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typhoonbopha:

**local resource-based employment generation,
climate change impact mitigation and
livelihood recovery interventions
in Davao Oriental, Philippines**



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foreword

Responding to natural or man-made disasters is a central part of livelihood development in many parts of the world. Effective crisis response is dependent on a number of resource and capacity related issues – essentially related to the ability of local communities to deal with the detrimental effects resulting from a crisis situation and recover from lost livelihoods.

Local resource-based approaches combine and optimize the use of local resources in infrastructure and environmental works. These include the use of local skilled and unskilled labour, local technologies, local materials and local suppliers. Implementation is encouraged through partnerships with affected communities, local small-scale contractors, local non-government organizations, local governments and local training and service providers. Local resource-based approaches have a multiplier effect on the cash injected into the local economies, the training provided and the capacity built through local partnerships.

Such approaches to infrastructure development and community works have proven to be effective tools for disaster preparedness as well as during relief, recovery and reconstruction works.

In terms of income, local resource-based works can function as social protection schemes by providing short-term unskilled employment in the immediate aftermath of a crisis. Initially, such works prioritize the quantity of employment generated over the quality of works created. This emphasis then gradually changes so that the objective of creating employment is not compromising the efficiency and quality of the work itself. Various ILO programmes support such a transition by implementing employment creation projects and building capacity for local resource-based works in crisis affected areas. One of those programmes has been the ILO response to typhoon Bopha that struck southeastern Mindanao in December 2012.

Two ILO implemented projects funded by Department of Foreign Affairs and Trade (Australia) helped communities recover from the tragic event that impacted so much on their livelihoods. The projects engaged local partners to rebuild destroyed infrastructure and community and environmental assets. It provided income support and helped communities to re-establish lost livelihoods. In all its work the projects promoted and applied the use of local resource-based methods.

This document summarizes the achievements of these projects and present the various subprojects that were implemented by the ILO in three affected municipalities (Baganga, Cateel and Boston) in Davao Oriental in the aftermath of the typhoon (2013-2014). Many lessons have been learned which have been integrated in the stories.

Typhoons and natural disasters will continue to affect the Philippines and other countries in the region. The lessons learned and the interventions presented can be of great help in formulating a coordinated response to future natural disasters in the Philippines or the rest of the world. This document is also an important contribution to the ILO's overall knowledge and strategy development for post-disaster response centering on employment promotion and livelihood support.

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Agrarian Reform Beneficiaries	ARBs
Baculin Fisherfolks Association	BFA
Baganga Bay Protected Landscape Monitoring Office	BBPLMO
Baganga Electricians Association	BEA
Baganga Women’s Council, Inc.	BWCI
Boston Coffee Growers Association	BOCGA
Boston Women’s Association	BWA
Buguis-Yahuno Irrigator’s Association	BYIA
Bureau of Fisheries and Aquatic Resources	BFAR
Bureau of Local Government Finance	BLGF
Cabasagan Fisherfolks Association	CFA
Central Emergency Response Fund	CERF
Child Alert Mindanao, Inc.	CAM
Community Forestry Program-Taytayan Multi-Purpose Cooperative	CFP-TMPC
Cooperative Development Authority	CDA
Davao Oriental Electric Cooperative	DORECO
Department of Agrarian Reform	DAR
Department of Agriculture	DA
Department of Environment and Natural Resources	DENR
Department of Foreign Affairs and Trade	DFAT
Department of Labor and Employment	DOLE
Department of Science and Technology	DOST
Department of Trade and Industry	DTI
Employment Intensive Investment Programme	EIIP
Food and Agriculture Organization of the United Nations	FAO
Green Mindanao Association, Inc.	GMAI
International Labour Organization	ILO
Karancho–Cateel Nature Farming Advocates Association	KANAFARMA
Kinablangan Farmers Producers Cooperative	KIFAPCO
Local Government Units	LGUs
Low Pressure Area	LPA
Municipal Agriculture Office	MAO
Municipal Inter-Agency Council Against Trafficking	MIACAT
Municipal Social Welfare and Development Offices	MSWDO
National Disaster Risk Reduction and Management Council	NDRRMC
National Irrigation Administration	NIA
National Statistics Office	NSO
Non-Government Organization	NGO
Peoples’ Organization	PO

Personal Protective Equipment	PPE
Philippine Coconut Authority	PCA
Philippine Health Insurance Corporation	PHIC
Philippine National Police	PNP
Philippine National Police-Women and Children Protection Desk	PNP-WCPD
Provincial Task Force on Women and Children Concerns	PTFWCC
Public Employment Service Office	PESO
Rebuilding Innovations, Sustainable-Employment and Enterprise	RISE
San Isidro-Dapnan-San Victor Irrigators Association, Inc.	SAIDAVI
San Rafael United Women's Association	SARUWA
Securities and Exchange Commission	SEC
Sloping Agriculture Land Technology	SALT
Social Security System	SSS
Taytayan Irrigators Association, Inc.	TIAI
United Nations Children's Fund	UNICEF
United Nations Population Fund	UNFPA
UN Office for the Coordination of Humanitarian Affairs	UN-OCHA
Violence Against Women and Children	VAWC

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The various community and local organizations that implemented the subprojects in their respective areas in Baganga, Cateel and Boston whose achievements and experiences served as the inspiration of this document.

