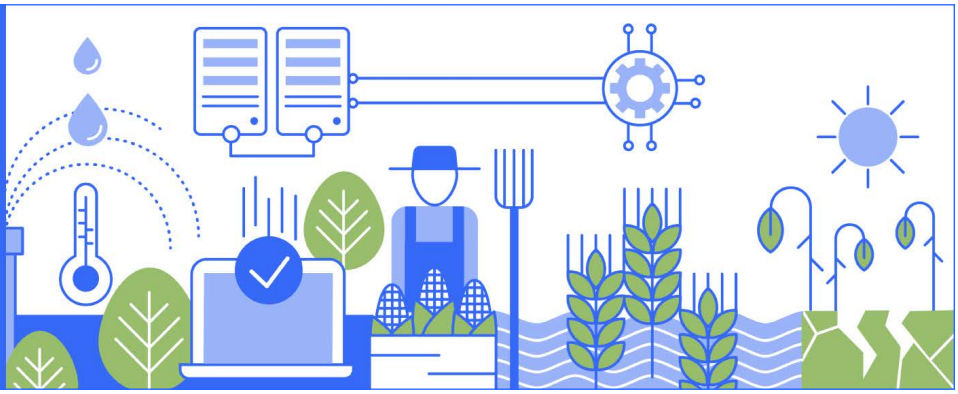
CRISP

Climate Risk Planning & Managing Tool for Development Programmes in Agri-Food Systems



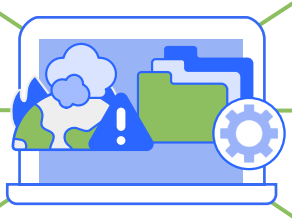
What does CRISP offer?

CRISP is a **freely available, interactive tool** to "climate-proof" agricultural and food systems projects and policies: The tool helps practitioners and policy-makers **to mainstream climate risk considerations and adaptation options across sectoral project portfolios and policies**. CRISP is equipped with scientific knowledge and resources needed to build resilience and adapt to the changing climate. It is **quick and simple to use**: Users are guided step-by-step to learn about hazards, impacts and vulnerabilities in their regional context and are enabled to identify relevant adaptation measures. CRISP can strengthen the climate narrative in the rural development sector, e.g. in (inter)national funding proposals and policies (such as sectoral adaptation planning in **Nationally Determined Contirbutions (NDCs)** and **National Adaptation Plans (NAPs)**).

Providing an entry point for agri-food and rural development interventions for an **initial, simple and quick exploration of climate risks**.

Using the **impact chain methodology** (developed in GIZ's ▸ **Climate Risk Sourcebook**) to understand the relevant climate risks for a specific context.

Helping to identify **starting points for climate risk management** (e.g., highlighting potential impact chains, vulnerability factors, drivers of risk and possible adaptation options).



Assisting in **articulating and evaluating adaptation hypotheses** that can help guide interventions throughout a project management cycle.

Providing context-specific **structured guidance and knowledge** to support needs-driven climate risk assessments.

Identifying entry points, e.g. prioritisation of options, links to other tools and **subsequent in-depth studies**, as required.

How to access CRISP:

Visit: ▸ **https://crisp.eurac.edu/** to freely access the **CRISP** tool.

Designed with you in mind: The **CRISP** development includes ongoing input from users for continuous improvement.
Share your thoughts: We value your feedback. Connect with us at ▸ **climate.change@eurac.edu**

Contact us:
Maike Voss (GIZ) ▸ **maike.voss@giz.de**
Osana Bonilla-Findji (CGIAR) ▸ **o.bonilla@cgiar.org**
Kathrin Renner (EURAC) ▸ **kathrin.renner@eurac.edu**

The tool was developed by the Alliance of Bioversity International and the International Centre for Tropical Agriculture (CIAT) and Eurac Research in collaboration with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and with support from the German Federal Ministry for Economic Cooperation and Development (BMZ).

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On behalf of
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CRISP

Applying the CRISP tool in BOLIVIA and ZAMBIA

How to identify climate risks and adaptation options in agricultural and food systems projects

The **Climate Risk Planning & Managing Tool for Development Programmes in Agri-food Systems (CRISP)** is an interactive tool that supports you to mainstream climate risk considerations into your project design and implementation. It specifically addresses project managers and practitioners in agriculture, rural development and food and nutrition security projects. CRISP guides you through a process to understand climate related risks associated with specific agricultural systems, articulate science-based adaptation hypotheses, identify cascading impacts and review relevant adaptation options.

How can my project benefit from the CRISP tool?

Many development projects all over the world have successfully applied the online tool for their specific contexts. **CRISP can be useful throughout the whole project cycle** – be it the planning, implementing or evaluation phase. To show you what the tool can do, and which impacts it has already generated, two projects from Bolivia and Zambia are presenting their findings in this factsheet. The first example from Bolivia illustrates how valuable the CRISP tool application can be in the planning phase of a project. The second case from Zambia highlights the benefits of the tool outcomes for the verification of activities that are already being implemented.

