

CONTEXT ANALYSIS REPORT NICARAGUA

Programme: Climate-Proof Disaster Risk Reduction

The Southern partners of the Partners for Resilience in Nicaragua have been actively involved in the context analysis and the design of the programme. In September 2009, key partners in the areas of disaster risk reduction (DRR), climate change adaptation (CCA) and ecosystem management and restoration (EMR), gathered in a workshop, mapped their current actions and identified the major problems. Early 2010, the partners collected data and background information. During another workshop in April, this information was brought together and discussed. On the basis of criteria developed by the southern partners, target areas were selected and discussed. A few weeks later, the Southern partners, government partners and other stakeholders gathered to develop the programme. Agreement was reached on programme strategies and target areas. In order to determine the involvement and position of the external stakeholders, the CARE regional coordinator used the methodology of organisational positioning. This was a learning moment for all participants. The representative of the Executive Secretary of the National System for Disaster Prevention, Mitigation and Attention to Disasters (SE-SINAPRED) expressed her enthusiasm indicating that this could be good method to use with the local disaster management committees for building their capacity. On the May 10th, 2010, in a separate meeting with the southern partners for Resilience and key stakeholders and partners, a SWOT analysis of civil society and the programme were carried out. The participatory process built the capacity of all partners, boosted their confidence, contributed to a more conducive environment and strengthened the commitment of all stakeholders.

I. INTRODUCTION

Over the last three decades, Nicaragua, a country of almost 6 million inhabitants, has seen profound political change. The Marxist Sandinistas ruled during the civil war from 1979 to 1990, when they were defeated in free elections. Voting in 2006 announced the return of former Sandinista President Daniel Ortega. The 2008 municipal elections were characterised by widespread irregularities. In recent years, society has become again more polarised politically. Conflicts between the executive, the judiciary and the parliament are increasing. Corruption is eroding the credibility of the political class. The country consists of a central government, the regional government of the Nicaraguan Caribbean Coast and the municipal or local government. The latter is in charge local development.

Nicaragua is classified as a low-income country and is listed 110 out of 177 countries on the Human Development Index.^I With a GNP per capita of US \$990^{II}, it is the second poorest nation in Central America. According to a 2005 household survey^{III}, 48.3% of the population lives below the poverty line, and 17.2% in extreme poverty. In urban areas these percentages are 30.9% and 6.7%, respectively, and in rural areas 70.3% and 30.5%. In 2006, 22% of the children of under five years of age were chronically malnourished. The average age of the population is estimated at 16 years, the average household counts 5.9 members and the fertility rate is 4.6. The population is growing at a rate of 2.9 per cent per year - one of the highest of the continent.^{IV} The population is predominantly rural and the agricultural sector generates more than 60% of the exports and more than 40% of employment.

The geographic position of Nicaragua makes it highly vulnerable to recurring disasters like earthquakes, floods, landslides, hurricanes, droughts, tsunamis and volcanic eruptions. It is estimated that over the last four decades the country lost around four billion dollars due to disasters.^V Hardly any losses due to disasters are covered by insurance. It is estimated that only 10% of the population in Central America has access to the credit, and an even lower proportion to insurance.^{VI} Micro-finance, and micro-insurance for disasters have great potential to increase people's resilience.^{VII}

Over the period 1980-2008, 46 disasters were reported of which about 70 per cent were climate related: hurricanes, floods, droughts and wildfire. About 100,000 people per year are affected and an average of 143 is killed. The climate displays extremes in both rainfall and droughts. The tropical cyclones that every year cross the country from the Atlantic provoke extensive floods and landslides. Hurricane Mitch (1998) and Hurricane Felix (2007) caused heavy losses in human lives and damaged infrastructure and the environment. The population at risk of hurricanes and tropical storms is 25.4% equalling approx. 1.5 million people, while droughts affect almost 45% of the population.^{VIII}

The agriculture sector, in which about 40% of the labour force is employed, is vulnerable due to its extensive use of traditional methods, its low productivity and its high dependency to rainfall. Droughts and El Niño events exacerbate the impacts of environmental change such as deforestation, erosion, sedimentation, contamination etc. The inadequate use of land combined with environmental damage leads to a reduction in cultivable land. The most affected agricultural areas are located in 51 districts in the north, central north and the central south pacific zone, where staples are grown.

