale (Source: ERC Niger)

4. <u>Weigh and aggregate the selected indicators to reflect risk components.</u>

   The collectively developed impact chain (Step 2) and risk scale (Step 3) provide the base for capturing the dangers, vulnerabilities and exposures of the local climate factors.

[7] GIZ: The Vulnerability Sourcebook Concept and guidelines for standardised vulnerability assessments

Facteurs	Impacts	Description du facteur	Indicateur	Valeur normalisée
Aléas				0,49
Sensibilité				0,54
	Non aménagement des retenues d'eau	Existence d'un plan ou programme d'aménagement	Existence de plan ou un programme effectif d'aménagement?	1
	Ensablement des puits pastoraux	% des points d'eau ensablés	Proportion des points d'eau ensablés et non aménagés	0
	Insuffisance des puits pastoraux	% des puits pastoraux fonctionnels	Proportion des puits pastoraux fonctionnels	0,625
Adaptation				1,00
	Gestion, règlementation de l'utilisation de l'eau	Mise en œuvre de la règlementation	Etat de mise en œuvre s'il la règlementation existe	1
	Reboisement enrichissement	Existence de programmes/plans de reboisement protection?	Etat de mise en œuvre des actions CES existe	1
	Création de nouveaux points d'eau modernes	Existence de programmes/plans de fonçage de puits pastoraux?	Existence des programmes/projets de fonçage de nouveaux puits pastoraux modernes	1
Exposition				0,68
Risque de faible disponibilité en eaux pour l'abreuvement des animaux				0,68

Figure 6: Standardised values and risk of low water availability for animals in Sambéra, Niger (Source: ERC Niger)

5. Present the assessment results to a non-expert audience.

   This step guarantees to create understanding of climate change factors and raise awareness of its impact on local communities. By presenting risk assessment results in an accessible and understandable manner, non-experts can make informed decisions about, for example, adaptation and mitigation strategies, resource allocation and infrastructure planning.

- **Why is this phase important?**

Initiatives at the climate-security intersection require detailed analysis of both fields: conflict analysis and climate risk assessment are important components of conducting a broader baseline study.

> Baseline study
>
> The aim of this study is to take stock of the existing situation and knowledge in the intervention area, particularly in terms the complex links between climate change, the security situation, territorial governance, the actors involved, other projects/programs in project area, in order to establish a shared summary reference situation.

Toolbox

To provide a comprehensive overview of the local context, the baseline study proceeds as below:

1. Collect and analyse existing data and information.

   - What is the administrative context? What are the existing territorial organisations, legal framework, development plans, natural resources governance structures in the intervention area?

- Who are the key actors relevant to the implementation of the project? E.g. what is the role of traditional and religious authorities in the governance and management of natural resources? What are their strengths and weaknesses?
- What are the socio-economic conditions? What are the physical and climatic conditions (topography, geomorphology, hydrogeology, hydrometeorology)?

2. Propose an approach for implementing the project and identify potential partners.
   - How to define the strategic and operational approach in order to achieve the intervention's objectives?
   - Who are the potential implementation partners from state and civil society?
   - What are similar or relevant projects?
3. Identify the baseline and target indicators.
   - Which are relevant, measurable and realistic indicators for the duration of the project?
   - What is the measure of selected indicators prior to the intervention?
4. Recommend concrete actions that the project should implement and support.
   - What are some potential measures to take? Which one(s) should the intervention implement?

	Identified challanges	Causes	Recommendations
Climate risks	**Low water availability** for agriculture	· Low irrigation systems efficiency · Institutional weaknesses in water resources management · High water demand for irrigation · High number of active cropland and agricultural land · Inadequate land use	· Introduce good land use planning practices · Use water stress resistant crops
	Reduction of animal **pastures**	· Degradation of pastoral areas · Bushfires · Proliferation of non-palatable plant species	· Apply conventions and existing texts · Develop pastoral areas
	Low water availability for animals	· Non-development of water reservoirs · Insufficient pastoral wells	· Regulate water use · Reforestation enrichment · Create new modern water supply sources
Risks of conflict	**Conflicts between** natural resources **user groups** (farmers and herders)	· (Perception of) inequality in access to natural resources · Insufficient mechanisms for sustainable resources use · Ethnic lines and social divide · Feeling disadvantaged · (Perception of) decrease in exploitable natural resources · Inadequate (implementation of) state resources management · Improper and illegal land use · Inadequate management of pastoral land by customary authorities	· Conduct an intervention that promotes sustainable resource management · Strengthening social cohesion between user groups · Sensitize public groups, and political and customary authorities to legal bases · Establish a pastoral infrastructure · Act in accordance with a participatory process: establish a dialogue with parties in conflict at the local level