How CRISP contributes to Project Management

PLANNING

- Understand the system and cascading impacts
- Tailor / prioritise adaptation measures
- Guide the planning of more in-depth climate risk assessments
- Safeguard project impacts despite climate change

IMPLEMENTATION

- Assess the adaptation options your project is promoting and their relevance to the main climatic hazards and impacts

CLOSING

- Map project impact towards main climatic hazards and impacts in your project report
- Help improving CRISP by submitting your feedback about local conditions

MONITORING & EVALUATION

- Use CRISP impact factors to identify indicators for monitoring and evaluation of adaptation options in agriculture and food systems

Applying the CRISP-tool is quick, simple – and free of charge. **Try it out!** ▸ **https://crisp.eurac.edu/**

Share your thoughts: We value your feedback. Connect with us at ▸ **climate.change@eurac.edu**

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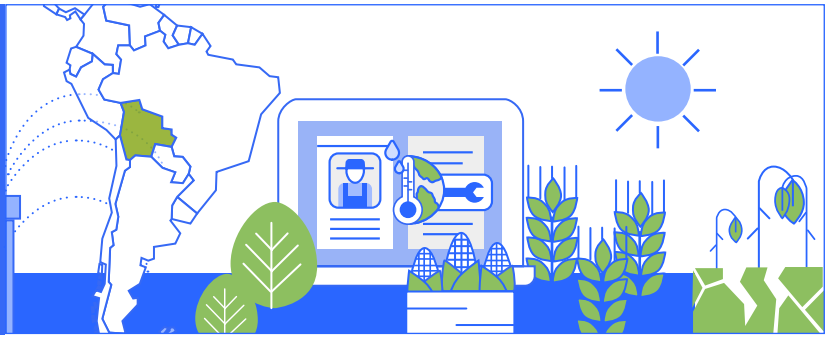
BOLIVIA: Proresiliente



Applying the CRISP tool in the planning phase of a new project

»CRISP was a very useful exercise. The tool provided several climate impact chains and climate risk scenarios that we could disseminate and communicate with stakeholders and partners. The tool underlines the need to ***mainstream climate change*** *into different policies, plans and strategies. We think that the CRISP exercise was a useful* ***first step in supporting the integration of climate risk*** *in agri-food systems in National Agricultural Programmes and in supporting the implementation of the goals of the Nationally Determined Contributions (NDCs) for the agricultural sector.«*

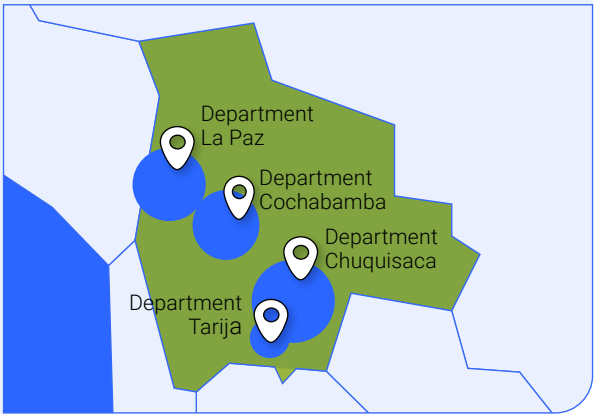
PROJECT CONTEXT

The ▸ **PRORESILIENTE** programme of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ, 2024 – 2027) on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ) is supporting the shift from traditional conventional agriculture to a climate-resilient agroecological agri-food system in Bolivia. It has four outputs:

1. **Enabling environment:** Improvement of the enabling environment to mainstream agroecology and climate resilience from national to local scales
2. **Stakeholder empowerment and innovation:** Sound scientific evidence to accelerate behavioural change of producers and consumers
3. **Inclusive agrifood value chains:** Strengthening resilient agroecological value chains for economic development
4. **Green financial mechanisms:** Facilitate access to international green capital and strengthen the financial sector capacities to develop green credits for small and medium producers

The project is located in the Macroregion Valleys and includes four administrative departments:

La Paz (encompassing the Altiplano and Inter Andean Valleys), Cochabamba (with a milder climate and a crop staple production), Chuquisaca (with ranging mountains and Valleys with a subtropical highland climate and cool temperatures) and Tarija (a region characterised by high value crop production and milder climate).



BEFORE CRISP: Expectations and aims

In May 2023, the German-Bolivian technical cooperation conducted the project planning **mission for the new GIZ programme PRORESILIENTE**. In this context, the national team in Bolivia proposed to use CRISP to rapidly assess climate risks at regional scale. They intended to identify which impacts were potentially caused by specific climate hazards in the project area. The team wanted to validate current vulnerabilities and identify additional vulnerabilities that were not yet targeted. They also sought to identify and suggest adaptation measures and assess potential trade-offs for the intervention area based on the analysis with CRISP.