Climate projections for 21st century indicate that mid-year rainfall could diminish significantly, particularly in the Viejo river basin in the drought prone zones in the North and Central regions.^{IX} Other studies show the following likely impacts of climate change^X:

- A reduction of 15% in the production of staples by 2099;
- Significant loss of the biological diversity and a reduction of 30% in forest resources by 2050;

- Drastic changes in the hydrological cycle that put at risk the water supply for all types of use;
- Further soil degradation that will affect agricultural production;
- Increased flooding in the low coastal zones that will affect the wetlands, estuaries and the richness of hydro-biological resources (shrimp, shell, oyster, etc.);
- Flooding of human settlements where drainage systems are inadequate;
- Increasing frequency of landslides particularly in the higher parts of eroded river basins;
- Increased risk of wildfires;
- Increased consumption of energy;
- Likely increase in the sea level and the ensuing penetration of seawater may result in a reduction of land of up to 2 kilometres in the lowest areas of the Caribbean coast;
- Probability of an increase in frequency and intensity of extreme meteorological events on the Atlantic coast.

Climate change is likely to impact health negatively due to an increase in the intensity of tropical cyclones and a decrease in water availability. In times of drought, water quality can decrease, causing diarrhoea. Lack of access to adequate amounts of water for personal hygiene can cause diarrhoeal disease, intestinal worms and trachoma. People may be more likely to store water around the home during dry periods which can provide breeding grounds for mosquitoes carrying dengue.^{xi} After flood events, diarrhoeal diseases and vector-borne diseases are more common due to mixing of human waste and drinking water.^{xii} Hurricanes can cause death and injury. There are 18 deaths per 100,000 people from diarrhoeal disease annually.^{xiii} Inadequate water and sanitation infrastructure coverage and poor knowledge of hygiene increase the risk of diarrhoeal disease. Around half of under-fives with diarrhoea receive oral rehydration therapy and continued feeding.^{xiv} Only 28% of the rural population has piped access to drinking water. Coverage of Improved sanitation is 55% for rural and urban areas combined (up from 29% in 1990).^{xv} Many water sources have been depleted as a result of overuse. Water sources are often contaminated by industrial and agricultural waste, as well as refuse and excreta. Too little is done to educate the public about water treatment, sanitation and hygiene.

Over the last 300 years, 85 % of the dry tropical forests and 65 % of the humid forests have disappeared. Nicaragua loses around 75,000 hectares of forest every year due to illegal logging, in addition to 40,000 hectares due to wildfires and slash and burn practices. This has resulted in soil degradation, reduced availability of water and increased vulnerability to climate change. The high dependency on firewood as the first energy source and harmful extensive agricultural methods are major threats to forests and biodiversity. Increasing poverty leads the rural population to do further damage to the ecosystem for their survival. Over the last 16 years damage has been done to more than 70% of the natural ecosystems in the Pacific region and up to 50% in the Atlantic region.^{xvi} Hill-slope ecosystems are particularly vulnerable and their condition is a serious threat to livelihoods.

II. TARGET GROUP ANALYSIS



Cuenca Río Coco:

Madriz: Total population in 2005 was 132,459.

Nueva Segovia: Total population in 2005 was 208,523.

Jinotega: Total population in 2005 was 331,335

Waspan (RAAN)

Estelí: Total population in 2005 was 201,548.

Cuenca Pacífica:

Chinandega: Total population in 2005 was 378,970.

Cuenca Río Wawa:

RAAN: Total population in 2005 was 314,130.