The provincial government of Davao Oriental and the municipal governments of the three municipalities, especially the Municipal Agriculture Offices (MAO), the Municipal Social Welfare and Development Offices (MSWDO), Public Employment Service Offices (PESO) and the Philippine National Police (PNP) for their active participation and material and technical contributions to the subprojects.

The regional offices and provincial offices of national government agencies including the Bureau of Fisheries and Aquatic Resources (BFAR), Department of Agrarian Reform (DAR), Department of Environment and Natural Resources (DENR), Department of Labor and Employment (DOLE), Department of Science and Technology (DOST), Department of Trade and Industry (DTI), National Irrigation Administration (NIA), Philippine Army, Philippine Coconut Authority (PCA), Philippine Health Insurance Corporation (PHIC) and the Social Security System (SSS) for the valuable technical, material and logistical support provided to the local organizations and for so willingly collaborating with the DFAT-ILO project team throughout the implementation period.

Our appreciation and thanks to the ILO/Japan Fund for Building Social Safety Nets in Asia and the Pacific for the support in printing this report.

introduction

typhoon bopha

On December 4, 2012, Typhoon Bopha – known in the Philippines as Pablo – made landfall as a Category 5 super typhoon with winds of up to 260 kilometers per hour. Bopha is the strongest tropical cyclone to ever hit Mindanao. It devastated the municipalities of Baganga, Cateel and Boston in Davao Oriental, which incurred a major loss of lives and livelihoods and damage to infrastructure. Losses in the agriculture sector in the three towns were estimated at US\$30.27 million by the Department of Agriculture (DA), where coconut production was the primary source of income for many households. Damages to infrastructures such as roads, bridges, schools and government buildings were estimated at US\$39.82 million by the National Disaster Risk Reduction and Management Council (NDRRMC). Houses were either left without roofing or completely destroyed leaving thousands of families homeless.

the ILO response

International humanitarian assistance was mobilized to help the affected areas rebound from the devastation. The International Labour Organization (ILO) was granted US\$597,060 from the Central Emergency Response Fund (CERF) through the United Nations Office for the Coordination of Humanitarian Affairs (UN-OCHA) to implement cash-for-work activities in the municipality of Baganga as part of the emergency response phase.

The ILO further sought and was granted AUD1,200,000 or US\$1,179,122 funding assistance from Australia's Department of Foreign Affairs and Trade (DFAT) to implement two projects under the ILO's Employment Intensive Investment Programme (EIIP), applying labour-intensive and local resource-based strategies to help recover livelihoods in the municipalities of Baganga, Cateel and Boston.

The ILO implemented the DFAT-funded projects in 2013 to 2014 with the immediate objective of regenerating incomes in the three municipalities through short-term employment in labour-intensive reconstruction works that will lead to livelihood restoration, increased access to income-generating opportunities, and improved agricultural production in the long-term.

the knowledge product

This document describes in detail the processes and practices employed, the immediate results of the interventions, and the experiences and learning of the ILO project team and its local partners in the implementation of the two DFAT-funded projects, hereinafter referred to as the DFAT-ILO projects or the projects. It is one of two knowledge products produced by the projects intended to serve as a resource and guide for government and non-government organizations (NGOs) in developing and implementing workable and culturally-sensitive disaster response, local resource-based employment generation and livelihood recovery interventions in post-calamity situations.

This knowledge product has eight main parts:

- a) Project areas which briefly describes the three Bopha-affected municipalities served by the projects.
- b) The DFAT-ILO projects which outlines their objectives and scope.
- c) Project strategies which details the overall approaches (such as stakeholder participation, community contracting and local resource-based approach) adopted by the project team across all project and subproject activities.
- d) Subproject procedures which relates the steps in engaging peoples' organizations (POs) as contractors and in developing subproject ideas, and also the procedures and policies for implementation.
- e) Good practices that highlights the innovative methods used by the local organizations especially to access support from fellow subproject implementers and government institutions and to sustain subproject gains.
- f) Lessons learned which encapsulates the major lessons of the ILO project team that can inform and influence planners and implementers of similar projects.
- g) Subproject benefits that reports the immediate impacts the interventions have had on workers, the local organizations and even the bigger community as of the end-of-project period.
- h) Case profiles which is a compendium of small cases summarizing the activities and accomplishments of each subproject as well as the experiences and insights of the local implementers and workers.

