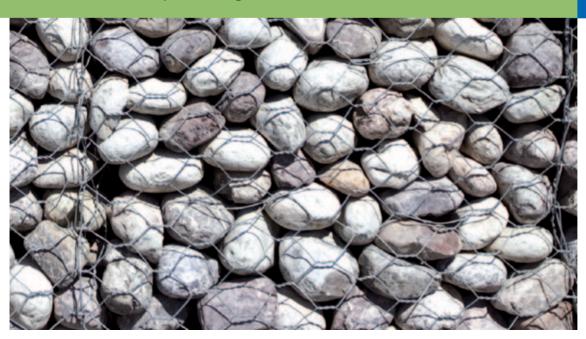


# **DISASTER RISK REDUCTION**

What does UNDP do in Disaster Risk Reduction in Latin America and the Caribbean?

**United Nations Development Programme** 







# "Beyond mountains, there are more mountains."

Haitian proverb

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 $R = \frac{A \times V}{C}$ 

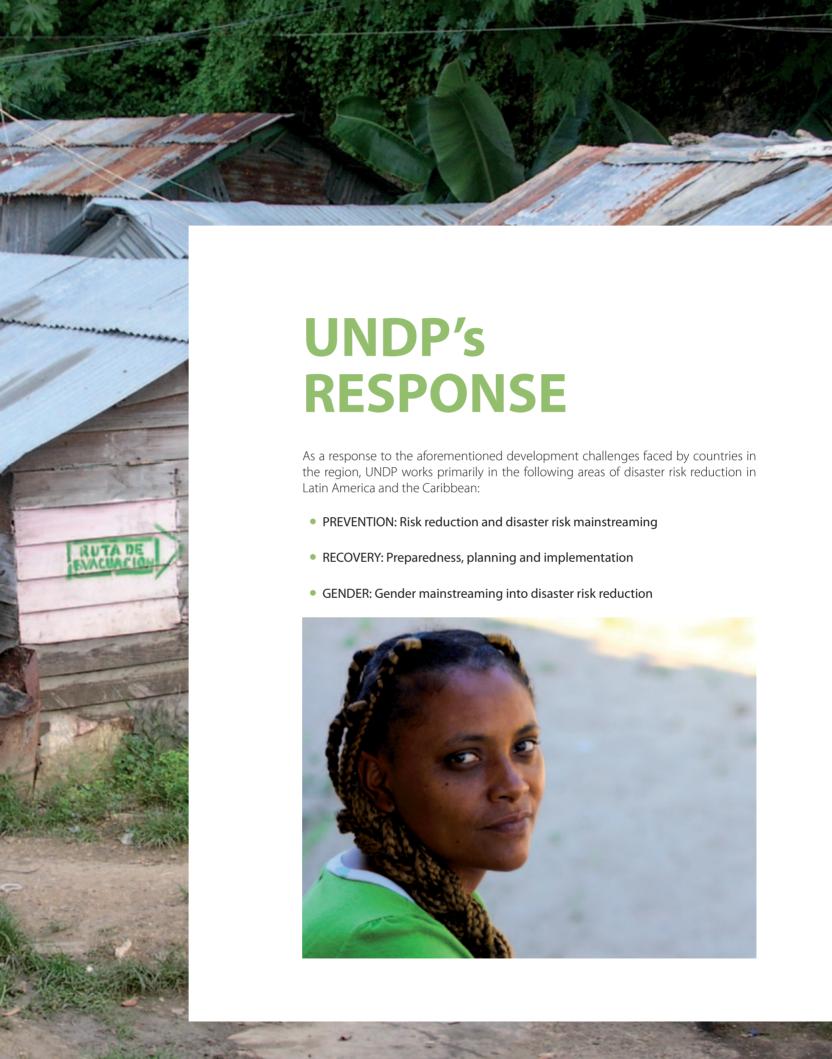
Although not a scientific formula risk (R) is determined by three interrelated factors: (exposure to a) hazard (H); vulnerability (V); and capacity (C).

