

CBA Initiatives and Proposals from Rural Communities *Amando López* and *Octavio Ortiz*, Lower Lempa Valley, Jiquilisco, El Salvador

Cristina Alonso
CESTA/FOE El Salvador

Community-based adaptation (CBA) initiatives and proposals in communities *Amando López* and *Octavio Ortiz* fall into a combination of 4 strategies: resilient livelihoods, Disaster Risk Reduction (DRR), capacity building and addressing the underlying causes of vulnerability. As agriculture is the main livelihood activity and flooding is a major threat to the area, CBA objectives are focused on reducing exposure and susceptibility, reinforcing household economies and improving social capital and emergency response. The following is a summary of their initiatives already underway and their proposals for the future. CESTA, which has been working in both communities for several years offers, based on the results of this investigation, some other suggestions for CBA to take into account.

Resilient Livelihoods

Initiatives and proposals identified focus on improving risk management and reducing losses in agriculture, diversifying income generation to non-agricultural activities and reinforcing planning capabilities. The main limitations are poor access to information and to financial resources, along with a lack of community participation in municipal development planning.

Changes in Agricultural Cycles - Climate variability has made traditional prediction systems obsolete. The safest strategy identified is changing productive cycles, from winter to summer, for basic grains such as maize. It has been initiated with collective irrigation systems and drip irrigation.

Crop Diversification - Dependence on one single crop (maize) increases risk of food insecurity. Crop diversification is particularly visible in family orchards. It builds up ecosystem resilience and reduces losses, offering sustainable access to food and surpluses to sell.

Native Seed Rescue - The use of non-native seeds increases production costs and does not guarantee the quality of harvests. Recovering and conserving native seeds prevents their disappearance and contributes to food security. Seed exchanges among farmers, from different areas of El Salvador, are already taking place in agricultural fairs and cultural events.

Agroecological/Agroforestry Systems - Monoculture systems are low in resilience and highly vulnerable. Poly-culture systems are more resilient to climatic shocks and more efficient in water and energy use. Communities have preference for mango and coconut trees, intercalating them into basic crops improving water infiltration, minimizing erosion and capturing CO₂.

Introduction/Experimentation of More Resistant Crops - Maize is not resistant to floods. In their daily practices, innovative farmers are researching and starting to introduce non-traditional but far more resistant crops such as rice, sago, *malanga*, *yuquilla* and *Napier* grass.

Elaboration, Use and Sale of Organic Fertilizers - Agrochemicals pollute soils and water. Communities elaborate green fertilizers (bean *Canavalia*), solid fertilizers (*bocachi* and *compost*) and liquid fertilizers (*foliar* fruit) for their use and surpluses sale, improving quality of harvests and generating extra incomes.

Crop Rotation - Cultivating a same plant type in an unchanging location exhausts soil nutrients. Farmers are beginning to alternate crops and productive cycles in a single plot, thus avoiding disease and plague perpetuation, improving weed control and making the most of fertilizers.

Rescue and Consumption of Locally-Grown Food - Imported food items generate dependency and their price fluctuations augment household vulnerability. *Amando López* Primary School, already planning for new generations, has a permanent campaign on responsible consumption focused on raising consciousness and promoting healthy habits among the child population.

Participatory Processes in Municipal Development Planning (proposal) - Local Jiquilisco government does not pay attention to risk factors, neither does it direct investment to improve livelihoods, natural resource management, infrastructure provision or social protection mechanisms for Lower Lempa Valley rural communities. Inhabitants of *Amando López* and *Octavio Ortiz* demand participation in development decision-making and planning processes, aiming to see real problems to be addressed and effective solutions found.

Community Ownership/Leadership of Development Processes (proposal) - Continuous post-disaster distribution packages tend to result in slow reactivation of local economies. Communities are working to reinforce management autonomy, learning to design and formulate own projects in order to avoid current *assistentialist* approaches obstructing development efforts.

Capacity Building on Environmental Protection and Climate Change - The State approach to vulnerability ignores community interests and traditional knowledge, resulting in unsustainable solutions. To enhance social capital, planning capacities and community participation, communities propose educational programs on climate change issues and sustainable ecosystem management. Their main interests are organic agriculture, climate risks and associated impacts, soil contamination and water pollution, sustainable agriculture, food conservation and resource distribution in Central America and El Salvador.

