### Science Application and Dissemination Institute

# Science For Agriculture Development

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# **Second Edition**

# Increasing resilience of rural communities

### to climate risks in West Africa

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For West Africa, increasing the resilience of rural communities to climate risk is probably one of the major challenges posed by climate change. To meet this challenge, innovative approaches will be proposed to rural people and their partners. For our research group, reflection in relation to this challenge is focused on developing community models for reducing vulnerability to climate risks. Figure (1) gives a schematic illustration of such models.

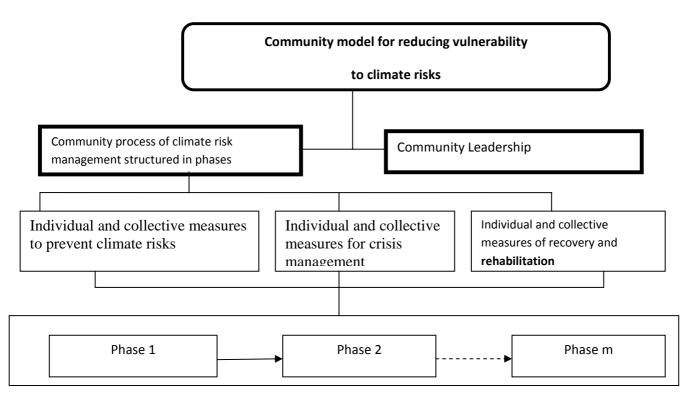


Figure (1): Community model for reducing vulnerability to climate risks

A community model to reduce vulnerability to climate risks has two main components:

❖ a community process of climate risks management structured in phases, which includes individual and collective measures for the prevention of risks, crisis management and recovery **and rehabilitation**. These measures, as shown in Figure (2), may be technological packages, a set of skills, knowledge and information or mechanisms and systems. The relevance, effectiveness and feasibility of the measures chosen to address climate risk are essential aspects of the model. The strengths and weaknesses of communities are thus factors to consider in choosing such measures.

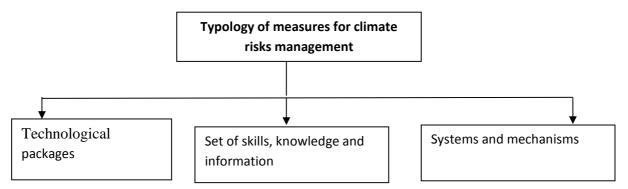


Figure (2): Typology of measures for climate risks management

**a community leadership**. The community is the main architect of the process of increasing its resilience to climate risks. To do this, it should develop a specific leadership.

The individual and collective involvement in rural areas, in a process of adaptation to climate change, could be affected by various factors including land tenure insecurity and illiteracy. In West Africa, experience shows that the land issue can be an obstacle to the adoption of technologies for soil fertility for example, in the long term, while illiteracy may reduce control of the adaptation process by communities. In practice, it is through an innovative partnership involving rural communities, policy makers and scientific research that we can bring out in West Africa processes that increase significantly the resilience of communities to climate risks.