In the face of disasters, societies experience conditions of increasing vulnerability and their exposure to geophysical and hydro meteorological risks continues to rise. Factors contributing to these changes include: economic and social inequalities; population movement to urban zones; explotation and degradation of the environment; fast demographic growth; government systems' insufficient attention to disaster reduction; new challenges rising from climate change; and urban risks and globalization. In addition, when disasters occur and recovery is not properly managed, gaps that persist further exacerbate existing vulnerabilities, contributing to a vicious cycle of incomplete recovery processes that generate conditions for new disasters. It is necessary to reduce disaster risks and strengthen institutional and community resilience in order to diminish the number of disasters and avoid the loss of development achievements.

# UNDP's Disaster Risk Reduction approach

UNDP supports disaster risk reduction initiatives and is guided by the Hyogo Framework of Action and its five priority areas for Disaster Risk Reduction action, three of which are addressed in the UNDP Strategic Plan 2014-2017, *Changing with the World*. Within this Strategic Plan, one of the three priority areas of work is related to building resilience in disaster prevention, preparedness, response and recovery.







# PREVENTION: Risk reduction and disaster risk mainstreaming

Prevention consists in the implementation of mechanisms and processes with the objective of avoiding disasters or minimizing their impacts. This implies that decision-making takes place before phenomenon hazard occurs.

Therefore, creating and strengthening disaster risk reduction-related institutional and legislative systems are key to a country's adaptation and implementation of prevention, preparedness, response and recovery mechanisms. In addition, it is crucial to mainstream disaster risk reduction into development sectors such as health, education, spatial planning, transport, tourism and finance. If governments promote disaster risk reduction mainstreaming and integrate it into their national development plans, disaster's impact on development gains is decreased or avoided and, on the other side, socio-economic and environmental vulnerability and exposure to disasters is reduced.

UNDP's efforts are focused on national and local levels in order for governments to adopt disaster risk reduction as a national priority and strengthen institutional structures as a basis for prevention, preparedness, response and transformative recovery. To this end, UNDP has worked with governments to establish institutional and legal foundations solid enough to facilitate disaster risk reduction and has contributed to strengthening key governmental institutions.

## Mainstreaming disaster risk reduction in public policies

Policies, laws and norms form the basis of strategies upon which to incorporate disaster risk reduction into national and localdevelopment plans. UNDP offers technical assistance for the following: 1) establishment or review of disaster risk reduction public policies, judicial and/or normative frameworks, and its mainstreaming; 2) application of incentive procedures based on disaster risk reduction legislation and policies; 3) preparation of local and national action plans to incorporate disaster risk reduction into development processes. In Latin America and the Caribbean (LAC), UNDP has supported disaster risk reduction public policy initiatives in countries such as: Costa Rica, Cuba, Guatemala, Guyana, Honduras, Jamaica, Mexico, Paraguay, Peru, and the Dominican Republic.

## Strengthening of disaster risk reduction systems

UNDP considers capacity development a transformation of institutional settings, organizations, and people that involves and impacts society at large, on national and local levels. Conducting capacity assessments and designing national and local disaster risk reduction capacity development strategies is an essential process to achieve this objective. Recognizing that training people, organizations and societies is an essential tool for successfully managing disaster risk, UNDP has implemented training programmes in disaster risk reduction and practical training in areas such as housing and infrastructure construction, livelihoods and basic services, and the creation of early warning systems. In the LAC region, UNDP has supported such initiatives in Brazil, Barbados, and Honduras, as well as throughout the UNDP's regional project Caribbean Risk Management Initiative (CRMI) in Cuba, Guyana, the British Virgin Islands, Jamaica, the Dominican Republic, and Trinidad and Tobago.

# Approval of the Risk Reduction State Policy with a gender perspective and support in the revision of the National Disaster Risk Reduction System Law in Honduras



THE LAW INCORPORATES
A POSITIVE
DISCRIMINATION ASPECT
TOWARDS WOMEN AND
GIRLS WHO ARE EXPOSED
TO ALL TYPES OF
VIOLENCE. (ARTICLE 32,
SINAGER LAW)

In Honduras, UNDP advised and offered technical advice to the government on how to improve the institutional framework for disaster risk reduction within the National Disaster Risk Reduction System (SINAGER).