The supporting document to this knowledge product is the Manual on Sloping Agriculture Land Technology (SALT) which was drawn up based on the methods used to establish SALT farms under the DFAT-ILO project in Boston and Cateel. Although the SALT subprojects are mentioned throughout this document, a more detailed discussion and the case profiles on them are contained in the SALT manual.

the project areas

baganga

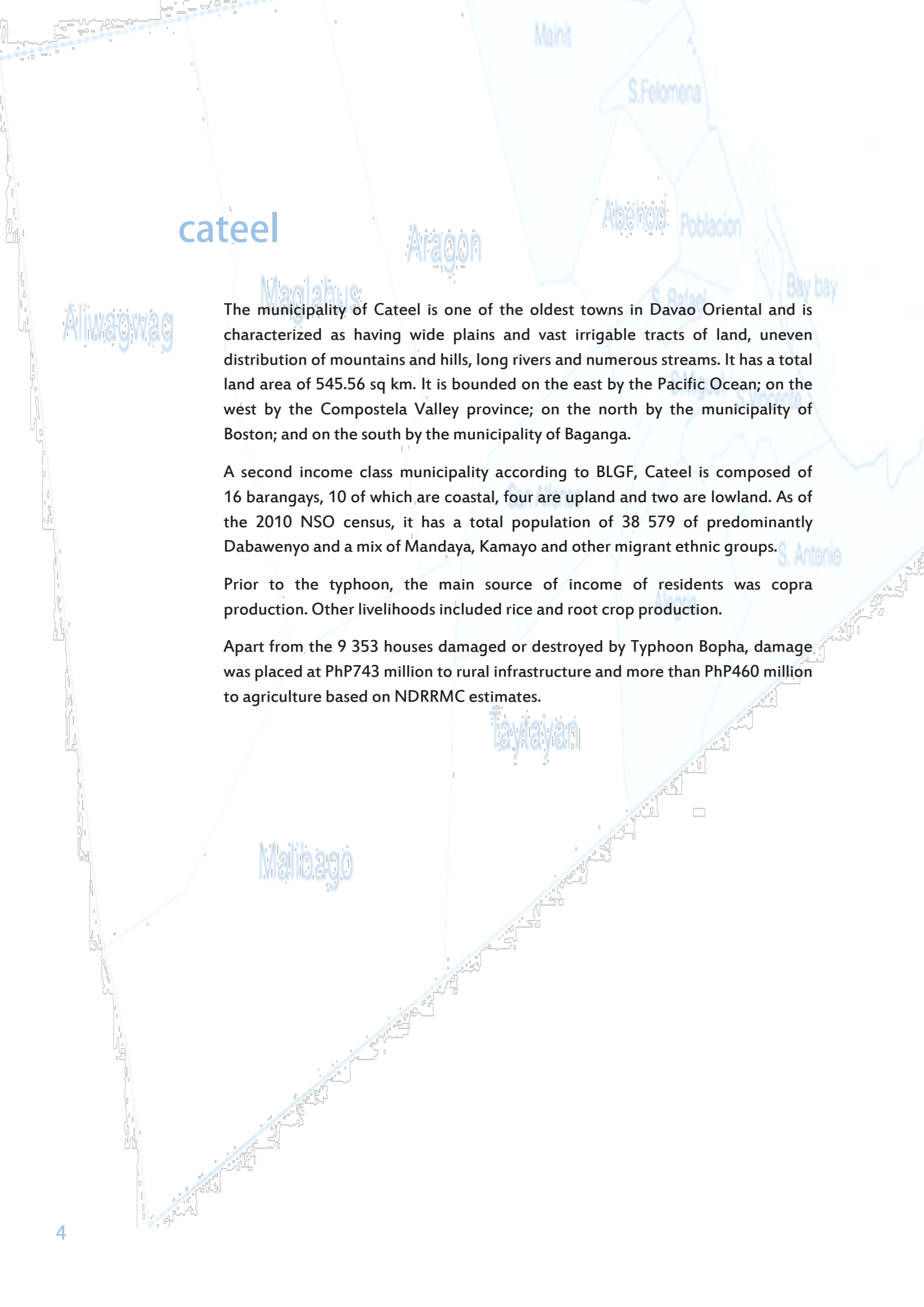
The municipality of Baganga has the biggest town settlement and the largest land area among the municipalities in the province of Davao Oriental with 945.50 square kilometers. It is bounded on the east by the Pacific seaboard; on the west by the Compostela Valley province; on the north by the municipality of Cateel; and on the south by the municipality of Caraga.

Baganga, a first class municipality according to the Bureau of Local Government Finance's (BLGF) income classification for local government units (LGUs), is composed of 18 barangays, 12 of which are coastal and six are upland areas. As of the 2010 census of the National Statistics Office (NSO), it has a total population of 53 426 made up mostly of Dabawenyos with a mix of Bisaya and other ethnic groups.

