Safe, Resilient Communities:
The ACCORD Model

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ECHO is one of the world's largest providers of financing for humanitarian aid operations. Through its Disaster Preparedness Programme (DIPECHO) it assists vulnerable people living in the main disaster-prone regions of the world in reducing the impact of natural disasters on their lives and livelihoods.

The ACCORD Model for disaster risk reduction (DRR) was borne out of the experience of implementing the community-based disaster risk reduction project called ACCORD (or Strengthening Assets and Capacities of Communities and Local Government Units for Resilience to Disasters) and two follow-up projects - ACCORD-2 and ACCORD-3. Subsequently, ACCORD-3 was incorporated into ASCEND (or Advancing Safer Communities and Environments against Disasters), which is a consortium project between CARE Nederland and Christian Aid. The ACCORD model, however also incorporates the good practices and lessons learnt from the humanitarian response, and other projects, of CARE Nederland and partners in the Philippines. The ACCORD model also draws inspiration from the experiences in DRR of other practitioners in the Philippines and abroad.

The ACCORD model is constantly evolving, as the organizations behind the model, ACCORD Incorporated, CNDR, CorDis RDS, AADC and CARE Nederland, strive for quality DRR programming. The ACCORD model makes use of community-based DRR and rights-based approach as the complementary frameworks for disaster risk reduction. Climate change adaptation is being combined with DRR. Sustainable natural resource management is also strongly promoted as a complementary approach, and more recently the more comprehensive ecosystem management and restoration.

The ACCORD model is being documented and shared in the hopes that, based on specific contexts, it can provide useful knowledge about DRR practices of communities, people's organizations, local authorities, schools and other practitioners.

Acknowledgements

This book is the story of the people – poor women and men, elderly, indigenous peoples, students and youth, farmers and fisherfolks, teachers, and the local governments - from the communities we worked with. Without them, there would be no trainings, no evacuation drills, no mangrove planting, no DRR mainstreaming. They serve as the inspiration to the writers of this book. It is because of them that this book came to be. They are proof that even the most vulnerable communities are able to build resilience against disasters.

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Contents

Acronyms and Abbreviations

AADC	Agri-Aqua Development Coalition – Mindanao
ACCORD Inc.	Assistance and Cooperation for Community Resilience and Development, Incorporated
ACCORD Project	Strengthening Assets and Capacities of Communities and Local Governments for Resilience to Disasters
ACCORD-2 Project	Strengthening Assets and Capacities of Communities and Local Governments for Resilience to Disasters, Year 2
AIP	Annual Investment Plan
ASCEND Project	Advancing Safer Communities and Environments against Disasters Project
BDCC	Barangay Disaster Coordinating Council (former name of Barangay DRRMC)
BDIP	Barangay Development and Investment Plan
CBDRM	Community-based disaster risk management
CBEWS	Community-based early warning system
CCA	Climate change adaptation
CDP	Comprehensive Development Plan
CDRN	Citizens' Disaster Response Network
CF	Community facilitator
CLUP	Comprehensive Land-use Plan
CNDR	Corporate Network for Disaster Response
CorDis RDS	Cordillera Disaster Response and Development Services
CP	Contingency plan/planning
CPWS	Contingency planning workshop
CRA	Community risk assessment
CVA	Capacities and Vulnerabilities Assessment
DAF	Dalican Ato Federation
DepED	Department of Education
DILG	Department of Interior and Local Government
DIPECHO	Disaster Preparedness ECHO
DNCA	Damages, Needs and Capacities Assessment
DPT	Disaster preparedness training
DRR	Disaster risk reduction
DRRM	Disaster risk reduction and management
DRRMC	Disaster Risk Reduction and Management Council/ Committee
DRRMO	Disaster Risk Reduction and Management Office
DSWD	Department of Social Welfare and Development

ECHO	European Commission Humanitarian Aid and Civil Protection department
ELA	Executive Legislative Agenda
EMR	Ecosystem management and restoration
ER	Emergency response
EWS	Early warning system
FFP	Food Facility Project
GHGs	Green house gases
LDRRMF	Local Disaster Risk Reduction and Management Fund
LGUs	Local government units
MGB	Mines and Geosciences Bureau
NDCC	National Disaster Coordination Council (former name of National DRRMC)
NGO	Non-government organization
NRM	Natural resource management
PAGASA	Philippine Atmospheric Geophysical Astronomical Services Administration
PAR	Pressure and Release Model
PCM	Project cycle management
PHIVOLCS	Philippine Institute of Volcanology and Seismology
PMT	Project management team
PPAs	Programmes, projects and activities
PPMEL	Participatory planning, monitoring, evaluation and learning
PTA	Parents and Teachers Association
PTCERP	Philippine Tropical Cyclones Emergency Response Project
PTCSLRP	Philippine Tropical Cyclones 2009 Shelter and Livelihood Recovery Project
PWD	Persons-with-Disability
RBA	Right-based Approach
RPS	Rationalised Planning System
SALT	Sloping Agricultural Land Technology
SDRRMC	School Disaster Risk Reduction and Management Committee
SSM	Small-scale mitigation
UN ISDR	United Nations International Strategy for Disaster Risk Reduction
UNDP	United Nations Development Program
UNICEF	United Nations Children's Fund
WASH	Water, Sanitation and Hygiene

Introduction

Disasters have been affecting the Philippines in increasing frequency and magnitude. Climate change and unabated environmental degradation contribute to the occurrence of more disaster events every year, affecting more people and increasing the country's economic losses. These set back people's livelihoods, as well as the country's developmental gains.

For about 20 years, from 1990 to 2009, there has been an upward trend in the number of disaster events and persons affected. Some 240 disaster events were recorded annually, affecting an average of 6.41 million Filipinos per year.[1] Direct economic costs, from 1970 to 2006, were valued at an average of PhP15 billion per year at year 2000 prices.[2]

The situation could get worse. Climate change can result in more frequent and severe impacts, with new climate-related hazards emerging. Studies have established that the Philippines is more vulnerable to climate change compared to other countries in Southeast Asia and globally.[3]

CARE Philippines staff conduct damages, needs and capacities assessment in Dingalan, Aurora, after mudflows in November-December 2004 buried homes.

The unchecked degradation of the environment can also compound both climate change and disaster risks. In 2004, total forest cover left was only 24 percent of the country's total land area; while over 80 percent of the original mangroves in the country had been cleared.[4]

Moreover, two out of three Filipinos are poor, rendering them vulnerable to numerous and recurring hazard events.[5]

The search for lasting solutions to the country's vulnerability to disasters has been going on for decades. In 1987, a group of people's organizations formed the Citizens' Disaster Response Network (CDRN) and proposed that "disasters are a question of (people's) vulnerability." Combining practical experience with evolving theories, CDRN developed a framework for building disaster-resilient communities. CARE Nederland (then known as Dutch Relief and Rehabilitation Agency) supported the application and documentation of this framework. This framework was referred to as the "citizenry-based and development-oriented disaster response" with the following features:[6]

1. It looks at disaster as a question of vulnerability;
2. It recognises people's existing capacities and aims to strengthen them;
3. It contributes to addressing the roots of people's vulnerabilities and to transforming or removing the social structures generating inequity and under-development;
4. It considers people's participation as essential to disaster risk reduction;
5. It puts premium on the organizational capacities of vulnerable sectors; and
6. It mobilizes the less vulnerable sectors into partnerships with vulnerable sectors in disaster risk reduction and development projects.

In 2005, CARE Philippines implemented a pilot community-based DRR project targeting the youth in Barangay Dominorog in Calabanga, Camarines Sur, and two other high-risk communities in Dingalan, Aurora province. Soon, three projects followed, all implemented with support from the European Commission Humanitarian Aid and Civil Protection

department (ECHO), namely, (1) Strengthening Assets and Capacities of Communities and Local Governments for Resilience to Disasters (ACCORD) in 2007, (2) ACCORD-2 project in 2008, and (3) ACCORD-3 in 2010 which became part of a CARE and Christian Aid consortium project, Advancing Safer Communities and Environments against Disasters (ASCEND).

From these projects evolved the ACCORD model for community-based DRR, with earlier experiences of CDRN serving as inspiration. Also, the model benefitted from exchanges of lessons and best practices with DRR projects of CARE Nederland in other countries such as -- Tajikistan, Nepal and India. Most of these projects were similarly implemented with support from ECHO's Disaster Preparedness (DIPECHO) programme.

To complement the community-based approach to DRR, ACCORD has applied the rights-based approach (RBA). The primary contribution of RBA to DRR is that it clarifies rights and obligations. In DRR, the government is the main duty-bearer, and that disaster victims are rights-holders. In community-based DRR, actions are based on assessed needs of vulnerable and disaster-affected populations. With RBA, these needs are

A young girl carrying her younger brother past their home which was partially buried by mudflows in Bgy. Paltic, Dingalan.

acknowledged and upheld as basic human rights. RBA asserts that even vulnerable and disaster-affected people have the right to life with dignity; that situations of disasters and vulnerability violate this right; and that government has the paramount obligation to uphold the right to life with dignity, including the right to humanitarian assistance and DRR services.

RBA also provides a framework for quality programs. Thus with RBA, local authorities, on one hand, are duty-bound to deliver; at the same time, vulnerable people, especially those belonging to disadvantaged groups such as women, children, elderly and indigenous peoples, can exercise their right to claim quality DRR programs and services.

The first ACCORD project, and the follow-up project ACCORD-2, have strengthened risk reduction capacities of high-risk communities, schools, and local authorities. Applying training and other capacity building strategies, the communities, schools and local authorities learnt how to conduct community risk assessments that use participatory tools. Using risk assessments, the contingency plans, community-based early

Grade 1 students and their teacher, Norma Guiriba, from Cagsao Elementary School show their entries to the DRR poster-making contest.

warning systems and evacuation plans were developed, tested for their effectiveness through drills and actual evacuation, and regularly updated.

Similarly, small-scale mitigation projects were designed and implemented. In ACCORD-2, natural resource management as an alternative approach to small-scale mitigation began. An example of this approach is mangrove reforestation which reduces the negative impacts of storm surges and tsunami, while at the same time providing high-risk communities the economic, environmental, cultural, and aesthetic benefits, among others. In ACCORD-2, the integration of climate change adaptation (CCA) into disaster risk reduction also started. On the whole, however, ACCORD-2 has consolidated the gains of the first ACCORD project.

Further developed under ASCEND is the incorporation of climate change adaptation in DRR. Moreover, DRR mainstreaming was prioritized in order to ensure larger and more lasting impacts. Among municipal local government units, DRR was mainstreamed in local development planning, specifically in the Rationalized Planning System (RPS). Cooperation for the integration of DRR in the public school curriculum was likewise pursued aside from education and emergency preparedness activities in schools.

Along with ASCEND, another project called Making Safe Food Available and Accessible to Rural Poor Households in the Philippines was implemented in the same areas with a grant from the Food Facility of the European Union. The Food Facility project complements ASCEND by incorporating disaster risk reduction and climate change adaptation into livelihood strategies. By protecting livelihoods, people's vulnerabilities are further reduced and community resilience is enhanced.

A series of humanitarian response projects, on the other hand, notably the ECHO-funded Philippine Tropical Cyclones Emergency Response and the Philippine Tropical Cyclones 2009 Shelter and Livelihood Recovery projects, demonstrated how DRR can be mainstreamed in emergency response, and how they can be linked to development.

After five years of experimenting, drawing lessons from good as well as bad experiences, and constantly making use of lessons learnt to guide

the next actions, the question now is, how effective and sustainable is the ACCORD way of doing DRR? There are many ways to answer this. For one, local chief executives point to their national *Gawad Kalasag* awards for best practices in disaster risk reduction and humanitarian response. Saint Bernard, Calabanga and Maragusan, three out of five municipalities where the ACCORD model was implemented, received the said award for two consecutive years. But as local executives would put it, these awards are just "icings on the cake" and that "the real reward is in knowing that communities have become more resilient."

This awareness is best described by Visitacion Ibalin, a mother, a community volunteer, and a member of the Disaster Risk Reduction and Management Committee of Barangay Cagsao in Calabanga, Camarines Sur:

> *Sa ACCORD, natutunan ko na kaming mahihirap, babae o nanay man, ay may kakayanang gawing ligtas sa disaster ang aming mga anak, tahanan at komunidad. Ang kaalaman at kasanayang nakuha ko sa ACCORD, mula pag-unawa kung ano ang mga risgo sa aming komunidad, hanggang sa pagbigay ng tulong pangkalusugan sa mga kababaryo sa panahon ng kalamidad, at pagtulong sa pagdisenyo at sa pamamahala sa aming mangrove reforestation project, ay mananatili sa akin sa matagal na panahon.*
>
> (ACCORD has made me realize that poor people like us, even women and mothers, have the power to make our children, our homes and communities safer from disasters. The knowledge and skills I acquired from ACCORD, from understanding what the risks are in our community, to providing health assistance to community members in times of emergencies, and to helping design and manage our mangrove reforestation and livelihood projects will remain with us for a long time.)

ACCORD model for DRR is the outcome of close collaboration primarily amongst CARE Nederland, Assistance and Cooperation for Community Resilience and Development (ACCORD Inc.) Incorporated, Agri-Aqua Development Coalition – Mindanao (AADC), Corporate Network for Disaster Response (CNDR), Cordillera Disaster Response and Development

Services (CorDis RDS) and high-risk communities, schools and local government units foremost in the municipalities of Calabanga, Saint Bernard, Maragusan, Dingalan and Jabonga, and with support from ECHO.

ACCORD is their story. Their story is now being shared so that others may gain insights from the successes as well as the challenges encountered in the course of creating the ACCORD story.

Youngsters from Balatasan in Calabanga also helped in planting mangroves along San Miguel Bay in the hopes to reduce the effect of storm surges to their community.

Notes

1. Dulce, Ma. Stella, Disasters and Climate Change in the Philippines: *hazards, vulnerabilities and capacities,* ACCORD Incorporated, December 2010.
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3. Economic and Environment Program for Southeast Asia, Hotspots! Mapping Climate Change Vulnerability in Southeast Asia, 2010.
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5. *Ibon* Survey on People's Political and Economic Situation April 2010, cited in Dulce.
6. This is documented in Heijmans, Annelies and Lorna Victoria, Citizenry-Based and Development-Oriented Disaster Response: *Experiences and Practices in Disaster Management of the Citizens' Disaster Response Network*, Center for Disaster Preparedness, Quezon City, 2001.

1

Building Resilient Communities

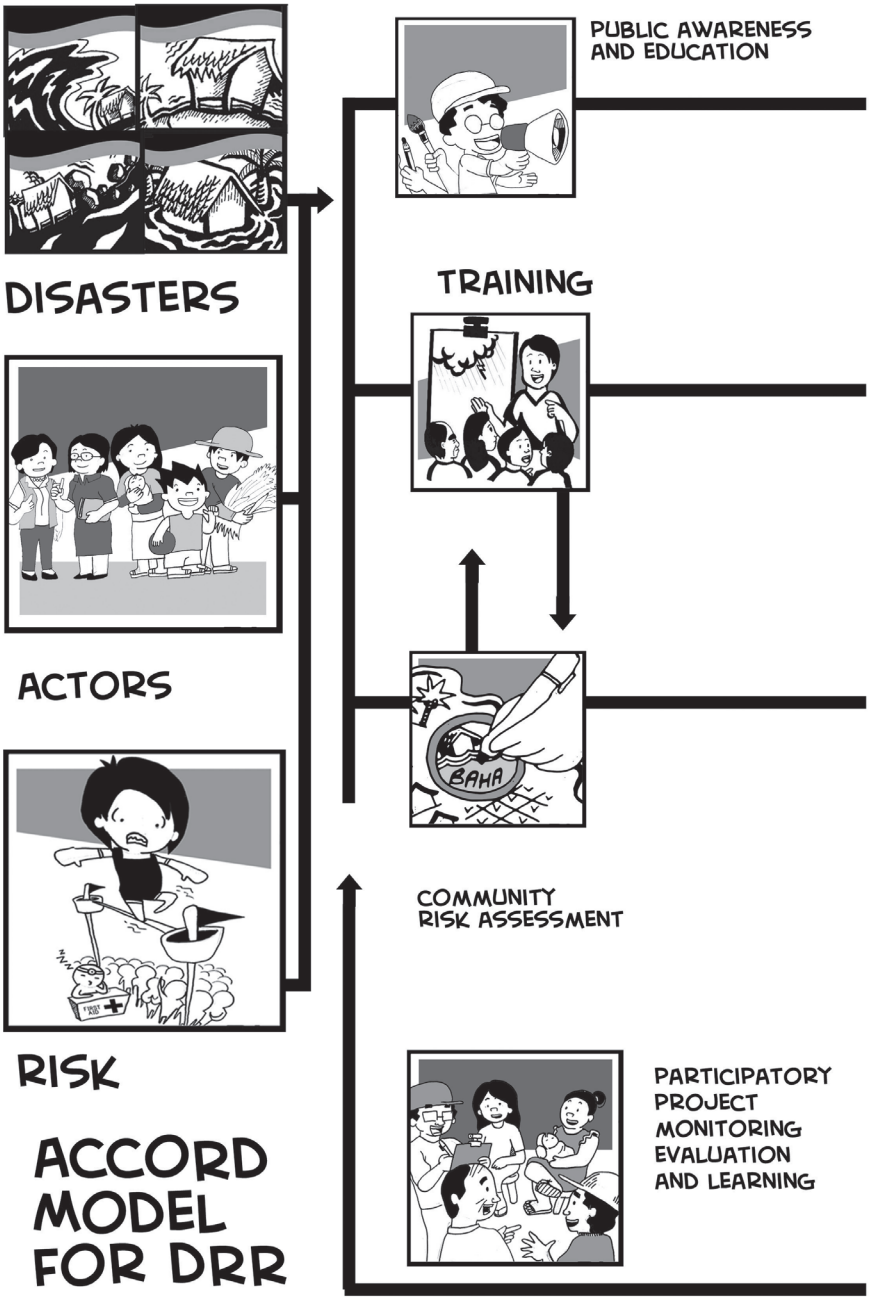
The ACCORD model for building resilient communities applies to situations where there is moderate to high level of risk existing in a community, or where a community has experienced an actual disaster. In the municipalities of Dingalan, Calabanga and Saint Bernard, CARE and partners initially responded to disaster events by implementing humanitarian assistance projects. Subsequent disaster risk reduction (DRR) actions have been built on these initial humanitarian response activities.

In more recent humanitarian response projects[1], DRR elements have been incorporated, laying a stronger foundation for future DRR programming.

In the municipalities of Maragusan and Jabonga, DRR programming started after assessments established high level of risk present in these areas.

Community risk assessment

The process of making communities safe and resilient from disasters starts with Community Risk Assessment (CRA). CRA, which is a continuing activity, looks at a community's possible hazards as well as its capacities


DISASTERS
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COMMUNITY RISK ASSESSMENT
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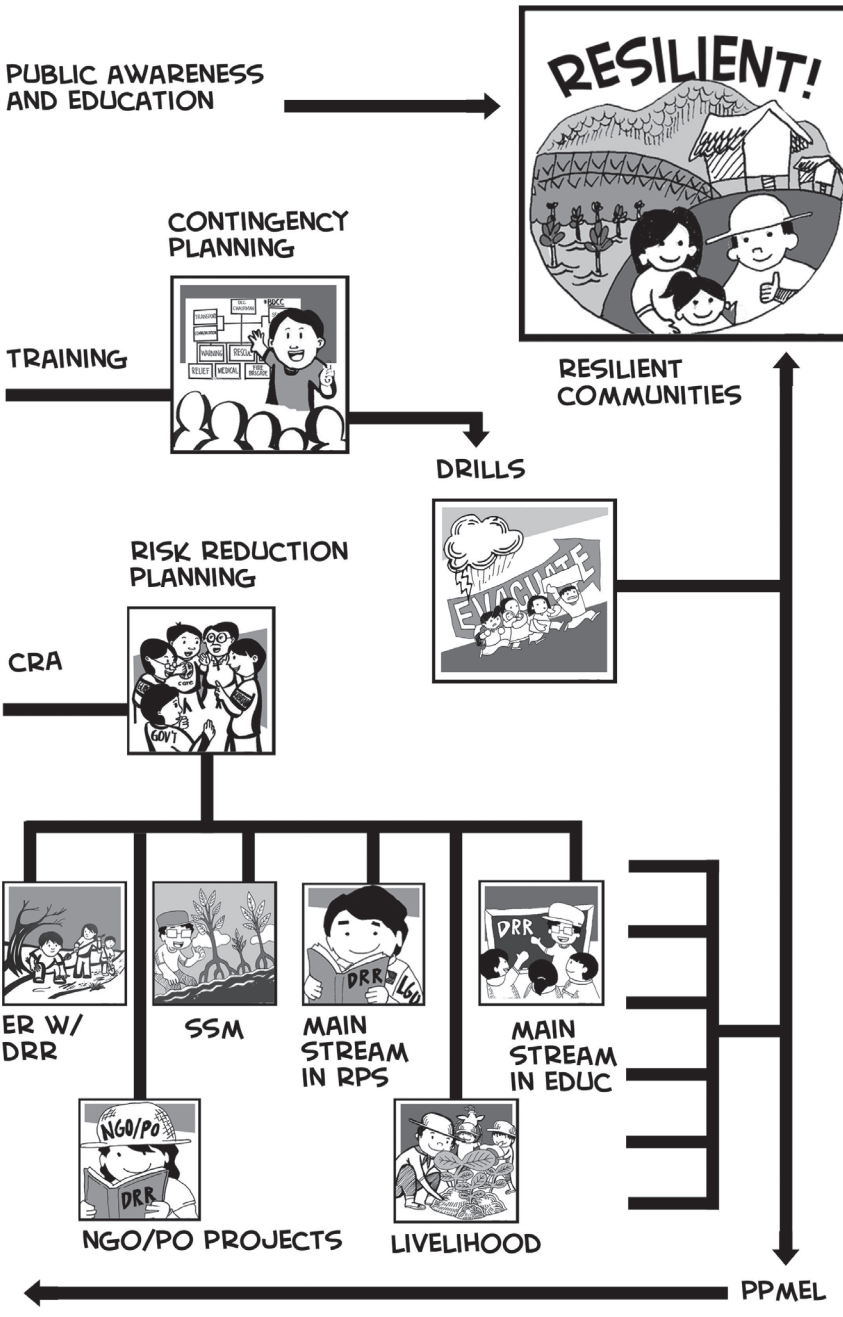
PUBLIC AWARENESS AND EDUCATION
RESILIENT!
CONTINGENCY PLANNING
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LIVELIHOOD
PPMEL

and socio-economic vulnerabilities. The initial CRA establishes the level of risk existing in a target community before the risk reduction process is started. This is essential as progress and success is measured against the level of risk established at the start of the process.

In recent CRAs, participants have been briefed about basic DRR concepts before actual assessments are conducted. Common understanding of basic concepts helps improve the quality of the CRA outputs.

CRA is closely linked with community training activities. Initial CRA outputs are reviewed and improved during training, such as in sessions on hazards, capacities and vulnerabilities in the community-based disaster risk management (CBDRM) module, and in the session on CRA in the

CRA in Bgy. Ayahag in Saint Bernard. CRAs are conducted to examine the levels of risk in communities and later serve as basis of suceeding DRR actions.

disaster preparedness module. The CRA outputs are again reviewed and finalized during the contingency planning workshops. At the end of a community training programme, the CRA is already completed.

The CRA is again conducted at the end of a project phase, and the outputs are compared with the findings of the initial CRA. This determines changes in the risk factors, including the progress in developing DRR capacities of targeted communities, vulnerable people, and local authorities.

CRA applies participatory methods, including tools such as hazard history, hazard assessment table, community risk map, capacities and vulnerabilities assessment, seasonal calendar, and pressure and release model. The participation of formal and traditional leaders, poor women and men, children and youth, the elderly and indigenous peoples are ensured in the conduct of CRA.

Community training

Community training is a key capacity-building strategy in the ACCORD model. During the first ACCORD project, a training manual was developed which consisted of four modules: (1) Community-based disaster risk management, (2) Disaster preparedness, (3) Contingency planning, and (4) Guide on conducting community drills.

Training content is standardized with the use of the manual. Adjustments are introduced by trainers to fit specific types of participants like community members and barangay officials, teachers and school authorities, officials and staff of municipal or provincial local government units, youth, or representatives from the private sector.

Aside from these four modules, other trainings address specific capacity-building needs of vulnerable groups such as training on first aid, project cycle management, leadership and financial management, theatre arts and other popular forms of raising public awareness. Also, there are trainings related to small-scale mitigation (SSM), early warning system (EWS), food security and nutrition, and water, sanitation and hygiene (WASH). Also offered are trainings to suit the needs of committees of the local disaster risk reduction and management councils (DRRMC).

Contingency planning, early warning, evacuation planning, and community drills

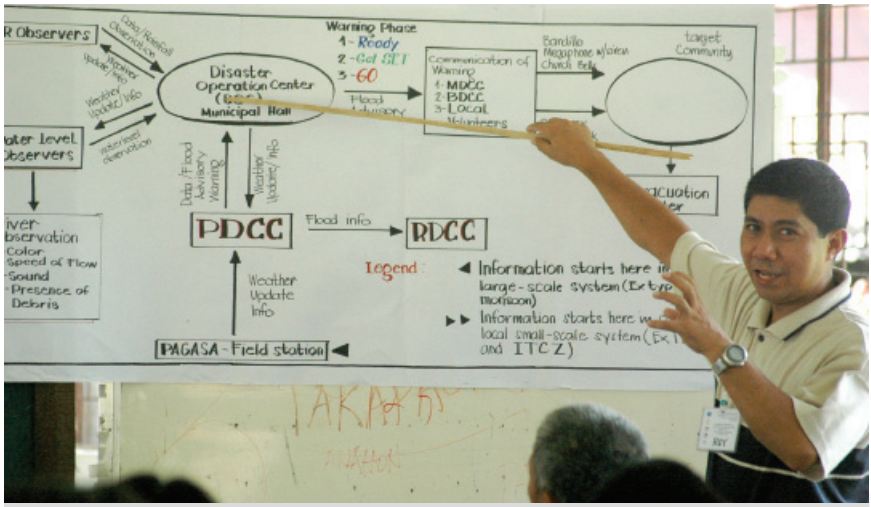
Closely linked to the training programme are contingency planning, EWS, and evacuation planning. A draft contingency plan results from the training programme and includes, among others, the risk assessment, worst-case scenario, EWS, evacuation plan, organogram (of the DRRMC), definition of roles and responsibilities, action plan, risk reduction plan, master list of community members, and directory of contacts.