The total population of the Republic of Nicaragua was 5,142,098 in 2005.^{xvii}

The selected geographical area is the river basin of the river Coco, which includes the most drought prone areas, and the autonomous region of the North Atlantic (RAAN). Both areas are predominantly inhabited by indigenous communities. There will be a special emphasis on women, traditionally responsible for their household's food security, and youth, who have shown to be very receptive to solutions to reduce the risk of disasters. About 90% of the families in the river basin of the river Coco live in the rural areas, cultivating staples such as corn, sorghum and beans. Some areas produce pineapple, yucca, cactus fruit, sugar cane and vegetables. At higher altitude, coffee and tobacco are grown. The services and manufacturing are underdeveloped. Livestock farming has diminished considerably. Cutting and selling of firewood is an important activity.^{xviii} The North Atlantic Coast

represents 45.8% of the national territory and remains very isolated from the rest of the country. About 73% of its population lives in poverty or extreme poverty. Basic services coverage and infrastructure are inadequate. Communities have settled near to the rivers, the principal means of communication, leading to the coastline which is indispensable to the economic survival of the region. Five to fifteen hurricanes occur every year on the Caribbean coast - one of the most hurricane-affected regions in the world. Each time, the economic and human losses are substantial.

The two regions were selected on the basis of the following criteria: level of threats from climatic events; vulnerability of communities given their generally low level of development and their concomitant lack of capacities and resilience; communities' dependence on ecosystems; vulnerability of ecosystems; national priorities in terms of development: previous experience of the partners; need for building capacity of local civil society organisations and local government.

Civil society organisations, local and regional government are also target groups; they are described below under "Contextual analysis" and "Multi-actor analysis".

III. PROBLEM ANALYSIS

Micro

At the micro level, the main problems faced by beneficiaries are: fragile livelihoods leading to an increase in poverty levels due to the impact of disasters; high poverty rate in rural areas; general lack of focus of poverty reduction programmes on strengthening communities' capacities; lack of community know-how for proper management of natural resources in the current context of accelerated degradation; lack of community know-how for reducing risks of multiple natural hazards; falling water tables which leave many communities without adequate access to drinking water; inadequate health services; increasing deforestation and ecological fragility, including desertification in some areas; limited access to micro-credit leading to increases vulnerability to natural hazards; lack of awareness on the impact of climate change; gender inequality, which hampers women's space to improve their livelihoods;

Meso

At the meso level, the main problems are: civil society organisations' limited idea of their own role, which they see mainly as supervising the government's interventions; complicated dialogues between civil society organisations and government; advocacy in support of the two regions does not find an ear at the national level; duplication, overlap and conflict in the mandates of different institutions; weak implementation of the strategies contained in the National Plan for Risk Management coordination between various government departments responsible for DRR and CCA is limited; limited capacity and knowledge of Government departments for management of natural resources with a view to their sustainability; many local government officials find it difficult to understand languages spoken by indigenous communities; lack of financial and technical resources to review, and update risk management plans; and the potential of community empowerment and the role of civil society is not fully understood and utilised by local governments.

Macro

Nicaragua's commitments to the Millennium Development Goals and the Hyogo Framework for Action on Disaster Risk Reduction and international agreements to protect wetlands and natural ecosystems, are not yet fully reflected in policies. In addition, the political situation has lead major donors to reduce or suspend their budget support thus reducing the Governments financial capacity. A climate change Strategy, including adaptation, has recently been approved and awaits implementation.

IV. CONTEXTUAL ANALYSIS

Weak governance and the continuing political crisis have a negative effect on the effectiveness of the government's services, including implementation of development interventions. Furthermore, poverty reduction programmes often fail to have impact because they are not based on an integrated approach. Different stakeholders disagree on the need for such an approach. Therefore, and seemingly in contradiction with macroeconomic indicators, poverty levels are not improving. The country lacks the resources to overcome its widespread poverty and to address the growing risks that come with climate change. However, due to its low level of development, major aid agencies are in a position to fund large scale development programmes.