Before Typhoon Bopha struck, Baganga was the top coconut producer of the province and copra production was the main source of income of most households. Other livelihoods included rice and corn production, small livestock and poultry-raising, fishing and daily wage or contract labour.

Typhoon Bopha made landfall in Baganga on December 4, 2012 despite forecasts that this would occur in Hinatuan, Surigao del Sur, about 147 kilometers to the north.

There were 227 fatalities and 29 177 displaced individuals reported after the passage of the typhoon. Apart from the 10 757 houses damaged or destroyed, damage to rural infrastructure was estimated at Php900 million and to agriculture at more than Php400 million as reported by the NDRRMC.



cateel

The municipality of Cateel is one of the oldest towns in Davao Oriental and is characterized as having wide plains and vast irrigable tracts of land, uneven distribution of mountains and hills, long rivers and numerous streams. It has a total land area of 545.56 sq km. It is bounded on the east by the Pacific Ocean; on the west by the Compostela Valley province; on the north by the municipality of Boston; and on the south by the municipality of Baganga.

A second income class municipality according to BLGF, Cateel is composed of 16 barangays, 10 of which are coastal, four are upland and two are lowland. As of the 2010 NSO census, it has a total population of 38 579 of predominantly Dabawenyo and a mix of Mandaya, Kamayo and other migrant ethnic groups.

Prior to the typhoon, the main source of income of residents was copra production. Other livelihoods included rice and root crop production.

Apart from the 9 353 houses damaged or destroyed by Typhoon Bopha, damage was placed at PhP743 million to rural infrastructure and more than PhP460 million to agriculture based on NDRRMC estimates.

Caatihan

It is a third income class municipality according to BLGF and is composed of eight barangays, three of which are coastal and five are upland. As of the 2010 NSO census, it has a total population of 12 670 predominantly of the Mandaya ethnic group.

livestock
wage or

San José

theDFAT-ILOprojects

the projects in brief

With the objectives of sustaining humanitarian assistance in the affected municipalities and facilitating transition from short-term to medium-term recovery, the ILO implemented the following projects utilizing the AUD1,200,000 (US\$1,179,122) grant from DFAT:

Table 1. Summary information on the DFAT-ILO post-Bopha projects

Projects	CLIMATE CHANGE IMPACT MITIGATION AND POST CALAMITY INTERVENTIONS: APPLICATION OF LOCAL RESOURCE-BASED EMPLOYMENT GENERATION APPROACH	TYPHOON BOPHA PHILIPPINES: JOINT RESPONSE TO POST-CALAMITY INTERVENTIONS, LOCAL RESOURCE-BASED EMPLOYMENT GENERATION AND LIVELIHOOD RECOVERY
Immediate objective/s	Regenerate incomes through medium-term employment intensive reconstruction works that will lead to longer term livelihoods restoration	Increase access to income earning opportunities and improved livelihoods (particularly on agriculture) for disaster affected households
Duration	March 27, 2013 to September 30, 2014	May 3, 2013 to September 30, 2014
Amount granted	AUD300,000 (US\$299,552)	AUD900,000 (US\$879,570)
Coverage	Baganga	Cateel and Boston
UN partners	None	Food and Agriculture Organization of the United Nations (FAO) and United Nations Population Fund (UNFPA)
Target beneficiaries	1 000	2 000
Target work days	18 750	30 000

The costs that were covered by the DFAT-ILO projects are as follows:

- wages of skilled and unskilled workers, based on the local minimum daily wage prescribed by the government;
- social protection coverage including one-month coverage with the Social Security System (SSS), three-to-six months health insurance coverage with the Philippine Health Insurance Corporation (PhilHealth), and one-year accident insurance coverage;
- personal protective equipment (PPE) or protective gear;
- hand tools (as determined in the final subproject design);
- support for materials or inputs when necessary; and
- on-site health monitoring by both local and project nurses.

The ILO also tapped its UN partners, the FAO and UNFPA to implement two components of the project in Cateel and Boston. FAO distributed farm inputs and tools to Bopha-affected farmers, especially in target agrarian reform communities, while UNFPA through the Child Alert Mindanao, Inc. (CAM), a local NGO, helped launch an education campaign on gender equality to the project areas.

focus of the projects

The interventions in the Bopha-affected towns of Davao Oriental focused on three main activities: reconstructive work; livelihood restoration or generation; and green works and green jobs.