Figure 7: Outcome of the diagnostic phase in Farray Commune, Dosso, Niger (Source: Frexus Booklet)

2.2. Causal loop co-development

- **What is the approach?**

  When designing solutions in fragile contexts, it is important to take into consideration the interrelationships between different realities to avoid solutions that create new problems. As a method of systems analysis, causal loop development suggests:

  - adopting a global view of the context in which the intervention is planned;
  - consider the interdependence of its different factors rather than addressing only one aspect of it.

- **Who is part of the process?**

  Systems analysis -› Participatory systems analysis

  It is important that the development of this joint understandings is conducted via multi-stakeholder engagement, in the centre of which are the **local actors and beneficiaries** of the project. The joint development process envisions establishing vertical and horizontal links between **government entities, researchers, academics, media, development NGOs and donors**, integrating them in a close cooperation.

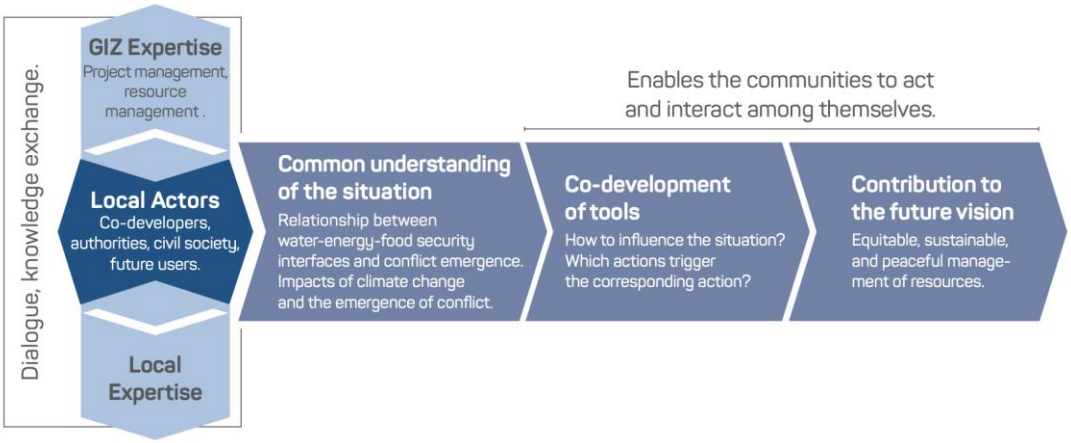


Figure 8: Participatory Approach of the Frexus project
(Source: Frexus Booklet)

Stakeholders of the Frexus causal loop codevelopment (with the support of the Water, Peace, and Security Partnership (WPS)):

- **Co-developers**: representatives of national and local government authorities and civil society organisations, basin organisations (Niger Basin Authority, Lake Chad Basin Commission), user associations, academics
- **Co-moderators**: local experts trained by the project to ensure continuous discussion with stakeholders and future users of the tool
- **Modellers**: international experts of participatory systems analysis

- **What is the tool?**
  - Tool is based on interconnected models including the key elements of security, water, energy, food security and related conflict risks.
  - It identifies and clarifies the links between conflict drivers, climate change impacts and natural resource management.
  - Serves as the basis of the action plans' development, by facilitating the understanding of stakeholders in the intervention area.
  - Examples of the local tools developed during the Frexus project: Mali dashboard, Niger dashboard, Chad dashboard