The contingency plan and its component parts are developed through the training series and consolidated in Module 3 (Contingency planning). Follow-up workshops per committee or involving all committees of the DRRMC are conducted to complete the process. In facilitating community and municipal contingency planning, ACCORD has been successful in the "democratisation" of the DRRMC membership. In the past, disaster coordinating councils, the predecessor of the DRRMCs, were exclusively composed of officials who were occupying multiple positions, thus making the operations of committees ineffective. Now, DRRMC membership includes non-leaders and other community members coming from vulnerable groups.

By having a single EWS for all, coherence among the contingency plans of municipalities and their constituent barangays is ensured. Lack of coherence results in confusion and puts the effectiveness of the EWS in serious jeopardy. And since, in most cases, evacuation places are lacking, plans for evacuation have to be similarly harmonized. Risks can also be magnified when there is confusion during actual evacuations, with those affected not knowing where to go.

Contingency plans, EWS and evacuation plans are regularly reviewed and updated. Drills are conducted to test the effectiveness of contingency plans, and lessons are used to update contingency plans, EWS and evacuation plans.

Once completed, contingency plans are submitted to the appropriate legislative body for adoption and allocation of funding so that it can be immediately functional.



PAGASA weather services assistant chief Roy Badilla explains how to set-up a community-based early warning system during a training in Calabanga.

Public awareness and education

Public awareness and education activities are conducted to complement community training. To ensure effective training, the number of participants are limited to 25-30 persons. To reach more community members, public awareness and education activities are conducted either simultaneously, or immediately after the training activities.

The types of awareness activities vary from dissemination of information through posters, primers and flyers, to film showing, public forums, house visits and theatre presentations.

However, the school remains the key in public awareness and education activities because of its "multiplier effect," especially if correct information is disseminated among school children who share with family members and peers what they have learnt in school. Moreover, children, as one disadvantaged group, are most vulnerable in times of disasters, and thus needs special protection.

For this purpose, teachers in public schools located in high-risk communities are trained and provided instructional materials so that

they can conduct effective classroom discussions on DRR and CCA. To test effectiveness and further create awareness, intra-school and inter-school knowledge (Quiz Bee) and art competitions have been conducted.

To be effective, public awareness and education activities should be sustained and scaled-up for longer-lasting and larger impacts. ACCORD aims to achieve this through the integration of DRR in the school curriculum as a key aspect of mainstreaming in the education sector. Mainstreaming is cost-efficient in the long term, sustainable, and has the potential for scale and larger impacts. Mainstreaming also demands that existing laws and regulations defining the obligations of public school teachers and education officials are disseminated. In line with this, ACCORD has introduced to public elementary and high schools the

A student from Sabang Elementary School proudly shows her entry to the DRR artwork contest held July 2011.

Department of Education's "points of entry" to Philippine Elementary Learning Competencies and Philippine Secondary Schools Learning Competencies. The points of entry indicate where DRR and CCA can be discussed in the course outlines of subjects. At the same time teachers use the same points to develop their lesson plans.

Small-scale mitigation projects

With interest in mitigation works rising, communities design and implement small-scale mitigation projects that demonstrate how the negative impacts of hazards can be reduced. These projects also serve as incentives or rewards for communities who actively participate in disaster preparedness activities.

Intentionally small-scale, these mitigation activities can be implemented, maintained, sustained and replicated by communities. However, durable and sound technical design is also necessary to ensure its effectiveness. Aside from this, making use of locally-available resources and building on traditional or indigenous practices such as "tagbo" (in Saint Bernard) or "rabuz" in Calabanga (both refer to mutual aid practice of communities), enhance sustainability and replicability.

The first ACCORD project went for "hard" mitigation works such as gabions for flood and storm surge and retaining walls against landslide. Starting in ACCORD-2 and continued in ASCEND, natural resource management was demonstrated as a more sustainable approach to reduce disaster and climate risks. Types of mitigation activities implemented were mangrove reforestation, reforestation of erosion and landslide-prone slopes, and promotion of Sloping Agricultural Land Technology (SALT).

Mainstreaming Disaster Risk Reduction

To borrow liberally from Benson and Twigg,[2] DRR mainstreaming is considering and addressing risks emanating from hazards in (a) medium-term strategic frameworks and institutional structures, (b) country and sectoral strategies and policies, and (c) design of individual projects in hazard-prone locations.

For the ACCORD model, mainstreaming is done through implementation of both DRR projects as well as incorporating DRR in policies, programmes,

and projects. By the end of ACCORD-2, it was realized that having functional contingency plans at the community and municipal levels is not enough. DRR mainstreaming is deemed a must in order to achieve larger impact and sustainability.

Mainstreaming meant incorporating DRR in development planning processes such as those being done by LGUs in the Rationalized Planning System of the Department of Interior and Local Government (DILG). In this regard the Project Cycle Management approach is applied, and DRR is incorporated in all phases of the cycle, from the situational analysis or environmental scanning, to monitoring, and evaluation.

In the education sector, DRR mainstreaming achieves scale and sustainability by formally incorporating DRR in the school curriculum. Hence, working with the DepED in the area of curriculum integration is necessary.

DRR is also incorporated in the design of projects and activities. A case in point is Making Safe Food Available and Accessible to Rural Poor Households in the Philippines (Food Facility), a project funded by the European Union and designed to complement the ASCEND project. In the Food Facility project, DRR was incorporated in the design of food production and other livelihood activities, to reduce the negative effects of hazards on livelihoods, and to see to it that livelihood activities do not contribute to the intensification of vulnerabilities.

Humanitarian response

Disasters requiring humanitarian response occurred within and outside ACCORD locations. By using the ACCORD process, communities, local government units, and partner-NGOs (non-government organizations) become better prepared to respond to hazard events. They are able to reduce their losses and suffering due to emergency preparedness and capacity-building activities.

As DRR is mainstreamed in the design of response projects, the quality of humanitarian response is also evolving and consciously being linked to development. In particular, CARE and partners have been experimenting in the activity-linked modality of distributing assistance, either in the form of cash, food, agricultural inputs or semi-permanent shelter, whichever is

Households affected by the flooding in San Simon, Pampanga in June 2011 clear water hyacinths that obstruct Pampanga River and Panquiary Creek. In exhange for their voluntary work they received food relief assistance.

the most appropriate. Assistance is linked to the participation of targeted beneficiaries in activities that benefit the larger community, such as repairing or constructing small-scale mitigation works, clearing water channels of obstruction to minimize flooding, or repair of agricultural infrastructure or community waterworks. Targeted beneficiaries, whether individual households or groups, are trained to design humanitarian response activities that are feasible, and incorporate DRR and appropriate sustainability mechanisms.

Building partnerships

In community-based DRR, the most vulnerable groups are the primary actors. However, lacking in physical and material capacities, they need

all the support they can muster from groups and individuals who are better situated and have specific capabilities within or outside high-risk communities. These groups and individuals include scientists, technologists and academicians, teachers, students and youth, and professionals from the public and private sectors. Their assistance is mobilized to support various aspects of community-based DRR and CCA.

Private sector support is likewise solicited to help sustain community-based DRR and humanitarian response. The private sector has resources that can be mobilized to help reduce vulnerabilities and improve community resilience. The Corporate Network for Disaster Response (CNDR) is the key partner of CARE that organizes corporations and corporate foundations' support for humanitarian response and DRR actions.

CNDR has made significant advances in improving the general quality of the corporations and corporate foundations' humanitarian response. Particularly, these are in the line of coordinating response initiatives; in helping develop the emergency response capacities of some corporations; and in using SPHERE standards[3] as a guide in formulating and implementing their response.

CNDR was also successful in getting corporate support for DRR activities. For example, SMART Communications has supported mangrove reforestation activities. CARE was also successful in getting AXA Global to support the ASCEND project with significant financial contribution.

Sustainability

Community-based DRR comes with various sustainability measures. These include (a) working with local government units so that they can provide continuity for projects handed over to them, (b) mainstreaming DRR in the development plans of LGUs and the education sector; (c) strengthening capacities of community members, people's organizations, volunteers and local champions; (d) designing mitigation projects that are replicable and sustainable; and (e) spreading education and public awareness.

Aside from these, ACCORD takes special effort in training select community members, people's organizations and staff of LGUs on project

cycle management (PCM). They are provided knowledge and skills to design, manage, and sustain small-scale mitigation activities as well as community livelihood projects.

As the rights based approach is applied, the people are taught to claim services that are due them. This naturally puts local authorities on their feet. As the people, especially the poor, are given a "voice," they feel a sense of "owning" the project, hence their interest to sustain DRR.

Participatory planning, monitoring and evaluation, and learning

An equally important feature of the ACCORD model is participatory planning, monitoring evaluation, and learning. Participatory approaches are applied in all phases of the project cycle. Communities and local authorities are encouraged to collaborate in designing and planning of projects and activities. They also conduct regular monitoring to keep track of the progress of implementation and to timely address issues in an inclusive manner. Also done is mid-term and year-end community audits

Stakeholders meeting in Bgy. Sabang in Calabanga to consult/validate with community members the suitability of project activities

or evaluation, with lessons and good practices identified and documented for future actions and dissemination so that others may learn from these.

To a large extent, the ACCORD model's success is due to a continuous learning process – of learning from practice, not repeating mistakes, and enriching subsequent actions with lessons and good practices.

The ACCORD model applies participatory approaches to planning, monitoring, evaluation and learning as a means to promote and protect the right of vulnerable groups and communities to quality DRR and CCA services.

Notes

1. CARE International Emergency Response Fund, Philippine Tropical Cyclone Emergency Response, and Philippine Tropical Cyclones 2009 Shelter and Livelihood Recovery, all in response to tropical cyclones Ketsana (Ondoy) and Parma (Pepeng); and Activity-linked Food distribution in Response to Floods in Central Luzon, in response to tropical cyclone Meari (Falcon) in 2011.

2. Benson, Charlotte, John Twigg with Titiana Rosetto, *Tools for mainstreaming disaster risk reduction: guidance notes for development organization*, International Federation of the Red Cross and Red Crescent Societies and Provention Consortium, 2007, p.1.

3. Humanitarian Charter and Minimum Standards in Humanitarian Response, 2011 edition. The SPHERE Project.

2

Empowering Vulnerable Groups in DRR

Community-based DRR empowers vulnerable groups in high-risk communities to overcome socio-economic situations that expose them to hazards leading to unsafe conditions, to surmount the immediate causes (dynamic pressures) of unsafe conditions, and to address as well the root causes of vulnerability.[1]

Vulnerable groups in high-risk communities are at the centre of community-based DRR. They are the primary actors.

As a result of existing economic and political processes in society, vulnerable groups are those who have been denied or have limited access to power and resources. Hence, they lack the capacities to remove themselves from involuntary exposure to hazards and unsafe conditions. They are the poor farmers and fishermen, the urban poor, and indigenous peoples.

Next to the primary actors in DRR are the less vulnerable groups and individuals who also empathize and identify with the poor farmers and fishermen, urban poor and indigenous peoples. They feel morally obliged to assist vulnerable groups reduce disaster risks. To the less vulnerable

group belong teachers and academicians, scientists, technologists, engineers, other professionals from the public and private sectors, faith-based groups, youth and students.

Another important actor in DRR is the government, which apart from national government agencies also includes local government units. The government is the main duty-bearer in the delivery of DRR services.

Most vulnerable groups

Recurrent disasters drive poor farmers deeper into poverty as they lack the resources that can make them bounce back every time a disaster strikes. They do not own sufficient land or none at all, and often resort to borrowing agricultural inputs at usurious rates just to replace damaged crops.

Vulnerable groups in high-risk communities are at the centre of community-based DRR. They are the hardest hit by disasters and they have the strongest motivation to do DRR.

Also, poor fishermen are in a similar situation, with most owning no production tools and are deep in debt. At times, and for weeks, they are unable to engage in economic activities due to bad weather. Severely damaged coastal resources affect their livelihood, too. The economic

activities of farmers and fishermen are highly sensitive to weather conditions and climate changes.

The lives of indigenous peoples (IPs) are closely linked to their land. But their ancestral lands are constantly plundered by large-scale extraction of natural resources such as mining and logging. The resulting environmental degradation causes flashfloods and landslides that kill indigenous peoples and destroy their livelihoods.

Without a regular source of income, the urban poor or informal settlers eke out a living on a daily basis. Due to poverty, they are forced to live in high-risk places such as riverbanks, making them prone to floods and flashfloods, or in garbage dumps, exposing them to "garbage-slides." Living in these areas also exposes them daily to health risks. Informal settler colonies are also prone to fire hazards.

Regular exposure to hazards and to injuries and loss of life and property drives poor farmers, fishermen, indigenous peoples and informal settlers in urban areas to embrace community-based DRR. Though lacking in resources that could reduce their susceptibility to disasters, they often have social, organizational, motivational, and attitudinal capacities that can be harnessed in strengthening their resilience to disasters.

Different groups have different vulnerabilities, needs, and capacities. Among vulnerable disadvantaged groups are women, children, older people, and people with disability. With specific disadvantages, these groups may face barriers in accessing the services and support intended for them. They can be further marginalized if their differing needs are not recognized and barriers persist in their struggle to access appropriate services and support.[2] In community-based DRR, their vulnerabilities, needs and capacities are consciously identified so as not to be overlooked in the course of strengthening their resilience and that of high-risk communities.

Why are vulnerable groups the primary actors in community-based DRR? The vulnerable groups have the strongest motivations to make DRR effective and sustainable. They take action to save their lives and livelihoods that are at risk. During disasters, as they live within the disaster zones, they are the first to respond way ahead of others.

Community-based DRR affirms the principle that even the most vulnerable groups have capacities that can be harnessed for DRR. They may be lacking in material resources, but they have social and organizational capacities that are very important in humanitarian response in DRR, and in development programming as well. Community-based DRR recognizes the need to support efforts to building and strengthening people's organizations for communities to be able to effectively manage and sustain DRR actions. It also affirms that vulnerable people have rights, empowering them to claim their rights to humanitarian assistance and DRR services, and to life with dignity.

When their barangay hall was destroyed by typhoon Unding, Bonot-Sta Rosa Bgy. Chairperson Melvin Nebiar (4th fr left) temporarily held council meetings in her home. RBA and CBDRM acknowledges and builds on the existing capacities of communities to increase their resilience to disasters.

Less vulnerable groups

Lacking in physical and material capacities, the most vulnerable groups need to engage the support of groups and individuals located within or outside high-risk communities. Being less socio-economically vulnerable,

the latter are in a position to assist. They too are prone to disasters and can empathize with the situation of vulnerable groups.

With their expertise, the scientists, technologists, and engineers can assist in risk assessments, design of early warning systems, mitigation works, coastal and upland environmental rehabilitation, and other risk reduction activities.

Teachers in public and private schools can help develop awareness and propagate a culture of risk reduction within schools and in communities. The support of teachers is particularly essential in integrating DRR and climate change adaptation in the school curriculum. School outreach programmes can also be designed to support community-based DRR and CCA activities.

Since most are not yet tied to daily economic activities, and possessing the aptitude, creativity and vitality that is characteristic of their group, the youth and students have a special role in helping create public awareness in DRR and CCA. They can be mobilized for activities such as tree-planting and mangrove reforestation, construction and maintenance of gabions, clearing of drainage canals, and many others.

Professionals in the public sector, especially in local government units, can raise awareness within their ranks, and actively conduct internal advocacy for the design of explicit DRR and CCA projects. They can also mainstream programmes, plans and activities that support community-based DRR and community-based adaptation. And they can also push for local legislation and policies supporting DRR and CCA.

Corporations, corporate foundations, and professionals in the business sector can direct their material and other resources to support community-based DRR and adaptation. Their support can be broad, ranging from finance generation to involvement by their staff in mangrove and upland reforestation, to supporting community-based EWS, to retrofitting school buildings, to providing information, education and communications materials. Business groups, inclined to provide humanitarian assistance during disasters, can improve quality of assistance by developing their emergency preparedness plans and adopting humanitarian response standards such as SPHERE.

Role of government

Government is the primary duty-bearer in securing the lives and livelihoods of the people, especially the most vulnerable groups, from whom it draws its mandate. As hazards and disasters occur within the jurisdiction of local government units, the latter are considered the frontline service providers in humanitarian response, DRR and CCA. Government institutions at all levels have humanitarian response and DRR obligations.

Several laws have been passed urging the government to deliver humanitarian response, DRR and CCA. The most recent is the Philippine Disaster Risk Reduction and Management (DRRM) Act of 2010 or RA 10121. Another is the Climate Change Act of 2009. The Local Government Code of 1991 also mandates the delivery of DRR, CCA and humanitarian response at the local level. Even the Department of Education has issued a memorandum mainstreaming DRR in the education sector. The legal bases for DRR and CCA are extensive enough. These laws need to be implemented and enforced if DRR is to be strengthened.

The DRRM Law is driving the momentum for DRR in the country. The law provides for, among others, the creation of Disaster Risk Reduction and Management Councils at all levels, from the community up to the national government. Civil society participation is encouraged. A local disaster risk reduction and management fund is established, replacing the Calamity Fund. Five percent of a local government unit's internal revenue is allocated for the Local Disaster Risk Reduction and Management Fund (LDRRMF). In contrast to the Calamity Fund, seventy percent of the LDRRMF is allocated to disaster preparedness and mitigation, the rest to emergency response. This act also mandates the formation of DRRM offices at least at the municipal level. But the Law is not without its flaws, with no corresponding budget appropriation. Government units also cannot be held accountable for failure to uphold the law.

Given the law's shortcomings, the essential thing is for the government to have the political will and commitment to take a decisive role in protecting and promoting DRR and CCA as part of guaranteeing the basic rights of the people. This is good governance in DRR. However, this can happen only if vulnerable groups continue to claim their rights to quality DRR and CCA services.

Targeting vulnerable households and high risk communities

In implementing projects, how are high-risk communities or locations and vulnerable households and groups selected? ACCORD has a set selection criteria and process for targeting households, groups and communities that will participate in projects. The key selection criteria are level of risk, access to services, level of participation and support.

Level of risk – High-risk communities are prioritized over medium- and low-risk. Where a disaster has already occurred, the determining factors are: (a) number of population affected; (b) damage to agriculture, property and infrastructure; (c) the number of casualties; (d) internal and external resources available to the community; and (e) the extent of the socio-economic vulnerability of the affected population.

Access to services – Prioritized are communities that have less access to services compared to others. Distance from population centres

Gathering of IPs from Bontoc in Mt. Province who received housing assistance thru PTCSLR Project. ACCORD gives priority to households and communities that have less access to services.

and accessibility of locations are often factors that determine access to services. Far-flung communities often have less access to services.

Level of participation and support – Community participation and support of local authorities is also an important factor in targeting communities. Without strong participation and support, initiatives are likely to fail.

Targeting households within high-risk communities also make use of the three major criteria. How economically and socially vulnerable is a household? If a disaster has already occurred, what is the extent of its effect on a household?

Are there specific vulnerabilities that characterize the household, such as being headed by a woman or a single parent, or composed of elderly and members with disability? ACCORD gives particular attention to the participation of poor women and men, elderly, children, youth and indigenous peoples. ACCORD is also working on improving how it can respond to the needs of other disadvantaged groups such as persons with disability.

Has a particular household received more assistance from other sources compared to other vulnerable households? Is it supportive of the objective and implementation strategies of the project? Is the household willing to actively participate, or has good track record in participating in other community activities?

The selection process is made transparent by involving stakeholders in the selection process, often in a community meeting or stakeholders' meetings. Decisions are also documented for any stakeholder interested in the details of the selection criteria and process.

Notes

1. ACCORD subscribes to the Pressure and Release model (Blaike et al, 1944) in the definition and analysis of vulnerability and risk. Blaikie, P., T. Cannon, I. Davis & B. Wisner. (1994). At Risk: Natural hazards, People's vulnerability, and disasters. London, Routledge, 1994.

2. *Humanitarian Charter and Minimum Standards in Disaster Response*, The SPHERE Project, 2004.

Batoy: Fisherman, farmer and DRR champion

When you meet Batoy the first time, he appears to be an ordinary, unassuming man. He is Armando Torres but more popularly and endearingly called Batoy. He is only 37 years old.

Just like the majority of the people in his barangay, he comes from a very poor family but he was able to finish high school before taking on the role of breadwinner of their family. In between farming and fishing to feed his family, he started serving as the chairman of the *Sangguniang Kabataan* and went on to become a barangay councilor. Nobody thought that a few more years later, he would become one of the most engaged and inspiring community facilitators (CFs) of Bgy. Cagsao in Calabanga, Camarines Sur.

In 2004, when Calabanga was devastated by typhoon Unding, CARE Philippines and the municipal and barangay LGUs launched relief distribution in the coastal communities which included Bgy. Cagsao. With the success of its initial intervention, CARE initiated a disaster preparedness program in 2005 that focused on building the capacity of Calabanga and its barangays to become more prepared for hazards. This is where the story of Batoy started,

amid the backdrop of an equally inspiring story of his barangay – Bgy.Cagsao.

Batoy started-off as a volunteer. After his involvement in relief distribution, he participated actively in the series of trainings and workshops conducted in the barangay. He was also encouraging other community members to likewise be active. His leadership qualities did not go unnoticed and he was selected as one of the members of a Project Management Team (PMT) that was trained on Project Cycle Management.

The training was intended to develop their skills in designing and implementing a small-scale mitigation project. Batoy and his team went on to design and construct gabions. These gabions are now protecting the barangay from storm surges. Later on, the PMT led the whole community in implementing another successful small-scale mitigation project – mangrove reforestation.

Batoy explains to elementary school students how rain-gauges can help warn the community of possible flooding.

After typhoon Ondoy (Ketsana) hit the country in 2009, he was sent to Manila for two weeks to observe and be a member of CARE's Emergency Response team. He took part in the actual conduct of emergency response to affected families in Manila. With knowledge he gained from the experience, he was expected to share this and use it for the benefit of his barangay upon his return. Eventually, he was able to extend help up to the municipal level.

Because of his willingness to learn and his persistence at work, he was further trained to be a CF under ACCORD-2. Throughout the course of his training, he was considered as one of the most dependable. He took his lessons to heart and it showed with the way he conducts his duties as CF. He actively participated in the planning, implementation, assessment and development of all of ACCORD's activities in their community – trainings, early warning system development, contingency planning, drills, gabion construction, mangrove reforestation, and many more. In fact, he was leading the numerous activities of his community.

Batoy is also known as the Barangay Chairperson's partner. They were a formidable pair. Kap. Ramon (Monching) Sta. Ana, with his speech disability as a result of six strokes, had Batoy with him everywhere. Batoy could understand what Kap. Monching says and he translates this to others. Together, they would go from one house to the other, from one part of the village to another to explain to the community about the activities. Many attribute the transformation of Cagsao to the persistence of this pair.

But even with changes in the leadership in their barangay, Batoy's commitment did not waiver despite several politically motivated intrigues. He showed that his community was his priority and his volunteerism went beyond his political affiliations.

Despite the lack of a stable income to support his family, he has dedicated much of his time as CF. Community Facilitators do not get any honorarium and one wonders why the dedication. Batoy, like Kap Monching, had the ability to see clearly that to be able to change the course of their lives, they had to first learn how to

steer before they could help steer others towards the course they choose. That is why he was so absorbed with learning because no one, but he and his family and his community, will benefit from it in the long run.

Because of his training, positive attitude and very good working relations, he is now part of the ASCEND team. He leads the implementation of mangrove plantation in expansion areas. He said that after the project, he will remain a CF and will support the implementation of the municipal DRR plan which is focused on building the capacities of communities which were not previously covered by ACCORD, ACCORD-2 and ASCEND projects.

Batoy's story is the success story of DRR in Cagsao. That capacities can be developed and strengthened despite their crippling poor situation. Batoy's story is also the story of Cagsao's former Bgy. Kap Monching who had speech problems but never stopped discussing their plight and lobbying for funds for their water system. In 2010, after six years and more than a dozen funding proposals, Cagsao finally got their water system.

Batoy, Kap Monching and many more residents of Cagsao have inspiring stories to tell. From an ordinary, poor, and battered coastal community, it now boasts of an organized barangay disaster risk reduction management council, good working relations with the schools and municipal LGU, an updated contingency plan, volunteers, a thriving and healthy mangrove-filled coastline and a gabion that acts as the community's first line of defence from storm surge. But unlike Batoy, this coastal community no longer looks like any other unassuming and ordinary barangay in Camarines Sur.

3

Building the Foundation Through Community Risk Assessment

Community risk assessments play a very important role in community-based DRR. CRA provides the solid foundation upon which DRR activities are built. It is not a one-time activity but a process that determines the appropriateness of DRR actions which the community eventually implements.

Earlier community-based DRR projects were offshoots of humanitarian response to disaster events. CARE and its local partners had turned disaster events into opportunities to assess the risks, and humanitarian response as entry points for DRR. The local government units of the municipalities of Dingalan in Aurora, Calabanga in Camarines Sur, and Saint Bernard in Southern Leyte all became partners in DRR after experiencing major disasters.

CARE and partners also demonstrated that DRR could be implemented in high risk areas where no major disasters have yet occurred. Such is the case in Maragusan, Compostela Valley, where community risk assessment was utilized to establish the degree of risk, which then motivated its LGU, communities and schools to engage in DRR.

What is community risk assessment?

Community risk assessment is a participatory process that aims to gauge (a) the probability of hazards, and (b) the severity of its effects in a given community. Apart from these, it looks at people's socio-economic and political status in the community, as factors that largely determine the degree by which a hazard can affect them. CRA also consolidates and validates local experiences with scientific studies and outsiders' views to achieve a more realistic understanding of risks.

CRA serves many purposes. It provides important inputs to contingency plans of communities, schools and municipal local government units, and generates information for early warning systems and evacuation plans. It provides essential inputs to the design of small-scale mitigation projects. It also provides inputs to development plans of local government units, school improvement plans, design of community projects, and plans and projects of non-government and people's organizations.

CRA is also part of ACCORD's participatory planning, monitoring, evaluation and learning process. As a project starts, CRA provides baseline data upon which the success of a project can be measured. As the project arrives at mid-term or end-term, an updated CRA is used to measure the progress towards meeting set results and objectives. Results of the mid-term and end-of-project CRAs are compared to inception CRAs to evaluate a project's success in building DRR capacities and reducing vulnerabilities.

The CRA is not just a tool for participatory monitoring and evaluation; it is also a tool to raise people's awareness of risks. Drawing the vulnerable groups to participate already raises the awareness of the community regarding risks. At the same time, CRA is introducing tools in analyzing risks, and giving members of the community the chance to concretely understand their situation and collectively build a resilient community.