The main social factors are related to rural population that strongly depends on agriculture as a form of life. This vulnerability of the livelihood constitutes in many rural zones an underlying factor for disaster risks, which due to the geographic position of Nicaragua turns into multi-threats. These factors influence negatively to the indicated problems.

Nicaragua's civil society operates as an autonomous public space, independent of the State. It is a platform, positioned between the State and the private sector, for discussing issues of common interest and examining whether the State's and private sector's actions remain within the boundaries of the law.^{XIX} In this capacity, civil society has considerable influence on the National Assembly, in budgetary and fiscal matters. It has a significant presence at the local level and its role is recognised by local government. However, it has little or no influence on

the National Council of Social and Economic Planning (CONPES). Civil society represents many different interests in Nicaraguan society. It is diverse, but also fragmented and internally divided. Only a limited number of NGOs have an explicit human rights agenda and aim at a transformation of society and the state.

The Partners for Resilience will work with the following Southern partners:

- Nicaragua Red Cross Society is the sister organisation of the Netherlands Red Cross Society and has an extensive network of volunteers;
- HABITAR (Bonanza): a local NGO working in water and sanitation, and construction of homes in rural area. It has experiences in working with the indigenous communities of the department RAAN;
- Acción Médica Cristiana (AMC): A local NGO that is working for 20 years with indigenous communities of the department RAAN. The most important themes they are working in, are: Health, Education, Water and sanitation, risk management, preparedness for disasters;
- ODESAR: A local NGO working in the theme of water and sanitation, hidrographic river basin management, community-based environmental education, and investigation of renewable energy sources;
- La Cuculmeca: Local NGO working in the theme of health and education;
- La Cooperativa Juan Francisco Paz Silva: Cooperative organisation working in the investigation of alternative livelihoods and in the theme of water and sanitation;
- EL INPRHU: A local organisation that works in disaster risk management, climate change, agriculture and environment;
- LIDER and SELVA (El Viejo): Local organisations that work with the protected areas administration in cooperation with the Ministry of Environment and Natural Resources (MARENA). They are also working in the execution of water and sanitation projects and environmental education projects in rural communities;
- National Federation of Cooperatives (FENACOO) is present throughout the country and focuses on production models to improve livelihoods of the population affected by drought. Through its large network of cooperatives the Partners for Resilience can promote climate change adaptation and disaster preparedness.

On the basis of the SWOT analysis of Nicaraguan civil society, the following strategies for strengthening civil society were formulated for inclusion in the country programme:

	Strengths	Weaknesses
Opportunities	<ul style="list-style-type: none"> • Strengthen existing networks • Seek for cohesion between the existing civil society organisations • Use spaces to foster dialogue and the creation of an own agenda • Facilitate the sharing of experiences and the creation of new knowledge 	<ul style="list-style-type: none"> • Promote the elaboration of local/communitarian plans which can help the civil society organisations to develop their own agenda • Create a strategy to address the CC issue • Strengthen the capacities of the civil society organisation to make them more aware, including educational activities that lead to changing attitudes.
Threats	<ul style="list-style-type: none"> • Use the collective personality and the poverty situation, including a possible disaster, to provide an opportunity to change the current situation 	<ul style="list-style-type: none"> • Promote micro-credit and micro projects to break the vicious circle • Promote silent conflict resolution • Promote projects in water and sanitation, food security and community level risk reduction projects

