

## CLIMATE VULNERABILITY AND CAPACITY ANALYSIS TRAINING FOR USAID WA-WASH PARTNERS AND STAKEHOLDERS IN NIGER

### EXECUTIVE SUMMARY

Climate change is an important area for the planning, implementation and sustainability of water supply, sanitation, and hygiene interventions. The USAID West Africa Water Supply Sanitation and Hygiene (USAID WA-WASH) Program, through CARE (one of the implementing partners) organized a five-day training for partners and stakeholders on climate vulnerability and capacity analysis (CVCA) in Niamey on December 10-14, 2012. The training involved 20 participants (including three women) drawn from the local USAID WA-WASH partners, WASH technical staff from the municipalities, international organizations, technical staff from the Ministry of Water and Environment, the Ministry of Agriculture, and the Ministry of Urban Development, Housing and Sanitation.

The objective of the training was to equip the participants with skills on the CVCA methodology and tools for analysis to develop climate adaptation strategies. The workshop was facilitated through presentations of climate change concepts, plenary sessions, group work, watching of films, and field testing of the CVCA and the Crunch model tools for vulnerability analysis. The participants watched films on climate change, disasters, and adaptation mechanisms in Asia and Africa including Burkina Faso. Field testing of the tools was conducted in two communities of the Say municipality to strengthen participants' knowledge and allowed them to draw lessons for future application of the tools. Climate change related concepts such as hazards, capacity, vulnerability, and disaster risks were covered in the first day of the training. The hazard evaluation tool (CVCA) and the Crunch model used to evaluate the degree of exposure to a hazard were as well discussed in groups and presented in the plenary

The second day involved evaluation of disaster risk analysis tools including the CVCA matrix and the Crunch model. The CVCA matrix assesses the community's capacity to respond to a disaster and the Crunch model analyzes the progression of human vulnerability to natural hazards. The various ways through which a community responds to a disaster comprises the disaster risk reduction strategies.

The CVCA matrix is based on four aspects: 1) physical resources such as land, finances, and infrastructure, 2) social resources such as social networks and institutional framework, 3) motivation and attitudes such as sense of control, ideologies and self-confidence and, 4) policy framework which include national policies, institutional structures in the community, decision making structures and community relations with development actors. According to the Crunch model, a disaster results from the interaction between two forces: the process generating vulnerability and the physical exposure to a hazard. Thus, reduction of disaster risk reduces the vulnerability of people exposed to hazards and builds their capacity.

The Crunch model and CVCA tools complement each other. Both tools were used to analyze the vulnerability and capacities to respond to disasters of communities in Ganky and Moulléré villages in the Say municipality of Tillabery region, 55 Km West of Niamey. The participants were divided into two groups for analysis of the two villages. Drought and floods were identified as the major hazards in the two villages. The community members identified floods as the hazard with the most negative impacts in the two villages and therefore the two groups analyzed floods in terms of origin, strength, frequency, and duration. The participants also evaluated the degree of vulnerability to the hazards and their implications on community's livelihoods.

The floods happen after heavy rains that lead to the breaking of the banks of Niger River. The strong floods result in destruction of property such as crops and houses. Warning signs include rains that lasts more than a day especially in the upstream and the rise of the water level in the river. The floods occur every two to three years in the past fifteen years during the rainy season between the months of August and September. The floods last for an average duration of one month but the impacts lasts for a longer period. The major impacts include loss of farmland, houses, animals, wells and grain banks, outbreak of water borne diseases, food insecurity and silting of rice fields.

Further, the participants analyzed the communities capacities and vulnerabilities based on the four aspects of the CVCA matrix. It was observed that the hazard affected men and women differently and both gender had different capacities to respond to disaster. For instance men had resources such as animals, farmlands, and businesses while women ran income generating activities and savings and loans groups. The disaster led to reduced participation of women into savings and loans groups due to loss of income while both gender lost property and farmlands. After the capacity and vulnerability analysis, the community members contributed to information that informed the development of the community action plans for the two villages to reduce the vulnerability and increase the capacity of community members to respond to disasters.

The field testing of the tools in the two communities served to demonstrate the practical application of the CVCA matrix and the Crunch model in assessing community's capacities and vulnerability to disaster. It was observed that the tools were participatory as all members of the community took part in the discussion. Both tools are useful for planning and implementation of projects and programs concerned with the consideration of climate change and adaptation of communities. The participants recommended allocation of sufficient time for the field activities and repeated use of the tools in order to effectively master the process. Participants also recommended separation of men and women during meetings to ensure effective participation by women.

*The full report is available (in French) upon request via our website. For more details about our program activities and other reports please visit <http://wawash.fiu.edu/>.*

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