Manufacture/Commercialization of Traditional Organic Products - Having agriculture as a single source of income greatly raises vulnerability levels. Non-agricultural productive initiatives getting started are elaboration and selling of honey, natural medicines and cosmetics, dried and canned fruits, jams, wine of Jamaican flower, among others.

Disaster Risk Reduction (DRR)

Current limitations are based in lack of DRR measures implemented by the State. Initiatives and proposals focus on improving local capacities for disaster prevention and rehabilitation and reduce risk conditions before, during and after flooding events.

Vigilance and Maintenance of Flood Protection System - Lack of State maintenance transforms the system into a major flooding risk. Communities and grassroots organizations reduce risk conditions identifying and monitoring potential breakages and other deficiencies.

Creation of Seed and Food Banks (proposal) - External dependency considerably rises after flooding events, when basic food items run short. To strengthen food sovereignty, communities propose seed conservation centers. Besides securing food intake even during crisis, a food bank would also prevent *assistentialism* and the corruption generated by food package distribution.

New Local Jobs in DRR Tasks (proposal) - Flood Protection System effective maintenance is not guaranteed, as it is based on voluntary work and depends on people's free time and resources. Communities propose creating prevention and post-disaster reconstruction jobs. By including local inhabitants, DRR would use community knowledge, raise awareness about reduce risk and improve, in the long term, local and municipal disaster response, lessening also emergency costs.

A Hospital in the Lower Lempa Valley (proposal) - Insufficient health services delay final diagnosis and increase risk of epidemics. Building a hospital in the Lower Lempa Valley would reduce risks and improve emergency response, besides generating jobs and reducing brain drain in the area.

Risk Transfer to Secure Main Productive Assets (proposal) - Main assets, such as land and cattle, are unprotected. There is need to study risk transfer mechanisms such as parametric insurance to cover losses for extreme climatic events. Another urgent matter is evaluating possibilities to establish compensations for agricultural losses due to water discharges by the hydroelectric power station.

Safe Locations for Cattle in Case of Disaster (proposal) - Livestock are one of most valuable assets in the communities. Having a place in high lands to protect them against floods would reduce high losses currently reported in cases of disaster.

CO2 Emissions Reduced to 0 in Community Transportation - Transport is one of the most polluting sectors in El Salvador. The main form of transport at the communities and the entire Lower Lempa Valley is the bicycle.

Community Natural Resource Management - The community *Amando López* works to protect 42 hectares of a nearby forest. Management objectives are to reduce community exposure to hazards, regulating water cycles, securing carbon storage and minimizing emergency costs. The forest contributes to household economies, providing goods and services such as dry wood. This initiative can also offer alternative sources of income in forest management tasks and educational tourism.

Basic Infrastructure Improvements (proposal) - Post-disaster rehabilitation processes do not include reconstruction of housing or public infrastructure. Besides building better houses, communities propose to improve public roads in their communities. This would decrease loss of assets, isolation during flooding and improve general health.

Use of Silos to Store Basic Grains - Losing harvests may mean food intake reductions for the whole year. Communities have family silos to store and protect basic grains during flooding events.

Capacity Building

Developing capacities needs higher outside assistance. Main current limitations are poor access to information and to the educational system. In order to increase communities' adaptive capacity and long-term resilience, and considering development efforts are mainly implemented by NGOs, the following proposals are primary directed to guide project design and elaboration of organizations working in the area:

Knowledge Sharing - Adaptation strategies in El Salvador are isolated, with poor connection among them. To widen knowledge and generate learning processes on current adaptation practices, *campesino* communities share information in forums and events organized with the help of NGOs.

Promotion of Capacities to Diversify Livelihood Activities (proposal) - As agriculture is one of the most vulnerable sectors to climate change, reinforcing capacities to diversify income generation activities is a priority. Communities propose to establish vocational courses and a scholarship system to improve access to higher education.

