FAKT Consult for Management, Training and Technologies

Climate Risk Analysis (CRA)

The climate crisis is one of the biggest challenges of the 21st century. The effects of rising CO_2 levels are already evident in increased temperature extremes, natural disasters and extinction of wildlife all over the world. Climate change is felt most severely in the Global South, where people, landscapes and wildlife suffer from its impacts. Particularly people living in rural areas and informal settlements in urban centres have low adaptive capacities and are highly vulnerable to climate hazards. This puts their livelihoods under severe stress. The impacts of climate change differ between men, women, the elderly, children, youths, minorities, and landless people. Additionally, they are closely intertwined with existing problems such as marginalization and exclusion from basic human rights and services. Thus, anchoring climate change adaptation within community-led processes is key. To build resilience in and of local communities, new challenges stemming from climate change need to be linked to ongoing work of local organizations.

Climate risk analysis as a first step in adaptation and disaster risk reduction (DRR)

The challenges arising from climate change demand a systematic analysis and integration of climate risk into development work. Climate Risk Analysis (CRA) tools aim for a careful and participatory assessment of climate and disaster risks. These assessments reveal opportunities for communities and households to protect their livelihoods and to reduce their vulnerabilities. They serve as a **basis for planning and implementing** long-term adaptation or DRR. CRA tools look at projected climatic changes and their likely effects on our systems. They also offer insights into what can be changed for ensuring an adequate and safe life and development in the present and in the future, under changing climatic conditions. Based on the risk concept of the Intergovernmental Panel on Climate Change's Fifth Assessment Report (IPCC - AR5), the adaptive capacities of communities need to be strengthened incrementally, at system level or through transformative adaption.

For FAKT, **resilience concepts** offer a valuable guidance on how to strengthen communities' capacities to deal with shocks and stresses caused or exacerbated by climate change. The aim is to strengthen local capacities and assets to manage change, reduce the drivers of risk, and create an enabling environment via plans, policies, and legislation.

FAKT has been working with different tools to assess climate impacts. Two of these tools are the **Participatory Assessment of Climate and Disaster Risks (PACDR) tool** and the ***Diakonie Katastrophenhilfe*-Risk Analysis-Tool**.

Frequent droughts – one of the effects of climate change, Photo: G. Horneber

Developing community adaptation plans with the PACDR tool

The Participatory Assessment of Climate and Disaster Risks (PACDR) tool developed by *Brot für alle, Brot für die Welt* and HEKS-EPER is designed to conduct participatory analyses of risks and their impacts on livelihood resources in both rural and urban communities. Building on local capacities and local responses to recurring hazards, it supports the development of site-specific adaptation strategies. The analysis provides the basis for incorporating climate and disaster risk considerations into community planning and development.

FAKT Services: FAKT has supported local non-governmental organisations (NGOs) in various African and Asian countries, through:

- Implementation of climate change workshops for local NGOs and practitioners,
- Facilitation of local risk assessments in selected communities,
- Training of trainers (ToT) in the application of the PACDR tool, including on-site training in local risk analysis,
- Conceptual development and practical testing of the PACDR tool,
- Building up a knowledge hub on the PACDR tool through the website http://www.pacdr.net/ in English, French and Spanish,
- Development and facilitation of online workshops for different target groups,
- And remote support and backstopping to local NGOs and trainers.

Project example: PACDR in the Democratic Republic of Congo (DRC)

The island of Idjwi in eastern DR Congo is severely affected by increasing erosion, irregular rainfall, and crop failure.

