



# **CLIMATE CHANGE VULNERABILITY ASSESSMENT AND ADAPTATION PLANNING USING CRISTAL: STEPS, ADVANTAGES AND LIMITATIONS**

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# 1.0 Introduction



2

- The use of CRiSTAL in Tanzania and at the Sokoine University of Agriculture in particular came as a prerequisite for developing a proposal for Global climate Change Alliance projects, implemented in the Uluguru Mountains between SUA and GRET, a French NGO between **2012 and 2014**.

## Why?

- There was a need for improving community and project-based decision-making so that **adaptation opportunities can be maximized**, and **mal-adaptation minimized**.

# 1.0 Introduction

3



- CRiSTAL usually provides a logical, user-friendly process to help users better understand the links between *climate-related risks* (vulnerability), *people's livelihoods*, and *proposed/ongoing project activities*.
- It combines the Environmental Impact Assessment (EIA) principles and the Sustainable Livelihoods Framework (SLF) approach

Monday, July 21, 2014

# 1.0 Introduction.....

4

□ **CRiSTAL** stands for **C**limate **R**isk **S**creening **T**ool  
\_ **A**daptation and **L**ivelihood

□ The tool is organized into two modules, each containing a set of framing questions:

**Module 1: Climate and Livelihood information**

**CRiSTAL Module 2: Planning and Managing  
Projects for Climate Adaptation**



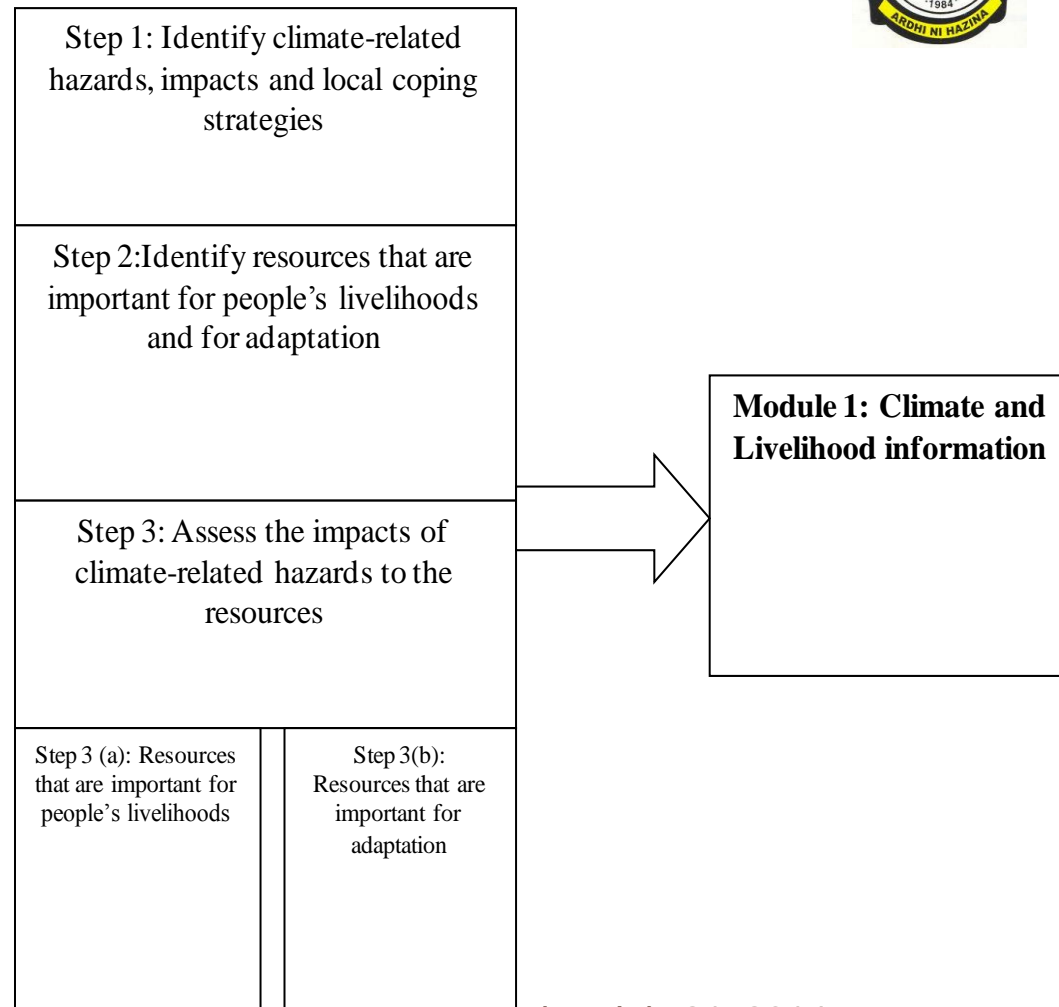
# 2.0 Steps for applying CRiSTAL:

## Module 1: Climate and Livelihood information



5

- Synthesis of information on climate and livelihoods, (collect and organize information on the climate and livelihood contexts of the project area), preferably through stakeholder consultations and other participatory methods like **CVCA**.