Specific Initiatives for Female Household Heads (proposal) - 22% of families in *Amando López* and *Octavio Ortiz* are single-headed by women, but a gender approach is not always implemented and women's limitations to access and participate in projects go often unaddressed. Empowering single mothers must be central from project design stage. Female household-heads identified access to credit, animal husbandry, technical learning and access to irrigation systems as their main priorities.

Evaluate Possibilities to Create a Local Currency (proposal) - Insufficient rural salaries, rising food prices and the dollarization of the Salvadorian economy mean constant deprivation for communities. An alternative currency could strengthen local economy and keep generated wealth in the communities.

Addressing Underlying Causes of Vulnerability

Current limitations are based on lack of State investment in the rural sector and little respect for the human rights of communities' inhabitants. Initiatives and proposals are directed to advocacy efforts to push for effective public policies to facilitate the adaptation process.

Political Advocacy and Social Mobilization - Community organization is the main strength in the *Lower Lempa Valley*. Advocacy work and lobbying, including campaigns, forums and multiple mobilizations to the capital San Salvador, have been crucial for the design and implementation of infrastructure work, the building of the flood protection system and to obtain basic service provision. Advocacy mechanisms include sending correspondence, writing applications, audiences with ministers and competent authorities, lobbying with members of Parliament and statements in the media. Currently, the main areas of advocacy work are focus on rehabilitation and conclusion of the flood protection system, regulation of water discharges from the hydroelectric power station *15 de Septiembre* and development of the tourist industry with no climate change considerations in Jiquilisco. Communities are represented in MOVIAC –*Movement of Victims and Peoples Affected by Climate Change*- where efforts of Central American and world social movements are getting united.

CESTA Suggestions for CBA in Communities *Amando López* and *Octavio Ortiz*

To Create a Strategy for Sustainable Cattle Ranching - The number of cows in the communities exceeds sustainable levels, damaging soils and structures and using most needed productive lands. It is recommended, in order to reduce their numbers, to evaluate breeding techniques and promote cattle breeds adapted to the area.

Capacity Building to Sue Those Generating Life-Threatening Risks - Communities lack the means to pursue a law suit against risk generating actors such as CEL (governing body of hydroelectric power stations in El Salvador), besides the possibility that those law suits could be blocked in El Salvador. To multiply options to process law suits would allow, if needed, to appeal to international courts.

To Study Possibilities to Create a TimeBank - In the same line that the local currency, a TimeBank would reinforce capacities by offering same opportunities to all, even during crisis. A TimeBank can be based on knowledge, needs, work and personal willingness in the communities instead of money ownership.

To Establish a Local Market - Communities possess artisans with abilities to elaborate diverse food products, metal work and others. However, these abilities are sometimes wasted due to lack of a market to sell production. Establishing a local weekly or monthly market would exit those products and reinforce the local economy, besides offering a space to exchange/sell harvest surpluses.

Capacity Building on Human Rights - There is a need to inform communities of main State commitments when ratifying international treaties/conventions such as the Hyogo Framework of Action (HFA) or the United Nations Framework Convention on Climate Change (UNFCCC). Generating capacities to analyze human rights violations would develop more critical consciousness to question government approaches, improving the effectiveness of advocacy work.

To Strengthen Capacities of Municipal Government - It is urgent to generate knowledge in adaptation issues, climate change, risk analysis and DRR in the municipal government. There needs to be a demand for more information sharing and civil society participation in development planning. Reinforcing local government limited capacities would help to raise awareness about exposure and susceptibility and it would increase, in the long run, adaptive capacity in the Lower Lempa Valley.

Other Areas Needing Advocacy Work:

- Compliance of established ordinances for the maintenance of the flood protection system
- Implementation of DRR actions in the Hyogo Framework of Action of relevance for communities
- Respect for the rights of groups at risk of social exclusion
- Elaboration of Environmental Impact Assessments for all major infrastructure projects
- Integral planning of development land use to include coastal areas, water resources and watershed management
- Improvement of the Lower Lempa Early Warning System to reach all vulnerable communities and including monitoring of all major potential risks

Full report (in Spanish) can be found at:

http://www.trocaire.org/sites/trocaire/files/pdfs/policy/Climatico_en_ElSalvador.pdf

Author's email: cestacristina@gmail.com

CESTA's email: cesta@cesta-foe.org.sv