Aside from gathering baseline data, at its inception, the CRA aims to build the collective resolve of LGUs, communities, schools and people's organizations to pursue DRR. It also confirms if the initial design of a DRR project is appropriate so that timely recommendations and modifications can be set in place. For example, in ACCORD-2, the inception CRA revealed that on the average 60-70 percent of barangay officials in partner

communities were newly-elected and had yet to have trainings under ACCORD. Hence, full trainings instead of clustered refresher trainings were lined-up for each partner community.

Closely linked to community trainings, a CRA's initial outputs are used as instructional materials during sessions on understanding hazards, vulnerabilities, and capacities, as included in modules on Community-Based Disaster Risk Management and Disaster Preparedness Training. As a result, CRAs are improved and become the springboard of Contingency Plans (CP) and Risk Reduction Plans that are to be drafted by the communities.

Trainings aim to encourage the maximum participation of the different groups of the community—LGU officials, teachers, youth, the most vulnerable groups. Ultimately, this enriches the output of CRA until its full meaning is realized. Consistent with RBA, CRA also helps vulnerable groups realize their right to acquire correct knowledge on risks that affect them.

CRA in Saint Bernard. CRAs ensure that the voice of the most disadvantaged and vulnerable groups in the community is heard.

ACCORD's CRA Design

CRAs are carried out through community workshops. Non-leaders are invited to make sure that vulnerable groups are heard; approximately 75 percent of participants are non-leaders composed of men, women, elderly, youth, and indigenous peoples.

The LGU and representatives from all concerned barangays are also assembled to do the municipal-level CRA.

Community workshops are done step-by-step, starting with a substantial orientation on CRA followed by a three-tiered workshop. Orientation focuses on basic DRR concepts, aiming to produce quality CRA outputs by first having a common understanding of terms such as hazard, disaster, risk, vulnerabilities and capacities. The range of hazard categories is clarified as well as the range of factors that affect the degree of hazard impacts on people and communities.

Landslide susceptibility maps were consulted in planning for the relocation of families from Labey, Benguet who were affected by landslides late in 2009.

The three-tiered workshop that ACCORD generally uses, and discussed below, is picked out from a wide range of participatory risk assessment tools. These workshops are the (a) Hazard Assessment that covers hazard history/timeline, hazard assessment table, community risk map, and seasonal calendar; (b) Capacities and Vulnerabilities Assessment, and (c) analysis using the Pressure and Release Model.

Recently, climate change adaptation was incorporated in CRA by adding climate-specific questions to these CRA tools. Combined with climate-specific questions, the traditional DRR typology of hazards was also updated and now incudes climate-related hazards such as extreme rainfall and extreme temperature.

For materials and technical support during CRA workshops, ACCORD accessed hazard maps from PAGASA, PHIVOLCS and MGB. Copies were distributed to the municipal LGUs, communities, and schools, and ACCORD also organized municipal and community-level forums where these maps were presented. Again, the maps were shown during the session on 'understanding hazards' in the CBDRM Module and CRA session in Disaster Preparedness Training (DPT).

1. Hazard Assessment

Hazard Assessment determines the hazards likely to occur in a community, and examines its characteristics. The following tools are used in Hazard Assessment:

a. Hazard History

Hazards and disasters experienced by a community are plotted in a timeline called hazard history. Trends in frequency and degree of impact are also examined to predict the likelihood of a hazard occurring and the possible magnitude of impact. This tool provides a useful guide in identifying the worst-case scenario which is essential in developing a Contingency Plan.

In ACCORD and ACCORD-2, this tool was called Disaster History. With the integration of CCA, not only actual disasters but also climate-related events are recorded. This is an improvement and allows the capture of climate stresses not considered as hazards in traditional

DRR typology and of possible trends that may indicate climate change impacts.

b. Hazard Assessment Table

A hazard assessment table looks deeper into the behaviour of each hazard affecting the community. The frequency, duration, seasonality, and forewarning of each hazard is examined. The hazard assessment table is later utilized for devising early warning systems, among others.

c. Community Risk Map

A community risk map shows the areas where hazards are experienced, where they originate, and which community resources are at risk. While hazard maps generated by PAGASA, PHIVOLCS and MGB provide an overview of a geographic area's susceptibility to hazards, community-drawn risk maps illustrate in a more concrete and localized expression, the areas that are prone to hazard and the

Former SK Chairperson April Jane Combate explains the community-drawn hazard map of her barangay, Balatasan in Calabanga.

community resources that will be most likely affected by the hazard. A community risk map is a user-friendly and useful guide in designing evacuation plans and mitigation measures.

d. Seasonal Calendar

A seasonal calendar identifies the months in year when hazards occur and how these affect community livelihoods such as farming and fishing. It also examines the prevalence of seasonal ailments or sickness.

The seasonal calendar is a recent addition to the set of CRA tools. It was used in the Food Facility and the Philippine Tropical Cyclones 2009 Shelter and Livelihood Recovery projects. Both projects involved distribution of food production and other livelihood support activities. As DRR and CCA were being integrated in development initiatives, it was necessary to use a tool that will look into how production activities in communities are affected by hazards, including climate-related hazards.

Meanwhile, the schools' use of the seasonal calendar has demonstrated how they can carry out risk reduction activities such as securing school records in anticipation of hazard events. The seasonal calendar has also shown how the seasons affect the students' behaviour, health, and attendance in classes. For example, viral conjuctivitis or 'sore eyes' was identified as most prevalent during the cooler and wet months of the year. Students are expected to drop out during planting and harvesting seasons as they assist in productive or economic activities of their families.

2. Capacities and Vulnerabilities Assessment (CVA)

Vulnerability Assessment is the process of estimating the susceptibility of people, community facilities and services, livelihood and economic activities, the natural environment, etc. to various hazards and analyzing the causes which place them at risk. The assessment takes into account various long-term factors, which cause some people to be particularly exposed to the dangers of a given hazard while others are relatively protected.[1]

Capacities assessment looks at the same long-term factors and how these influence individuals, households, and communities' ability to cope with and recover from disaster events, and to engage in risk reduction activities. Aside from looking into the constraints, the ACCORD model puts equal emphasis on identifying capacities and building on these. ACCORD recognises that vulnerable and disaster-affected populations are not totally helpless victims; rather, they possess capacities which must be optimized to address their vulnerabilities and increase their resilience.

Often, workshops on CVA took up a lot of time since community participants were not used to them. CVA workshops are conducted per sector or group so that their specific concerns will be taken up among other community issues, hence covering the community as a whole. However difficult the workshops may seem, these raise the participants' awareness and motivate them to address existing vulnerabilities.

3. Pressure and Release Model (PAR)[2]

PAR helps the community understand and analyse the complexity of their vulnerabilities. PAR guides community members in understanding the factors that place them in unsafe conditions, and the immediate causes of the unsafe conditions. The PAR also teaches communities not to be limited to superficial analysis but to look at the root causes of why communities are in unsafe conditions.

In ACCORD's experience, earlier CVAs come up with a fragmented image of the communities' vulnerabilities and capacities. When the Pressure and Release model was added recently, it improved the analysis of CVA. It has shown that to attain resilience, and lasting impacts, the root causes of vulnerabilities have to be addressed.

Communities find the PAR model by far the most difficult tool to use for analyzing vulnerabilities. However, by introducing the progression of vulnerability in simple terms, with concrete examples from the community, participants are able to make a deeper analysis of their vulnerabilities. In the progression of safety, communities focus on the smaller and simpler actions that they can do to effect change. While this is being done, actions that need to be undertaken to effect long-term benefits and fundamental change for the community are also identified.

Lessons learnt

CRA is a painstaking process. Nonetheless, it should still be accomplished because the succeeding course of action depends on CRA results. These results find development and completion not in the initial or mid-process but until the project's end. More importantly, the development of the community's capacity decides the success of the project.

- **Participation of vulnerable and disadvantaged groups strengthens the quality of community risk assessments.** Through their involvement in CRA, their needs and aspirations are considered and their "voices" heard. As they participate, they enhance their understanding of risks as well as their capacities. Participation also helps build community ownership of the CRA outputs and of the DRR-capacity building process.

CRA in Bgy. Himbangan in Saint Bernard. CRA also ensures that the views of different sectors in the community are considered.

- The situations of communities change over time. For this reason, **CRA should be conducted on a regular basis to determine if the risk reduction measures are still appropriate.**

- In light of the changing situations, **the CRA design itself should also be updated regularly.** The CRA design discussed above is the result of a continuing learning process. Revisions and updates have constantly altered the original design of ACCORD to include community experiences and knowledge.

- One of the challenges in the course of modelling ACCORD is how to incorporate CRA in situational analyses where development plans are based. **In order to mainstream DRR in development planning processes, it is necessary that hazards and risks are explicitly taken into account in situational analysis (and in all phases of the project cycle).**

- CRAs are important in hazard-prone communities to determine risk reduction measures and protect lives and livelihoods. **But for CRAs to become more accurate and useful, the experiences of the community must be combined with studies and viewed through scientific methods.** The government, of course, has the prime responsibility to do this which, in layman's term, means recognizing the rights of communities to be informed about matters affecting their lives. The challenge, however, is on the availability of scientific information. This is particularly true in relation to climate change information.

Notes

1. Understanding vulnerability: ensuring effective and appropriate response, http://www.globalcrisissolutions.org/libraries/understanding_vulnerability.pdf.

2. Blaikie, P.,T. Cannon, I. Davis and B. Wisner. *At Risk: Natural hazards, people's vulnerability and disasters*. London. RO utledge, 1944.

r = h x v / C

Going through a community risk assessment is a journey of discovering facts. These facts are about the hazards and risks that affect a community. Of understanding that disasters are caused by the interplay of physical, social, economic, and even attitudinal factors. Of knowing or realizing that actions can help curb the harmful effects of hazards.

Community risk assessment is a complex activity. The 'pseudo' formula R = H x V / c (RISK = HAZARD x VULNERABILITY / capacity) illustrates that to reduce risks, vulnerabilities must be minimized and capacities strengthened. Thus, aiming for a reduced risk, r =h x v / C (risk – hazard x vulnerability / CAPACITY), means increasing capacities. CRA also opens up and considers other perspectives, even if different from ones that are long-held. It challenges a community to discern actions that can be implemented and truly benefit their community.

Initial risk assessments in Compostela Valley revealed that the municipality of Maragusan is high-risk to landslides and floods. Hence, three of its most vulnerable communities, barangays Magcagong, Mahayahay and Katipunan, were included in ACCORD-2, and eventually, in ASCEND projects.

At the close of ACCORD-2, Barangays Magcagong and Mahayahay have developed their initial contingency plans, though without a "worst-case scenario" and minus a drill to test it. During ASCEND, a CRA workshop was again held among Municipal Disaster Risk Reduction and Management Office staff, barangay officials and barangay community facilitators in Maragusan, Compostela Valley in January 2011, to review and improve their initial findings. This was what happened.

An-an, one of the CFs of Barangay Magcagong, after completing the workshop with some community members, expressed anxiety and in resigned manner said that there is not, after all, a safe location in their barangay should strong and continuous rains cause massive landslides and heavy floods. In ACCORD-2, she went through the hazard timeline, hazard assessment matrix and risk mapping for their community, but seeing the risk map raised her fears as landslides and flooding can really eat up

Installation of water-level gauge in Maragusan, Compostela Valley

their community resources. Being a really committed CF, An-an already knew that her barangay was high-risk to landslides and floods but never realized that it could get that worse. Knowing the economic situation of her community, she was at a loss how an evacuation centre can be set up for all barangay members. Further discussions, however, told her of safe places outside her barangay and, with the help of the municipal LGU, they can identify and develop their contingency plan. Experts from the government's Mines and Geosciences Bureau can also strengthen their findings and advise them of appropriate steps for their community.

Yeyen, a staff of MDRRMO, really appreciated the workshop on tools for hazard assessment, particularly the matrix which bared the behaviour of the hazards that frequent their place. She valued, for example, how frequency, duration, seasonality and forewarning of the hazards can shape the municipality's early warning systems. Maragusan is a mountain municipality, where the mouth of the Agusan River starts. The volume of rain that falls here acts as a warning for floods and flashfloods in low-lying municipalities. In fact, Maragusan's location and capacity to develop and manage its EWS will prepare those living in low-lying areas within and outside their municipality to protect and manage themselves. Echoing the anxiety of An-an, Yeyen and the other members of the MDRRMO felt unsure about meeting the demands of setting-up and managing an appropriate EWS for communities perennially experiencing floods and flashfloods.

Community risks assessments are indeed a journey, a process of understanding the risks that, in the end, must be confronted. A single workshop does not make a plan. Hence, the question of what and how to confront the issues is a continuing concern.

In the discussion on capacities and vulnerabilities assessment and, eventually, in the Pressure and Release model, Yeyen and An-an have started to gain insights on the underlying and root causes of their vulnerabilities. Realizing that Barangay Magcagong hosts a large-scale banana plantation in Maragusan, and that

Maragusan is a growing mining community, too, they know now that aerial spraying and mining do contribute to the degradation of their natural resources, eventually increasing risks not only to landslides and floods but also to others like health.

It may take a while before the communities fully understand the risks they face. Future CRAs and public awareness activities are necessary to inform and generate awareness among members of these communities. This is the objective of CRA which must be done so that risk reduction measures or projects can truly protect vulnerable communities.

So many things still need to be done but the process of knowing and understanding has allowed the CFs, barangay officials and municipal staff to see their communities in a "different" light. The fear and anxiety of discovering grim facts about risks and hazards have slowly but hopefully given way to a behaviour that can prompt obligations and responsibilities. So much so that when the rains fall and the Agusan River flows to the sea, people are forewarned and their carabaos do not drown without their knowing it. Similarly, they can be kept alert on the wastes and chemicals that mining and aerial spraying might dump into the river, flowing as it is to irrigate farms and to the sea, eventually wreaking havoc on farm products and marine life and destroying a greater number of lives.

4

Enhancing Capacities Through Community Trainings

The ACCORD model's main capacity-building strategy is training. Community-based trainings have been proven effective in increasing awareness and education, encouraging action, and strengthening community cohesion. All these elements are essential in building disaster-resilient communities.

Community-based trainings serve as venue for solving problems, changing attitudes and shaping behaviour. Activities that introduce correct, relevant, and appropriate information leave lifelong changes on the lives of people. Especially for vulnerable groups and high-risk communities where services barely reach them, community trainings are prized for acquired knowledge and skills that protect lives and livelihoods.

ACCORD training programme

ACCORD's training programme is designed specifically for vulnerable communities to better prepare them for hazards. It has four modules[1]:

Module 1: Community-based Disaster Risk Management (CBDRM) – The first of the series introduces participants to basic DRR concepts,

principles, and frameworks. It introduces basic concepts of DRR such as hazards, disaster, vulnerability, capacity and risk, and emphasizes how these concepts relate to, and affect, each other.

There are five sessions in this module. A whole session is devoted on how CBDRM and Rights-Based Approach complement each other and how essential this complementation is in implementing quality DRR programming. This reflects the premium CARE puts on RBA and CBDRM as a means of creating long-term changes, especially at the community level. A session on climate change and climate change adaptation is the newest addition to this module and completes the participant's general view of DRR and CCA. The module ends with an introduction to contingency planning as an immediate measure to reduce risks.

Module 2: Disaster Preparedness Training (DPT) - While CBDRM provides the basic knowledge in understanding DRR, the second module introduces the skills needed by communities to prepare for disasters. Sessions such as CRA, EWS, Evacuation Planning, Evacuation Centre Management and Public Awareness and Education

Disaster Preparedness Training in Bgy. Panian in Saint Bernard.

are introduced through lecture, exercise and workshop sessions that enable participants to enhance their capacities and increase their preparedness. The participants are introduced to concepts and methods of reducing risk that encourage the use of scientific and indigenous knowledge and highlights participatory processes.

After a series of workshops, participants are expected to come up with a draft of the major parts of their contingency plan. Likewise, an earthquake drill, which is one of the various exercises introduced in the module, is conducted.

Module 3: *Pagbubuo ng Contingency Plan* (Developing the Contingency Plan) – This module translates knowledge and skills acquired from the first two sessions to developing and completing a community's contingency plan. Serving as guide, the module teaches the community to have a plan appropriate to their needs and capabilities.

This module is conducted differently from the first two modules. Module 3 has a series of workshops by community members, from the municipal and/or barangay officials and others such as teachers, and representatives from the vulnerable groups (senior citizens, women, youth), whose respective knowledge and experiences are valuable in the formulation of the community's contingency plan. The initial outputs from the workshops under the DPT module are reviewed and improved based on the actual data from the community.

Module 4: *Gabay sa Pagsasagawa ng Isang Community Drill (*Guide to Conducting a Community Drill) - This module, as its title implies, guides the community on the different phases of conducting a community drill. It provides important steps in preparing, conducting, and evaluating a community drill. It also provides helpful tips for those who will supervise the activity.

The four step-by-step modules are conducted on a regular basis through refresher sessions. Repetition is necessary to deepen the understanding of concepts and how these are put into practice. This is consistent with the principle that learning takes time, and so is the process of unlearning and discarding long-held beliefs that are actually myths. An example is that disasters are random killers and people affected are victims not capable

of helping themselves. More importantly, through constant practice, and regular review of practice to learn from it, the community is motivated to develop its disaster resilience, thus empowering it even further.

A sub-module on **Training Management** is conducted for key community members who have potential, interest, time and commitment to help implement project-related activities. This module helps develop community facilitators, who also learn the technical aspects of designing, and implementing a community training.

Other training activities are also implemented depending on the needs of the community.

Project Cycle Management (PCM) is conducted at the municipal level where each barangay is represented. Participants eventually learn that projects have equally important phases and that they can make simple project proposals and execute them well as a result of the PCM training.

During ACCORD and ACCORD-2, PCM trainings were designed to enhance the capability of the participants to develop proposals. The intent is to enable the community to design other projects similar to the small-scale mitigation (SSM) projects and identify fund sources, for example, through a Donor Mapping research.

By the third phase of ACCORD (ASCEND), with the Food Facility project complementing it, PCM trainings were geared towards developing livelihood projects. PCM trainings also ensured that DRR is incorporated in the design of the projects, including developing better production management arrangements. Together with PCM, trainings on Leadership and Basic Financial Management are conducted to further strengthen the capacities of participants.

Other training activities are designed based on identified needs, and conducted to equip various projects and activities with the right knowledge. Trainings to implement DRR activities include committee-specific trainings of local DRRMCs, trainings on emergency preparedness such as First Aid, production-related trainings such as goat-raising, trainings on sustainable agriculture, and others. Committee specific trainings also touch on disaster needs and capacities assessment, emergency health, and supplies management systems.

Training participants

By design, ACCORD's trainings give priority to vulnerable groups. In fact, only a third of training participants are leaders, and the rest have no voice and status to even get invited to major community activities. As prime actors in DRR, the participation of the most vulnerable groups in the community – poor women, elderly, youth and indigenous peoples -- is ensured in the project. To maintain quality of trainings, each session limits the number of participants to 25-30. Giving maximum participation to all groups in the community, especially to the most vulnerable, is in accordance with RBA. This empowers them to assert their right to life with dignity and enable them to decide on matters affecting their lives.

ACCORD's training programme recognises the government and less vulnerable groups as important actors in community-based DRR. Hence, municipal and barangay officials are targeted to attend trainings to represent the main duty-bearer, as well as teachers (schools) and other local leaders who can help sustain DRR activities. These groups, with potential and actual capabilities, can share what they have learnt from their trainings to their colleagues and other members of the community.

ACCORD trainings are adjusted to suit the profile of the target participants.

A common sight during trainings, participants attend with their young children.

Facilitating learning

A manual usually serves as the general guide in the conduct of trainings. Without compromising content and still sticking to set standards, trainings are adjusted to suit specific requirements of municipal officials, barangay officials, school heads and teachers, community members including the youth.

The sessions are written in Filipino, using simple terms for easy, applicable and comprehensible learning. Simple illustrations and other visual representations allow the community to better understand concepts and retain information.

Simple illustrations and local language are used in community trainings to facilitate easier learning.

Through the years, the training sessions have been translated into Bicolano and Bisaya languages for appropriate use in the project areas and to facilitate easier comprehension and application. The translation is largely a product of the efforts of community facilitators who wanted to make sure that community members fully understand what is being discussed.

The content of the training modules are contextualized, and area-based examples are used to explain difficult concepts. Aside from the training manual, instructional materials designed for ACCORD and ACCORD-2 are improved further for ASCEND. Flip charts, photo sets, flyers, brochures, video clips, and film shows were developed as learning aids. Some are made of low cost materials to show to the community that they can make their own visual aids and these need not be expensive.

For this reason, the use of flip charts and photos is preferred in community trainings. Power point presentations are discouraged because they can be intimidating and the community is unable to replicate the technology due to lack of resources, not to mention perennial problems of power outage in rural communities Power point presentations are best used in trainings attended by teachers and municipal staff.

Best practices

The three phases of the ACCORD project bore several good practices that enhanced the conduct of community trainings:

1. Creating a core of community facilitators. CFs, as they are called, are community members who have shown a deep interest in DRR and have a continuing desire to learn, are committed to give a lot of their time and service to the community, and are willing to actualize their respective potentials for various activities.

At the start of ACCORD, the concept of CFs was based on the idea of developing community trainers. They were chosen based on their potential to learn and conduct trainings, but later it turned out that not all active and committed CFs have the skills to be trainers. This discouraged other volunteers who were initially interested to participate in the activities. Similarly, other CFs had other capacities that were overlooked, not maximized nor strengthened. With this, the project had to redefine its strategy of creating the CF core in every project area and recognised, instead, that every CF has something to share, that each has unique capacities to contribute to various kinds of activities.

CFs serve as the project's link to the community. Through them, the project staff is able to develop closer relations with members of the

community, and vice-versa. CFs represent a group who manifest a high level of initiative by volunteering their time, knowledge, and resources for a project that benefits the whole community. They become sources of inspiration for others who also want to help in disaster resilience and risk reduction.

In ACCORD's experience, CFs have not been limited to mothers and adolescents. Also volunteering as CFs are barangay officials, *Sanggunian Bayan* members, municipal employees, teachers, school principals, and even Mayors and Vice Mayors. With no thought of financial rewards but armed only with a high spirit of volunteerism, they help ensure the success of the project.

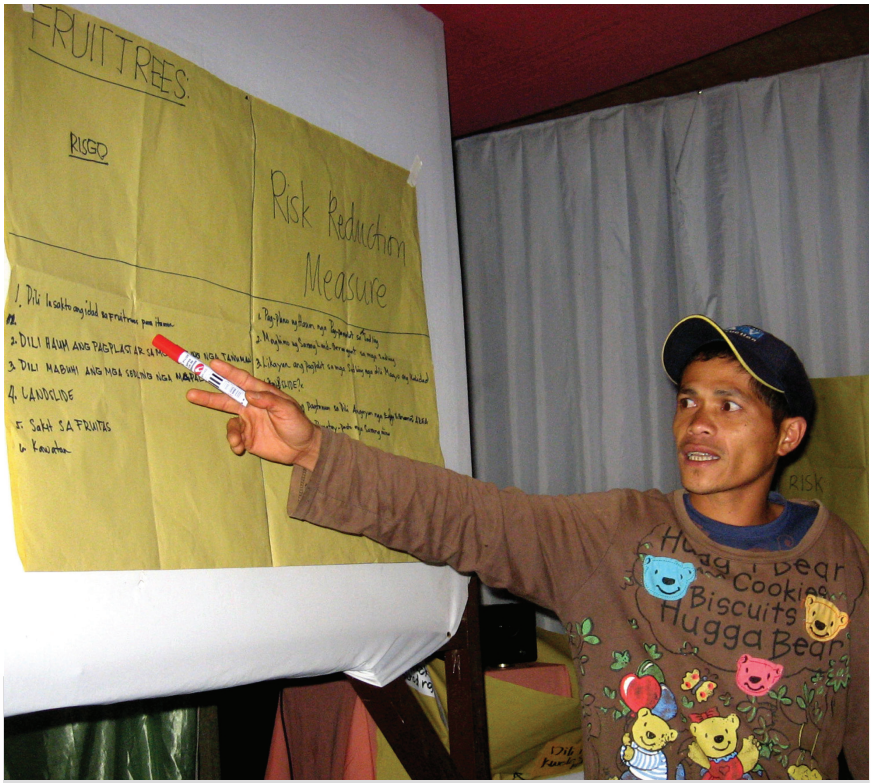
2. What helps facilitate learning and unlearning to solve the community's problems is the use of adult learning principles in the overall design and implementation of training activities. Adult learning is based on the belief that "much of what we learn is not an outcome of formal teaching but comes from a process of self-development and through experience". Adult learning principles are guides to help trainers understand how adults view education: that education is never neutral; education is a problem-solving process, and that education is appreciated based on its relevance to the adult participant.[2]

3. Ensuring that the most vulnerable groups of the community are represented has further enriched DRR. This perspective contributed to improving and refining subsequent DRR strategies and actions.

4. The training program is dynamic. Experience and lessons learnt are integrated through module redesign and/or development. The community has related to actual experiences so much so that lessons learnt from doing DRR actions are easily integrated into the content of modules, particularly in improving strategies, tools and processes.

5. Observing no shortcuts and avoiding the "pwede na" (settling for mediocre) attitude require participants to go through all the modules in a step-by-step manner. Analysis, decisions and actions done by the community in Modules 3 and 4 are better understood after getting past Modules 1 and 2. Also to avoid misinterpretation and misapplication extra effort is given in repeating explanations and definitions.

6. ACCORD's training program follow certain procedures for the training of community facilitators. Basic training processes ensure not just a standard, but an appropriate design for various types of training. Training needs assessment (TNA) is conducted prior to training and serve to guide the training team to adjust to the needs of participants. A team, which includes CFs, develops the training design, schedules, and identify the resource persons. To ensure that training is sufficient, session plans are evaluated and the training team holds dry runs so that each resource person or facilitator can be certain that only correct information gets to the participants. A pre-test and post-test helps determine the impact of training; also daily feedback forms and training evaluation forms are issued to improve actual conduct and even content of training. Hand outs are also provided, and participants have been observed to review these in their homes.



Education is a problem-solving process: A participant of PCM Training in Maragusan discusses DRR measures for their production acitivities.

ACCORD's difficulties

Running a training program has its difficulties, too, such as:

1. Finding a common time for all participants. The most common and difficult issue to resolve is finding the right time and place that does not "interfere" or conflict with one's economic activities. It takes time before participants, especially from the most vulnerable groups, could trade-off a day or two of their livelihood activities for DRR trainings or risk reduction measures that would, in the long run, protect their livelihoods. It has been observed that meetings and trainings conducted at night, or after working hours, are highly appreciated by the community.

To minimize interuption to the people's livelihood activities, ACCORD trainings and meetings are conducted at the community, sometimes during evenings.