Reconstructive work ranges from conducting minor and major repairs to damaged public and community infrastructures, to building new ones to replace those beyond repair, and even fortifying them so that they are more climate-resilient and or redesigning them to increase their usefulness or capacity. The rehabilitated steel footbridge in Mikit, Baganga is an upgrade of the old wooden footbridge destroyed by Typhoon Bopha. Also, the new vermicast production building of the Taytayan Irrigators Association (TIA) in Taytayan, Cateel is bigger than the old one and is now located in a flood-free portion of the barangay.

In January 2014, a low pressure area (LPA) dumped continuous rains for a week and triggered flashfloods in the same towns ravaged by Typhoon Bopha in Davao Oriental. Among public infrastructures, bridges and irrigation networks bore the brunt of the LPA that developed into Tropical Depression Agaton. Irrigation association officers revealed that the impact of Agaton to their irrigation systems was more widespread than Bopha, leaving behind debris and silt in entire canal networks. Irrigation associations were, as the TIA President described, “back to zero” in terms of cleaning up their canals. Thus, reconstructive work implemented under this project also extended to rehabilitating infrastructures affected by Agaton. After January 2014, ILO received and approved five proposals related to irrigation canal rehabilitation and desilting in Cateel and Baganga.

Livelihood restoration or generation, on the other hand, includes all interventions aimed at supporting affected community members regain or improve long-term income sources. The livelihood can be the same as the one the community engaged in before Bopha or a new one that can supplement their traditional income sources such as an alternative crop or product or even a new job skill. The establishment of lobster pens in Boston is an entirely new venture for the fisherfolks in all three project sites.

Green works refer to strategies that create green jobs or employment in agriculture or in other sectors that contribute to environmental protection and climate change adaptation. SALT subprojects implemented in Cateel and Boston are intended to showcase sustainable and environment-friendly farming practices – contour farming, soil and water conservation, multi-cropping and diversified farming systems – and at the same time provide alternative sources of income to workers employed by the subprojects.

projectstrategies

consultations and participatory planning

The DFAT-ILO projects started with courtesy calls to the provincial governor and municipal mayors and visits to barangays in the target municipalities to introduce the project and assess the situation in Bopha-affected communities firsthand. A series of consultation was conducted with various stakeholders from the communities, NGOs, POs, the local government offices at the provincial, municipal and barangay levels and concerned national line agencies for the assessment of peoples' state of livelihood and needs and identification and development of subprojects.

A crucial step in gathering information about potential subprojects was the conduct of "Implementation Planning Workshop" on December 10-11, 2013 which was attended by representatives from national line agencies, the provincial government of Davao Oriental and the municipal governments of the target municipalities.



The conference was carried out for the ILO to have a better grasp of the state of livelihoods and support infrastructures in the three municipalities a year after Typhoon Bopha; to identify gaps in post-calamity interventions that the DFAT-ILO projects can fill; and for the stakeholders to also have a better

understanding about the particular activities and costs that can be covered by the two projects. By the end of the workshop, the participants were able to draw up a long list of potential subprojects in each of the three municipalities.

Given that it can only fund labour costs, the DFAT-ILO projects also strategically sought partnerships with government organizations and NGOs that can allocate materials and or technical expertise to implement subprojects that are in line with the mandates of DFAT, ILO and of the partner organizations.



Several government agencies did come through with providing technical and material inputs to the subprojects such as the Bureau of Fisheries and Aquatic Resources (BFAR) for the lobster pens in Boston and the fishpond of one SALT subproject in Cateel; the Philippine Coconut Authority (PCA) for the coconut nursery in Taytayan and for all subprojects in the three municipalities that all used chainsaws lent by PCA; the National Irrigation Administration (NIA) for the irrigation desilting subprojects; the Department of Environment and Natural Resources (DENR) for the mangrove restoration in Baganga; the Department of Agrarian Reform (DAR) for the FAO interventions and the vermicast production facilities in Baganga; and the Department of Labor and Employment (DOLE), Department of Science and Technology (DOST), Department of Trade and Industry (DTI) and the Philippine Army for the chili subproject in Baganga and Cateel.

The provincial government of Davao Oriental also provided planting materials to TIA's coconut nursery and the Baganga women's chili production subprojects. The local governments of the respective towns also lent material and technical support to these subprojects as well as to the church-based corn and cassava production initiative in Lambajon, Baganga.



Community-level consultations with NGO and PO subproject implementers, target community members, and site visits were also conducted throughout the duration of the project to validate subproject proposals. These are also done to firm up subproject coverage and targets given the resources available and the policies of the DFAT-ILO projects.

Community consultations at the outset are also important to ensure that the subproject is appropriate to the community's needs. Engaging stakeholders in subproject identification and designing through consultations and participatory planning ultimately promotes a sense of ownership and accountability among community members, which is necessary in sustaining and maintaining outputs beyond the DFAT-ILO project period.

labour-intensive and local resource-based approach



The ILO has successfully demonstrated the use of local resource-based methods in more than 10 countries in the Asia Pacific region including the Philippines. These methods optimize the use of local resources such as unskilled and skilled labour, local materials, local suppliers, local communities and local contractors.