V. MULTI-ACTOR ANALYSIS

Government

The Partners for Resilience will sign an MoU for the implementation of the programme with the Executive Secretary of the National System for Disaster Prevention (SE-SINAPRED). This will allow it to provide assistance in institutional and organisational strengthening at the district level. The Ministry of Water and Natural Resources (MARENA) is responsible for the conservation of ecosystems and initiatives related to climate change. It represents Nicaragua in international fora. An MoU will be signed for developing a joint plan for CCA and EMR. The Partners for Resilience intend to bring SE-SINAPRED and MARENA closer and help them in coordinating their actions by proposing an integrated approach to DRR, CCA and EMR. The Partners for Resilience will sign an MoU with the Ministry of Education (MINED) for the inclusion of DRR, CCA and EMR in the school curriculum. The National DRR Strategy features special measures for risk reduction in schools in case of natural hazards and other emergencies. The Partners for Resilience will cooperate closely with Civil Defence at community for the preparation of risk reduction and disaster response plans. The National Institute of Territorial Studies (INETER) is in charge of various surveillance systems (meteorological, tsunamis, earthquakes, landslides) and has agreed to cooperate at the district level and to make information available on climate variability and change. The Ministry of Fishery and Forestry (MAGFOR) has agreed to cooperate with a view to aligning the programme with the central Government's interventions. The Ministry of Health is in charge of water and sanitation, together with the Social Investment Fund (FISE). The programme will ensure that its interventions are coordinated with these bodies.

Donor

The strategic plan^{xx} of the Royal Netherlands Embassy is focused on good governance, health, gender and private sector development. Environmental issues and climate change are not strategic concerns for the Embassy

at this time. The Partners for Resilience will make sure that its programme is complementary to the Embassy's initiatives in good governance and gender, and will strengthen them. The Embassy has expressed interest in the Partners for Resilience's approach to DRR and is eager to remain in close contact. Possibly, the Partners for Resilience's concerns may be taken into account in the Netherlands Embassy's new strategy. The European Commission's DIPECHO^{XXI} programme for DRR covers Central America with community-based and inexpensive measures such as training, improvement of local early-warning systems and contingency-planning, with which the Partners for Resilience will align themselves in the target areas. CARE Nicaragua and the Netherlands Red Cross Society are applying for DIPECHO funding to complement the Partners for Resilience's programme. The other international cooperation organisations with whom the Partners for Resilience will work closely are GTZ, COSUDE, UNDP, Worldbank, Banco Interamericano, and the Panamerican Health Organisation.

National and International NGOs

The Partners for Resilience will work closely with the following national and international NGOs: **Movimiento Comunal, Save the Children, Plan Internacional, OXFAM GB, SOY NICA, Centro Humbolt, GVC** (Grupo de voluntarios Italianos), **ACSUR las Segovias, World Vision, and WWF.**

Networks

The following national networks will be associated: young environmentalists' network, journalist network and indigenous people network.

Knowledge institutes

The Partners for Resilience will work closely with universities.

Private sector

The Partners for Resilience will work with the private sector on micro-credit in support of livelihoods and micro-insurance to strengthen resilience after disasters.

The Partners for Resilience's approach is unique in that it integrates DRR, CCA and EMR and explores the interactions between these fields. No other initiative approaches these fields in such a cohesive manner.

VI. TAILOR-MADE PROGRAMME

The key issues identified in the context analysis are:

- Communities are continuously at risk of a number of natural hazards;
- Agriculture is communities' most important livelihood, but it is very exposed to natural hazards, mostly related to climatic events;
- This vulnerability is compounded by deforestation, erosion, sedimentation, contamination, decrease in cultivable land, falling water tables and inadequate land use;
- Coordination and cooperation between stakeholders is still incidental and insufficient, leading to isolated approaches to DRR, CCA and EMR;
- Civil society organisations (CSOs) are fragmented and, so far, have largely failed to join forces for the promotion wider social issues at community, local and national level, which has reduced the impact of their programmes for disaster risk reduction;
- Existing networks of the Partners for Resilience and their partners reach out to many stakeholders (government, civil society, community, private sector, knowledge institutes) in Nicaragua and beyond. This provides opportunities for more effective and sustainable community resilience building, and dissemination and sharing of experiences and models.