Concretely, UNDP supported the review and promulgation of the SINAGER Law, the National Risk Management Plan and the National Risk Reduction Policy. Recent achievements include: incorporation of the gender perspective and a recovery focus in such normative tools; development of joint recovery frameworks; development of financial tools and sectorial plans that complement the National

Plan; and the start of the implementation of Comprehensive Risk Reduction State Policy and Law.

With this support, the Finance Secretariat was able to incorporate disaster risk analysis into investment projects at national, territorial and sectorial levels.

# Approval of a National Comprehensive Disaster Risk Management Plan in the Dominican Republic







In 2013, the Dominican government formally issued Decree No. 275-13, which signaled intent to mainstream disaster risk reduction in the country's national policies. The Decree paved the way for government approval of the "Comprehensive National Plan for Disaster Risk Management." The Plan was drafted by the National Emergency and Civil Defense Commission and received financial and technical support from UNDP. As part of the process, the norms and regulations for the construction of buildings, houses, and earthquake-proof infrastructures were updated.

UNDP also implemented the Project "Resilient communities to earthquakes and tsunamis in urban environments in the province of Puerto Plata", financed by the

European Commission (DIPECHO). The project aimed to strengthen institutional capacities at national and local levels in order to guarantee the fulfillment and application of the normative and legal disaster risk reduction frameworks with a focus on inclusion, participation, and sustainable development.

As an example of the project's results at a local level, UNDP supported in Puerto Plata the adaptation and approval of collective centers management guidelines which led to the signing of the "Puerto Plata Declaration." In this agreement, seven mayors and the provincial governor committed to include disaster risk reduction budgeting and project management. Moreover, the Autonomous University of Santo Domingo approved a technical certification for the design and construction of earthquake-proof structures.

"THE STATE HAS THE
RESPONSIBILITY TO
INCORPORATE PLANS
THROUGHOUT ALL
PROVINCES OF THE
COUNTRY AND TO SUPPORT
ENTITIES INVOLVED IN
TAKING DISASTER RISK
REDUCTION ACTIONS WITH
APPROPRIATE BUDGETS."
VALERIE JULLIAND, UNDP
DOMINICAN REPUBLIC

# Strengthening the Disaster Risk Reduction culture in Brazil with the National Protection and Civil Defense System

THE PROJECT PLANS ON DEVELOPING SIX MORE TRAINING MODULES FOR SPECIFICALLY IDENTIFIED GROUPS; TRAINING FOR 9,000 STAFF AND VOLUNTEERS Through the technical support offered to the National Protection and Civil Defense System, during the first phase of this project, a capacity and training needs assessment of Civil Protection and Defense agents was conducted in the 10 prioritized states.

The assessment formed the basis for developing a course on the fundamentals of Disaster Risk Reduction which trained over 1,200 agents at federal, state, and municipal levels. Simultaneously, the project provided technical assistance in the development

of a "National Strategy for Capacity Development in Disaster Risk Reduction".

The project aims at promoting the disaster risk reduction knowledge generation and exchange. To this end, UNDP will help create and strengthen a national disaster risk reduction research network, to include a virtual training platform to support the existing professional network.



# Implementation of Comprehensive Risk Management Local Practices in Colombia's Caribbean Coastal Areas

The initiative's objective is to reduce the vulnerability of Caribbean populations to disasters through the improvement of public institution capacities to manage risks and to adapt to climate change. This initiative was implemented in partnership with the European Union.

Accordingly to Law 1523 of 2012, the legal framework that regulates State actions in such matters, "risk reduction is the responsibility of all authorities and inhabitants of the Colombian territory. "To this end, the Comprehensive Risk Management project has sought to involve civil society in the processes of risk reduction and adaptation to climate change through work with academia, private business, journalists and the community at large.

Other achievements include the creation of eight "Departmental Plans for Disaster Risk Management in Colombia's Caribbean coast", the development of a guide for preparing departmental plans, and the construction of building models adapted to climate variability such as: a floating education center for flood prone areas (Chimichagua-Cesar), a bio-climatic house for insular areas (San Andrés, Providencia and Santa Catalina), a sustainable eco-oven for mountainous areas, and a desalination well for desert areas.