They can be used in the repair of damaged infrastructures, the climate-proofing of existing infrastructures, the restoration of disrupted basic services, the clearing and cleaning of vast areas of debris in the aftermath of calamities, and as demonstrated by the DFAT-ILO post-Bopha projects, the restoration or generation of long-term income sources.



As in other post-calamity interventions of the ILO, men and women from the most vulnerable areas in the three municipalities whose livelihoods have been damaged or destroyed by Typhoon Bopha comprised the daily wage workforce that carried out recovery and adaptation efforts. The DFAT-ILO projects also prioritized subprojects

wherein the use of equipment can be minimized or foregone so that more local workers can be employed. Through a labour-intensive approach, workers not only gain short-term employment but also new skills like carpentry and masonry that they can use to land construction jobs in the future. In the case of ILO's livelihood generation subprojects, workers can also acquire new production skills like SALT that can bring in more farm income to their households.

In the end, the two projects generated a total of 51 087 work days and employed 2 956 workers, 31 per cent of them women.

Table 2. Number of workers employed

Area	No. of workers by sex		Total no. of workers
	Male	Female	
Baganga	688	424	1 112
Boston	788	322	1 110
Cateel	565	169	734
Total	2 041	915	2 956

The projects also influenced the subproject design such that the use of local resources including sand and gravel, stones and wood from trees felled by the typhoon are maximized. The cost of materials is also minimized when debris after the calamity are salvaged and reused. In the case of the power restoration subprojects in the three municipalities, damaged wooden electrical posts were collected and reused as anchor logs for the new posts. Fallen indigenous hardwood trees were the source of lumber for constructing two new guest cabins at the Taytayan Eco Park in Cateel and some of the structures at the Boston municipal nursery. Coconut trees felled by the typhoon are also a common source of construction material and became part of the workers' equity in building production-related structures such as the vermi beds and houses, and the women's chili farm sheds in Baganga.

The ILO project office also hired local technical people to fill positions for its own project management structure including three lead nurses who trained the on-site nurses and monitored compliance to occupational safety and health standards, a roving civil engineer who provided technical inputs and guidance on construction design and implementation, a SALT specialist who taught workers how to establish the SALT farms, and a monitoring and documentation staff who assisted in monitoring implementation and compliance to reporting requirements by the subproject holders.

The local resource-based approach also helps to stimulate the local economy through spending on local goods and services. By using or purchasing materials available locally and by hiring workers in the community, money flows in and is circulated in the local economy. The outflow of money in the form of construction materials and labour from outside sources is also consequently reduced.

community contracting

The projects also adopted the ILO's community contracting approach which allows community associations to take the lead in subproject implementation. They can be POs, community-based organizations, NGOs or cooperatives that are registered with the appropriate government agency. The organizations tapped for the Bopha projects'



community contracting initiatives are diverse and include irrigators associations, women's associations, fisherfolks' associations, farmers' associations and farmers' multi-purpose cooperatives. An electric cooperative and an electricians' association were also contracted for the re-energization subprojects. An indigenous peoples' organization was the implementer of one SALT subproject in Cateel. A religious organization of a parish and a Mindanao-based NGO were also project holders of other subprojects in Baganga.



Most of these organizations came to know about the ILO project through the personnel of national government agencies and the municipal government departments that participated in the Implementation Planning Workshop in December 2013 while a few (like the Davao Oriental Electric Cooperative (DORECO), Baculin Fisherfolks

Association (BFA) and the Social Action Center of Lambajon) already worked with ILO during the emergency response phase.

Since most community organizations have little experience in developing project proposals and or lack technical knowledge in designing and managing construction projects, the community contracting approach also required the ILO project team to invest time in mentoring subproject holders in project development, designing and management. The POs received guidance and technical inputs from the ILO project team and other partner organizations in the following aspects of subproject management:

- Project development including the preparation of the subproject proposal and budget using prescribed outlines or formats as well as of the engineering design where necessary.

- Monitoring subproject implementation and productivity rates.
- Basic bookkeeping and financial reporting for the administrative support staff of the association.
- Procedures, forms and guidelines in securing the workers' accident insurance and social protection coverage from SSS and PhilHealth.
- Complying with ILO's work standards on occupational safety and health, particularly, the use of protective personal equipment and running a nurse's station on-site for monitoring vital signs and administering first aid.