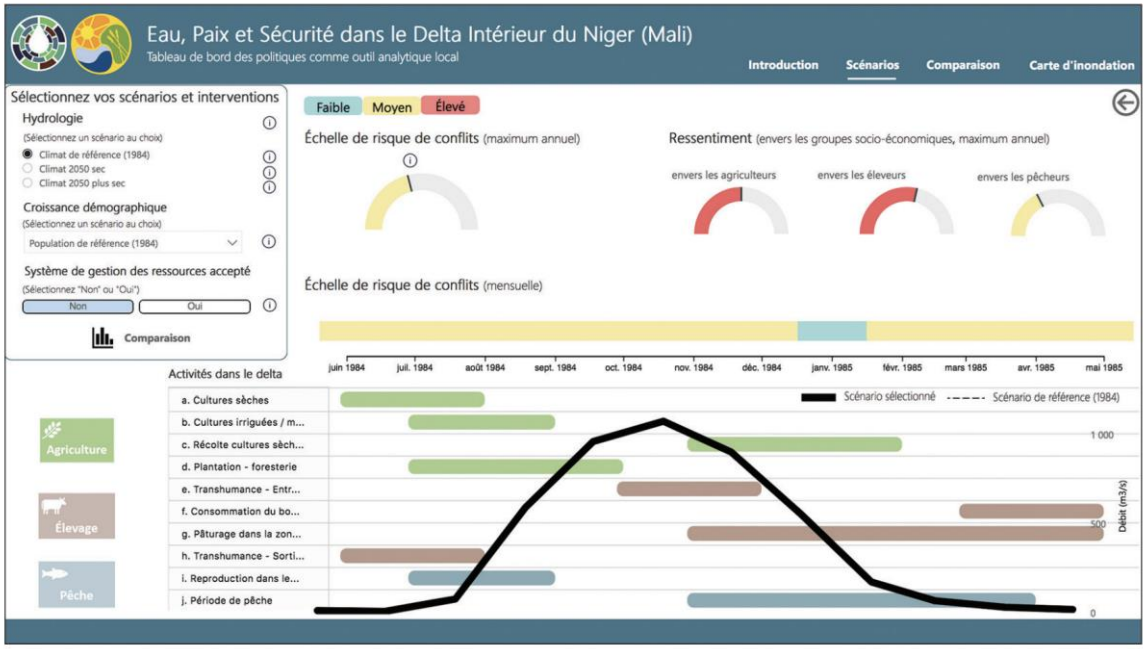


Figure 10: Dashboard of the Inner Niger Delta in Mali

- **What is the method of development?**

1. Identification of stakeholders.
   - Who are the stakeholders relevant in the usage of the tool?
   - Among them, who are the decision-makers and who are users?
2. Explain the tool to the stakeholders.
   - What is the tool and its added value?
   - What is the project's approach in its development and application?
   - How can the tool be integrated into local and national decision-making?
3. Organise workshop to define the framework.

- What are the questions the tool should answer?
- Which are the relevant indicators of these questions?
- How should the interface be drafted?

4. Feed in data to the tool and conduct several validation workshops.
   - Is the data effectively presented in the tool?
   - Is the tool able to correctly simulate scenarios based on the data of the diagnostic phase and information collected during the workshops?
5. Present the final tool to the decision-makers, supported by the users.
6. Use the tool to develop concrete action plans (Chapter 3.1.).
7. Evaluate and mainstream the tool.
   - What is the impact of the tool?
   - What are the contexts and conditions in which the tool is applicable?

- **In which development cooperation context are causal loops applicable?**

  Interventions in fragile contexts are required to understand the complex interdependencies of social, political, economic, and environmental factors, anticipate and mitigate unintended consequences, identify leverage points for resilience, and manage dynamic contexts adaptively. Causal loops and systems thinking help visualising a complex situation and developing effective strategies that:

  - address the root causes of fragility,
  - apply proactive mitigation measures to minimise negative impacts,
  - break negative cycles and strengthen positive ones,
  - promote sustainable peace and stability.

3. Step Two: Action on the ground

3.1. Action Plan development

Building on Step One consisting of the diagnostic studies and the analytical tool development, a dialogue around the local factors of the climate-security nexus is initiated with various stakeholders. The Action Plans are a result of a **dialogue process**, they offer a shared vision of the existing situation, allowing the identification and prioritisation of action proposals with the aim of conflict resolution.

- **Who is part of the process?**

  The process of developing climate adaptation and conflict sensitive Action Plans is conducted via the participation of both decision-makers and users:

  - National, local and traditional authorities, decentralised technical services,
  - socio-professional organisations (farmers, livestock breeders, fisherfolk and foresters) and local NGOs

- **What is the method of development?**

  The development of the Action Plan happens through several workshops, discussions, plenary sessions, brainstorming events, in the pursuit of answer the questions:

  - What are the results generated by the analytical tool?
  - How climate adaptation measures potentially impact conflict factors?
  - How to translate them into tangible actions?
  - What is the role of local and traditional authorities, user groups, civil society actors in the implementation of actions plans?

3.2. Social agreement drafting

- **What are they?**

  The Action Plans are recorded in a local convention for the management of natural resources sensitive to conflicts and climate change. Social agreements are the document to capture this local convention, and their drafting workshop aims to:

  - provide the various socio-professional groups with the consolidated results of the dialogue process, translated into social agreements,
  - validate the Action Plans for each intervention area.