# Technical assistance to the creation of early warning systems: Paraguay and Barbados

During the last trimester of 2013, UNDP provided support to the National Emergency Secretariat's in Paraguay, with the creation of a national early warning system. The National Emergencies Secretary initiated a multi-phase process that allows the system to identify risks (including vulnerabilities and capacities in a determined community) while foreseeing the economic and material impacts on vulnerable communities affected by adverse events.

zed for tsunami focal points as well as a tsunami emergency response workshop. Each trained twenty people. As a result of the project, the region now has more information and knowledge about risks. UNDP COLLABORATED
WITH THE ORGANIZATION
OF EAST CARIBBEAN STATES
(OECS) BY PROVIDING
TECHNICAL ASSISTANCE
FOR THE CREATION OF AN
EARLY WARNING SYSTEM IN
BARBADOS

With the support of UNDP, the Caribbean Tsunami Information Center created and disseminated meteorological data in conjunction with the Caribbean Institute for Meteorology and Hydrology. The collective effort created a network for the real-time exchange of hydro-meteorological data for the eastern Caribbean sub-region. In the framework of the project, a training workshop was organi-



# Strengthening early recovery processes in Costa Rica

The UNDP updated the Local Human Development Cantons Plans and the Strategic Municipal Plans in the cantons affected by the earthquake of September 2012, including early recovery actions and the incorporation of a risk reduction focus.

In addition, UNDP elaborated a strategy proposal to strengthen citizen participation in the risk reduction processes on the municipal level and developed a guide for the organization and functioning of the municipal offices for risk management.



# RECOVERY: Preparedness, planning and implementation

The recovery process embodies the reactivation of the social, economic, institutional and environmental dynamics affected by disasters. This also represents an important opportunity for orienting development towards more sustainable models.

The UNDP's report "Protecting Development Against Disasters" emphasizes the toll of disasters in terms of time and money: the recovery is not only extremely costly in economic terms, but also a country and its population often takes longer to fully recover from damages and losses. Using the post-disaster period as a point of departure, UNDP promotes measures to reduce the risks of future disasters over the whole recovery process. With the goal of conducting effective and coherent post-disaster needs assessments and recovery strategy design, UNDP promotes institutional capacity strengthening in recovery planning before a disaster occurs to ensure that the legislative and institutional frameworks are clear, that tools (for coordination, financing, implementation, monitoring and public information) are efficient and that key actors have the capabilities to intervene in a timely manner.

# **1** Pre-disaster recovery planning

UNDP focuses on working with national governments and civil societies in countries prone to disasters in order to develop their capacities in managing recovery processes. Therefore, it focuses on the establishment of institutional and financial schemes, as well as the necessary technical capacities to face such disasters.

In the Latin America and Caribbean region, capacity strengthening has been included not only in ongoing post-disaster recovery initiatives (Guatemala, Costa Rica, Cuba, El Salvador, Haiti, Honduras, Jamaica, Panama, Paraguay, Peru and Nicaragua) but also in recovery planning processes in the Caribbean and Central American countries.

# **7** Post-disaster recovery processes

In post-disasters situations, UNDP supports governments in evaluating recovery needs and preparing recovery plans and in executing both immediate and long-term recovery plans. In the Latin-American and Caribbean region in 2013, UNDP supported post-disaster recovery initiatives in Bolivia, Colombia, Costa Rica, Cuba, Guatemala, Haiti, Jamaica, Paraguay and Peru.

# Post-earthquake recovery major initiative in Haiti

UNDP has established an accompaniment and capacity strengthening system in order to support the governmental leadership role. First, UNDP served as the leading agency in the joint project«16 neighborhoods, 6 camps » (referred to as 16/6), coordinated by the government with the support of various United Nations agencies.

The implementation of 16/6 opened the door to a larger structural change, considering that Haiti did not have a housing ministry or other institution responsible for the coordination of the reconstruction process. In this context, UNDP supported the creation of the Housing and Public Buildings Construction Unit and the preparation of the National Housing and Habitat Policy, a symbol of the process of connecting the emergency to long term development.