Community contracting initiatives are thus not only effective in developing job skills of the local workforce but also in enhancing capacities of community organizations in the management of development projects especially small construction contracts. In the case of the Bopha projects wherein inter-agency collaborations were actively sought, these also allowed local organizations and communities to partner and network with other agencies, government or non-government, that can support them further in sustaining project gains or in implementing other livelihood recovery projects.

subcontracting

Department of Labor and Employment(DOLE) Regional Office XI. One of the livelihood development subprojects partly funded by the DFAT-ILO projects is the community-based hot chili production and processing subproject implemented in several barangays in Baganga and Cateel. Instead of the community contracting approach, ILO directly entered into a contract with the DOLE Regional Office XI that sourced funds from the Rebuilding Innovations, Sustainable-Employment and Enterprise (RISE) Program which the agency is implementing jointly with the Department of Science and Technology (DOST) in typhoon-affected communities. The DTI also committed to provide product development and marketing assistance to the RISE Program. For this subproject, the 67th Infantry Battalion of the Philippine Army took charge of the selection of production sites workers and coordinated with the Public Employment Service Offices (PESOs) and the Municipal Agriculture's Offices (MAOs) of Baganga and Cateel.

UNFPA and Child Alert Mindanao, Inc. (CAM). As mentioned earlier, the ILO also opted to subcontract interventions to increase awareness on gender equality among local associations and communities involved in the subprojects implemented in Boston and Cateel. In particular, it funded an education campaign on gender sensitivity, women's rights, violence against women and human trafficking in collaboration with the UNFPA.

Upon the recommendation of UNFPA, the project directly contracted CAM to carry out the interventions in Boston and Cateel. The campaign, which ran from

June to September 2014 was designed not only to reach the local organizations and workers supported by the project but also other women and men and adolescent girls and boys in the community.

The series of awareness-raising activities was grouped into three phases: (a) creation and training of a pool of 'community educators'; (b) community education sessions in barangays or communities and schools as well as over the radio; and (c) consultations and symposiums to engage and influence municipal and provincial government officials to improve the delivery of gender-based violence prevention and response services at the local government unit level.

A three-day training of community educators was held in Davao City, aimed to capacitate 21 community and local government leaders including barangay officials, municipal government employees, teachers, church apostolate members and an officer of a provincial task force on women's and children's concerns on how to deliver awareness-raising sessions on gender sensitivity, human rights, anti-violence against women and children laws and anti-illegal recruitment and trafficking.



The training participants were then deployed to the subproject areas and schools in teams of two or three to conduct the two to three-hour community education sessions. The total of 123 of these sessions collectively had 4 522 participants.

To reach a wider audience, CAM project staff and the community educators also broadcasted one-hour weekly radio programme that was aired for eight consecutive Saturdays in which they were also able to respond to gender-related issues and questions sent in by listeners through text messages.

Table 3. Profile of trained community educators on gender and gender-based violence

Area	Male	Female	Total
Boston	1	8	9
Cateel	2	9	11
Provincial government	1	0	1
Total	5	17	21

Table 4. Profile of participants to the community education sessions on gender and gender-based violence

Area	No. of sessions	No. of participants by target population group		No. of participants by sex		Total no. of participants
		Community members	Students	Male	Female	
Boston	48	1 331	559	623	1 267	1 890
Cateel	75	1 720	912	1 104	1 528	2 632
Total	123	3 051	1 471	1 727	2 795	4 522

Although the main intent of UNFPA and CAM's intervention was to increase awareness on gender issues and strengthen local structures to address such issues, it also injected cash into the community amounting to PhP424,350 (US\$9,451) through wages for community educators and payments for participants meals during the community education sessions.

Two symposiums, one in Boston and another in Cateel, organized by CAM and the Municipal Inter-Agency Council Against Trafficking (MIACAT) and Violence Against Women and Children (VAWC) capped the education campaign. These events gave relevant government agencies including the Department of Social Welfare and Development (DSWD) Regional Office, the Provincial Task Force on Women and Children Concerns (PTFWCC), the PNP-Women and Children Protection Desk (PNP-WCPD) and the municipal local government offices an opportunity to establish partnerships for the continuation of the campaign. It was also the venue for a poster-making contest for children and the youth with the theme: "Paminaw, Pagtuon ug Pagpakabana batok sa Gender-based Violence ug Human Trafficking" (Listen, Learn and Do Something Against Gender-based Violence and Human Trafficking).

According to CAM's Project Coordinator, Mr Edgar Diares and project support staff, Ms Vicenta Abella, although local governments are mandated to allocate funds for gender and development activities and to form the MIACAT-VAWC, government initiatives to educate the public on gender laws and prevent gender-based violence have been nil or entirely absent until the United

Nations Children's Fund (UNICEF), UNFPA and their partner NGOs like CAM came during post-Bopha relief and recovery interventions. Mr Diares hopes that as a result of the project's interventions, the local governments would start allocating time and resources from the gender and development funds or the youth council funds to continue the education campaign on their own.

