

CORDAID RESILIENT COMMUNITIES UNIT - HIGHLIGHTED DISASTER RISK REDUCTION / CLIMATE CHANGE ADAPTATION / ECOSYSTEM MANAGEMENT PROGRAMS

Resilient and Climate Smart Disaster Risk Reduction

Integrating ecosystems management and climate change adaptation in DRR programs

The number of natural and man-made disasters has increased exponentially over the past decades. Hazards have become less predictable, which is often related to the effects of climate change. Extreme weather conditions occur, such as high temperatures and excessive rainfall. The effects of these hazards are more severe when they take place in damaged eco-systems. The degradation of ecosystems reduces nature's ability to regulate hazards. The hazard will become a disaster when communities cannot cope with the effects. Disasters hit the poorest people the hardest. They often live in the most dangerous locations and are more susceptible to natural disasters, such as floods or droughts. Lives, assets, products and crops are lost; livelihoods are cut off; economic growth is hampered. This way, people are caught in a vicious circle of poverty, risk and vulnerability.

Given the existing connections between climate change, natural hazards and eco-systems, it is proven to be most effective to reduce disaster risks of natural hazards applying a holistic, integrated approach. In 2011, five Netherlands-based humanitarian, development and environmental organizations joined hands and formed the Partners for Resilience alliance to reduce the impact of hazards on vulnerable communities. The Dutch Ministry of Foreign Affairs financially supports the Partners for Resilience alliance, existing of the Netherlands Red Cross, the Red Cross Red Crescent Climate Centre, CARE Netherlands, Wetlands International and Cordaid.

Our approach

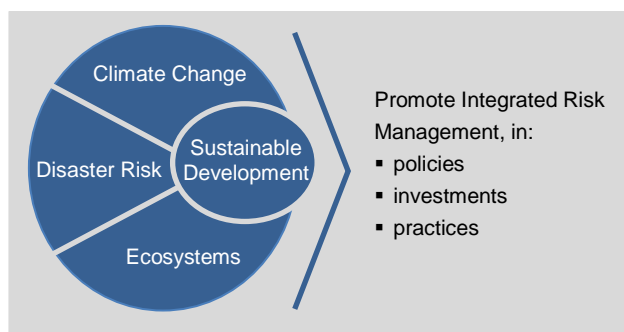
Harmonizing DRR, CCA and EMR

As member of the Partners for Resilience (PfR) alliance, Cordaid has developed an approach that supports communities in coping with shocks resulting from natural hazards. This approach integrates Community Managed Disaster Risk Reduction (CM-DRR), Climate Change Adaption (CCA), and Ecosystem Management & Restoration (EMR). This will significantly boost people's disaster **resilience**: the ability of people exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner. In addition to this, transformation is needed to address underlying factors and root causes of risks, in partnership with governments. This is critical for helping people to escape poverty.

In this integrated approach, Cordaid works closely together with various stakeholders, such as international Civil Society Organizations, local non-governmental organizations, local governments and local communities. From 2016 to 2020, the Partners for Resilience alliance will focus more on dialogue processes for integrating Disaster Risk Reduction, Climate Change Adaptation and Ecosystem Management & Restoration. The programs are implemented in 10 selected countries in Central America, Africa and Asia at international, national and community level. Facilitation of multi-stakeholder processes and dialogue activities around Integrated Risk Management will contribute to bridging the gap between communities, governments and private sector.

OVERALL IMPACT (2011-2015)

Number of integrated DRR/CCA/EMR projects	52
Number of committees trained and created DRR/CCA/EMR plans	605
Number of organizations with increased capacities in DRR/CCA/EMR	176
Number of people more resilient to natural hazards	675,433
Total invested budget in DRR/CCA/EMR	€ 11.9 million



Model to promote Integrated Disaster Risk Management by the PfR alliance

HIGHLIGHTED DRR/CCA/EMR PROGRAMS

Indonesia: The Integrated Approach

In Timor, recurrent drought periods hinder farmers to improve their agricultural livelihood. In 2014, Cordaid and Yayasan Bina Tani Sejahtera implemented an integrated agriculture, hazard and environment assessment together with the communities in three villages in Timor Island. The program started with an analysis of the critical barriers for resilience building. Gaps were identified about knowledge on planting techniques and water use management, on drought resilient crops, planting calendars and market information.