- **What purpose do they serve?**

  The objective of the official signature of the social agreements is to vouch for the positive transformation of conflicts and the strengthening of social cohesion. With the participation of the decision-makers, the Action Plans are reviewed, validated and the commitment to implement them enters into force.

3.3. Action Plan implementation

The process from the diagnostic phase to the Action Plan implementation described in the working paper can be exemplified with the Frexus project's multi-stakeholder dialogue on the Farrey and Karel grazing areas in Dosso, Niger.

- **Timeline before the Action Plan implementation**

  Niger's Dosso region is one of the most vulnerable to conflicts linked to natural resources. The **diagnostic phase** of the Frexus project consulted the *Fédération Nationale des Eleveurs du Niger* (FNEN-Daddo) and *Fédération des Unions de Groupements Paysans du Niger* (Mooriben). The organisations revealed major problems relating to natural resource governance: the security and inadequacy of these resources was named as a major source of conflict. The malfunctioning of land commissions which are supposed to contribute to conflict prevention, is an aggravating factor. The environmental degradation of land, water ponds, pastoral areas and transhumance corridors is accentuated by the effects of climate variability and change (Baseline study Niger).

Following the diagnostic phase:

1. The outcome was presented to the political, administrative and traditional authorities, as well as to the technical services of Farrey and Karel Koissy communities of Farrey and Falmey departments respectively.

2. Missions were carried out to identify and collect data on farmers' organisations ability to prevent and manage conflicts in a non-violent way.

    - One union in Farrey and four unions in Falmey of framers and herders organisations were identified as being involved in the inclusive and participatory dialogue process and were engaged in capacity development activities by the project.

3. Exchanges between stakeholders were conducted, with a view to identifying problems and proposing solutions for positive conflict transformation.

4. The participants proposed several activities to enable the implementation of participatory and inclusive dialogue frameworks.

5. Committees were then set up at regional and departmental level to ensure the participation of authorities and technical services at all levels of the implementation.

- **What were the steps to implement the Action Plan?**

1. Launch the dialogue and planning for cooperative management of shared resources.

    - Objective: to exchange views and discuss conflicts factors with the administrative and traditional authorities, as well as the population of the riparian villages

2. Organise communal dialogue meetings.

    - Objective: to create contact points among decision-makers and representatives of livelihood groups, develop mutually accepted solutions

    - Outcome: actors came to realisation that their groups practically face the same problems through the interplay of cause and effect

> *As an illustration, farmers recognised that the early transhumance of livestock resulted from inadequate water availability in the herders' enclosures. This compelled them to initiate pastoral migrations before the harvest concluded. It became evident that developing dedicated livestock grazing zones could address this issue, providing a sustainable solution that benefits both farmers and herders. Furthermore, this Nexus solution would also have a positive impact on beekeepers, as the improved ecosystem resulting from available water in the grazing areas could lead to enhanced floral resources and a safer environment for their beehives.*

3. Conduct periodic meetings of the departmental dialogue frameworks and the regional ad hoc committee.

    - Objective: to discuss and analyse activities, as well as carry out monitoring missions to supervise the dialogue process between stakeholders

- **Success stories**

Farray Pastoral Well

Prior to the project, conflicts were prevalent among women, herders, and farmers. These tensions hindered the peaceful development of pastoral hydraulic infrastructure and associated natural resources by development partners and the State. However, the project's participatory approach facilitated the creation of this hydraulic infrastructure, signifying a significant breakthrough in resolving resource management conflicts. The establishment of the pastoral water point successfully separated animals from communal water sources and fields, considerably relieving pressure on village water access and reducing animal travel distances. Consequently, conflicts, particularly those between farmers and herders, were mitigated.

Karrel Koissi Pastoral area

The pastoral zone of Koissi, located in Dosso (Niger), is shared between the Municipality of Sambéra and the Municipality of Falmey. However, conflicts have escalated between the populations of these two municipalities due to competition for pastoral resources. Identifying this issue as a central conflict factor during the project's diagnostic phase, it was subsequently integrated into the dialogue platforms established during the action plan development phase. This initiative culminated in the creation of a local agreement or social accords between the populations of the two municipalities. As a direct outcome of these accords, the proposal to drill a pastoral well gained approval, benefiting herders from both municipalities.

Sustainability initiatives

The implementation of Frexus approach has led to the development of local initiatives, including:

Continued facilitation of dialogues by the municipalities.