The Partners for Resilience will address these key issues in the following manner:

- Strengthen the livelihoods of beneficiary communities so that they are resilient to the effects of disaster magnified by climate change;
- Strengthen the capacity of local organisations to develop initiatives to reduce natural disasters risks, support climate change adaptation and protection of ecosystems;
- Strengthen institutional and policy environment and make it conducive to strategies for addressing DRR, CCA and ecosystems.

Reduction in disaster risk, improved quality of life and the resilience of the beneficiaries are the main motivation for this programme. A positive change in these conditions will impact strongly on the development of communities.

These activities will benefit from the global support component which provides best practice on DRR/CCA/EBA to the community resilience activities, specifically including best practices from other countries in Central America; links to global networks of civil society organisations and knowledge centres that will provide tools and partnerships to the Southern partners; and global policy inputs that will support their engagement with national policy makers, planners and implementing agencies. This specifically includes the UN Framework Convention on Climate Change process, World Bank including GFDRR (which is supporting the development of scientific information to assist district planning to reduce disaster), ISDR (which is fostering regional capacity building through its Panama office), UNDP, GTZ and others.

There are several opportunities that will be exploited to increase the chances of success of the programme. The Executive Secretary of the National System for Disaster Prevention has recently updated the national policy framework for DRR in the light of the Hyogo Framework for Action. The Government has dedicated structures that are in charge of DRR and CCA. The Partners for Resilience's programme is in line with Government's poverty reduction programmes. The preparation phase has shown that government and civil society organisations can work together well when it is on a well-defined theme.

^I Human Development Index 2008

^{II} World Bank indicators 2009

^{III} <http://www.inide.gob.ni/censos2005/CifrasMun/MapaPobreza.pdf>

^{IV} <http://www.ayudanineznicaragua.org/es/contexto-social-en-nicaragua.html>

^V Análisis Ambiental de Nicaragua, IDB 2007 y ECLAC

^{VI} "Extending financial services to Latin America's poor", article by Luis Alberto Moreno, Inter-American Development Bank, 2007. http://relooney.fatcow.com/00_New_1219.pdf

^{VII} EIRD (2009) Informe de evaluación global sobre la reducción del riesgo de desastres. Naciones Unidas, Ginebra, Suiza.

^{VIII} MARENA, 2008. http://www.lariocc.net/riocc_principal/es/documentos/archivos/tal_pre_5_4.pdf

^{IX} Estrategia Nacional de Cambio Climático, Borrador

^X Capítulo 3: El Cambio Climático y Nicaragua-Documento País Nicaragua DIPECHO 2010

^{XI} Confalonieri, U., B. Menne, R. Akhtar, K.L. Ebi, M. Hauengue, R.S. Kovats, B. Revich and A. Woodward, 2007: Human health. *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, Eds.,

Cambridge University Press, Cambridge, UK, 391-431.

^{XII} Ahern M, Kovats RS, Wilkinson P, Few R, Matthies F. Global health impacts of floods: epidemiologic evidence. *Epidemiol Rev.* 2005;27:36-46.

^{XIII} WHO 2004 Global Burden of Disease.

^{XIV} WHO health statistics 2010

^{XV} Valoración conjunta de país desde la perspectiva del Sistema de Naciones Unidas en Nicaragua -Common Country Assessment (CCA)- 2000.

^{XVI} MARENA, Nicaragua, Naturalmente Unidos frente al Cambio Climático:

http://www.marena.gob.ni/index.php?option=com_remository&Itemid=181&func=fileinfo&id=1018.

^{XVII} <http://www.inide.gob.ni/censos2005/ResumenCensal/Resumen2.pdf>

^{XVIII} Plan de desarrollo municipal de Santa María y Macuelizo

^{XIX} Hallazgos del estudio "Las Relaciones Gobierno - Sociedad Civil en el actual contexto" Manuel Ortega Hegg 2007.

^{XX} Multi Annual Strategic Plan 2008-2011, Royal Netherlands Embassy, Managua, Nicaragua, Summary, June 2008

^{XXI} http://ec.europa.eu/echo/aid/dipecho_en.htm