The 16/6 project (www.projet16-6.org) encompassed a short-term response and long-term vision. It accomplishes the first steps on the path towards development through concrete interventions and the establishment of community platforms. The project initiated the rehabilitation process in Port-of-Prince neighborhoods.

At the end of 2013, UNDP signed a South-South cooperation collaborative agreement with the governments of Chile and Haiti to launch 16/6, effectively advancing the process of bridging the humanitarian response with development.



All along 2013, UNDP provided support to the Haitian government to integrate elements of disaster risk reduction into the national strategies. The action served as a process to update the National Plan for Risk and Disaster Reduction foreseen for 2014. In addition, UNDP enhanced national disaster preparedness and response capacities. Examples include: support to the Civil Protection Directorate; follow-up of risks via a national standardized tool for the evaluation and urban risk management; implementation of monitoring and seismic risk mitigation measures: as well as education and public awareness about main risks faced by the population.

In 2013, UNDP systemized the postearthquake experience with the creation and management of the Cash-for-Work programme and the « Debris Project: Technical guide for debris management - the Haitian experience 2010-2012». IN TOTAL, MORE THAN
ONE MILLION PEOPLE
HAVE BENEFITED FROM
UNDP SUPPORT IN HAITI'S
RECOVERY PROCESS.
AREAS OF WORK INCLUDE
DEBRIS CLEAN-UP,
ECONOMIC RECOVERY,
AND THE RETURN OF
DISPLACED PEOPLE TO
THEIR NEIGHBORHOODS OF
ORIGIN

10

# Support to post-hurricane Sandy recovery in Cuba



In response to Hurricane Sandy and within the framework of the Action Plan, UNDP managed a fund of more than six million US dollars to support housing and habitable conditions recovery. Approximately 37,000 families benefited from the fund, 9,000 of whom gained refuge or housing solutions.

Through the living conditions recovery strategy, 9,495 canvases, 71,502 roof slates, 12,800 cooking kits, and 1,130 toolkits were delivered for the reconstruction of houses and basic services. In addition, workshops were organized to train key institutions in the recovery process, such as the Housing Direction, Physical Planning, the Provincial Statistics and Information Office, and the Environment Unit. UNDP also supported the recovery and renovation of fruit farms and cattle lands and the activation of short-cycle crops.

Moreover, UNDP worked with authorities and technicians from the local production of construction materials national programme to transfer resilient

construction technologies and capacity strengthening for local production of materials, taking advantage of the local resources.

It is worth emphasizing that UNDP incorporated a gender dimension in post Hurricane Sandy recovery initiatives, contributing to equality between men and women and a more effective response to the necessities of women in the most impacted areas by the hurricane.

APPROXIMATELY 37,000 FAMILIES BENEFITED FROM THE FUND, 9,000 OF WHOM GAINED REFUGE OR HOUSING SOLUTIONS.



# Recovery planning in Central America

UNDP, with the Coordination Center for the Prevention of Natural Disasters in Central America (CEPREDENAC) and the national disaster risk management systems, is strengthening institutional recovery capacities under a comprehensive and integrated approach. UNDP funds and implements this initiative, moving forward from the initial recovery framework formulation activity implemented in six countries of Central America. This process promotes joint sectorial work and collaboration among different levels of the government.

These efforts have resulted in the approval of Honduras' Comprehensive Risk Management Policy- which emphasizes on a transformative recovery approach, and of Guatemala's and Panama's recovery frameworks within the corresponding institutional coordination bodies. At the regional level, UNDP has created and trained a recovery specialist group for mutual support in recovery processes, under the Central America Integration System (SICA) and CEPREDENAC efforts.

Moreover, UNDP is supporting the preparation of sectorial tools -including financial, project implementation, monitoring and reporting mechanisms, promoting public-private partnerships and developing pilot projects to design local recovery guidelines.



# Recovery of areas affected by heavy rains in the Arequipa, Peru

This 2013 project contributed to strengthen the capacities of regional and local authorities in areas affected by rains in order to recover their lands at urban and rural levels. A recovery information system, including a toolbox, was developed and disseminated.