The aim was thus to **strengthen the »climate change-related knowledge base«** for the project and better mainstream climate actions across the design of the outputs and activities.

DURING CRISP: Application

The rapid assessment with CRISP was done internally by the **project team in Bolivia and took 2 days** in total.

The national team carried out several activities. They started with an initial exploration of climate risks at national scale to get an overview which hazards, impacts, vulnerabilities, adaptation options were most relevant in the project area. For this, they selected three relevant farming systems (high altitude mixed, dryland mixed and irrigated LAC impact chains). The team then looked more closely at the regional scale (Valleys microregion) in which they compared the climate impact chains with their experience from the land use and farming systems they analysed. They explored different factors in more detail: Firstly, to understand how hazards are related to impacts and vulnerabilities, and secondly, which adaptation options are relevant as adaptation measures. Finally, the team wanted to understand prioritised adaptation measures and potential trade-offs. Using CRISP, they wanted to prioritise the most resilient agrobiodiverse value chains and identify climate change effects. From that, they intended to derive additional measures they could introduce which had not been considered during the project design (e.g. resilient seeds, climate smart practices, green credits or insurance schemes).

Based on the CRISP exercise, the team suggested some additional **adaptation practices to be considered in the concept note of the PRORESILIENTE programme**.

AFTER CRISP: Results & Outcomes

CRISP supported the project in providing a **strong climate narrative rationale for the programme**. Based on the CRISP application, the project team discussed and included some additional adaptation measures for the different outputs:

1. **Enabling environment:** The project decided to make some effective contribution to the **agricultural goals in the Nationally Determined Contribution (NDC)** and used CRISP to cross-check potential goals covered in the NDC
2. **Stakeholder empowerment and innovation:** The programme included some **climate smart agricultural practices** such as resilient varieties/seed crops, early warning systems digitalisation and agri-climate services
3. **Inclusive agrifood value chains:** The programme added specific **climate-related selection criteria** (vulnerability and resilience) for the choice of inclusive productive partnerships to better select the agricultural value chains
4. **Green financial mechanisms:** The programme added a concrete activity on the development and implementation of **climate insurance schemes** for smallholder farmers

*»The CRISP exercise has underscored the need to **continue with a deeper analysis of agriculture and value chain climate risks together with the partners, once the project will start**. Based on the CRISP exercise, we plan to do a more in-depth climate risk assessment (at value crop level) as part of our activities together with the political and technical partners. We also believe that CRISP could be used as part of the National Adaptation Plan (NAP) planning process which will be supported in an upcoming project.«*

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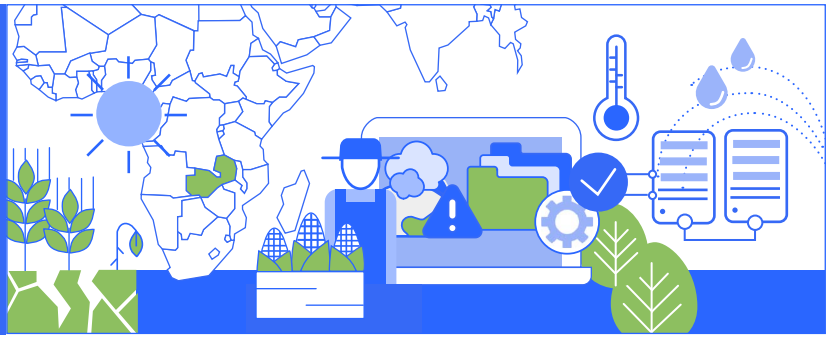
ZAMBIA: Fanser & E-Picsa



Applying the CRISP tool in the implementation phase of a project

*»CRISP provided us with a **confirmation of our projects' approach** and an **additional inspiration** which we can use in our work. We can use the CRISP results to **advise new projects** that are being planned in Zambia. And we can share our findings from CRISP in our **advisory services for the national ministry**, e.g. for national planning on water infrastructure.«*

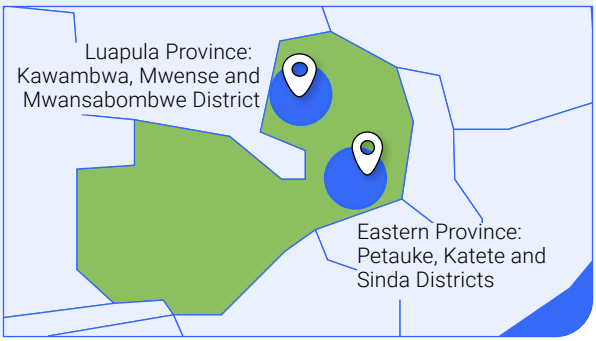
PROJECT CONTEXT

Zambia is still characterised by high levels of poverty and unemployment. Rural areas are particularly affected, with 75 % of the population considered to be living in poverty. The agricultural sector primarily consists of small and medium-sized farms that mostly engage in the production of maize. Food and nutrition insecurity is particularly grave during the period prior to the next harvest, i.e. between December and March. Two GIZ projects implemented in Zambia have applied CRISP:

The **Food and Nutrition Security, Enhanced Resilience** (FANSER) project and the **Digital Climate Services for Smallholder Farmers in Zambia and Malawi** (E-PICSA) project, both commissioned by the Federal Ministry for Economic Cooperation and Development (BMZ). The projects both work in the Eastern Province. The region is characterised by smallholder farming and is also called the »grain basket« of Zambia. Apart from maize, other main staple crops cultivated in the region include sunflower, groundnuts, cowpea and soybeans. FANSER also works in the Luapula Province with a similar agricultural system and cassava being one of the most common crops.

The ▸ **FANSER project** (2015 – 2025) is part of the Scaling up Nutrition implementation and the global FANSER programme in 11 countries in Africa and Asia. The project aims to improve the nutritional situation for women of reproductive age and children under the age of two years. It has the following fields of intervention:

1. Increase knowledge about nutrition and hygiene, enhancing awareness and a change of attitudes
2. Increase the year-round availability of nutrient rich foods through nutrition-sensitive agriculture (e.g. 100 most critical days programme)
3. Develop household strategies to manage productive resources (e.g. training on smallholder agriculture, keyhole gardens)
4. Strengthen nutrition governance at the district, provincial and national level (including accompaniment of the UN Food Systems Summit)



The ▸ **E-PICSA** **project** (2022 – 2025) aims to provide digital, up-to-date, location-specific climate and weather information in cooperation with the MET office. Thereby, it supports small-scale farmers in their decision making to adapt their agricultural production to changing climatic conditions. It builds on PICSA (Participatory Integrated Climate Services for Agriculture), a farmer-centric climate service and agricultural extension approach. It aims to:

- support agricultural extension workers to use the digital extension solution to support smallholder farmers
- support smallholder farmers to adapt their agricultural activities to climate variability and change
- support women smallholders to improve their decision-making power in the household

BEFORE CRISP: Expectations and aims

As the FANSER and E-PICSA projects are both working on climate change in the agricultural sector in the Eastern Province of Zambia, CRISP was used to review the evidence on climate hazards collected in the tool. The team wanted to **test the tool** and compare the results from the impact chains with their experience from the field and see if there are additional adaptation options that could be relevant for agricultural projects in Zambia. They also agreed to test the CRISP tool as a joint activity between the two projects as part of the agriculture and food project cluster in Zambia to **strengthen the interlinkage between the projects** and feed the experience back to the other agricultural projects implemented by GIZ.

DURING CRISP: Application

The rapid assessment was done in a **half-day by two staff** members. This was accompanied by two team members of the CRISP development team.

The team tested the Sub-Saharan Africa Maize mixed impact chain for Zambia. They **reviewed the hazards, impacts and adaptation options** and the relationships between them and compared them with their **experience from the field**. It was most notable that CRISP confirmed rainfall-related hazards to be the most relevant for the respective regions. It was also found that the projects are already implementing many of the adaptation options proposed by CRISP. But the team also identified drip irrigation as an **additional adaptation option** which they had not yet considered in their projects. At the end, they **generated a report** summarising the results for the impact chain. The report was to be used as a basis for sharing the information with other colleagues working in the agriculture and food sector in Zambia.

AFTER CRISP: Results & Outcomes

The project team **shared their experience and analysis** with colleagues in other GIZ projects working in agriculture in Zambia. As both projects are already being implemented, they could not directly integrate the CRISP results into the planned activities and outputs. However, the application provided a confirmation of the project's approach and inspiration for further adaptation measures e.g., irrigation and water harvesting techniques and infrastructures, which has to be **validated in a local context**.

*»For us, **CRISP is a good foundation** for upcoming projects as it **depicts the climate realities on the ground for different farming systems** in the impact chains. CRISP is a very good start for systematically integrating climate risk into agricultural projects because it guides through climate risk, vulnerabilities and adaptation options. Project planners can get inspiration from CRISP on how to better adapt their support for smallholder agriculture to climate change.*

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▸ **https://alliancebioversityciat.org** ▸ **climate.change@eurac.edu** ▸ **https://crisp.eurac.edu/**
Authors: Heber, A., Lottje, C., Below, T., Voss, M., Rued, S., Saavedra, C., Bwalya, A., Chikomba, P., Bonilla-Findji, O.
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