2. Preparedness trainings are sometimes blamed for creating unfounded fears. Especially observed at the start of ACCORD, the project staff were branded as "alarmists" by first time participants. By the end of ACCORD-2, however, one of those who cried alarmists[3], admitted her error and said that knowledge of DRR has helped reduce her fears especially during typhoon season.

3. Putting emphasis on rights and obligations, and searching for sustainable and lasting solutions to vulnerabilities, has resulted in the training team being branded as "leftists" or communists.

4. At times, trainings have become too rigid or too mechanical like conducting training for its own sake. In such cases, the training staff have to be more creative and sensitive, informative and not intimidating to would-be participants, especially those who do not know how to read or write.

5. At the start of training, teacher-participants expect experts, no less, to be the resource persons. But during sessions such remarks can affect the confidence of CFs and younger trainers knowing that they do well.

6. Giving out incentives can pose a problem. In the early phase of ACCORD, volunteer-CFs had expected some amount of incentives as this is the practice of other NGOs in some areas. Without incentives majority of volunteers backed out of ACCORD. But the few who stayed did so painstakingly and later influenced others to become volunteers, too.

7. It is difficult to sustain the number of participants from the start of the training until the afternoon sessions. This is true at all levels – barangay, municipal, provincial-- and even in schools. It is also not feasible to schedule only half-day sessions just to accommodate some who could not attend the whole day.

Lessons learnt

ACCORD's training program is the foundation of its DRR work. When likened to building a house, it is the foundation that either breaks or stands up to tests of resilience. ACCORD's training program provides a strong framework due to its combination of knowledge and skills, methodology, and its advocacy for CBDRM and RBA. These frameworks and approaches have helped communities, LGUs, and teachers aim for the provision of quality DRR services.

Indeed, seeing the transformation of CFs, barangay captains, *kagawads*, *Sangguniang Bayan* members, Mayors, Vice-Mayors, LGU employees, teachers, retired principals, health workers, mothers, and ordinary

community members into active community volunteers and DRR champions, is proof of the effectiveness of ACCORD's capacity-building strategy.

This is no more appreciated than by the most vulnerable groups as the training program recognises its responsibility to provide information to them. The training modules are not static but dynamic, a living document that continues to be updated in order to provide appropriate, helpful and timely information for its target audience. To date, the published version of the manual has already undergone several revisions and improvements after having been subjected to several social practices. It is a product of years of shared experiences and learning from the vulnerable communities which ACCORD has worked with. It went through a process of consolidating the experiences of CARE's involvement in the Philippines as well as in similarly situated countries like Tajikistan, Nepal, and India. It also made use of the valuable CBDRM lessons from previous involvements of key staff from other NGOs.

The process of learning is started by increasing and strengthening the capacities of communities to reduce the negative effects of hazards. To facilitate the learning process, it incorporates the elements of participation, of contextual learning and community-based examples, of developing capacities of community members, and of continuous and repetitive exercises. These are processes to ensure that training activities are meaningful and useful, not merely classroom activities. This is a two-way learning process between the trainers and the community members.

Experience with the three phases of ACCORD has proved that not all members of a high-risk community will give equal appreciation to trainings. There are those who, despite repeated participation, still have low appreciation of the training activities. Repitition is necessary to allow those who are slow in appreciating the trainings, as well as, open new opportunities for the next attendees. Repeat trainings also enable others to have a firmer grasp of concepts, and as a way to include new entrants in the community, particularly, newly-elected members of the barangay councils or new municipal officials. Meanwhile, municipal Mayors, Vice-Mayors, *kagawads*, barangay chairpersons, teachers, principals, and other members of the community, who all showed varying degrees of appreciation for capacity-building activities such as trainings.

ACCORD's training program has no illusion that it can change attitudes and behaviours in a few years. Indeed, the learning process takes time and in varying paces, in varying situations. It emphasizes a continuing responsibility that must not end at the end of the training program. Through the core of CFs, ACCORD's capacity-building program has become sustainable and may, in the coming years, further help shape a culture of safety among vulnerable communities.

Despite her advance age, Gorgonia Sta. Maria from Balatasan in Calabanga, actively participated in the activities conducted by ACCORD.

Notes

1. Refer to "Pagsasanay sa Disaster Preparedness at Contingency Planning," *in* ACCORD Project 2007 Training Manual, for the complete version of the four modules: *(1) Community Based Disaster Risk Management; (2) Disaster Preparedness; (3) Pagbubuo ng Contingency Plan; and (4) Gabay sa Pagsasagawang isang Community Drill.*
2. Based on Paolo Freire's three basic principles on education, as discussed in the Training Management session.
3. She was a daycare worker in Bgy. Davil-davilan in Dingalan, who participating and completing the ACCORD.

"CF: Si Anna, Si Ronnie at marami pa sila"

In 2007, eight women – mostly mothers -- assembled in the ACCORD office that fateful June morning for the first-ever training for community facilitators in Saint Bernard. It was unforgettable. Of the 25 individuals invited, only eight showed up.

They all looked a bit unsure and quiet after realizing there were only eight of them. Most of those who backed-out had issues regarding honorarium which they claimed was a customary practice of other NGOs but which was not the case for ACCORD. When the project staff decided to push through with the training, despite the majority backing out, the remaining eight stayed throughout the 5-day training. They were all women – a grandmother, two teachers, a church worker, a barangay nutrition volunteer, a daycare worker, a community member, and a college student. Seven were mothers who stuck it out till the last day.

Four years later, of the eight, six stayed on and are still active in varying levels. The other two are still around but not as active. Of the six, two stood out to become more than what was expected of them.

Anna was one of them, 46 years old, mother of five and a daycare worker for 20 years. She was one of the more ebullient trainee-CFs. She would giggle every time she mispronounced some words and was so unsure of herself during her first practice-teaching experience.

Today, Anna can discuss almost all of the sessions of the different training modules of ACCORD. She has gained confidence by using good examples from the community's experience to clearly explain DRR concepts. She has also helped translate to Bisaya the session plans. Now, her name is synonymous to "DRR expert" in her barangay.

She's not all that, she has also gone places. Anna is part of the training team in Saint Bernard who would go out of their way to conduct DRR trainings in the island of Limasawa. Through her and other CFs, Saint Bernard has replicated the ACCORD project within its municipality. The same is true with other municipalities which requested assistance for DRR.

In June this year, she attended a Department of Social Welfare and Development (DSWD)–UNICEF regional training in Bacolod. The training focused on RA 10121 or the Philippine Disaster Risk Reduction and Management Act of 2010, climate change

Anna with her day care students.

adaptation, supervising and managing children affected by disasters. In that conference, she was regarded as a DRR community advocate and a resource person on community-based DRR. Among other daycare workers in the whole province of Southern Leyte and in her community, she was the one asked to help the DSWD in re-echoing the conference on DRR.

She strongly believes that the ACCORD project needs to expand to other barangays and other municipalities because people need help to reduce their vulnerabilities against frequent hazards. She knows of neighbouring municipalities who know nothing of DRR but also want to learn. When she was informed that the project can no longer be extended, she took the challenge of taking the task of replicating and sharing the ACCORD experience.

She said she has learned so much from her involvement with the project, and the experience has changed her as a person. Because she has gained so much knowledge and experience from the project, she feels it is also her obligation to share this through trainings which she believes can change lives for the better.

Ronnie, mother of two and former barangay nutrition volunteer, was also one of those who stayed. Though known as the silent one, she exuded the strength of a woman one can rely on. She demonstrated how much she is willing to contribute for a cause. She was one of four barangay nutrition volunteers, with all four sharing the P450/month honorarium for the position of nutrition specialist. But she was replaced as a nutrition volunteer in December 2010 by their Barangay Captain allegedly due to political differences.

During her first practice-teaching, she stood in front like a block of ice -- cold and stiff. She could not stop crying during the first training, as she remembered the deadly Guinsaugon landslide which she fears might happen again anytime.

From then on, Ronnie has learned so much by helping conduct trainings in different barangays. She said that knowing about the

situation has helped her overcome her fears, realizing that the community can do something to reduce its vulnerabilities.

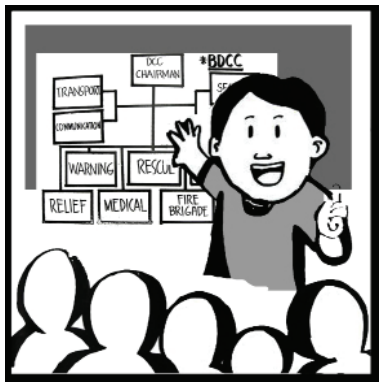
Today she thinks that being a CF has made her somewhat of a community organizer. She has taken it upon herself to continuously be of service to her kababaryos by explaining and helping them understand what she has learned about DRR. She feels the need for them to understand DRR and so has helped in translating the training modules to Bisaya.

Ronnie looks at herself as a community educator. She willingly and tire lessly shares everything that she has learned from the project through the conduct of training courses in their municipality, going as far as the municipality of Limasawa.

Ronnie and Anna, and many more of their kind in the different project areas, are among those who have selflessly devoted time and effort to be part of the journey to change the lives of other equally poor people in vulnerable communities. Ronnie is happy that she can serve her community through DRR; earlier, she thought she had to be a nutrition volunteer to be able to serve. She sums up the idea of what they as CFs have become by saying that they have served as 'tulay' or bridges of the project to their communities. Now it's time to help build more bridges so that other communities like Limasawa can become more resilient.

Ronnie during one of the many trainings where she served as resource person.

5



Contingency Planning and Drill: preparing for what can go wrong

Another means for increasing disaster preparedness of communities is through contingency planning. Contingency planning aims to enable communities, schools, and local government units to respond to an emergency situation in an effective and efficient manner. It focuses on finding a realistic disaster scenario and making corresponding arrangements in advance to enable appropriate and timely responses[1].

A written emergency response or contingency plan is important during emergencies. The lack of it could translate emergency situations to general chaos and panic.

Contingency planning by government units at all levels is required by the Philippine Disaster Risk Reduction and Management Act of 2010.

In ACCORD's model, local government units, communities, and schools draft their respective contingency plans after going through trainings in community-based disaster risk management and disaster preparedness. Early warning and evacuation systems, which are essential components of CPs, are also designed. The CPs are then regularly tested for their effectiveness through drills or simulation. Actual hazard events are

also occasions for testing the effectiveness of CPs. Lessons learnt from these drills and actual hazard events are used to update and improve contingency plans.

Legislative bodies are invited to pass legislation adopting the contingency plans to make it a legal obligation for those concerned to implement them. A legislative action can also include the allocation of funds.

ACCORD's template

Below is the Contingency Plan template of ACCORD. It is largely patterned after the format prescribed by the National Disaster Coordinating Council (NDCC).[2]

1. Risk assessment
2. Objectives
3. Concept of operation

    a. The Disaster Risk Reduction and Management Council and Disaster Risk Reduction and Management Office
    b. Early warning system
    c. Evacuation plan
    d. Emergency policies and guidelines
    e. Action plan

4. Annexes

1. Risk assessment

A contingency plan begins with an analysis of the existing risks in a community, a municipality, or a school. It summarizes the results of the community risk assessment. This section of the CP also establishes the worst-case scenario, on which the contingency plan is based.

2. Objectives of the contingency plan

The objectives describe what preparations are needed to respond to a worst-case scenario, and the benefits for the community when disasters are minimized and effective response is delivered on time.

3. Concept of operation

This explains the systems and activities needed to achieve the objectives of the contingency plan.

a. The Disaster Risk Reduction and Management structures

Ensuring the efficiency of disaster risk management and emergency operations means that coordination lines and delineation of roles are clear-cut. The CP should therefore spell out the structure and functions of DRRMCs[3] and DRRMOs. These bodies are mandated by the Philippine DRRM Act of 2010 to develop and lead the implementation of DRR programs and activities, including contingency planning and emergency management. The roles of civil society organizations and participation of vulnerable groups should also be clear.

CPWS in Maragusan. Ordinary members of the community who have training, aptitude, and have committeed to help in DRR were encourged to enlist as members of DRRMCs.

b. Early warning system (EWS)

It is the system of giving accurate, useful, and timely information so that members of the community can prepare, act timely and appropriately to reduce the possibility of harm and loss.[4] EWS is the heart of contingency planning. It gives the signal when to evacuate to safer areas.

c. Evacuation plan

This explains when, who, and where the community should transfer to in an emergency situation. It should also guide the community on how to evacuate and manage the evacuation centre systematically.

d. Emergency policies and guidelines

As the title implies, this part spells out the key guidelines during emergencies to avoid escalation of crisis. Some important policies or guidelines formulated by partner LGUs refer to the chain of command, implementation of forced evacuation, criteria for use of resources, and transparency of relief delivery operations.

e. Action plan

This describes the steps or activities for achieving the objectives of the CP. These activities are culled from the functions of the DRRMCs and the gap analysis done.

4. Annexes

Other useful documents are annexed to the CPs including the following:

a. Detailed CRA results
b. Hazard susceptibility maps and community-drawn risk map
c. Evacuation map
d. Master list of all residents in the community ; this is necessary for monitoring during evacuation and distribution of relief assistance
e. Directory of key persons and organizations to be contacted for assistance during emergencies

A continuing process

Contingency planning is not a one-off activity that ends with the development of written plans. It is a continuing process of putting together the plans, implementing them, testing their effectiveness, regularly reviewing them, updating them, and communicating their contents to the community.

1. Trainings and workshops

Contingency planning takes off from the trainings on CBDRM and disaster preparedness. In the CBDRM training, frameworks, approaches and concepts are clarified. These are fundamentals that would be constantly referred to in all succeeding DRR activities. In the disaster preparedness training, community members learn relevant practical skills like the conduct of CRA, drafting early warning systems, evacuation planning, and conduct of public awareness activities and drills.

The CRA session in the disaster preparedness training serves to improve the results of the CRA done during the inception. From the CRA results, risks are ranked according to their likelihood of occurrence and severity of impact. Risk-ranking guides the formulation of the worst-case scenario, with a corresponding needs and gaps analysis done. The worst-case scenario and gap analysis are then used as the basis of the contingency plan.

The disaster preparedness training also serves as the initial step to systematically organize the DRRMCs and the DRRMOs. The training session on DRRMCs serves as the communities' orientation on the structure and functions of the different task units of DRMMCs. This guides the LGUs and communities in setting the qualifications for DRMMC and DRRMO membership and staffing.

Inviting non-leaders to participate in the trainings was a deliberate measure. Once trained, these non-leaders later qualify to become additional members of the DRRMCs. They are also expected to help in DRM activities regardless of changes of elected officials.

Guided by the CRA, early warning systems and evacuation plans are also drafted in the disaster preparedness training. At the community level, the lead time, as established in the hazard assessment table, informs the formulation of EWS. Old, practical and indigenous ways of warning can be combined with available scientific information to formulate the community-based early warning system (CBEWS). Communication protocols are also established. Likewise, possible evacuation centres are identified and master lists of household members are prepared for monitoring purposes during evacuation.

2. Synchronizing and setting-up emergency systems

The information and systems developed at the community level are consolidated and harmonized with the setup at the municipal level.

Early warning system

The community-level and the municipal-level EWS are harmonized so that warnings at both administrative levels are consistent and will not cause confusion, and that monitoring and warning dissemination activities are complementary. The community-level EWS provides information on actual conditions in a specific community. The municipal-level EWS collates information from different communities and is combined with information from other official sources such as PAGASA, PHIVOLCS, Office of Civil Defense and the provincial government. This information guide immediate decisions that would translate to appropriate warning.

Since flooding and rain-induced landslides are common in the project areas of ACCORD, the project worked with PAGASA to pilot the establishment of manual rain-gauges and water-level gauges. Rainfall and water-level

Installation of rain-gauge in Maragusan. ACCORD helped partner municipalities establish community-based early warning systems.

observers were trained. Readings from these gauges are incorporated to the practical and indigenous ways of warning to develop community-based EWS. To facilitate flow of information between the barangays and the municipal LGUs, the project acquired radio communication equipment. Rainfall and water-level readings in upland areas are reported to the base station located at the town centre. The base station then forwards the information to low-lying barangays to warn of possible flooding. For rain-induced landslides, thresholds are still being set by recording rainfall readings and plotting these against actual incidents of landslides.

In Calabanga and Maragusan, the LGU also tapped the *Kabalikat-Civicom,* a socio-civic organization, to be part of the early warning system. Both LGUs are allowed to use the organization's base and mobile radio stations to relay warnings. To disseminate warnings at the community-level, communication devices like megaphones and bells were acquired.

Evacuation plan

The evacuation plans are also harmonized at the municipal-level. In most cases, communities need to evacuate outside of their barangays

Municipal-level evacuation planning in Saint Bernard

during emergencies. In Saint Bernard for example, at least 70 percent of its land area has been declared by MGB and PAGASA as susceptible to rain-induced landslides and/or floods. Prolonged heavy rains therefore present a challenge common throughout the country – lack of evacuation facilities that can accommodate all possible refugees. As a response, the barangay and municipal LGUs jointly negotiated with institutions like the schools, churches, even private individuals whose facilities and homes may be used as evacuation centres. Evacuation to neighbouring municipalities is also being explored.

With schools and churches as the most common evacuation centres, their staff are also oriented on evacuation centre management. These organizations were also enlisted as members of the Evacuation Task Units of the DRRMCs.

Using schools as evacuation centres also has its setbacks. As the case in Saint Bernard, evacuations that last from days to weeks significantly interrupt classes. School facilities also get damaged. These matters should therefore be considered in evacuation planning.

Preferential attention is given to the vulnerable groups and individuals in evacuation planning. In some areas, the residence of persons with disability (PWDs), the elderly, and pregnant women, are marked on the hazard map to prioritize them in the evacuation process.

Emergency policies and guidelines

Emergency guidelines should likewise be consistent between the barangays and municipal LGUs. Based on experience, use of resources (for example, calamity fund) and distribution of relief goods are usually controversial. To minimize this, the municipal LGU and the barangays set guidelines on when barangays can expend their resources, when they can access funds from the municipal government, and what criteria should be used in the selection of beneficiaries for relief assistance.

3. Drafting the Contingency Plan

With risk assessment and emergency systems harmonized, series of Contingency Planning Workshops (CPWS) are conducted. Aside from those

who participated in the CBDRM and DP trainings, other members of the community who are and have agreed to become additional members of the DRMMCs are also invited to the CPWS. In CPWS, the draft CRAs, EWS, evacuation plans and DRRMC composition and tasks are validated and refined. The objectives of the CP and emergency policies and guidelines are also formulated. Action planning is carried out per DRRMC task unit.

To finally consolidate and write the CPs, technical working groups (task force) are formed. They are usually composed of selected LGU officials and staff, CFs, teachers and other residents who fare well in writing. The CPs are written in the language understood by both leaders and ordinary members of the community.

5. **Public awareness activities**

A contingency plan becomes functional only if the entire community understands and abides by it. Hence, public awareness activities are conducted to let the wider community know the CPs. At the barangay-level, *purok* and barangay assembly meetings are conducted. These activities also serve as venue to further validate and improve the contents of the CP. The members of the DRRMCs and DRRMOs introduce themselves and explain their duties and functions. They also present to the community the results of the CRA like the hazard maps, risk-ranking and worst-

Former Cagsao Bgy. Secretary Domingo Aguilar, also a CF, explains the Contingency Plan of Bo-not Sta. Rosa to its villagers during one of the purok meetings.

case scenarios. The EWS, evacuation plan, emergency policies are also discussed. At the municipal-level, representatives from all constituent barangays are invited to validate the municipal CP.

Copies of the EWS, evacuation plan, and DRRMC structure are also posted in strategic locations. Complete copies of the CPs are also filed in the LGU offices so they can be accessed by anyone, anytime.

6. **Drills**

Community drills are conducted to test the appropriateness and effectiveness of the CPs. Drill designs are developed based on the identified worst-case scenarios. To look into how the EWS, evacuation plan, the DRRMC and the whole community functioned, other barangays, municipalities, government agencies and NGOs are invited to observe the drills. Assessment sessions are conducted after the activity to cull out lessons which will guide the revision of CPs.

Participation in drills means that the people will not be able to attend to their livelihood activities for at least half a day. Hence, some villagers hesitate to participate. To address the issue, information drives about the drills are also carried-out. Staff and CFs usually make house visits to explain the importance of the drill. The *purok* and barangay assembly meetings where the CPs were presented are also utilized to orient the people on the importance and mechanics of drills. In ACCORD, t-shirt printing is a proven effective public awareness activity for drills.

7. **Updating the Contingency Plans**

CPs are based only on informed estimate of what may happen since local situations change. The behaviour of hazards may also be altered in light of climate change. Hence, contingency planning is really a continuous process. In the ACCORD Model, follow-up CPWS are therefore conducted regularly, at least once a year. Lessons drawn from the drills and from actual emergency events are utilized to bring the CPs up-to-date.

8. **Implementation**

To operationalize its systems like EWS, evacuation plan, DRRMC and emergency policies, the respective legislative bodies adopt the CPs. This

measure will also provide funding for the action plans of the CP even as the DRR is not yet fully mainstreamed in the development planning processes of LGUs.

Lessons learnt

- Contingency planning may not be able to pinpoint the exact situation and the responses that will be needed in a disaster event. The worst-case scenario may not be realized after all. It maybe that the actual emergency situation exceeds the anticipated worst-case scenario, as proven in the case of Saint Bernard in early 2011. But these are not excuses to be lax and forego emergency preparedness. Contingency planning remains an effective approach to better understand the local risk situation, systematize emergency procedures, and enhance the cohesiveness and confidence of the community to face critical situations. Contingency planning can minimize the effects of hazards to people's lives.

- Regular rainfall and water-level monitoring remains a challenge. Some observers may not be as faithful in reading the rain and water-level gauges as the others. Novelty of the system could be a reason for this, and it is also true that at the community-level, use of scientific methods has yet to become popular. Still, EWS can be established. Scientific methods are important especially since climate change and environment degradation is altering the typologies and behaviour of hazards. However, communities also have their own practical and indigenous warning systems. Hence, while scientific ways and the culture of preparedness are gradually being introduced, these practical and indigenous methods may also be optimized. These approaches can complement each other to develop a more comprehensive community-based early warning system.

- Contingency plans should be regularly reviewed, updated, and practiced through drills. This way, the communities can easily recall and grasp the contents of the CP. Regular updating is also necessary considering that situations change and new sets of government officials are elected regularly. In this way implementation of the action plans in the CP is monitored.

- Contingency planning, while important to reduce possible damages brought about by hazards, should be carried out together

with other longer-term DRR. A written CP does not guarantee complete implementation. Farmers may still choose to stay in the mountains despite threats of landslides. Likewise, fisherfolks may opt to fish amidst inclement weather. Community members may still engage or tolerate livelihood activities like logging and quarrying which obviously harm the environment and increase disaster risks. Implementation of the action plans in the CP remains a challenge. Hence, besides contingency planning, other DRR and CCA strategies should be promoted like mitigation, mainstreaming in local development planning and sustainable development.

Typhoon drill in Punta Tarawal. An elderly woman who played the role of PWD is being carried by members of the BDRRMC Rescue Team to the motorized boat that will bring her to their designated evacuation centre.

Notes

1. Adapted from United Nations International Strategy for Disaster Reduction (UN ISDR) definition, 2009 UN ISDR Terminology on Disaster Risk Reduction, May 2009.
2. *Contingency Planning for Emergencies, A Manual for Local Government Units*, United Nations High Commissioner for Refugee Liaison Office Manila with the National Disaster Coordinating Council-Office of Civil Defense, May 2003.
3. The preceding law, Presidential Decree 1566, called these DRRMCs as Disaster Coordinating Councils or DCCs.
4. Adapted from United Nations International Strategy for Disaster Reduction (UN ISDR) definition, 2009 UN ISDR Terminology on Disaster Risk Reduction, May 2009.

"Kabalo na mi!" (Now we know!)

The bells ring at rapid intervals. Women, children, youth, elderly, and men make their way to specific locations within the village, referred to as the pick-up points. Bringing some food, drinking water, clothing, blankets and sleeping mats, they wait for the vehicles that would transport them to their designated evacuation centres. Members of the Evacuation Unit of the Barangay Disaster Risk Reduction and Management Committee are supervising the process, ensuring that everyone responded to the warning. Meanwhile, members of the Rescue Unit are assisting those with special needs like the sick, elderly, persons with disability, pregnant women, and those with young children.

Earlier, the bells were rung at measured intervals. The BDRRMC quickly convened an emergency meeting and concluded that the whole village must be alerted for possible evacuation. The Early Warning Unit announced on megaphones that the downpour was expected to continue. They advised that it's very likely that in a few hours, the whole village will be submerged in deep flood-water and the bridge leading to the town centre may become impassable. Members of the Damage Control team made rounds in the area, clearing waterways and drainage canals.

Upon arrival at the evacuation centres, the assigned room marshals from the Evacuation Team had the evacuees sign their names on the master list to confirm that those who were supposed to be there were actually present.

It was a community drill. At least 1,200 individuals from Barangay Panian in Saint Bernard have participated in the activity conducted on September 3, 2011. People from seven other barangays did the same and are now housed in their designated "evacuation centres." Some were in other schools, others in churches, and some in designated private homes.

The drill was conducted to test the Contingency Plans of the participating barangays and that of the municipality. It aimed to practice and test the effectiveness of their early warning system, evacuation plans, the Disaster Risk Reduction and Management structures and the readiness of the people. For Panian, this drill was their second. Their first time was during ACCORD-2, in 2009.

Panian and other communities in the municipality have experienced hazards and disasters in the past. It has become a

Residents of Bgy. Panian during their community flood drill.

"normal" part of the people's lives. However, at the time, there had been no systems that guided the emergency response. "*Sa una, wala pa mi kasabot kung unsay buhaton. Ang BDCC nakasuwat lang sa bungbong sa Barangay Hall*" (We did not fully understand what to do back then. The Barangay Disaster Coordinating Council (BDCC) was just an organizational structure displayed on the wall of the Barangay Hall), said Punong Barangay Ruperto Rafols. He was on his second term as barangay chair when Panian became part of ACCORD-2 Project. Prior to that, he served as barangay councillor for three terms.

Kap Rafols, as he is fondly called, admitted that before ACCORD, members of the BDCC did not understand how to guide their constituents during emergencies. There was no local warning system. People left their homes for safer grounds only when floodwater was already high. Without an evacuation plan, they were also scattered around the village, with no way of monitoring if a family has been swept away by the water and had gone missing.

Kap Rafols (centre) as he addresses his constituents during the drill.