The spontaneous creation of a WhatsApp group among members of the dialogues platfroms, aimed at reinforcing and disseminating decisions made regarding the collaborative and concerted management of natural resources and peaceful conflict resolution.

The utilization of local radios, even without project support, to promote decisions and content of social agreements at the municipal level.

4. Take-aways

4.1. Lessons learned

The interviews with stakeholders and moderators in all three countries (Mali, Niger, Chad) of the intervention, some lessons learned can be formulated.

The main **achievements** of the Frexus project were perceived as:

- Reduction in conflict – a positive change in the conflict situation,
- Improved capacity to manage resources peacefully – based on system insights,
- Improved social relations,
- Social agreements.

The key **elements of success** were defined in three categories:

- Causal loop development method. Its added value was two-fold, the application of system analysis and the interaction between participants.
- Approach. The focus on how participants have been selected and involved, how trust was created was a crucial factor of the success.
- Context conditions. The characteristics of the conflict, the availability of the participants and their familiarity with the method positively impacted the outcome.

With the Frexus project coming to an end, the main take-aways of its approach and methods are captured in the present Guidelines document. To conclude, we can summarise the most important elements below:

1. **Integrated Approach:** Integrating sectors such as water, energy, and food security allows for more comprehensive and sustainable solutions that consider the interconnectedness of these issues.
2. **Stakeholder Engagement:** Involving stakeholders in the planning, implementation, and monitoring of interventions fosters ownership, enhances local knowledge, and ensures the relevance of the project outcomes.
3. **Context-Specific Solutions**: Understanding the specific context, including social, economic, security and environmental factors, is a prerequisite to develop tailored solutions that address the specific challenges and opportunities in the intervention area.
4. **Adaptive Management**: The climate-security nexus is characterised by dynamic and evolving challenges. Related projects must recognise the need for measures of flexibility, and adjust strategies based on changing conditions.
5. **Knowledge Sharing**: Projects addressing the climate-security nexus benefit from sharing best practices, lessons learned, and experiences with other initiatives.

4.2. Broader application of the approach

Considering both increasing climate risks and fragile security situations around the world, there is a need to address climate security as a cornerstone for peace and lasting development. The combination of scientific expertise, scaling potential and the interconnection of local and international perspectives are ideally suited to advance national and global climate policy measures through international cooperation.

- **How to potentially scale-up the approach?**
  - **Mainstream** a multisectoral Water-Energy-Food Security Nexus approach that actively involves stakeholders from the respective sectors, including the security sector.
  - **Support** the development and implementation of national frameworks to prevent conflicts over natural resources and build resilience.
  - **Monitor** conflict around natural resources based on existing instruments (i.e. Global Early Warning Tool of WPS further developed with the support of FREXUS)
  - **Cooperate** with River Basin Organisations, considering and strengthening their role as peacebuilders in their basins.
  - **Raise awareness** around the connection of natural resources, climate change and conflict, supporting peer-to-peer exchange especially on national level.
  - **Bring** experience in concrete implementation at national and local level, cooperation with partner governments, international organisations and initiatives as well as in political communication.
- **How is it applicable in different contexts?**

  The Frexus approach is designed to be applicable in diverse contexts by integrating water, energy, and food security and tailoring interventions to local needs. Its participatory approach ensures the involvement of stakeholders, fostering ownership and local knowledge. With its adaptable design, the Frexus approach holds potential for upscaling, as the Guidelines can be applied to similar contexts (such as in other areas in the Sahel region but can easily be duplicated in the MENA region for instance), and leverage future partnerships to expand its reach and influence.

Resources

Armed Conflict Survey 2019, May 2019, The security implications of Climate Change, pages 37-46, IISS

Baseline Study Chad

Baseline Study Mali

Baseline Study Niger

Climate Risk Assessment Chad

Climate Risk Assessment Mali

Climate Risk Assessment Niger

Conflict Analysis Chad

Conflict Analysis Mali

Conflict Analysis Niger

Frexus Booklet

Frexus Policy Brief – From forecast to prevention: Acting on resource-related conflict risks

IPCC, 2007: Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, Pachauri, R.K and Reisinger, A. (eds.)]. IPCC, Geneva, Switzerland, 104 pp.

Local tool dashboard Chad

Local tool dashboard Mali

Local tool dashboard Niger

World Economic Forum (2016): The Global Risks Report 2016, Geneva

WPS Global Early Warning Tool