During the 15-month project, Cordaid and YBTS worked on the different constraints to resilient agricultural livelihoods simultaneously. The project activities included capacity building in cultivation practices and other farming techniques, improving access to climate information, helping farmers to link with markets to sell their crops, and training in so-called 3R Water Management. This entails 'Recharging' (water coming from natural sources), 'Retaining' (using rain and source water) and 'Reusing' (water used in irrigation and households). The results of the integrated approach were very positive. At the end of the project period, 16 farmer groups with over 1200 members were established and strengthened with technical and organizational capacity. The farmers were able to have 4 vegetable harvests per year, improving both their household food security and agricultural income. In addition, 9,924 meters of water pipeline and 283 mini-dams, water traps and absorption holes were constructed, applying the 3R Approach. By changing their agricultural practices, communities are now better able to face changing climate and land conditions. They adopted good agricultural practices and protect the water sources in the wider environment.

Eco Uganda: Restoring local ecosystems

The Ugandan economy and the welfare of the population are inextricably linked to the natural environment and is therefore highly vulnerable to climate change. Drought, conflict, floods, animal and human diseases are the most common hazards in Nakapiripirit district in Karamoja. The cyclic extreme weather and other hazards affected the production and pasture and thereby had a negative impact on the communities' living conditions. From 2011 until 2014, the Ecological Christian Organization (ECO) Uganda together with Cordaid implemented a climate-proof disaster risk reduction project.



Local villagers making a hazard map in Uganda

During the five-year ecosystem-based DRR approach ECO Uganda supported nine communities with various risk mitigation and adaptation measures. They were guided through a participatory risk assessment and planning process and developed emergency preparedness plans, including early warning systems. A total of 6,000 people were trained in preventive activities in natural resource management and climate adaptation. They learned how to grow native trees, made small orchards, developed small-scale irrigation systems, planted drought-resistant crops and vegetables and diversified their income sources, for example by keeping bees and rearing goats. In addition, they improved their water harvesting practices and participated in saving and credit groups. In the integrated approach, involvement of local and national governments is key. In this program, structural communication infrastructures were built. A network of community organizations was set up to jointly directly interact with national and regional authorities. At the same time, there was political and institutional support for the local and national government to integrate disaster risk reduction, climate change adaptation and ecosystem management in their existing plans, programs and policies. Thus, working with different actors strengthened resilience at community level.

Local climate knowledge incorporated into country-scale development planning in Guatemala

A prolonged heatwave caused losses in the production of corn and beans in Zacapa and Chiquimula. Due to the immense drought community's experienced economic loss and had to change their traditional livelihood strategies. An integrated approach of DRR/CCA and EMR was used to make communities more resilient to the root causes of natural disasters. By doing risk assessments, creating risk maps, developing contingency plans, implementing water risk reduction projects, planting thousands of trees as part of reforestation, and initiating new micro projects, eleven communities are now capable to respond to the risk posed by natural disasters, climate change and damaged eco-systems. These positive results were not only obtained at the local level, but also at national level authorities were able to start a constructive dialogue with the Executive Secretariat of the National Coordination for the Disaster Reduction (SECONRED), the National Council of Protected Areas (CONAP), and the Ministry of environment and Natural Resources (MARN). Resulting from this dialogue the Ministry of Environment has made climate change and CMDRR part of the obligatory school topics and eight different municipalities have agreed to contribute 20 percent of their funds to micro projects.

Our Expertise

Cordaid has experienced staff (program managers and thematic experts) in The Netherlands and in our focus countries. Our expertise includes multi-stakeholder facilitation of resilience processes. We work on resilience measures e.g. climate resilient agriculture, integrated water resource management, business development, linking relief & rehabilitation to development, gender issues, knowledge development and policy dialogue. We provide solid program management & control.

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