In ACCORD-2 however, Panian has conducted Contingency Planning activities. Led by their soft-spoken but very active and well-respected *Kapitan* (chairperson), barangay officials, and selected health workers, tanod, "senior citizens," youth, and men and women community members went through training in CBDRM, disaster preparedness, and Contingency Planning. In DPT, they understood the duties and functions of the different task units of the BDCC. They also established that the worst situation that could happen and which they need to prepare for is "*mabilis at malawakang pagbaha na may isang metro ang lalim at tatagal ng isang buwan dulot ng tuloy-tuloy na pag-ulan at pag-apaw ng Panian River*" (fast rising flood affecting a large area of the barangay that will stay as long as one month due to the continuous rains that will cause the overflow of the Panian river).

Based on the identified worst-case scenario, the community drafted an early warning system. A rain-gauge and water-level gauge was installed in Panian, which also forms part of the municipal-level warning system of Saint Bernard. Among all the EWS stations in the municipality, Panian is one of the most faithful in its duties. Rainfall and water-level reading has become one of the standard tasks of barangay officials during their weekly turns as "official-of the-day." Those who fail to record and report the readings are fined P150 per day. As a result, Panian is gradually establishing localized rainfall thresholds for floods.

The community also formulated their evacuation plan. Contrary to their practice in the past, they decided that they will evacuate outside of their barangay should the worst scenario happen. This way, they avoid the risk of being isolated from the rest of the town and consequently, isolated from any form of help. Together with members of the Municipal DRRMC, BDRRMC members from Panian successfully negotiated with administrators of Saint Bernard Central School and the privately-owned Cristo Rey High School that the latters' doors be opened for Panian residents during emergencies. Now Panian has an evacuation plan complete with room assignments for each household and designated room marshals.

Upon completion of a draft Contingency Plan, the BDRRMC then organized purok meetings to validate and explain to their constituents the contents of the CP. These activities served as their first test on familiarity of their duties. With hand-written guides held by hands shaking in nervousness, representatives from each task unit stood in front of their village folks to introduce the members of their respective teams and explain their duties and functions. The Warning Task Unit also explained their EWS while the Evacuation Team discussed the evacuation plan.

With the whole village informed of their Contingency Plan, Panian prepared for a drill. Kap Rafols and the Communication team of the BDRRMC led the coordination work. They prepared and disseminated letters to invite other barangays and the Municipal LGU to observe their first community drill. Lessons from their first drill were used in updating their Contingency Plan.

When heavy rains poured over Visayas and Mindanao, late in December 2010 until January 2011, Panian and the rest of Saint Bernard had the chance to actually execute their Contingency Plans. In Panian, the rain gauge and water-level gauge were monitored as often as 3-4 hours interval. Even before the MDRRMC called for evacuation and before the landslide incident in Barangay Bolod-Bolod, Kap Rafols had already called for an emergency meeting of the BDRRMC. Bracing for the floods, the Warning Unit made rounds of the barangay to alert the people for possible evacuation. Twenty-one households from the most at-risk areas in Purok 2 were initially accommodated in other private homes, in preparation for a potential full evacuation.

"*Bentahe gayud nga nag-Contingency Planning mi kay sa panahon nga parehas niadtong January, mas kabalo na mi unsay angayan buhaton*," (It is really fortunate that we have undertaken Contingency Planning so that on occasions like what happened in January, we already know what to do), Kap Rafols concluded.

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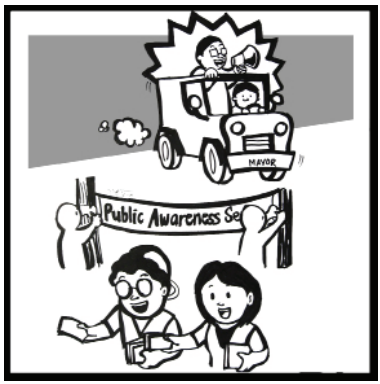

Public Awareness and Education

Reducing risk and vulnerability to disasters requires building the capacity of the people to understand how they can best protect themselves, their properties and their livelihoods. Sharing and using information and knowledge through awareness-raising and educational initiatives achieve this understanding.[1]

Raising public awareness is crucial in reducing disaster risks. In DRR, public awareness refers to the extent of common knowledge about disaster risks, the factors that lead to disasters and the actions that can be taken individually and collectively to reduce exposure and vulnerability to hazards. Increasing public awareness can be done, for example, through the development and dissemination of information through media and educational channels. It can also be achieved through community or participatory actions. Advocacy can also contribute to increased public awareness.[2]

ACCORD and Public Awareness

The ACCORD model sees raising public awareness as basically, the people's right to correct and timely information and knowledge about disaster risks, including corresponding actions that reduce exposure and vulnerability to hazards. It views that the government has the primary obligation to increase public awareness.

Awareness-raising activities begin as the CRA process is initiated in a community. The community takes part in analyzing the risks present in their place. The dissemination of hazard maps generated by PAGASA, PHIVOLCS and MGB was one of the first major public awareness activities of the first ACCORD project. Municipalities were provided with copies of the hazard maps, while sessions to interpret and analyse them were organized with the concerned government agencies and the local government units.

Training and contingency planning activities have also contributed to raising public awareness. However, only a few people can participate in these. Thus, it is the community drills that is treated as major public awareness activity. Here, copies of the contingency plan are distributed to community members, and simplified versions of the EWS and the barangay's evacuation plan are distributed and explained to all households. Prior to a drill, a series of community meetings, house-to-house campaigns and distribution of information materials are conducted. In this way, ACCORD gauges their readiness to respond during emergencies.

Another key awareness activity is small-scale mitigation projects as community members are engaged to assume stewardship role. Trainings are conducted to explain to the stakeholders the importance of small-scale mitigation projects. Technical inputs as well as sustainability strategies are also discussed.

The increasing interest on climate change is another area for public awareness activities. Different media are used to discuss the issue on climate change and its link to disaster risk reduction. These include art contests, youth camps that focus on clarifying and increasing knowledge of DRR and CCA, and forums with experts as resource persons. These activities aim to encourage all community members to take action on climate change.

Other forms of public awareness activities are writing and dissemination of case studies, development and dissemination of posters, flyers, t-shirts with printed messages, video production on DRR and CCA, photo exhibits, participation in float contests during town fiestas, and theatre presentations.

Another approach is utilizing an educational television network, Knowledge Channel, to run in their regular programs three DRR and CCA videos that were developed in 2007. To date, the videos have reached about three million families in the Philippines. The videos teach children on safety measures during earthquakes and typhoons, and introduce them to climate change.

Participation in the float contest during the town fiesta of Calabanga. ACCORD utilized various venues to popularize disaster risk reduction.

Public awareness in schools

ACCORD puts premium to formal education in schools in raising public awareness and in promoting a culture of resilience. The reasons for this are the following:

First, children are a vulnerable group, and their situation gets worse during emergencies. Their capacity to cope with the effects and impacts of disasters is low. Schools are therefore the perfect venue to teach children on safety measures and culture of safety.

Second, children play a role in disseminating DRR messages. The spread of knowledge such as safety measures learnt in school multiplies in several folds as children interact with classmates, friends, family members, and other members of the community. While still young, children are taught to build a culture of safety in the community, and in the long run, in their municipality.

Third, teachers have the primary obligation to carry-out quality education. In so doing they can disseminate accurate messages on DRR and CCA to equip children and prepare them better for disasters. Also, they create a learning environment that assures children's rights both in normal situations and in times of disasters. Also, they easily transcend their role as educators by becoming humanitarian workers during emergencies. They can also provide assistance to displaced population by managing schools as evacuation centres. Hence, teachers must have the right kind of knowledge, skills, and attitude so they can always provide support to the affected population. In this regard, schools play an important role both as an institution for learning and as an arena for protecting the rights and dignity of people affected by disasters.

Classroom DRR discussion in Himbangan Elementary School in Saint Bernard

School-based activities

ACCORD's series of school activities have been a result of years of learning and improving. The recommendations of teachers and the central office of the Department of Education were crucial ingredients to the design of interventions in schools. The ACCORD projects have reached at least 73 public schools in different districts and with different levels of interventions.

1. The first major activity carried out in schools was the formal training on DRR for teachers. Training designs were similar to the trainings conducted in the communities but with modifications to meet the specific needs of the teachers.

School heads were trained along with two other senior-status teachers. The purpose was to develop their capacity to become members of the training team in the subsequent trainings for all teachers. It is imperative to develop the appreciation of school leaders for DRR to sustain activities. The strategy was evidently effective in the different districts covered by the project. In all project areas, the school principals, master teachers, and district supervisors helped in the next trainings by serving as facilitators and/or resource persons. Sessions on the legal bases of School Disaster Preparedness and Curriculum Integration were included to establish the mandated role of teachers in DRR and help them perform their role effectively and efficiently. These trainings, among others, have provided teachers with adequate knowledge on how they can integrate DRR in lessons and classroom discussions.

2. Through trainings, school contingency plans were developed and school disaster risk reduction and management committees (SDRRMCs) were formed. The process of formulating a school contingency plan is very similar to community contingency planning. School heads, teachers, and other members of the school community like the Parents-Teachers Association (PTA), canteen personnel, security staff, and others, participated in crafting the school contingency plans. In schools with only one or two teachers, the barangay officials, selected senior students and parents from the PTA, were involved and encouraged to be part of the SDRRMC. The participatory approach applied in contingency planning contributed to increased public awareness.

3. School earthquake drills, similar to community drills, were conducted to test the effectiveness of contingency plans. Schools prioritized earthquake-specific contingency plans as earthquakes are the hazards that will most likely affect schools during class hours. School drills were conducted in coordination with the barangay DRRMCs, and also the MDRRMCs, to improve the coordination mechanisms among them. Awareness-raising activities are essential in the successful conduct of earthquake evacuation drills.

Aside from testing the effectiveness of contingency plans, the drills assessed the capacities of the SDRRMCs to respond to an emergency situation. The drills also assessed the level of preparedness of the school children to perform evacuation protocols. Representatives from other schools and communities were invited to observe the proceedings. Their presence is crucial in helping schools improve their contingency plans. There have been instances where observers became interested in carrying out DRR activities after witnessing the drills.

4. In the process of conducting risk assessments and contingency planning, schools were able to identify the need for risk reduction measures beyond the scope of the contingency plans. There are varied approaches in addressing these risk reduction requirements in the framework of School-Based Management that is being followed by public schools.

In Saint Bernard, the principal of Himbangan Elementary School incorporated DRR activities in their School Improvement Plan. Calabanga teachers from G. Azanes Elementary School and M. Y. Garza Elementary School wrote to DepED national office about the repairs they need and were able to receive funding for the said school repairs. Most principals and school heads have approached their respective barangay and municipal local government units to raise much needed resources for the improvement of their schools and other risk reduction activities.

5. The ACCORD and ACCORD-2 projects piloted the teaching of DRR at the classroom level. In addition to teachers' trainings, teaching materials like photosets, flip charts and videos were provided. Classroom discussions were complemented by knowledge contests and art competitions which were conducted to coincide with the observance of the National Disaster Consciousness Month in the month of July.

Earthquake drill in Saint Patrick Academy in Dingalan

The school and district level art contests and quiz bees were conducted to check retention, further educate children and engage the communities. Children's innovative and creative abilities are showcased through posters advocating for preparedness and stewardship. Quiz bees on the other hand, test the aptitude of the children on key DRR and CCA messages. Teachers serve as coaches and provide moral support to their students vying for the prize. The activities of the project involving children proved very effective in increasing their awareness and better preparing them for disasters.

Teachers also tried integrating DRR in the school curriculum by incorporating DRR in regular lessons. By the end of the ASCEND project, it has been clarified that curriculum integration will be done through the use of competencies and entry points already identified by the Department of Education. Classroom discussions during ASCEND have already made use of these competencies and entry points.

The teachers were further prepared for curriculum integration by adding a session on this topic in the teachers' training. The session reiterates the rationale for working with schools and it emphasizes the valuable

role of teachers in building a culture of resilience. Strategies for effective integration were taught among school heads and teachers, and workshops were conducted. The value of the activity is to demonstrate that DRR integration is similar to their previous efforts on integration (e.g. values, financial management, makabayan, etc.). Teachers were also provided with ASCEND modules and approved DepED instructional materials on DRR and CCA for use in their year-round classroom discussions.

Mainstreaming DRR

The initial classroom DRR discussions introduced by ACCORD were successful in increasing awareness. However, these activities were only accommodated after lengthy negotiations that fortunately ended with the DepED Secretary coming out with Department Orders instructing cooperation with the ACCORD projects. The classroom discussions were considered "extra-curricular activities" with little possibility of being replicated and sustained. A consensus among key stakeholders was arrived that if classroom discussion were to be sustained, the way to do it would be through curriculum integration. Curriculum integration

Disaster preparedness training for teachers in Maragusan. In order to mainstream DRR in the education sector, the DRR capacities of teachers need to be developed.

means inclusion of DRR key messages as supplement to the existing list of competencies. Basic competencies like reading, writing, and math are to be developed alongside competencies in DRR such as safety measures and environmental conservation.

The DepED has circulated a communication in 2007, prioritizing the mainstreaming of DRR in the education sector. National legislations and several internal policies of DepED which preceded DepED Order No. 55, s. 2007 including the Philippine DRRM Act and CC Act strengthened the department's stance to mainstream DRR and CCA at all levels of the department including schools. However, DRR policy remains to be in the early stage of implementation. Schools located in high-risk areas have expressed their lack of capacity both in knowledge and resources to carry-out risk reduction activities.

Lessons learnt

- The conduct of public awareness activities is a must if DRR is to work successfully in vulnerable communities. Increasing awareness about existing risks is a key step needed to help communities realise the need for risk reduction. Public awareness through its different forms facilitates learning and helps communities understand their condition. It is also a means to build their capacity and empower them to take concrete steps to address their own problems. Public awareness works side-by-side with other capacity-building activities such as trainings, CRAs and contingency planning. It helps create a level of understanding that the community can use to establish a clear line of communication among them, especially when confronted with risks.

- It is important to formulate a systematic public awareness plan at the beginning of the risk reduction process. This will avoid conduct of sporadic initiatives thereby ensuring that aeareness-raising will be effective. The plan should incorporate the regular and seasonal community activities like festivals. It should also be based on their actual needs and their capacity to sustain them.

- The Department of Education is in the position, and is duty-bound, to make a big contribution to increasing the capacities of children and teachers to better confront disasters. Mainstreaming through curriculum

integration is still a work in progress. Identifying learning competencies, matching them with DRR and CCA concepts, and validating them is one process that still needs to be completed. Developing the DRR capacity of the 54,000 public schools around the country is another challenge that has to be addressed. It is important to simultaneously target both the higher and grassroots levels of DepED and, in collaborative efforts, effectively develop the whole department's DRR capacity.

• Raising awareness is a long and tedious process and it is only one of many steps needed to build resilient communities. It is an essential component of DRR work as it serves as means of pursuing sustainable and community-driven development. But public awareness, in order to truly serve vulnerable communities, must be premised on the rights of the people, particularly the children, to correct and timely information about risks and measures that will reduce their exposure and vulnerability to hazards.

Children sign in the guest book at an ACCORD exhibit in Dingalan in observance of National Disaster Consciousness Month.

Notes

1. http://www.unisdr.org/we/advocate/education.
2. UN ISDR, 2009 UN ISDR Terminology on Disaster Risk Reduction. May 2009 pp.22-23.

Sir Jimmy Evangelista of Paltic Elementary School

Paltic Elementary School, in Dingalan municipality, lies at the foot of the Sierra Madre Mountains facing the Pacific Ocean. In 2004, the school witnessed a massive landslide that claimed 24 lives, affected hundreds of families and destroyed properties in the village. Following the disaster, community risk assessments were conducted and identified other possible hazards – earthquake, tsunami, typhoon, storm surge and flash floods – that pose a threat to the whole village, and also to the school.

Hazards such as these could be too much for a small public school like Paltic Elementary School, with barely few buildings to house its 872 children. Aside from exposure to hazards, the school has to confront the common problem of public schools in the country – lack of budget for its development.

The Department of Education implements a "school-based management system," giving local school administrators the full mandate and responsibility to manage and supervise their respective schools. For Paltic Elementary School, this meant, among others, dealing with the vulnerabilities of the school almost wholly on its own. It might have been because of this

enormous challenge that "Sir Jimmy" Evangelista, the school principal, wholeheartedly supported the ACCORD projects in every way that he and the teachers can.

During the first ACCORD project, Sir Jimmy was principal of the Umiray Elementary School. On his own initiative, he conducted quarterly earthquake drills that were unannounced. He was also very active, and worked closely with the village council in organizing workgroups that constructed gabions that will minimize the impact of flooding to the school. He also led Umiray teachers in incorporating DRR in lesson plans. Sir Jimmy was transferred to Paltic Elementary School during ACCORD-2 and his commitment to DRR remained steadfast.

Sir Jimmy (in green shirt) as he addresses the students during one of the earthquake drills in Paltic Elementary School

The teachers of Paltic Elementary School were equally motivated. They actively participated in trainings on community-based disaster management, disaster preparedness and project cycle management. They were able to pass on the knowledge on DRR they acquired from these trainings to their students by also integrating DRR messages into their lesson plans. Paltic and Umiray elementary schools were among the few that first integrated DRR in lesson plans, during the first ACCORD project.

Contingency planning workshops and school drills were also conducted. When the classroom discussions and intra- and inter-school contests focusing on DRR theme was launched during ACCORD 2, Paltic Elementary School actively participated.

In SY 2009-2010, Sir Jimmy, who also volunteered to be a community facilitator, and his colleagues who participated in the project cycle management training, applied what they learnt and initiated a nutrition improvement project. This is to address the alarming rate of malnutrition among the students. With very limited funds sourced from the barangay and the school canteen, meals were provided for malnourished school children. The school also started growing vegetables using natural and organic methods. Instead of cultivating ornamental plants that usually adorn school grounds, students and teachers planted vegetables in the available spaces of the school.

In 2011, The Food Facility project presented Paltic Elementary School the opportunity to scale-up its nutrition improvement initiative by becoming a “classroom” for demonstrating the link amongst food production, nutrition and health and disaster risk reduction. With a budget of P12/child, nutritious food was provided to 135 malnourished children in school. At times, more children were even covered by the feeding program. Sir Jimmy said that some pupils who cannot afford to bring their own meals during school days were also fed. The Rural Health Unit provided complementary support like de-worming and other health services. Parents’ classes were organized to increase awareness on food, nutrition, health and DRR. Demonstration of growing

vegetables applying natural methods, and of producing organic fertilizers and pesticides was intensified.

When the Food Facility project was completed, 133 children out of 135 have attained normal nutritional status. Sir Jimmy cited the improvement in the health status of the children as one of the reasons for their improvement in school performance. Furthermore, the number of absentees also declined. He observed that children are more active in school activities. Seeing the developments done to their community especially to their children, the parents were encouraged to engage in and participate more in school activities. Beyond the school premises, Sir Jimmy has expressed optimism that Paltic Elementary School has contributed to educating the general public and increasing their awareness about the role of producing and consuming safe food in building resilient communities.

Students from Paltic ES who participated in the supplemental feeding activity of the Food Facility Project

7

Small-Scale Mitigation

Mitigation is defined as the lessening or limitation of the adverse impacts of hazards and related disasters.[1] Structural (physical) or non-structural measures can be undertaken to protect and/or strengthen the vulnerable elements and minimize the adverse impacts of natural hazards, environmental degradation, and technological hazards. For high-risk communities, wherein their economic and social vulnerabilities add up to their natural exposure to several hazards, mitigation is a practical option to substantially lessen the negative impacts of disasters.

Small-scale mitigation is another key component of the ACCORD formula for successfully building resilient communities. Demonstration small-scale mitigation projects are introduced to communities to complement other DRR measures. The mitigation projects are designed to be small-scale so that community members can implement, maintain, replicate, and sustain them. The use of locally-available materials and application of indigenous knowledge combined with simple and appropriate technologies that can easily be adopted and maintained by the communities are encouraged. Small-scale mitigation projects also show that mitigation can be inexpensive yet durable.

During the first ACCORD project, "hard" mitigation measures such as constructing gabion were introduced. Gabion boxes, which are wire fabric containers interconnected with similar containers, are filled with stones to form flexible, permeable and monolithic structures.[2] These were used as riverbank and beach ridge protection in Dingalan, Saint Bernard and Calabanga. Community volunteers laboriously took on the task of gathering the stones and filled up the gabion boxes. Afterwards, these boxes were stacked together and created structures that stabilized embankments. The use of gabions is combined with tree-planting activities to support and strengthen the community's defence against flood and soil erosion. Clearing and dredging were also done to reduce the sediments that accumulated in the highly silted river and creeks in Saint Bernard and Dingalan.

"Rabuz" during installation of Gabion in Bgy. Cagsao in Calabanga

Natural Resource Management

Starting in ACCORD-2, natural resource management (NRM) as an approach to mitigation, was strongly promoted. Natural resource management, as the name implies, is the management of the natural resources such as land, water, soil, plants, and animals, to mitigate the effects of disasters. NRM also focuses on how the use of natural resources can affect the quality of life for both present and future generations. The use and abuse of natural resources is seen as directly linked to the severity and frequency of disasters and effects of climate change.

The presence of multiple and recurring natural hazards is common in all areas where CARE and partners have presence. Unfortunately, unrestrained abuses to the environment in these areas further exacerbate the impacts of hazards, with the poor and vulnerable living in the high-risk areas mostly carrying the brunt. The depletion of beach forests that serve as natural barriers in the coastal municipalities make the communities more exposed to storm surges and floods. The landslides and flash floods that happened in Dingalan and Saint Bernard pointed to diminishing forests due to excessive logging as one of the causes. With the frequent flooding, the rivers and creeks continue to be silted with sediments, and in effect, threatening the communities along rivers and creeks to the possibility of more floods.

Under these conditions, sustaining the environment and recovering the natural balance of the ecosystem is one of the appropriate and effective measures that can be done to reduce disaster risks. Reforestation of beach and upland forests and the application of Sloping Agriculture Land Technology (SALT) are among the Natural Resource Management activities implemented as mitigation measures in the operational areas of CARE and its partners in the Philippines.

Implementing the projects

CBDRM and RBA guided the implementation of small-scale mitigation projects. Their implementation was viewed as part of upholding the right of vulnerable communities to live in safe locations.

In implementing the small-scale mitigation projects, premium is given to community participatory processes. With the proper motivation,

these vulnerable communities are in the best position to manage the environment to contribute to their safety. Participation and community ownership of the SSM projects have proven vital to the success of small-scale mitigation projects. With ACCORD, the following processes and activities were undertaken:

1. **Identification and selection of mitigation activities**

SSM projects took off from the results of the CRA. However, to facilitate the identification of appropriate mitigation activities, a research on natural resource management as an approach to disaster mitigation was conducted in 2007.

The study came up with the list of NRM activities applicable to the municipalities of Dingalan, Calabanga, and Saint Bernard. It also provided advice on the effective design of mitigation projects. The study introduced structural (such as installation of gabion walls as beach ridge protection or river protection) and non-structural interventions (such as mangrove reforestation and application of SALT) or a combination of both. Implementing the actual SSM project depended on what the community can realistically accomplish.

Recommendations of the study provided ideas to the communities on possible projects to pursue. The communities had to write simple project proposals to get financial support from the ACCORD projects. A maximum amount of grant, enough to finance a small-scale mitigation project was set. To assist the communities in the development of project proposals, communities were provided tools and simple guidelines to design their SSM projects.

The proposals went through participatory appraisal where members of the community selected projects to be supported using the following criteria:

- *Technical feasibility* - The project proposed must be doable using local technologies and resources.
- *Participation and ownership* - The community must get involved and at the same time, the proponent of the project must contribute cash and non-cash resources to the project
- *Direct link to risk assessment* - The project must clearly

demonstrate how it can minimize the adverse impact of identified hazards

- *Project management capacity of the proponent and sustainability* - scale and budget should be within the ceiling set and should have defined sustainability mechanisms
- *NRM-related* - contributes to the protection of environment
- *Beneficial to most number of high-risk households* - addresses the real and felt needs of the most vulnerable members of the community

Implementation of Sloping Agricultural Land Technology in Bgy. Sug-angon in Saint Bernard

2. Public awareness

Public awareness activities are conducted in the course of implementing small-scale mitigation projects. Increasing the community's knowledge on the project and its benefits to the community encourage their participation in the activities.

Mobilizing the community and having them participate in the project required extensive public awareness activities. The project staff, together with community leaders and volunteers painstakingly conducted public awareness activities in each village and sub-villages to explain the concept of small-scale mitigation project, the importance of natural resource management and the benefits of the project to the community.

Moreover, public awareness activities are necessary to clarify misconceptions that have circulated among community members. At the start of the implementation, community discussions clarified high expectations on the mitigation projects. The construction of gabion, for example, does not guarantee that the houses near the sea ridge will be fully protected from the storm surges. Gabions and mangroves only act as first line of defence against them. In Saint Bernard and Dingalan, it had to be explained to the communities that the gabions need not be installed within their villages for them to benefit from the structures. The gabions constructed in Barangay Carnaga will most benefit the residents

Mangrove-planting in Bgy. Sibobo in Calabanga

in neighbouring barangays in Tambis 1 and Tambis 2, which are also along the Lawigan River. Similarly, in Dingalan, the gabion project located in Barangay Davil-davilan was not fully appreciated by the neighbouring Barangay Aplaya, until several community meetings and public awareness activities were done.

Public awareness activities also provide the venue to explain the context of small-scale mitigation projects and its link to NRM and CCA. Discussions on NRM raise the awareness of community members' with regards to the situation of their environment. Since then, they have taken a pro-active stance in protecting their natural resources and have become conscious of how their activities may harm the environment and intensify their vulnerabilities to hazards.

3. **Community organizing**

With increased awareness on the benefits of SSM projects, the communities organize themselves to systematize the implementation of these activities. Community members -- leaders, non-leaders, men, women, youth and elderly-- are all given equal opportunities to participate and benefit from the project.

Project Management Teams (PMTs) were formed to manage the daily activities of the project. Membership to PMTs was not exclusive to barangay officials alone, contrary to earlier experience of communities with other projects. Rather, PMTs are composed of representatives from the LGU (usually a point person from Agriculture or from Engineering Office), barangay leaders (barangay captain, councillor, or secretary), and women and men, youth, and elderly who are non-leaders. It was ensured that vulnerable sectors in the community were part of the management team and were given responsibilities in the project implementation.

Having been accustomed to only engaging the barangay leaders who have always been at the frontline and therefore treated as the main actors of development projects, giving management responsibilities to those who are not leaders was a new and welcome idea. The practice provided opportunities to community members to participate in decision-making in matters that affect them. The presence of non-leaders also reduce the political tensions within the PMT.