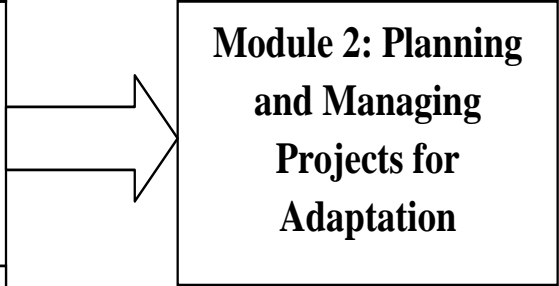
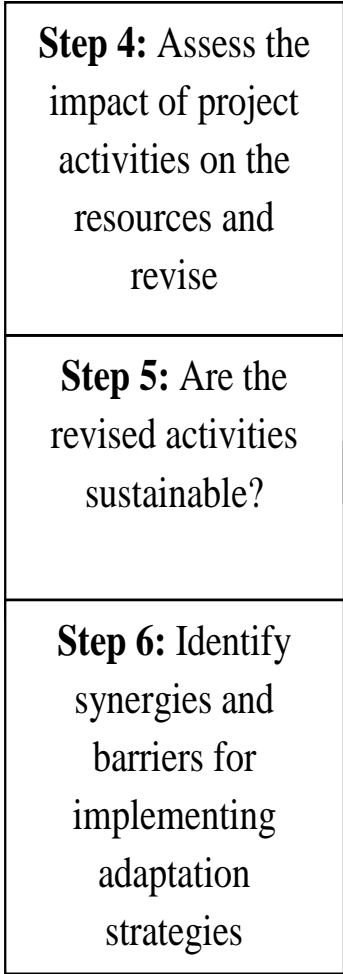
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# 2.0 Steps for applying CRiSTAL.....

## CRiSTAL Module 2: Planning and Managing Projects for Climate Adaptation

- Usually completed by project planners and managers with input from relevant stakeholders.
- It uses the information from Module 1 to help project planners and managers understand how project activities affect livelihood resources that are either vulnerable to climate change or important for coping with climate change impacts.
- Project planners and managers can try to re-design project activities so they maximize opportunities for enhancing adaptive capacities of vulnerable communities.



# 3.0 Criteria for assessing the sustainability of the adaptation activities



## 7 Unsustainable adaptation strategy

## Sustainable adaptation strategy

- Short term and Immediate
- Oriented towards survival
- Reactive and short-lived
- Motivated by crisis
- Often leads to degradation of the existing resource base
- Prompted by lack of alternatives
- Doesn't combine new and old strategies and knowledge

*STATUS QUO SCENARIO*

- Oriented towards longer term livelihood security
- Results are sustained
- A continuous process
- It involves planning
- Enhances efficient and sustainable use of resources
- Focused on finding alternatives
- It combines old and new strategies and knowledge

*WITH PROJECT INTERVENTION*

## 4.0 Advantages of using Participatory methods for CC vulnerability assessment:

8

- *The Case of EU funded project in the Uluguru Mountains, Tanzania*
  1. Sustainable adaptation activities will be developed
  2. Brings ownership of the project activities
  3. Political legitimacy
  4. Attracts local people's participation
  5. Builds the capacities of local communities to assess vulnerabilities with little help from the project experts



# 5.0 Conclusion



- CRiSTAL is a very good tool for vulnerability assessment and adaptation planning.
- However, it has a number of limitations.
  - (i) Subjectivity in judging the sustainability of the existing and adjusted adaptation activities
  - (ii) Since it can receive inputs from different PRA methods (e.g. CVCA), then consistency is lacking, and therefore different methods may produce different results in the same area.
  - (iii) Limited entry options (maximum 3). In some areas you can have more than three hazards, key resources etc.

# 5.0 Conclusion...

10

- Therefore, the use of CRiSTAL for vulnerability assessment and adaptation planning should take into account the aforementioned limitations.



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