Exemplary results of two PACDR-multi-stakeholder assessments by *Brot für die Welt* in 2016 are:

- A 5-year Community Adaptation Plan (focusing on agriculture, fishery, water, infrastructure)
- Project planning and fundraising (erosion control, afforestation, renewable energy, resilient crop variety on-farm research, climate focal points)
- New local rules & regulations (bush/field fire bans and sanctions, tree planting with local species, anti-erosion activities, water management)
- Information, lobby and advocacy actions and national and international networking
- Climate change in school curricula

Farmers market in Idjwi, DRC, Photo: G. Horneber

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Identifying the most vulnerable households with the DKH Risk Analysis-Tool

The *Diakonie Katastrophenhilfe* (DKH)-Risk Analysis-Tool has been developed in 2009 to better identify and address climate and disaster-related risks for households that are especially vulnerable to risks. It analyses the households in communities via several steps:

- **Assessment of individual households**: How endangered is each household regarding disaster risks? How vulnerable is each household, what is its self-help capacity?
- **Calculation of concrete risk scores:** The risk scores are calculated individually for each household based on a hazard analysis (sum of frequency and magnitude) and a vulnerability analysis (sum of exposure to hazard, fragility, and lack of resilience).
- **Mapping of disaster risks:** The concrete risk scores are displayed on local risk maps.

FAKT Services: FAKT has facilitated the projects in Indonesia and Ethiopia through a long-term accompaniment of two projects working with the risk tool:

- Application of the DKH risk analysis tool and accompaniment of the local enumerators.
- Methodological advice in its practical implementation and link to the project monitoring system.
- Joint reflection of its results for project planning and regular reflection of the effectiveness of the selected measures.
- Technical advice in the application of CCA and DRR measures and their adaptation under changing climatic or other external conditions.

Project example: Lighthouse Project Indonesia

In Indonesia, small scale farmers suffer from salty groundwater, caused by heavier and more frequent storms and flooding. DKH and *Brot für die Welt* have been working with partner organizations (*Jamtani* and *MPM*) as part of the Climate Change Light House Projects (CC LHPs) in areas particularly affected by climate change. Based on the risk analysis, the communities and especially the most vulnerable households were able to strengthen their resilience through a mixture of measures:

Kitchen gardens in Java, Photo: B. Schrimpf

- **Adaptation** e.g., selection / breeding of salt tolerant rice varieties, climate field schools, tree planting, livestock schemes, home gardens, organic farming, integrated fish-veggie farming
- **Mitigation** e.g., solar dryers, biogas and energy efficient stoves, communal forest protection and farmer managed natural regeneration, as well as mangrove planting, plastic waste management and climate friendly lifestyle
- **Disaster risk reduction (DRR)**, e.g., disaster preparedness team, erosion and land-slide control

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Learnings and success factors of climate risk analysis

As the impacts of climate change are dependent on the local circumstances and the adaptive capacities of those affected, **community participation** and process ownership is essential in climate risk analysis. Working with participatory methods with people on grassroot-level generates sound site-specific results. This enhances better targeted planning, implementation, ownership and sustainability of climate change related measures.

Based on the experience of FAKT, there are several key **success factors**:

- **Strong process facilitation and experience with participatory methods** ensures that all relevant actors are on board right from the beginning. The team can respond flexibly to needs and upcoming issues. The results are based on a broad support by participants who are able to reflect the results they elaborated themselves.
- When **selecting the community stakeholders** to be involved, different social groups must be taken into account, particularly in conflict-affected contexts. Working separately with women and men or specific marginalized groups ensures that their views, values, needs, ideas and potentials are receiving the required key importance. This enables them to fully participate in the entire process from problem identification, planning to implementing, monitoring & evaluation and new learning.
- Climate Risk Analysis (CRA) is not an end in itself but a **tool to improve project planning and implementation**. It is important to think about the follow-up, i.e., what should happen with the results. For new projects, sufficient funds or access to such funds for adaptation activities need to be assured. If an ongoing project is analysed, the organization and donor need sufficient flexibility to adapt measures or develop additional ones.
- **Combining practical experience with scientific knowledge** through the integration of relevant and additional expertise in the elaboration of adaptation measures has proven to be highly beneficial. This is particularly important to better include knowledge on future climate change to strengthen long-term resilience of communities when building on existing strategies and measures.
- **Linking different scales** by supporting communities to present the results to government actors and use it for advocacy and lobbying. At the same time, communities should consider government policies and plans, e.g., in the National Adaptation Plans (NAP).

PACDR Workshop in Sierra Leone, Photo: G. Horneber

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