Aside from the PMT, committees are also created to facilitate the daily activities. Food Committees are assigned to ensure that meals are available for the volunteer workers. Barangay Health Workers are also tasked to attend to health emergencies.

With the limited budget allocated for each SSM Project (consistent with being small in scale and in cost), the communities implemented their projects making use of local resources. Indigenous practices on community volunteerism are encouraged - be it *tagbo* in Saint Bernard, *bayanihan* in Dingalan, and rabuz in Calabanga. Small-scale mitigation projects become an opportunity for the communities to take collective action in order to protect their community.

"Bayanihan" of residents of Bgy. Davil-davilan in Dingalan to fill the Gabion boxes with stones which will serve as flood mitigation.

4. **Capacity building and trainings**

To increase the community's capacities to manage and sustain their projects, trainings were also conducted. Technical experts train the communities on how to install the gabion -- from sewing the gabion mesh wires, to stacking the stones, and properly piling the gabion boxes. For the communities whose mitigation projects concern slope protection, demonstration-trainings on Sloping Land Agriculture Technology were conducted. Training on mangrove reforestation cover topics from identification of indigenous species, to proper planting of mangrove propagules, and the different benefits that can be derived from mangrove reforestation.

Project Cycle Management training was also done to help the PMTs effectively develop and implement their proposed projects. PCM training assists the community to further enhance the quality of their project proposals. It also helps community representatives to develop skills and acquire knowledge to conduct situational analysis as an instrument in designing their projects. The participants of the training realised the importance of critical analysis of community situations as well as finding the link among hazards, disasters, vulnerabilities, and risk reduction measures.

The PCM training was highly appreciated by the participants because the new knowledge and skills they learned were applicable, not only for the SSM project, but also for other future development projects for their communities.

5. **Advocacy**

Mitigation projects will be effective when combined with other interventions and protected with policies and structures to ensure its sustainability. For vulnerable communities with very limited resources, advocacy activities are necessary to mobilize the support of government agencies, private organizations and other stakeholders to NRM and SSM. Advocacy has resulted in local policy-making bodies such as the barangay and municipal councils passing resolutions and ordinances to support mitigation activities, and allocating funds for the SSM's maintenance and sustainability requirements. In Saint Bernard, the municipal LGU lobbied

to the provincial government for assistance in the dredging of the highly-silted Lawigan River to lessen perennial flooding in the communities along the river.

In Barangay Cagsao, Calabanga, advocacy activities also resulted to collaboration with private organizations such as SMART Communications to support the mangrove reforestation in the area when SSM continued under ACCORD 2.

Lessons Learnt

- Consider the risks present in the site being identified for mitigation activities, whether it is mangrove reforestation, tree-planting activity, or installation of gabion. The negative impact of hazards can be too high for the mitigation activities to withstand.

Planning and designing the SSM projects have to consider the timing of implementation. The installation of gabion and planting of mangrove trees, for instance, should be finished prior to typhoon months and rainy seasons since the communities will likely experience floods and heavy rains. The work plan should also consider other community activities such as fiestas, barangay assemblies, and elections when people are too busy to attend to SSM activities

- It is also important to take into account issues of land ownership prior to any mitigation activities. If the area is privately owned, memorandum of agreements will be necessary to avoid future conflicts.

- Small-scale mitigation projects implemented during ACCORD, ACCORD 2 and ASCEND are demonstration projects. Sustaining these projects depends on the commitment of vulnerable communities and the readiness of local government units to take on the responsibility. It is the primary obligation of LGUs to ensure the safety of its communities and they must be in the front line in implementing mitigation projects.

- Mitigation activities will only be effective when combined with other DRR activities such as community trainings, public awareness activities, organizing the DRRMCs, and integrating DRR in development plans.

• A successful SSM and NRM project is one of the best and powerful tools of advocacy. The inspiring and successful stories of SSM Projects in ACCORD communities have served as an example for other communities, local government units, and private organisations to support and replicate these activities.

Former Bgy. Secretary Domingo Aguilar (centre) and Kap Monching (seated, in white shirt) while facilitating a meeting of the SSM PMT in Cagsao. The communities were given the lead role in the management of SSM projects.

Notes

1. UN ISDR, 2009 UN ISDR Terminology on Disaster Risk Reduction Sec [15 January 2009].

2 Antonieta S. Dizon, Michael L. Benjamin, Engr. Odyssey C. Herrera, *Research on Natural Resource Management as an Appropriate Disaster Mitigation,* 2007.

Pride and Hope in Gabions and Mangrove Trees

The shoreline along the east of Cagsao, a coastal village in Calabanga, Camarines Sur, is thickly covered with mangrove trees of almost 2 metres high. In less than three years, these trees will be fully-grown for the community to reap its benefits. At the other end is a 126-metre gabion wall, built by the community to serve as barrier during storm surges and to stabilize the beach ridge.

Three years ago, this sight was merely a dream shared with the communities. Tiyang Mely, who lives a few metres from the beach recounted that there used to be more houses built near the shoreline but strong typhoons destroyed them. Cagsao is one of the 11 coastal villages in Calabanga that normally experience strong typhoons. During typhoons, wind-driven water would flood the area and sweep the houses away. Frequent storm surges and the absence of beach protection contributed to the coastal erosion, which later on, caused the displacement of several families living along the shoreline.

In 2007, Cagsao was among the communities covered by the ACCORD project, which introduced natural resource management

as small-scale mitigation activity that will help reduce the adverse impacts of disasters. For Cagsao, mangrove reforestation and installation of gabion as breakwater were recommended.

At first, some community leaders were hesitant about these recommendations since they have had prior experience of unsuccessful reforestation projects. They were skeptical with the proposed mangrove reforestation and construction of gabions along the beach ridge. Instead they instantly proposed for the construction of dikes and breakwater as mitigation projects.

The then Barangay Chairperson, Ramon Sta. Ana, told the ACCORD project staff that resources were only wasted due to the low survival rates of the trees that were planted in their village. In fact there were bamboo seedlings left unplanted because very few people were willing to participate in the activity. Also, gabion is a new technology that the community has never heard of.

Indeed, participation of community members was a challenge faced at the onset of project implementation. The installation of gabion and planting of mangrove trees require manual labour of volunteers who will not be paid for their service. Public awareness activities were essential to address this concern. At every sub-village then, come rain or shine, night and day, discussions on the small-scale mitigation projects were conducted. The villagers were consulted and informed on every detail of the project.

Barangay Chairperson Sta. Ana or Kap Monching, despite his speech difficulties (from having suffered at least six strokes), would painstakingly explain the benefits of the project to seek support from the rest of his fellow villagers. Trainings were also held with the help of expert engineers to demonstrate the gabion technology to the community. Aside from the technical trainings, ACCORD also built on the capacities of barangay leaders and community members on disaster risk reduction.

Educating the community members on their respective roles in the project implementation was one of the important factors that

revived the tradition of community volunteerism and contributed to its success. On a daily basis, community members would wake up, go to the gabion worksite, and take on different tasks at hand.

Volunteers were delegated with work according to their capacity. Men would do the manual labours while the women and elderly made sure that the food is available for the volunteers. They were also in charge of attending to medical emergencies in case of accidents at the worksite. To supervise these activities and ensure that the problems encountered are swiftly addressed, a Project Management Team was organized. The PMT has gone to the neighbouring barangays and schools to mobilize volunteers who rendered free labour for the project.

The project was fully supported by the municipal government, which consistently provided its assistance from the start. When ACCORD Project ended, the local government took on the

Community members of Cagsao happily posed for a photo at the mangrove area.

responsibility of ensuring the sustainability of mitigation activities in Cagsao and in other barangays of Calabanga.

Collaboration with other private organizations was also sought. From 30,000 propagules planted during ACCORD, additional 150,000 mangrove trees were planted at the second phase of ACCORD Project in partnership with private organisations. Expansion of mangrove areas continued during ASCEND.

Today, the sight of gabion and mangrove trees covering almost 3 hectares of shoreline gives an inspiring feeling to visitors and environment enthusiasts. But for Tiyang Mely, Kap Monching, and the rest of the residents, the gabion and mangrove trees are their sources of pride and hope.

Pride, because they were able to show that the collective contribution of each member of the community can transform into something beneficial for them. And hope, because they are now beginning to experience the benefits of the gabion and mangrove trees. Aside from protection from storm surges, these also contributed to the sustainable management of natural resources.

Fisher folks have attested that with mangrove forests being revived, fish, crabs, shrimps, and other marine life is starting to recover, crucial to the eventual revival of the entire marine ecosystem in the area.

8

Mainstreaming DRR and CCA for Sustainability and Larger Impact

The question of scaling up and sustaining DRR gained greater prominence with the success of the first ACCORD project. With recurrent disasters, it was obvious that successful DRR projects had to be replicated and scaled-up for larger and longer-lasting impacts.

ACCORD's focus was to build the capacity of communities and local government units to develop their own contingency plans, commit to fund the activities outlined in the CPs' action plans, and ensure that the CPs become functional. Such became the benchmark of a successful community-based DRR project.

However, disasters affect communities in multiple ways, hence needing a more comprehensive set of actions. Communities need to protect their livelihoods to increase their capacities to cope with the effects of disasters. Schools have to be structurally strong to withstand hazards and be used as evacuation centres. Teachers and students must have sufficient knowledge on DRR to protect themselves against hazards. The people need to learn to protect their environment to mitigate the negative effects of hazards.

These were just some of the concerns raised to reduce the overall vulnerabilities of the communities. The CRA process surfaces the risks and a host of other related problems contributing to the vulnerabilities of communities. Community risk assessments also produce a picture of the range of risk reduction measures to achieve resilience. However, the action plans of the CPs focused mainly on emergency preparedness activities.

In ACCORD 2, the development of a DRR Plan was pushed, but eventually fell short of achieving the desired outcome, as most plans still pointed towards emergency preparedness and response. At the end of ACCORD-2 it became clearer that DRR mainstreaming in development planning processes must be done to ensure larger impact, and to address the problem of sustainability. The Rationalized Planning System of the Department of Interior and Local Government (DILG), which guides local authorities in their development planning, was identified as the appropriate vehicle for mainstreaming. Also at this time, CARE Nederland communicated its approach of mainstreaming DRR in the project cycle management.

What is DRR mainstreaming?

Mainstreaming, according to TearFund, is a word derived from the metaphor of a small, isolated flow of water being drawn into the mainstream of a river where it will expand to flow smoothly without loss or diversion.[1]

Thus, DRR mainstreaming, to paraphrase Benson and Twigg, considers and addresses risks emanating from hazards in medium-term strategic frameworks and institutional structures, in country and sectoral strategies and policies, and also in the design of individual projects in hazard-prone locations.[2]

CARE Nederland defines mainstreaming of DRR as the systematic integration of the DRR approach in the general programming framework (i.e. programmatic and project planning and capacity-building) of an organization and in projects, integrating DRR in every phase of the project cycle.

The main objective of mainstreaming DRR is to reduce the risk of disasters, for vulnerable communities and for DRR projects and programmes. DRR is integrated into an organization's development plans and programs, including its capacity-building plans, until it is institutionalized and becomes a normal practice.

Mainstreaming is done through the implementation of both explicit DRR projects as well as incorporating DRR in policies, programmes, projects and activities (PPAs). In high-risk situations, explicit DRR PPAs are developed while other PPAs are risk-proofed. Part of the planning process is to use the CRA as guide in determining whether any planned intervention or action will not be affected by hazards such as livelihood programs so that these will be protected and preserved. All PPAs are subsequently assessed to conform to the "do no harm" principle. And finally, sufficient budget must be allocated to ensure these PPAs will be implemented.

In medium-risk situations, the mainstreaming strategy will still have to involve risk-proofing all PPAs. This is still necessary because of the possibility that the level of risk might change (increase) through time. Risk-proofing also protects the fruits of development. PPAs need to conform to the "do no harm" principle to ensure that no new disaster risks or vulnerabilities are created or strengthened.

Explicit DRR measures are actions that directly help reduce the risks faced by a community through mitigation, preparedness and response. These are measures that specifically aim to increase the resilience of a community against disasters. Examples: formulation of Contingency Plans, setting-up of EWS, mangrove reforestation, gabions construction, and others.

Risk-proofing means that PPAs are designed such that they are less vulnerable to disasters. In this way, these interventions can contribute positively to increasing the community's capacities. Examples: building earthquake and flood-resistant classrooms, and elevating water pumps and toilets so that floods won't inundate them.

The "do no harm" principle means that even the negative impacts of PPAs on communities are likewise assessed. This ensures that they are

implemented in such a way that no new hazards or vulnerabilities are created. These PPAs should not contribute to worsening/furthering existing vulnerabilities to the community. Examples of projects that violate the "do no harm" principle: roads that choke waterways thus worsening flooding; evacuation centre built on landslide-prone area; and livelihood project established on flood-prone area.

How ACCORD is mainstreaming DRR

In ACCORD, mainstreaming is done by implementing explicit DRR projects combined with incorporating DRR in PPAs. The three successive ACCORD projects were explicit DRR projects with mainstreaming activities, namely:

a) incorporation of DRR in the development planning process, referred to as the Rationalized Planning System, of the municipal local government units of Calabanga, Saint Bernard and Maragusan; and
b) incorporation of DRR in the education sector's public school curriculum.

Contour farming in Bgy. Caragsacan in Dingalan. Livelihood activities like agriculture should also incorporate DRR so as not to increase vulnerabilities and disaster risk.

To complement these explicit DRR projects, the Food Facility Project, which is a livelihood project, was also implemented in the same municipalities. DRR was mainstreamed in the Food Facility Project and activities.

In humanitarian response projects, as the one implemented by ACCORD Incorporated in Saint Bernard following the floods and landslides of December 2010, DRR elements were also introduced.

Whether in the LGU's Rationalized Planning System, in livelihood projects or in emergency response, DRR mainstreaming was approached through incorporation of DRR in all phases of the project cycle.

In the assessment phase, the CRA is used to enhance the situational analysis on which the design of a project or an activity is based. These CRA tools help determine the risks which a project faces. With the identification of risks, introduction of corresponding risk reduction measures becomes obligatory.

Hapid, Ifugao. Livelihood activities should also be protected from hazards by applying risk reduction measures like putting nets around fish ponds for protection during floods.

The planning stage makes use of this situational analysis which integrates the CRA results. The regular development planning processes being undertaken by organizations or local governments are maximized to develop programs, projects and activities that will address the issues determined by the CRA. For LGUs, it means the process of incorporating DRR in its Comprehensive Land Use Plan (CLUP) and Comprehensive Development Plan (CDP). For schools, mainstreaming DRR is mainly through curriculum integration, but lately DRR is also being incorporated into the School Improvement Plan (SIP).

During the implementation phase, DRR and CCA are integrated in the execution of all programs, projects and activities. Explicit DRR PPAs are implemented as measures to reduce the risks to hazards and all other projects and activities are disaster-proofed.

The monitoring, evaluation and learning phase looks into possible changes in the level of risk, and feeds the information into the assessment and analysis phase. A significant change in the level of risk should result in the redesigning of a project. This phase also looks at the (1) change in the level of resilience of the community (impact) which must be validated as it reflects the effectiveness of DRR/CCA PPAs and (2) the processes or quality by which PPAs were implemented.

Mainstreaming in government processes

An approach to mainstreaming DRR in the planning process of municipal local government units was clarified in the DRR/CCA Mainstreaming Workshop organized by CARE and partners in 2010, with the DILG participating. The DILG, which exercises administrative supervision over LGUs, has identified the Rationalized Planning System as the best medium for DRR mainstreaming.

The Rationalized Planning System was designed by DILG to address the issue of LGUs having to prepare many plans, in addition to the Climate Change Law (RA 9729) and the Philippine DRRM Act (RA 10121) as requirements for preparing separate DRR and CCA plans. In the Rationalized Planning System, all LGU development planning are reduced to two comprehensive plans, the CDP and the CLUP. The CLUP is the long-term guide for physical development and the framework for

management. The CDP is the LGU plan which "promotes the general welfare of its inhabitants." It covers all development sectors; it may be multi-year, but a shorter period coterminus with the term of local elective officials is also prepared as an input to the executive-legislative agenda (ELA). CDP also has annual components called the Annual Investment Plan.

Applying CARE's approach of mainstreaming DRR in project cycle management, mainstreaming DRR in the Rationalized Planning System meant incorporating DRR in the whole planning process, which consists of four modules or parts:

(1) Generating the planning database to derive various indicators of development or underdevelopment, of problems and constraints, opportunities and challenges for development;
(2) Goals and vision statement;
(3) Formulation of the CLUP; and
(4) Formulation of the CDP and its main implementation instrument, the ELA.

In the course of implementing the three ACCORD projects, the three participating municipalities did not formulate their CLUPs. Comprehensive Land Use Planning is undertaken every ten years. However, in 2011 Calabanga and Saint Bernard municipalities formulated their respective CDPs. Risk assessment information was incorporated in the municipalities' ecological profile, resilience became a key aspect in the vision and mission statements, and risk reduction and climate change adaptation measures were included in the formulation of the sectoral plans.

The sectoral plans of agriculture, education, health, security and peace and order incorporating DRR measures such as identification of high risk areas vulnerable to hazards were excluded as options for settlements. Also, production sites and school and hospital locations were developed and integrated in the development plan. By the end of 2011, the two municipalities were still finalizing their respective CDPs and working on their adoption by the *Sangguniang Bayan*.

Prior to the formulation of the CDPs, the municipal LGUs of Calabanga, Saint Bernard and Maragusan were integrating DRR in their ELA. Also

ensured were funds for the implementation of DRR programs, plans and activities integrated in development plans and LGU agenda, as the three municipalities continued to include provision of DRR services as one of their priorities in their Annual Investment Plans (AIPs).

CP workshop in Saint Bernard. ACCORD aimed to train LGUs officials and staff in DRR as a first step to mainstreaming in governance.

If mainstreaming DRR has advanced at the municipal level, progress at the community level was not at par. There were efforts such as incorporating CRA in barangay development planning in Maragusan, and landuse-based development planning in Saint Bernard. But the DRR mainstreaming process was not as clear-cut. How the barangay level mainstreaming of DRR links to mainstreaming of DRR in Rationalized Planning System at the municipal level has yet to be elaborated.

The DRRM Act of 2010 declares that mainstreaming of DRR-CCA in local development processes is a matter of government's policy. In particular, section 2.g of the Act declares that it is necessary to:

"…Mainstream disaster risk reduction and climate change adaptation and mitigation in development processes such as policy formulation, socioeconomic development planning, budgeting, and governance, particularly in the areas of environment, agriculture, water, energy, health, education, poverty reduction, land-use and urban planning, and public infrastructure and housing, among others."

With all its imperfections, the Act is providing a more conducive environment for local government units to mainstream DRR and CCA in their long-term development plans.

Lessons learnt

• The success of DRR mainstreaming lies with its decisive inclusion in governmental planning processes. When the ACCORD projects started, the state of affairs in its project areas (specifically how the municipal government received the project) was not very encouraging. In fact,

Staff and officials of Saint Bernard LGU, together with NGOs working in the municipality, after the "walkathon" in celebration of the International DRR Day on October 13, 2011. The walkathon called for climate change mitigation thru reduced oil consumption and GHG emission.

during ACCORD-2, despite their developed capacity for participatory risk assessments, LGUs were not consciously using CRA results as basis for their planning exercises. Their local planning process was perceived as a totally separate process from the contingency planning or DRR planning process which ACCORD was initiating with them.

- It is important to empower the barangay offices to localize the plans and to mainstream DRR activities. The barangay officials had minimal participation, and community members had no participation in crafting the Barangay Development and Investment Plan (BDIP). The capacity to go through the BDIP needs to be developed. Most of the time, the BDIP is recycled from the previous year's AIP and it was done at the level of the municipality. Barangay councils had no idea of doing localized planning and they could not imagine doing it differently.

- The major weakness of ACCORD was its inability to recognise at the onset the importance of helping the barangay councils improve their capacities in development planning. While the project focused on their capacity to develop, fund, and implement their contingency plan, these were not deliberately and consciously integrated with their regular function in the RPS. The heart of the local municipal development plan must be based on the BDIP formed by the barangay council with the community.

- Mainstreaming DRR as a strategy to maximize the gains from implementing ACCORD projects may be difficult, but nonetheless, feasible. It can be done by LGUs (and other organizations) to ensure that the community's achievements will continue to be effective in the long run and projects will continue to be implemented, replicated, and better yet, scaled-up.

- Mainstreaming DRR is more challenging with local government units. The DRRM Act can provide the basis for introducing DRR in development plans. The challenge, however, lies in changing locally set beliefs and practices, and their implications on the political and economic interests of the community.

- A host of other factors also contribute to the problem of mainstreaming DRR programs: CDPs may be revised after six years and

CLUPs are often ignored and may also be revised after 10 years. While there are responsive local politicians who appreciate doing DRR, and who eventually become advocates, relying on them is not the key to successful mainstreaming nor is the reliance to the implementation of the DRMM Act without the provision of other supporting mechanisms.

- ACCORD's experience reflected the challenge of working with LGUs. The project started with three municipalities, eventually expanded to two more, for a total of five, but emerged successful only in three areas by the last phase. The fact is that not all highly vulnerable and high-risk communities would automatically embrace DRR as a way of life in a short span of time through one or two projects. There are other factors that affect the community's resistance or openness to change and these should always be taken into consideration in future program planning.

- Implementing DRR can be ensured through simple things aimed at reducing risks and experiencing the fruits of these efforts. Ultimately, to make lasting changes, the efforts at reducing people's vulnerability to hazards must not only be a concern of hazard-prone communities but must be given prime importance by a government whose obligation is to protect its citizens from disasters. Only then can DRR be truly mainstreamed and a culture of safety, possible.

Notes

1. Mainstreaming DRR: A tool for development organizations. Sarah La Trobe, Professor Ian Davis for Tearfund, January 2005.

2. Charlotte Benson, John Twigg and Tatiana Rosetto, *Tools for mainstreaming disaster risk reduction: guidance notes for development organization*, International Federation of the Red Cross and Red Crescent Societies and Provention Consortium, 2007, p,1.

The Calabanga experience

The sweetest reward is a resilient community. This is how Mayor Evelyn Yu summarized her experience working with CARE and partners. She is the municipal mayor of Calabanga in Camarines Sur, a municipality that is frequently battered by strong typhoons.

Mayor Yu was first elected for the said position in 1998. Barely a few months into office, Typhoon 'Loleng' (Babs), categorised by PAGASA as one of the strongest tropical cyclones, hit the Philippines on October 21-26, 1998. It was also considered as one of the top five typhoons which caused the heaviest damage in Southern and Central Luzon.

Before this, like any other local government unit, the municipality of Calabanga did not give much attention to disaster preparedness and mitigation. Their knowledge and experience was limited to the conduct of emergency response during a typhoon's aftermath. Disaster reduction, mitigation and preparedness were still out of the picture.

When Mayor Yu was re-elected in 2004, four tropical cyclones (Unding, Violeta, Winnie and Yoyong) hit the Luzon area in a span of 18 days from November 16 to December 2. Typhoon Unding gravely devastated the Bicol region, including Calabanga and its poorest barangays along the coastal areas.

This devastating event motivated Mayor Yu to prioritise disaster risk reduction, and started the partnership between CARE and the LGU of Calabanga. The partnership started through a CARE relief project, followed by DRR that built on the initial emergency response.

Mayor Yu is one LGU executive who immediately supported the follow-up DRR projects of CARE. She exhibited genuine interest for disaster preparedness as she sat all throughout the training sessions conducted for municipal officials and staff. She was very different from other officials who were only present during the opening activities.

She directly headed the development of the municipality's contingency plan and actively participated in drills. She also joined the community as they planted mangrove seedlings along the banks of San Miguel Bay. She generously provided various kinds of support for the project, including the allocation of funding for all three phases of ACCORD.

On her third and last term as Mayor of Calabanga, she is confident that their community already has the capacity to handle emergency situations and carry-out measures to reduce disaster impacts. Towards the last stretch of the ACCORD projects, Mayor Yu fully supported the move to mainstreaming DRR and CCA in the local development planning processes in order to sustain what has been achieved in the last seven years.

Led by Mayor Yu, Calabanga earned the distinction of being the first municipality in Camarines Sur to have developed a municipal contingency plan that is linked to community contingency plans.

The municipality is expanding and sustaining its successful mangrove reforestation activities in the coastal communities of Cagsao, Sibobo, Sabang and Punta Tarawal, and has started reforestation of upland areas, realizing the risk reduction and ecosystem services these reforestation activities provide. The mangrove reforestation, especially in Cagsao has earned so much recognition that it has become a learning and tourism destination. It has also opened new partnerships for similar undertakings and has been considered a favourite spot for outreach activities of various colleges and universities in Bicol. The project has also influenced other municipalities surrounding San Miguel Bay to replicate the said mangrove reforestation project.

Recognizing the link between disasters, climate change and environmental degradation, the municipal government has come up with resolutions supporting BDRRMC of Bgy. Sibobo's opposition to quarrying in the barangay, and opposing the planned magnetite mining in San Miguel Bay. The municipality has also led the establishment of a fish sanctuary in San Miguel Bay.

Mayor Yu (standing) during the MDRRMC meeting in preparation for the simultaneous flood drill of 5 high-risk barangays.

The municipal government has consistently supported the capacity building of community facilitators as a means for sustaining DRR in the municipality. Now, community facilitators include the staff of their *Sangguniang Bayan* members, the municipal administrator, fire marshalls, health officers and staff, among others. They have replicated DRR capacity building of communities and schools not covered by the ACCORD projects.

Aware of the need to sustain DRR, Mayor Yu and other LGU officials are allocating funds for the replication of the ACCORD experience until all 48 barangays of Calabanga has been covered.

Earlier, the municipal government has been incorporating DRR activities in the Executive Legislative Agenda and allocating funds for these activities. In 2011, the municipality embarked on mainstreaming DRR in the Rationalized Planning System.

Calabanga Municipal Administrator Eduardo Severo, also a CF, served as resource person during the CBDRM Training in Bgy. Sibobo.

As a partner in the Food Facility Project, the municipality also gained experience in incorporating DRR in livelihoods, by applying DRR mainstreaming in project cycle management.

The municipality, through its DILG officer, has also included DRR and solid waste management topics in regular orientation programs conducted for newly-elected barangay officials.

No one can doubt Calabanga's achievements in terms of improving the DRR capacities of the communities. In fact, Mayor Yu has been invited in numerous national and international gatherings to share their DRR practice in Calabanga. Other municipalities also expressed their interest in learning from Calabanga's experience by inviting members of municipal government to discuss DRR programs.

As a result of DRR mainstreaming, the municipality of Calabanga has been awarded the Gawad Kalasag, a recognition given to LGUs who exhibited good practices in DRR.