A recovery (rehabilitation, and reconstruction) plan was drafted in the affected areas, and inter-sectorial and inter-institutional coordination platforms were crea-

ted. In addition, a focus on risk reduction was incorporated into territorial planning and development plans.

UNDP supported the regional government's financial planning in the inclusion of prevention and risk reduction actions as part of a sustainability strategy.

# GENDER: Gender mainstreaming in disaster risk reduction

According to the UNDP report Protection of Development against Disasters, women, children, youth, elderly and other socially excluded groups tend to be disproportionately affected when a disaster occurs. Women are often poorer and less educated and are excluded from political and domestic decision-making processes that affect their lives.

These economic and social inequalities cause women to have fewer resources, which can increase their vulnerability to hazards; although, some of them have developed housekeeping and organizational skills that have contributed to community development. To adequately understand risks, it is essential to include gender considerations in the vulnerability and community capacity analysis.

UNDP supports this focus, considering it fundamental to guarantee the integration of the different needs of men and women in the whole spectrum of disaster risk reduction and recovery. Through this process, efforts to involve women in the technical and decision-making processes are also made.



# "Risk Reduction with Gender Perspective" Course in Uruguay

UNDP supported the initiative with the objective of incorporating a gender perspective into actions taken by public institutions that manage risks related to emergencies and disasters.

The course featured a blended format that included both online and classroom

instruction. The curriculum was aimed at the following groups: members of the Departmental Coordination Centers for Emergencies and Departmental Committees for Emergencies; municipal and National Women's Institute focal points; and National Emergency System Network Members.

# Support for the integration of a gender perspective in Comprehensive Disaster Risk Management in the Caribbean



In 2013, UNDP collaborated with the Caribbean Disaster Emergency Management Agency (CDEMA) to strengthen gender mainstreaming into disaster risk reduction in the region. Support included bringing together representatives from national ministries of women and their partners as well as calling upon the regional Gender Work Group to inform and guide the strategy for the 2014-2024 "Comprehensive Disaster Risk Management Programme (CDRMP) for the Caribbean".

Through the UNDP's Caribbean Risk Management Initiative (CRMI), the CDEMA and UNDP organized a training on the incorporation of a gender perspective into the CDRMP and on the analysis of gender policies and programming. Twenty-two national disaster coordinators and CDEMA's technical team benefited from this training.

# SOUTH-SOUTH COOPERATION ACTIVITIES

UNDP has implemented South-South cooperation principles in the different disaster risk reduction working areas.

This has enabled the capitalization of each of the country's achievements and its exchange with the peer countries in the region, all over those which are strengthening their disaster risk reduction capacities. The transfer process implies the capacities recompilation and diffusion in a very standardized way, stakeholder's coordination, institutional agreement promotion and initiative implementation monitoring.

# Risk reduction experience exchange in Latin American and the Caribbean

UNDP promotes a space for exchanging knowledge and experiences in order to consolidate, systematize and share the acquired knowledge, to continue ongoing local disaster risk reduction capacity developments. This has brought about the creation of a Regional Community of Practice formed by Disaster Risk Reduction focal points in UNDP's Latin American and Caribbean country offices. Among its activities, the Community of Practice has organized regional

workshops with the participation of Latin American and Caribbean governments, which have often resulted in the identification of potential cooperation initiatives that need further technical support and accompaniment to facilitate knowledge transfer and implementation. The last meeting was held in Chile in November 2013 and, in this occasion, it gathered Chilean and Dominican governments with 15 UNDP country offices' focal points.

# Risk Reduction Management Centers in the Caribbean

Through CRMI, the Cuban model of Risk Reduction Management Centers was adapted and implemented in five other Caribbean countries: Jamaica, the Dominican Republic, the British Virgin Islands, Guyana, and Trinidad and Tobago.

The Risk Reduction Management Centers are based on a Cuban model of risk management at a local level. With a focus on local decision-making, the centers are based on the coordination and multidisciplinary management of information and on the identification of risks, dangers, and vulnerabilities. To this end, the model organizes the integration of the following: early

warning systems; studies on vulnerability and risk; communications systems; effective management of maps and databases; geographic information systems; and community preparedness. This coordination of factors allows for the establishment of clearer objectives in territorial planning and disaster preparedness, which, in turn, can minimize risks and impacts.