But according to Mayor Yu, while the awards make them doubly proud, they are still mere decorations. What they have learned cannot be bought by money. The key to sustained risk reduction activities is the raised awareness of the ordinary people – about preparedness and taking care of the environment. As such they have already been given the tools to help reduce the adverse effects of typhoons, floods, and storm surge that hit the municipality's coastal barangays and, in more recent years, even the poblacion barangays.

"The best accomplishment is to be able to share to others what we have learned; to become instrumental in building more resilient communities in the years to come," stressed Mayor Yu.

That, for her is what mainstreaming is all about: to be able to have DRR into the consciousness of local executives and staff who take it upon themselves to govern for their people.

9

Increasing Resilience Through Livelihoods

Usually, after three years of participating in disaster risk reduction projects, vulnerable households already learn to appreciate the importance of preparedness activities. They learn to value natural resource management as an approach to reducing disaster and climate risks. On occasions, however, vulnerable households do point to additional livelihood support as a means for reducing their vulnerability. This need is particularly highlighted after disasters, when household livelihood activities, mainly agriculture-based, have sustained damage.

An opportunity to show this came in 2010 with the Food Facility project that aims to demonstrate mainstreaming of disaster risk reduction in household livelihoods.

Food Facility Project (FFP)

Barangay Chairperson Elizalde Miones, "Kap Zaldy" to many, takes his turn in tending the sari-sari store. He records in a logbook every sale of rice, sugar, cooking oil and other prime commodities. He belongs to one of the 11 teams who man the cooperative store in the Mamanwa Village, Barangay Catmon in Saint Bernard. This is the only store in the village

where some residents of neighbouring villages, Sta. Cruz and Magatas, even buy their everyday goods from. The village is home to some 30 families of Mamanwa, a group of indigenous people. This village is also the new home of Kap Zaldy and most of the families from Barangay Malinao.

In January 2011, residents of Malinao were evacuated to this place. They fled from their barangay because of floods and the threat of landslide. Their old village in the upland area of Saint Bernard was being isolated every time heavy rains swamp the river that needs to be crossed to reach the place. Like Kap Zaldy, most of the villagers have lived all their life in Malinao. This time, the growing crack at the slope directly facing the settlements made the risk even higher. The situation made it impossible for them to go back and live in Malinao.

Balatasan is a coastal barangay along San Miguel Bay. The saltwater of the bay seeps into the many swamps of the barangay. Unfortunately, saltwater has also seeped into the fields and the intrusion made croplands unfit for cultivation of palay and other crops. On the other hand, the change has made the area appropriate for growing nipa and crabs.

The first tinapahan (smoked-fish processing) in Barangay Dikapanikian stands near the barangay hall. A group of seven members buy tamban (kind of fish) and process them to tinapa or smoked fish. The tinapahan also doubles as a store selling rice, fish, ice and diesel. When supply of fresh fish is too limited for tinapa production, they buy fish for retail instead. They are also able to sell two sacks of rice and 20 liters of diesel per week.

To reach Dikapanikian, one has to deal with a two-hour boat ride along the rough waters of Dingalan Bay that joins the Pacific Ocean. It costs one-thousand pesos to rent a boat for a trip to the poblacion (municipality) and back to the barangay. The amount is divided among the passengers. An 8-hour walk from Dikapanikian to the poblacion is the better option, and villagers travel to the poblacion only for very important concerns. During typhoons, the barangay becomes isolated and the residents have to live with whatever supplies they have until the place becomes accessible again. During the 2004 typhoons and landslide in Dingalan, the first delivery of relief items in Dikapanikian was done by helicopter.

These are just some of the activities under the Food Facility Project.

Among FFP implementers, CARE and partners are the only ones into food production and livelihood activities in high risk areas. FFP is designed to complement the ASCEND project. The communities covered by the project have either experienced disasters or are considered high risk to typhoon, flood, landslide and even storm surge.

The impacts of disasters destroy or disrupt livelihoods and could aggravate poverty levels. Crops are damaged, and fishing activities and other sources of income are halted for long periods especially during prolonged evacuation. Food sources become scarce and the threat of hunger becomes real until livelihood activities resume.

Livelihoods are therefore designed to withstand or be less vulnerable to possible impacts of disasters. This requires a careful and collective

FFP-supported vegetable garden in Magcagong in Maragusan. To promote sustainable agricultural practices, farmers went thru training in organic farming and established demonstration farms.

understanding of how this can be done by households who are qualified to participate in the project.

Livelihood activities can also exacerbate existing risks, or create new risks. They are also designed in such a way that they do not contribute to the intensification of risks.

How did we do it?

Specific livelihood activities are determined based on community risk assessment and recommendations of residents. Viability is also considered especially when these activities require the provision of equipment or machines. Discussions on these are drawn from among the Municipal Agriculture Office, the barangay leaders and prospective participants.

Since the project is implemented in coastal and agricultural areas, the project provides inputs for fishing and crop production activities. Activities also included non-farming households in resettlement areas or those who do not own any parcel of land that they can till.

1. **Selection of livelihood activity and participants**

Beneficiaries come from households of poor farmers, fisherfolks, and others who earn or get paid for their labour or for crafting processed raw materials. The poorest or lowest-income earning households are given the priority as criteria. Households are also chosen based on their interest to join the project, willingness to support the guidelines agreed upon, have actively participated in past projects in the barangay including those by CARE and partners.

When selected, they are organized into a production cluster. As a group, they take on the tasks of implementing a designed project, they also ensure that the benefits are received by the members and problems are addressed on time. Leaders are determined by the members themselves and form the Project Management Team. Overall, those who compose the PMT assume project management, supervision and monitoring. A regular meeting by the cluster discusses the progress of the project and the next steps for sound implementation.

2. Design of livelihood activity

Most production clusters choose activities they are familiar with or have skills for. This lessens the possibility of poor production outputs. For activities that involve knowledge and skills outside of their experience, production-related trainings are conducted and monitored by agencies sought for help.

During the planning stage, risks are anticipated and measures are drafted to address these risks. Immediately, the seasonal calendar is reviewed to ensure the appropriate timing for the activity. The site for the production activity must also be protected from possible hazards. For example, the site for vegetable production, fishpond, food processing activity or the cooperative sari-sari store should not be prone to floods. Even as periodic floods take place in an area like Balatasan, with the nets providing protection, the crabs will not be carried away by the waters. To optimize production outputs, the suitability of selected vegetables to the type of terrain and soil is also considered.

Also addressed is the concern that production and livelihood activities do not contribute to creating new, and increasing existing vulnerabilities of the communities or to further degradation of the environment. For example, the number of fishing boats for distribution by the project was reduced due to environmental concerns. Also planned distribution was scrapped in cases where boat construction would require trees to be cut. In its place, appropriate, fishing nets and other implements were distributed instead.

Other component activities are also geared towards protection and rehabilitation of production areas in the long term. Sustainable farming technologies and Sloping Agricultural Land Technology, for example, are introduced or reinforced in the communities. In the same way, tree planting, mangrove reforestation, establishment of fish sanctuary, and training on natural farming and diversified and integrated farming system are among the activities that support sustainable production activities.

To illustrate, the farmers learn to make their own fertilizer and pesticide using inexpensive and locally available ingredients and materials like brown sugar, cooked rice and bamboo. Moreover, these mixtures retain

and even enrich the quality of soil and would produce vegetables and fruits that are safe to eat – not contaminated with chemicals. Surprisingly, farmers welcome this new and simple technology and are very willing to try this on their crops, although still limited to backyard vegetable gardens during the project period.

3. Sustainability measures

The activities are meant to benefit the communities even after the project has concluded. With this in mind, efforts are carried out to ensure participants are equipped to carry on, and that important arrangements are set up within the cluster.

The foundation for sustainability of the project is the organization of production clusters. Agreeing to participate in collective production work is one of the requirements for getting selected as participant. The activity, therefore, helps to hasten organizing and provide opportunity to firm up the organization.

Production cluster meeting in Saint Bernard. Community cooperation and organizational capacity-building was also promoted by having the beneficiaries form into groups that collectively managed the entire production cycle.

The participatory approach applied is building the management and organizational capacity of the production clusters while creating ownership of production activities and of the project as a whole. The production clusters are involved in various phases of the project cycle – from identification and validation of their production activity, the design of the activity, implementation, monitoring and evaluation, to the discussion of guidelines for their production activity.

Each cluster has a set of guidelines that spell out policies and procedures that the members should adhere to in order for their production activity to turn out well. This includes the setting up of a food bank, or a scheme for repayment of the goods the members received. The money collected is either used by the cluster to continue or expand the production or put aside as savings to accommodate or expand membership later.

A Project Management Team per cluster or barangay is formed. These PMTs serve as the lead group for their cluster. Members of the PMT are

Financial Management Training in Bgy. Himbangan in Saint Bernard.

usually those who show leadership qualities and the most involved in the activities. Each production cluster meets regularly, at least once a month.

Some clusters have already embarked on efforts towards establishing legal identity such as getting recognised by the Municipal Agriculture Office or have registered under the Department of Labor and Employment. Others are working towards becoming a cooperative in the long term.

Production clusters undergo training on natural farming technologies. Where applicable, a session on SALT is also tackled. Other trainings include Project Cycle Management, Finance Management and Leadership Training.

Lessons learnt

While the project has provided additional sources of food and modest income to participants, there are also challenges.

- Participation of the poorest households in the projects was consistently encouraged. However, some were not so keen about working in a group when it involves a production activity. They would rather receive the goods as individuals, work on the activity, obtain and protect the benefits without worrying whether the other members are exerting the same level of effort and determination.

A group lost more than half of its members for this reason and had to restart and redesign their activity. In the process, they had to bear losses -- money and crab harvest. In varying degrees, other production clusters had to thresh out issues of this sort before they could agree on the policies regarding food bank and how to proceed with their production activity.

These cases only demonstrate that the process of working together in livelihood activities to benefit more families is not always easy to promote among community members. It could, however, be worked out with a good measure of patient discussion and openness in reviewing what went wrong and how to address the situation.

- Also something new for the communities is incorporating disaster risk reduction measures in the design of food production and livelihood

activities. The reception is somewhat encouraging but the translation into practice requires a longer period of support and monitoring, if the point is to contribute to cultivating this as part of a way of life. Considering the project duration of the Food Facility Project which was only 22 months, seeing this through was therefore a huge challenge.

Farmers, for, example generally welcome the introduction of methods of natural farming and disaster resistant varieties of crops. These are seen as giving importance to maintaining or improving the quality of soil or the production sites. Saline and flood tolerant varieties of palay (rice) highlight the adjustments which can be made considering the current risks communities face. Only a handful participated in the pilot production of said palay varieties. Others are on a wait-and-see mode and would probably engage only if the results are encouraging.

Experimenting to find out what traditional and other varieties of palay are most adapted and could, therefore, best thrive in the particular type of soil and terrain of the community takes at least four cropping cycles. The project could only support the setting up portion as it is approaching the project conclusion.

- On another note, risk situations could also change or worsen, hence a corresponding awareness of risks must be continuously considered. In some communities, the production activity had to be changed altogether because the production site which used to be safe from floods was submerged in floodwaters. Aquaculture is therefore no longer feasible in the entire community.

If we are to take on the challenges in developing disaster resilient livelihood activities, it is important to consider the need for awareness on risks and on how to address these. Consequently, continuous efforts at disaster risk reduction in the communities should be present.

What makes Leonora smile?

Leonora Silawan, Noel Casungcad, Jose Molin, and Generoso Aguila from Barangay Balatasan have sold a lot of crabs during the recent fiesta of Calabanga municipality, Camarines Sur.

A month before, they bought 103 pieces of crabs weighing about 200 grams each on the average. These have grown to king size or about one kilo a piece in time for the fiesta. The four share a common pond for their food production activity, crab fattening. They buy crab juveniles or crablets, or half-grown crabs which take a month or two to reach the saleable size, and feed them with trash fish Trash fish is always available in Calabanga.

Balatasan is a coastal barangay along San Miguel Bay. Most of the farmlands in Balatasan have been rendered unfit for rice cultivation by storm surges and saltwater intrusion. The barangay also found itself outside the flood control dikes constructed by the Bicol River Basin Development Program. On the other hand, the change has created opportunities for growing nipa palm, a mangrove species, and for farming of fish and crabs in

brackishwater ponds.Leonora, Noel, Jose and Generoso represent vulnerable households, which received livelihood support from the Food Facility Project. Initially, they were part of about 20 households who formed a production cluster to engage in crab farming. This initial attempt failed, because a significant number of members were not really keen in working with a production cluster. They would rather work individually, and did not abide by their obligations, resulting in serious financial losses to the production cluster.

Leonora's group persevered in their desire to sustain crab farming as a successful alternative livelihood activity. They conducted a review of their operations, identified problem areas, and proposed solutions. A key decision made was to propose to the Food Facility Project that those not supportive of working within a production cluster, and had been remiss in their duties, should already be excluded.

Leonora, a member of the production cluster in Balatasan, Calabanga, shows a fattened crab ready for selling. FFP supported alternative livelihood activities after salt water intrusion rendered the farmlands unfit for rice cultivation.

Representing the group that wished to continue with crab farming, Leonora made a tearful presentation before an assembly of production clusters in Calabanga municipality the lessons they have learnt, and the new design of their crab-farming project. For their perseverance, and their positive attitude towards learning, Leonora's group's request for a "second chance" was granted.

Like other production clusters, Leonora's group has to present a simple project proposal for the livelihood activity they wish to engage in. "It was very difficult for us to write even a simple project proposal, despite the training we had on project cycle management, community-based disaster risk reduction, and disaster preparedness. Now, I can better appreciate why we need to go through the process. It is helping ensure that our livelihood activity is economically feasible and sustainable," Leonora shared in her Bicol language.

"In Project Cycle Management trainings, we were taught about objectives, results, activities and their relationships. We were taught about the format and contents of a simple project proposal. We also learned that sustainability should be ensured so that we will be able to reap the benefits of our efforts over a longer duration," added Generoso. One way to make the crab farming project sustainable is to protect it from floods. Balatasan is very prone to flooding. A single flooding event can wipe out all the assets of a production cluster.

The first PCM training conducted in Calabanga was during the first ACCORD project, to aid barangays design their small-scale mitigation projects. The knowledge they acquired from this training was applied in designing small-scale mitigation projects applying the natural resource management approach. The Food Facility Project conducted a refresher training on PCM.

"The knowledge that we acquired from the ACCORD projects proved very useful to the design of our crab farming project," volunteered Jose. "In the proposal, we had to identify possible hazards that could affect our crab farming project." Once the

hazards were identified, they needed to introduce doable risk reduction measures. From the risk mapping that they did with ACCORD, they were able to identify abandoned ponds that are less prone to flooding.

For his part, Noel has the following to share: "To reduce the risk from flooding, we also needed to add height to the embankment, then enclosed the pond with a net to prevent the crabs from escaping especially when water overflow during heavy downpour or during a typhoon." Noel said they also learned from ASCEND the use of the seasonal calendar. Their calendar showed that demand for crabs are very high in September during the Calabanga town fiesta and the Penafrancia fiesta in Naga City, and then again during Christmas and New Year. The same calendar also showed that most flooding incidents occur in October and November. They have to weigh therefore the potential economic gains and the risks. "The decision we have to make during October and November can be very tough," Noel added.

In the past, Leonora would easily cry when teased that her production cluster was not doing well. The original crab farming production cluster that she was a member of was actually the first production cluster organized by the Food Facility Project in Calabanga. Thus expectations on the cluster were very high.

The challenge to make the crab farming project of Leonora's production cluster economically viable and sustainable is still daunting. Leonora, Generoso, Jose and Noel, however, are more confident now, that they are better equipped to face the challenges that are sure to come. They are grateful for the support of Food Facility, which included provision livelihood assets such as crab juveniles, trash fish and nets, and training on crab farming, PCM, financial management, leadership and organization. They are equally grateful for the disaster risk reduction knowledge and skills they acquired from the ACCORD projects, which they are able to apply in their livelihood project. Leonora is all smiles nowadays.

10

Emergency Response: risk-proofing and linking to development

After each major disaster, government units and agencies, non-government organizations, the private sector, charities and a host of other organizations launch emergency response, spending huge amounts of resources. Disasters in the Philippines have been recurring so frequently that preparing for them, including preparing for better emergency response is imperative.

The quality of emergency response, such as its appropriateness, effectiveness, timeliness and relevance, is largely influenced by what preparatory activities are taken long before a disaster strikes. Preparing for emergencies is done by way of emergency preparedness planning or contingency planning. Contingency planning is an important disaster risk reduction activity.

Of late, quality emergency response also incorporates disaster risk reduction elements. This is often referred to as mainstreaming DRR in emergency response.

Earlier emergency response projects of CARE and partners in the Philippines largely focused on the delivery of food aid and non-food items

to disaster victims. From these experiences, it became clear that disaster preparedness capacities of LGUs, communities, schools and others need to be built in order for them to carry-out an efficient emergency response, and to minimize the likelihood that disasters will occur. Thus emergency response operations were used as entry points for DRR. The partnership with the municipalities of Dingalan, Calabanga and Saint Bernard started with emergency response operations that were eventually followed by DRR projects.

DRR is also being systematically mainstreamed into emergency response. With DRR mainstreamed into emergency response, it became easier to follow through with implementation of explicit DRR actions.

What is an Emergency Response?

UN ISDR defines emergency response (ER) as the provision of assistance or intervention during or immediately after a disaster to meet the life preservation and basic subsistence needs of people affected. It can be in the immediate, short-term, or in a protracted duration.

ER is composed of a wide range of activities and processes that help affected communities respond to and cope with the immediate effects of a disaster, mainly focusing on their pressing safety and practical needs to prevent the situation from getting worse.

How did we do it?

The ACCORD model's emergency response is premised on right to life with dignity of vulnerable groups and disaster affected households and communities, including the right to humanitarian or emergency response. The application of RBA in emergency response implies the application of quality standards.

The quality standards in emergency response observed by ACCORD include the conduct of participatory needs assessment as a basis for designing emergency response actions. Targeting beneficiaries for assistance is also a standard: priorities for assistance are vulnerable and disadvantaged groups who have less access to assistance programmes, or none at all. Participation of targeted beneficiaries is also ensured in all

phases of the project, from design, to implementation and to evaluation. The SPHERE minimum standards are introduced to CARE partners, LGUs, communities and targeted beneficiaries as a guide to designing, implementing, monitoring and evaluating emergency response actions.

1. Damage, needs and capacities assessment

At the onset of a hazard event, a Damages, Needs, and Capacities Assessment (DNCA) is conducted to determine the effect and impact of the hazard, the needs arising from these effects and impacts, the internal and external resources available to the affected communities (i.e. their existing capacities) and the gaps between needs and available resources.

Joint assessments are increasingly becoming the norm. Short of joint assessments, various organizations exchange information on separate assessments made, and coordinate by informing others of what response activities they are doing, and where and when they are doing these activities (3Ws). CARE and partners are active in coordination meetings, but find it challenging to attend the numerous meetings of the various UN Clusters.

Celso Dulce, Jr., CARE Nederland Representative in the Philippines, consults evacuees during a DNCA to serve as basis for the design of Meari (emergency response) Project.

In the Philippine Tropical Cyclone Emergency Response Project (PTCERP), a combination of community consultations and household surveys were conducted to determine the particular needs of the community, identify the beneficiaries, and activities relevant to emergency response.

In conducting DNCA, beneficiaries of assistance are identified. The general criteria for selection include the extent of the negative effects of the hazard, the low level of capacity to cope with the negative effects, and the lack of access to assistance programmes of other organizations undertaking emergency response. One important aspect of DNCA that should always be included is examining the capacities of the community and from which subsequent capacity-building activities will be built on.

2. **Work planning and relief distribution operations**

Based on the results of the DNCA, the emergency response would prioritize particular groups that need assistance most, and the kind of assistance that will be provided these groups. In the case of PTCERP, it focused its efforts on food and agriculture as the agriculture sector suffered greatly from the tropical cyclone causing food shortage and destruction of farmlands.

Residents of Bgy. Banaba in San Mateo Rizal who were affected by tropical cyclone Ketsana (Ondoy) received food relief packs thru PTCER Project.

Planning and target-setting are done with the main stakeholders. When the situation does not permit for work planning sessions to immediately occur, proposed targets and plans are consulted among the different stakeholders in subsequent meetings.

During planning, available funds and resources are assessed, alongside available human resources in the community to make sure plans are feasible. Afterwards, targets are set in terms of the number of direct beneficiaries, the type of assistance to be delivered, and additional resources to be generated, among other concerns.

This planning process is done with the direct involvement of community leaders and other stakeholders. This helps to clarify what assistance will be delivered compared to the expectations of the community, as well as the responsibilities of the different stakeholders.

Prior to actual distribution of relief goods, the project staff holds a short programme to explain to the community why assistance is being delivered to them, how beneficiaries were determined, and what kind of assistance they shall receive. A final masterlist of beneficiaries is used to guide the staff in the distribution. Village officials or community-based organizations help in the verification of beneficiaries and distribution of claim stubs before distribution to ensure an orderly activity.

Implementation of new modalities in emergency response

Tropical cyclones undoubtedly result to the destruction of farmlands, irrigation systems, water supply systems, and other livelihood assets. These affect the resumption of livelihood activities of poor households. Roads are destroyed and become impassable resulting to difficulties in food supply and high prices. But despite this situation, the most common form of assistance provided during emergencies is the distribution of food and non-food items.

Aside from food needs, the spread of diseases also becomes a serious threat as the contamination of water systems result to lack of sufficient and potable water supply for drinking and hygienic purposes.

Thus, new modalities of emergency response were developed to enhance appropriateness of assistance and to link aid to development processes.

These new modalities range from distribution of cash, food and livelihood support. Distribution is linked to beneficiaries' participation in activities that benefit their communities. These linked activities ranged from clean-up activities to improve sanitation, clearing of canals and waterways to minimize flooding, planting of trees to control erosion, landslides and floods, to repair of irrigation canals and water supply systems to hasten restoration of livelihoods, and to repair of classrooms to enhance the safety of children. By introducing linked activities, different needs such as WASH, agriculture, education and DRR are similarly addressed through community mobilization.

1. Outright cash assistance

The target beneficiaries of distribution of outright cash assistance are the most vulnerable households. They are willing to work for cash or food but are incapable of doing so. Members of these households are often the elderly, persons with disability, women-headed household, lactating and pregnant women. By exempting them from participating in the linked

Relief delivery operation in Bgy. Palosapis in Montalban, Rizal. Outright cash assistance is given to disadvantaged groups who are not capable of participating in food-for-work or cash-for-work activities.

activities, they are able to receive assistance and thus avoid further discrimination.

These beneficiaries are determined through strict beneficiary selection process, ensuring that only qualified households will receive the outright cash assistance to avoid an attitude of dependency among those who are capable to work.

Cash assistance allows the beneficiaries to meet their different priority needs, which understandably differ from one household to another.

2. **Cash-for-Work**

Cash-for-work is receiving cash assistance linked with participation in community activities. This modality maximizes the capacities of the beneficiaries to work and contribute to the activities that will benefit their community.

Outright cash assistance and cash for work allow households the flexibility to address their varying needs and priorities. They should be considered as emergency assistance in the context of the disaster. They should not be considered as payments that would set a precedent for community members to demand payment for participation in future community activities.

In the experience of PTCERP's cash for work modality, the cash assistance was used by beneficiaries to address a wide range of household needs including:

a. purchase of construction materials such as nails and GI sheets for repair of houses;
b. payment of house rental;
c. seed money for income generating activities such as selling vegetables and selling street food;
d. clothing for children;
e. food and non-food items, especially for babies;
f. payment of tuition/school fees;
g. medicine;
h. payment of electricity bills; and
i. transportation fare in order to be able to report for work

3. Food for work

Food for work is the distribution of food packages to the beneficiaries in exchange for work. Food packages are distributed instead of cash if the resources are still not available in the local market or supply of food is still unstable and prices of basic commodities have not gone down. This modality is also applicable if high logistical cost is required for households to acquire their food needs.

The food assistance package generally consists of 25 kilograms of rice. In some communities, ¼ kilogram of dried fish was added to the rice. Still in a few other communities, canned fish or sugar were added to the basic food pack of 25 kilos of rice. Modifications in the content of food package were made based on the assessed needs and recommendations of affected residents during a thorough consultation with different groups. Such changes are reflective of the project's ability to adapt to the varied needs of the communities at the time of emergency response.

The beneficiaries of this aid modality also participate in activities such as repair of irrigation canals, clearing and repair of roads and footrails damaged by the typhoon, and the like.

4. Short-term livelihood support linked to community activities

Short-term livelihood support is the distribution of livelihood inputs and productive assets such as vegetable seedlings, farm tools and fertilizers to help restore the disrupted economic activities of the beneficiaries and replace their damaged tools and equipment. This modality of aid recognises the need to urgently respond to early recovery of affected livelihood as delayed actions will result to further problems with food security and income generation of the affected households.

Aside from early recovery of disrupted economic activities, this modality also considers the initiation of new livelihood activities especially in cases where restoration of previous livelihood is already considered impractical and not feasible.

Moreover, the distribution of aid is intended to complement the general effort to restore livelihood activities. An example of which is the

PTCSLRP beneficiaries from Nambaran, Kalinga repair their irrigation system.

distribution of farm tools alongside the repair of irrigation and water systems.

In the experience of PTCERP, the short-term livelihood inputs distributed include the following:

a) Vegetable seeds
b) Rice seeds
c) Fertilizers
d) Set of farm tools
e) Tie wires for vegetable growing
f) Rubberized hose for irrigating farms
g) Rice stock for rice retail trading
h) Fishing nets

Mainstreaming DRR in emergency response

DRR is mainstreamed in emergency response. Mainstreaming is achieved in several ways. DRR training activities are incorporated in the design of emergency response projects. A key output of the training activities is a DRR action plan for the community.

Activities undertaken linked to distribution of cash, food or livelihood inputs are often DRR activities. Repair or construction of retaining walls, tree planting, clearing of drainage canals are risk reduction activities.

Livelihood support also requires the incorporation of DRR in the design of the livelihood activities. Simple DRR measures incorporated include locating livelihood assets in safer areas, designing evacuation plans for livestock, and engaging in sustainable agriculture and natural farming technology systems.

These emergency response projects also serve as entry points for future disaster risk reduction projects.

Lessons learnt

With the vast experience in implementing humanitarian aid, one thing is for sure, that to be able to really help people during emergencies, one has to look at their needs as rights that must be upheld. This perspective has allowed the ACCORD model to test out ways in which more appropriate and more rights-sensitive approaches are observed particularly during emergencies.

A beneficiary from Bgy. Abkir in Vintar, Ilocos Norte, reads a WASH flyer included in his food relief pack.

Conducting emergency response activities has helped strengthen partnerships with the less vulnerable sectors such as corporations, faith-based organizations, school-based groups, charitable institutions and civic-minded individuals. These partnerships are viewed as an initial step to introducing DRR, and eventually, their support to DRR in years to come.

On the one hand, conducting emergency response must continuously be based on rights-based approaches such that contributions for poor communities must be based on respect. In the experience of ACCORD, aid coming from groups and companies who contribute to the destruction of the community's environment and resources must not be accepted in the name of providing immediate relief.

The implementation of new modalities in emergency response in PTCERP is considered as valuable learning experience by CARE Nederland and partner organizations. With the implementation of this set of aid distributions, the project's flexibility in emergency response adapting to local situations and varying needs of different beneficiaries were clearly demonstrated.

Meanwhile, the 'hitting of two birds with one stone' strategy of the project seen in the distribution with implementation of linked activities related to repair and rehabilitation of community infrastructure and facilities, and disaster risk reduction activities is greatly appreciated by the beneficiaries. This appreciation was on the double purpose of meeting urgent needs of vulnerable households, and of contributing to the improvement of the general condition of disaster-affected communities.

However, the method of outright cash, cash and food for work and livelihood distribution limited to households proved to be impractical in some communities such as those in the Cordillera Region. The indigenous peoples of Cordillera are accustomed to their communal way of life so there was hesitation to receive their own household benefits. This still resulted to creative ways such as pooling of cash and food resources to finance projects that benefit the whole community such as the repair of their community's irrigation systems or as additional investment to their credit and rice cooperatives. Some of the pooled resources were also used to buy seeds, or materials for the construction of a post-harvest facility. In one community, some of the pooled rice was sold and money was used for a tree-planting activity.

- Emergency response should allow flexibility not only in choice of aid distribution but also in the design of distribution from household to group or organization setting.

- As early as the design stage of the project, cultural norms especially of disadvantaged groups such as indigenous peoples, should be considered.

- Support to livelihood activities should also build on positive cultural practices and on social and organizational strengths of the community to increase the likelihood for sustainability. The supported livelihood activities should also contribute to strengthening of these positive cultural traits and social and organizational values.

- Overall, the key lesson learnt from implemented response projects was that future interventions should be more sensitive to cultural norms, especially when working with disadvantaged groups. It also emphasized that future emergency response should also build on and help strengthen positive aspects of culture and values, and should not contribute to the weakening of indigenous traditions and values for more relevant, effective, and sustainable actions.

A member of SNKGI, a women's organization in Guinayang, Rizal, tends the rice store which their organization received as aid for having been affected by typhoon Ondoy and Pepeng.

The houses that *ob-obbo* built

In Bontoc and other parts of Mountain Province, the spirit of community cooperation still prevails. Community members work together in planting or harvesting in one's ricefield, moving to another member's ricefield the next day, until all the ob-obbo members' ricefields are either planted or harvested. The tradition of ob-obbo is also applied to construction of houses. The Dalican tribe practiced ob-obbo when they constructed their semi-permanent shelters in locations safer from landslides.

Dalican is a remote barangay of Bontoc, the capital town of Mountain Province. Dalican also refers to the tribe that inhabits Barangay Dalican. Despite being a barangay of the capital town, Dalican is not easily accessible because construction of the road leading to it was left unfinished. After Typhoon Pepeng ravaged the Cordilleras in 2009, the Dalican tribe was again confronted with the specter of a massive landslide. The main settlement area of the barangay is located on top of a sliding mountain slope. The lowest portion of the settlement area is very near a ravine and is in grave danger of slope failure.

For several years now, the community, with the help of the Cordillera Disaster Response and Development Services, has a working disaster preparedness plan in place. The plan's main feature is for the systematic evacuation of women and children from houses in the extremely high-risk locations to safer ground when rainfall reaches an alarming level. The men stay behind to monitor the movement of slope.

Despite the plan in place, community members still spend sleepless nights during typhoons or prolonged heavy rainfall. Thus, the decision to move to a safer location was finally taken after Pepeng. Relocation was a desired but difficult option for the people. Difficult not only because of the financial cost it will entail but also in terms of labour and the trees that need to be felled from their communal forest.

The Dalican Ato Federation (DAF), a federation of four ato, led the community in the construction of semi-permanent houses in the relocation site. An ato is a socio-cultural and political structure where the tribal elders meet to decide on community matters, such as the declaration of the timing of rituals, and of activities linked to the agricultural cycle. Vicente Manerwap, or Ama Manerwap, as he is fondly called in Dalican, is the tireless leader of DAF and one of the elders in the community. When it comes to his tribe's welfare, he is relentless and is ever active.

The Dalican Ato Federation, through Ama Manerwap's leadership, worked closely with the barangay and took on various responsibilities to ensure that the enormous task of relocation will materialize. DAF made representations in behalf of the Dalican tribe, while the provincial chapter of the Cordillera People's Alliance in Mountain Province provided technical assistance to address their barangay's vulnerability to landslides. They also approached the CorDis RDS for assistance.

When ACCORD Inc., CorDis RDS and CARE Nederland agreed to collaborate in a humanitarian response project, the request of DAF was included under the semi-permanent shelter component

of the Philippine Tropical Cyclones 2009 Shelter and Livelihood Recovery Project (PTCSLRP). The 12-month shelter project was realized, though not easily and smoothly, but with important lessons gained.

The Dalican project had to surmount serious challenges in the course of implementation. More than 200 houses needed to be relocated and the risk assessment conducted with assistance from the Mines and Geosciences Bureau actually identified 70 houses within an imminent danger zone. The PTCSLRP, however, could only finance the construction of 50 houses.

Through DAF's mediation, the community has agreed that, in principle, all houses will eventually be relocated. Not one will be left behind. However, relocation will be done by batches. Those

Fifety households from landslide-prone areas in Dalican, Bontoc, now own new homes (in orange) constructed thru "ob-obbo."

who are first to become ready for construction shall be prioritized for the 50 slots already available. All the 70 households listed in the high-risk zone shall be given the right to first access to the timberland of the tribe. Meanwhile, DAF will lobby for the possibility of additional units to be funded by the Project and/or from other sources.

Prioritizing 50 out of more than 200 households was not an easy task. However, with the people organized and their leadership competent and inspiring, Dalican worked as one in the goal of establishing a safer settlement.

The community also wanted to take this once in a lifetime opportunity to have a house designed and built in accordance with indigenous architecture practices, for a budget of PhP 80,000 per semi-permanent shelter. With the guidance of the Ato Federation, the communities decided that the financial assistance from the Project will be used mainly for the purchase of GI sheets and other hardware, and materials for lumbering.

"Gamal" (cooperative endeavor) in Labey, Benguet, to build houses for families affected by the landslides in 2009

Lumber, lumbering and construction were contributions by the Project's direct beneficiaries.

The semi-permanent shelters were designed as wooden structures that used pine lumber. The main structural components of the design are the wooden posts or columns which served as the vertical support; the wooden beams as support in the ground level; the girders as reinforcement on the second floor level; and the girt on top of the house which then strengthened the roof framing component. These are the horizontal components of the structure that essentially ensure the structural integrity of the construction design of the core shelters.

The wooden posts are not rigidly fastened to concrete foundations but rest instead on a carefully chosen stone being placed firmly on the ground. In contrast, in lowland and urban areas, the posts are rigidly attached to a concreted foundation and fastened by the use of a steel strap. The use of the stone, instead of concrete foundations, is considered the best structural design adapted to earthquake and minor landslide events. Combined with framing from bottom to the top, the shelters are better able to withstand earthquakes. The magnitude 7.8 earthquake of July 1990 proved the integrity of this indigenous structural design. It was observed that the houses that applied indigenous architectural practices were intact. This type of construction design has also proven to be effective in minor landslides because the horizontal support is rigidly framed, making the structure intact even if one post was already hanging due to the slide.

The shelters can also better withstand tropical cyclones because of the rigid framing that characterizes the structural design. The rigid framing of the beams, girders and girts fastened to the wooden post enable the whole structure to resist wind shear. The topography of the area, and the specific location selected for the construction of the shelters also contribute to the risk-proofing of the shelters, according to local people. The people of Dalican claim that no structures have been destroyed by tropical

cyclones in their village because of their indigenous architectural practices.

Gathering the construction materials took a lot of diligence and perseverance amongst community members. The community relied on their traditional practice of *ob-obbo*, where the whole community volunteers to help in the various tasks of constructing houses in safer locations. Lumber was hauled by the people on foot from the timberlands which are 2.5 kms. (the nearest) and 4 kms. away (farthest location) to the settlement area. The whole community, not only members of the first 50 household-beneficiaries, participated making it look like lumbers were walking their way home as you view them coming down the hill.

This was how it similarly looked during the deliveries of materials purchased in the city. Coloured GI sheets were seen slowly creeping their way to the site, about 2.5 kilometers from the road. Roofings and sidings were made of pre-painted GI sheets. There were days when work was not done with the setting of the sun. After dinner, community members would gather for the community-based disaster risk reduction and climate change adaptation training, or for the regular meetings to check on the progress of implementation.

After the construction of houses, the community members immediately attended to the implementation of small-scale mitigation activities recommended by the geo-hazard assessment conducted by the MGB.

What made the Dalican experience possible? Key was the presence of an active and cohesive people's organization, led by a strong and principled leadership, and guided by aspirations of equity and social justice as the foundation for community resilience. Building on indigenous institutions, practices and norms, and combining these with available scientific knowledge, was also an important factor. These are essential features of humanitarian response and disaster risk reduction that applies community-based and rights-based approaches.

11

Planning, Monitoring, Evaluation, and Learning the participatory way

In all project partnerships amongst CARE, ACCORD Inc., CorDis RDS, AADC and CNDR, participatory planning, monitoring, evaluation and learning (PPMEL) are consistently promoted. PPMEL refers to project beneficiaries and stakeholders participating in all stages of the project cycle -- from designing and planning the projects, to monitoring and evaluating the implementation of activities. PPMEL activities include needs assessments, stakeholders' meetings, action planning, monitoring, assessment and community audit, and other learning activities.

Why participatory?

Participation is a key feature of CBDRM as well as the rights based approach. It takes into account the different perspectives and interests in a community. It also ensures that attention is given to disadvantaged groups including children, women, indigenous peoples, elderly, and persons with disability. This participatory process helps develop community ownership of projects, gives "voice" to disadvantaged groups, and helps promote social justice, equity and good governance.

- It encourages more community members to participate, support and improve the execution of their projects.

- In particular, community members and disadvantaged groups acquire a stake and "own" the project as well.
- It enables vulnerable groups to push their community leaders to be more active and responsible.
- It develops community members' confidence about what they can do within and outside the project to address basic concerns.
- It is a means for holding non-government organizations, donors and local government units accountable to beneficiaries.
- It makes project implementers more conscious of the quality of their work since they are primarily accountable to project beneficiaries.

How did we do it?

Participation of direct beneficiaries and stakeholders starts during the design of projects, when the needs assessment is conducted. In a meeting where different groups are represented, the community is consulted about their needs and capacities for a project being designed. The general objective of the project is also discussed, along with activities and guidelines such as beneficiary selection.

FF Project staff consults the community on the selection of beneficiaries .

At the inception of a project, a stakeholders' meeting is held, where the project's specific operational objective, results, activities and beneficiaries are discussed. In this meeting, further inputs from the community are encouraged to improve the design of the project.

Action planning follows the stakeholders' meetings. Communities, schools and local government units prepare a detailed work plan of their project activities. Before, activities were done piecemeal or were planned by the staff alone, hence it was difficult to find common time amongst beneficiaries and project staff. Also, this did not contribute to building community ownership of the project.

Participatory monitoring and evaluation

Direct beneficiaries monitor implementation using their action plan. Monitoring involves regular and systematic recording, collecting, and measuring information about the progress of implementation. It also includes analysing developments or changes in the project's environment or context. This helps ensure that the project conforms to its objectives, and that timely and necessary adjustments in the original plan are introduced should the need arise, especially if there are changes in the environment which may affect project implementation.

Participatory evaluation, commonly known in ACCORD as community audit, refers to direct beneficiaries participating in the evaluation of projects. Evaluation means knowing if a project is achieving or has achieved its expected results and objective.

In community audits, participants gather to recall their activities and discuss their problems as well as corresponding measures planned and/or implemented to resolve difficulties. Factors that facilitated implementation are identified. Changes that have taken place in the community as a result of the project are reflected upon. Also gathered are comments and feedback on project staff. Participants to the community audit are men, women, youth, elderly and men- and women-leaders; this ensures that views of community members from different sectors are taken into account. Even then other stakeholders, like non-participating community members, are still invited to participate.

CFs have conducted separate assessments. The assessments served as venues for gathering together active CFs and those who have not been as active. These give CFs a chance to take stock of themselves, not just individually but as the core group to whom the LGU is relying on in implementing current and, especially, future DRR initiatives when the project has ended.

Among the CFs, the discussions are a bit informal and free-flowing. Noteworthy is the change observed on how the CFs relate among one another during assessments. Then, CFs from barangays and staff from the municipal LGU seemed divided — the prevailing sort of hierarchy that places the municipal LGU "higher" than the barangay. The tone now is friendlier, with everyone mingling with everyone else, including elected LGU officials. With this, CFs became more objective in assessing their own performances as CFs, providing constructive criticism to others, and not taking offense once at the receiving end of criticisms, and keeping in mind that assessments are not for the sake of judgment but for improvement.

Schools have also conducted their own audits. Teachers, non-teaching personnel and school heads are the participants in the school audit.

At the staff level, mid-term and end-of-project assessments are also conducted. The results of community and school audits and CF assessments are key inputs in staff level assessments.

Learning

Learning is the integration of experience with reflection, and of theory with practice.[1] Monitoring and evaluation are learning activities.

Reflection in-action and on-action is carried out in order to improve practice. Reflection-on-action takes place after the activity, when full attention can be given to analysis without the necessity for immediate action and when there is opportunity to receive assistance from others in analysing an event. Reflection-in-action, which occurs during the event, may be more effective in improving practice. It results in on-the-spot analysis to adjust and improve actions, even though it requires simultaneous attention to the behaviour and the analysis, as if from an external perspective.

Villagers from Panian evaluate their performance in and give feedback about ACCORD-2 Project during the midterm community audit.

Simply put, monitoring is a reflection-in-action type of activity. Project mid-term and final evaluations or community audits are a type of reflection-on-action in which project outcomes are compared to expectations.

Other learning and dissemination activities are cross visits, publications and participation in conferences. Cross visits among communities within a municipality were carried out. The LGUs of Calabanga and Maragusan visited the LGU of Saint Bernard. The participants included LGU elected officials and staff, barangay leaders, teachers and community facilitators. It served as a means for sharing experiences and disseminating good practices in DRR as well as governance. The LGU-partners of Agri-Aqua Development Coalition in Zamboanga Peninsula visited Calabanga. Calabanga has in fact become a favourite learning destination of LGUs and NGOs.

Non-government organizations also made similar exchange visits to learn from each other's practices and, on some occasions, focusing on particular components like early warning system or small-scale mitigation.

Several case studies were prepared for dissemination, on the DRR capacity-building process experienced by Calabanga and Saint Bernard municipalities, on natural resource management and mangrove reforestation among others. Case studies were undertaken to determine feasible small-scale mitigation actions that apply natural resource management as an approach and later on, to reflect on the factors for successes and failures of various DRR and climate change adaptation initiatives. These are done to facilitate learning and are shared with other stakeholders. In fact this book is a comprehensive documentation and dissemination of the lessons learnt from years of implementing DRR and related actions.

Participation in conferences and workshops are seen as opportunities for learning and sharing. CARE and partners have participated in three regional workshops on DRR best practices. In these three occasions, CARE and partners had shared their good practices and lessons in plenary sessions. Locally-organized workshops by the European Union Delegation in Manila, and by the League of Municipalities, for example, were also instances where CARE and partners shared its best practices and lessons and learned as well from the experiences of others.

Mayor Rico Rentuza from Saint Bernard as he shares experiences and lessons from ACCORD Project during the Asia Pacific Regional Disaster Risk Management Practitioners' Conference held in Cambodia in April 2008.

Lessons learnt

• LGUs, communities and schools appreciate the value of, and are already practicing PPMEL. However, making PPMEL a way of life among local partners takes time.

• On their own, partners still need more "reminders" for them to monitor, evaluate, draw lessons, and apply these lessons to other circumstances. For example, in many instances, communities still fail to regularly check their performance using their work plans or action plans. At times, even the project staff forget certain aspects of PPMEL, particularly participatory monitoring and learning-in-action.

• In particular, communities value community audits. They have learnt that even poor people have the right to their opinion and the right to express criticisms and forward suggestions on matters that affect them and that are important to them. In the past, their voices were unheard of. Local authorities have also become open to participatory approaches in planning, monitoring, evaluation and learning.

• An effective dissemination strategy is important so that knowledge about good practices and learnt lessons are not limited to only a few people and few organizations. In this way learning can be put to optimum use.

• Participation during needs assessment provides a strong foundation to projects subsequently designed. However, "drawbacks" occur as participants expect to become beneficiaries of the project even as participation does not automatically qualify them for it. Also, such consultation can result to the listing of diverse needs competing to be met. For example, in the Food Facility Project, members of a community were proposing a wide range of food production and alternative livelihood activities. But a good balance must be set between trying to meet individual needs and the effectiveness and efficiency of projects.

Notes

1. *Caldwell, Richard. Project Design Handbook, CARE, July 2002, p. 106*

Most significant change

During the handover activities of the ASCEND Project, stories abounded of important lessons learnt, and of changes of great consequence.

Talk about the end of the project, about exit strategies and responsible handover started as early as the inception phase of ASCEND. Still, the actual closure, after five years of working together, left not a few teary-eyed.

Like most other ending projects, one question still remained: "What have the three phases of ACCORD done to improve the lives of vulnerable households in high-risk communities?"

Kagawad (councilor) Belen of San Bernardino in Calabanga was very candid. She said her experience with ACCORD made her stronger and more knowledgeable in committing to help her village reduce the negative effects of destructive floods that frequently come their way.

Kagawad Belen explained that the learning activities, particularly the assessment sessions, are important activities that helped

her become what she is now. She recalled that the assessments after each training helped her improve her knowledge and skills as a community facilitator. In each activity planning, she became more knowledgeable, more skilled, more involved.

Upon reflection, she pointed to a growing number of community members who have developed the capacity for planning, monitoring, and assessment or evaluation. Some have completed only the community-based disaster risk management and disaster preparedness trainings. Others have attended specialized trainings such as Project Cycle Management. Initially, some of these community members felt it was taxing to stay behind after every activity to assess implementation. Later, however, they realized the importance of such so as to ensure that lessons learnt will inform future actions and avoid the same mistakes.

In a joint learning activity of direct beneficiaries of the ASCEND and Food Facility projects-- after hearing ecstatic accounts of this village having a group of elderly people successfully managing a rice retail shop, and the village having harvested its third palay crop, and with enough funds collected to buy another hand tractor -- *Kagawad* Belen had this to say about the most significant change she experienced:

Kami din meron nang contingency plan, salamat sa ACCORD. Kami din merong tilapia fishpond, at inuumpisahan na ang maliit na hatchery, dahil sa aming paglahok sa Food Facility Project. Pero ang pinakamalaking pagbabago sa amin ay ang pagkatuto na kaming mga mahihirap at bulnerable ay may kakayanan palang baguhin ang aming kalagayan at gawing mas ligtas ang aming pamayanan. Dati nahihiya kami dahil sa aming mga limitasyon. Ngayon may tiwala sa sarili kaming humaharap sa mga kababaryo at sa munisipyo dahil alam na naming may kakayanan kami na gawing mas ligtas ang aming komunidad at naipapakita na namin ito.

(We also have our own contingency plan, thanks to ACCORD. We are engaged in raising tilapia in ponds, and we have started

establishing a small hatchery, the result of our participation in the Food Facility Project. But the most significant change is our realization that poor and vulnerable as we are, we have the capacity to change our situation, and to make our community safer. Before, we felt inferior because of our limitations. Now, we have gained self-confidence in working with fellow members of the community and the municipal local government unit because we know we now have the capacity [to make our community more resilient] and we are actually demonstrating such capacity now.)

Such confidence was coming from someone who, during the first ACCORD project, would hardly even talk during project activities.

Kagawad Belen discusses safety measures for various hazards during a CBDRM Training in Punta Tarawal, Calabanga.

Meanwhile, in a community audit in Saint Bernard in June 2011, barangays reported that important changes were observed with the end of ASCEND, just like after ACCORD and ACCORD-2. This time, however, the quality of change is described in the use of

the word "mas" to emphasize the improvement. For example, they reported that *"mas marunong na kami ngayong umagapay sa emergency kaysa noon* (we are now more knowledgeable in responding to emergencies than in the past)." In fact the assessments by BDRRMCs of the evacuation during the first wave of severe flooding in January 2011 concluded that, indeed, errors were committed in implementing their respective contingency plans. Having identified the errors the BDRRMCs immediately set out to correct them. These actions did save lives and properties when, days after, flooding and landslides hit the barangays again.

This is what participatory planning, monitoring, evaluation and learning (PPMEL) helps communities to achieve. It helps them to reflect on their actions. From reflection comes learning, and from learning comes empowerment. From the obvious outcome *"nakumpleto namin ang mga pagsasanay at drill, at naka-ani na kami ng mga tanim naming gulay"* (we had completed our trainings and drill, and we have already harvested vegetables from our kitchen gardens), to full appreciation: *"natuto kami sa aming karanasan na kahit ang mga mahihirap at bulnerable ay may kakayahang baguhin ang kanilang sitwasyon, at may tiwala kami sa aming kakayahang gawing ligtas ang aming komunidad, at naipapakita na namin ang kakayahang yan ngayon"* (from experience, we have learnt that even poor and vulnerable people can change their situation, and we are confident that we now have that capacity to make our community more resilient, and we are actually demonstrating such capacity now), community members know that significant changes have come to their lives via PPMEL.

Looking to a safer future

Before sequels and prequels became a fad, all books, as do movies, end with the final chapter. The story of the ACCORD model, however, cannot end with finality, because by nature the model is constantly evolving, as it responds to the equally ever-changing local and global context.

The ACCORD model traces its roots to the experience of people's organizations when, back in time, analysing the roots of vulnerability is considered subversive. The model also takes pride in learning from others, here in the Philippines and abroad. A key characteristic of ACCORD is the importance it places on learning from its own practice and from the practice of others. The ACCORD model does not claim exclusivity to the community-based and rights-based approaches. One reason this book is being published is to share the lessons and good practices accumulated primarily by CARE, ACCORD, CNDR, CorDis RDS, local government units, schools and communities as they participated in implementing the ACCORD projects and other related ones. .

ACCORD started as a traditional disaster risk reduction project. None too soon, it was realized that to improve the quality of DRR projects and programmes, they must incorporate climate change adaptation. Recently, the Partnership for Resilience, which brings together five Dutch non-government organizations including CARE and their respective southern partners (for CARE in the Philippines, ACCORD Inc, CNDR, AADC and CorDis RDS) have started promoting the combination of DRR, CCA and ecosystem management and restoration (or EMR). The flash floods triggered by tropical cyclone Washi (Sendong) in Cagayan de Oro and Iligan cities serve to highlight the strategic importance of this approach. It demonstrates the strong links between disasters, climate change and environmental degradation. On the other hand, the promotion of the integration of DRR, CCA and EMR also illustrates the ever-evolving nature

of the ACCORD model, in the search for better-quality DRR programmes. The ACCORD model is not a perfect model. The essential elements have been tested and have proven to be effective. However, some parts have yet to be fully developed. This applies to particular mainstreaming, be it in the local development planning processes, in the education sector, in household livelihoods, or in humanitarian response. Mainstreaming has been successfully introduced in these programme areas, but to claim that the work is already complete is an exaggeration.

Mainstreaming in these programme areas need to be explored further to discover what works best in specific situations. The use of the Rationalized Planning System in mainstreaming DRR in the planning activities of local government units has yet to be adopted by more LGUs. This can only be realized if such approach to mainstreaming is formally supported by the Department of Interior and Local Government.

A lot of successful DRR activities have already been conducted in schools by numerous actors. However, these are all pilot activities. A key mainstreaming activity in the education sector, DRR integration in the school curriculum, has yet to be effected. The Department of Education is a strategic agency in the development of resilient communities. It is desirable, therefore, that DRR is mainstreamed in the agency plans, as it is also desirable for all national government agencies to mainstream DRR in their plans.

Mainstreaming DRR in livelihoods is conceptually appealing, and some households and communities have already demonstrated some initial successes in their practice. But experience from the field shows that, in general, households are more concerned about immediate benefits than potential benefits that protect livelihoods from future disasters and avoid activities that can contribute to increased vulnerabilities. Much work has yet to be done in terms of developing examples of successful practices and in promoting mainstreaming of DRR in livelihoods.

Mainstreaming DRR in humanitarian response has also been demonstrated, but much has yet to be learned. The experience in other countries can contribute to developing the quality of mainstreaming in various humanitarian responses, such as in WASH, shelter, and food security.

Work on public awareness must be improved. In the past, the focus on public awareness raising has been the schools. Public awareness raising in communities must be done in a more systematic and wider scale.

Incorporation of ecosystem management and restoration is a big challenge. In the past, natural resource management is applied as an approach to disaster mitigation. There are many similarities between NRM and EMR, such as engaging in mangrove reforestation, or planting of trees in upland areas, but there are also significant differences. EMR forces DRR practitioners to look at whole ecosystems, to think of landscapes, and in larger scales.

EMR all the more highlights the importance of advocacy. What one cannot achieve through direct implementation may be achieved through advocacy. Advocacy at various levels, especially at the national and international levels, was not one of the strengths of ACCORD.

Finally, the ACCORD model was tested mainly through partnerships with local government units. In many of the areas where the ACCORD model was implemented, there were no people's organizations of significance, except in the areas of CorDis RDS. Hence, while the "formula" for building capacities of LGUs is well developed, the same is not true for people's organizations. In which direction will capacity building of people's organizations be taken? What will be the role of people's organizations in relations to LGUs? What opportunities do the new Philippine Disaster Risk Reduction and Management and Climate Change laws open to people's organizations?

Work that builds safer, more resilient communities is far from being done. The ACCORD model must continue to evolve become relevant to the constantly changing local and global contexts. To continue to evolve, to continue to search for better solutions to problems posed by disasters, climate change and environmental degradation is an obligation that the people and organizations behind ACCORD will strive to honour, in affirmation of the right of vulnerable people to safety and resilience, and to life with dignity.

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