Initiated in 2005, the Cuban model has been identified as a good practice and a useful tool for local governments, especially in light of its focus on both prevention and response.



JAMAICA

Support in the recovery after Hurricane Sandy



Development of national frameworks for recovery

Capacity development in management of post-disaster recovery processes at the global level and capacity strengthening at regional, national and

## MEXICO

Comprehensive Disaster Risk Management in Risk Management in southeast Mexico

### GUATEMALA

Monitoring the Disaster Risk Reduction National Coordination Secretary and Presidential Planning and Programming Secretary Capacity development for Disaster Risk Reduction

Coordination System
Implementation of the Risk Reduction and Territorial

Get Airports Ready for Disaster (GARD) programme: Strengthening Salvador airport's disaster response capacities with the global shipping company DHL

## COSTA RICA

Get Airports Ready for Disaster (GARD) programme Strengthening Panama airport's disaster response capacities with the global shipping company DHL

Management as a measure to adapt to climate change in the island and coastal zones
DIPECHO project: Strengthening national and regional institutional governance capacities and strengthening organizations for victims for the restitution of their rights, the promotion of coexistence and reconciliation. Special emphasis on the system of transitional justice

## **PERU**

Elaboration of the Disaster Risk National Plan Recovery of zones affected by rain in the Arequipa region Get Airports Ready for Disaster (GARD) programme: Strengthening Peru airport's disaster response capacities with the global shipping

Creation of departmental secretaries and local risk reduction councils Technical assistance in the creation of an early warning system DIPECHO project: Disaster risk management capacity development at national, subnational and local levels in Chile, Ecuador and Paraguay

## CHILE

DIPECHO project: Disaster risk management capacity development at national, subnational and local levels in Chile, Ecuador, and Paraguay

## I ATIN AMERICA

International workshop on experiences in disaster risk reduction

# **EXAMPLES FROM THE REGIONAL PORTFOLIO 2013**

### **HONDURAS**

Approval of a government policy on risk reduction including a gender perspective and review the Law for a Risk Reduction National System in Honduras
Training of national actors and the creation of mechanisms to advance disaster risk reduction Incorporation of a gender perspective into public policy development and disaster risk reduction and recovery tools

NICARAGUA

Strengthening of the civil protection services

Support and incorporation of a gender focus in the recovery after Hurricane Sandy DIPECHO project: Enhancement of the hydro meteorological early warning system in order to increase the disaster preparedness and reduce the vulnerability of the populations living

«16 neighborhoods, 6 camps » project: assisting the return of persons displaced by the 2010 earthquake to their neighborhoods of origin Cash-for-Work initiative: For the economic recuperation of people affected by the 2010

ear triquake Debris Project: Technical guide for debris management - the Haitian experience 2010-2012

### DOMINICAN REPUBLIC

Approval of the National Plan for Comprehensive Disaster Risk Management Implementation of the "Earthquake and Tsunamis Resilient Communities" Project DIPECHO project: National institutions prepared and communities resilient to earthquakes and tsunamis in urban environments in the province of Puerto Plata Get Airports Ready for Disaster (GARD) programme: Strengthening Dominican Republic airport's disaster response capacities with the global shipping company DHL

### BARRADOS AND OFCS

Technical assistance in the creation of an Early Warning

DIPECHO project: Community Alerts Project - An effective implementation in the Caribbean through integrated Early

## CARIBBEAN

Development of risk reduction management centers in Jamaica, the Dominican Republic, the British Virgin Islands, Guyana, and Trinidad and

Training in Post-Disaster Needs Assessment (PDNA) and strengthening the public investment in disaster risk reduction

Support for the integration of a gender perspective into Comprehensive Disaster Risk Management International workshop on experiences in disaster risk reduction in Latin America

Capacity strengthening in disaster risk reduction for the National System of

## **URUGUAY**

DIPECHO project: Strengthening disaster risk reduction and disaster risk