Ms Andresa Reyes, President of the San Rafael United Women's Association (SARUWA) and also a barangay councilor in San Rafael, Cateel, confirms that in all her years as a community leader (she was also a youth association president and a day care worker before assuming her present positions), her attendance to the community education session sponsored by the project was her first time getting comprehensive gender and human rights information.



"We became more familiar with the children's and women's rights, that corporal punishment on children can be a form of violence, that women have equal rights as men in owning land," she reveals. "Our advocacies as a women's association are now backed up by a better grasp of the laws protecting and upholding the rights of women and children," she enthuses.

Ms Abella reports that after conducting several sessions the community educators have shown marked improvement in their knowledge of the subject and their presentation skills. What was more of a challenge for them was correctly giving the right advice to participants who raised questions regarding real and personal issues in the family.

"The community educators are the ones who facilitate, give the lectures and respond to questions during the open forum. I am sometimes there to provide additional inputs when necessary," she explains. "The team of community educators for a session has at least one member who is a 'veteran' or is more knowledgeable than the others so that they will be able to respond to questions adequately even without me," she adds.

FAO and the Department of Agrarian Reform (DAR). The ILO also tapped the Food and Agriculture Organization of the United Nations (FAO) to implement a component of the DFAT-ILO project in Boston and Cateel especially designed for agrarian reform beneficiaries (ARBs) entitled 'Restoring Agricultural Livelihoods in Typhoon-Affected Agrarian Reform Communities in Davao Oriental.'

In partnership with the DAR Regional Office XI, the FAO provided 1 760 ARBs, 28 per cent of them women, agricultural input packages that included planting materials for rice, corn, vegetable and fruit tree production and hand tools for farming. Capacity-building activities in the form of training on sustainable

farming technologies such as sloping agricultural land technology (SALT), alternative livelihood and disaster risk reduction were also conducted.

The planting of several types of crops coupled with training not only allowed farmers to diversify their income sources and gain new production skills but also improve their capacities to adapt to climate change. Moreover, given an average household size of five, a total of 8 800 individuals benefitted from the intervention.

Table 5. FAO-DAR beneficiaries

Area	Agrarian Reform Beneficiaries		
	Male	Female	Total
Boston	422	138	560
Cateel	846	354	1 200
Total	1 268	492	1 760



social protection, occupational safety and health

Since its founding, the ILO has actively promoted policies and provided its member States with tools and assistance aimed at improving and expanding the coverage of social protection to all groups in society and to improving working conditions including wages, working time and occupational safety and health, which are all essential components of decent work.



The Bopha projects therefore set out to provide social protection coverage including social security from SSS, health insurance from PhilHealth and one-year accident insurance policy to all workers of the subprojects. (Exceptions in the provision of SSS or PhilHealth coverage are workers whose contributions are already being paid for by a sponsoring government programme and

workers whose spouses already have SSS or PhilHealth accounts that named them as dependents).



Since most of the workers were not yet SSS members and many were not yet covered by PhilHealth, the projects also requested SSS and PhilHealth offices in the province to orient the community organizations and the workers about the membership procedures and benefits.

The ILO projects thus proved to be instrumental in influencing the social protection agencies to extend and improve effectiveness of social security schemes for farmers and other informal sector workers in the rural areas of the three municipalities. In

Taytayan, the SSS introduced its AlkanSSSyA programme to the Community Forest Programme – Multi Purpose Cooperative wherein, following the concept of a piggy bank, a large metal safety box with secure individual compartments was built by the cooperative in which members can put money and save up for their monthly SSS contributions.

The DFAT-ILO projects also adopted the local daily wage standards of DOLE. It allowed the group of workers of each subproject to agree on their working hours as long as they logged eight hours in total everyday. Thus, in many subprojects, work hours in the morning started as early as 5 a.m. in one subproject so that workers can also take their midday break earlier and avoid the hot sun.



Personal protective equipment (PPE) including buri hats, long-sleeved work shirts, rubber boots, socks and gloves were distributed to all the workers before any work started. The PPE provided vary according to the type of subproject or the specific tasks assigned to the workers.



Those employed in the power restoration and steel footbridge subprojects were provided with hard hats while some of the labourers at the lobster pen subproject who had to dive in the water to anchor posts on the seafloor were given goggles and thermal shirts.



Monitoring of vital statistics like blood pressure and heart rates of workers were also standard operating procedures.

The ILO project team hired and trained on-site nurses (who are barangay health workers or local residents who are nurses or have completed a nursing degree) on the health protocols and provided them with medical devices and first aid kits.

gender equality

The ILO is also committed to promoting the rights of all women and men at work and achieving equality between them. According to gender gap studies of the World Bank and the ILO, women in the labour force today still have to contend with issues of gender inequality. Women, especially in the rural areas, have lower rates of labour force participation compared to men.

They are more likely to be employed in the informal sector where there are lower rates of social security coverage. They bear the overwhelming responsibility for unpaid work like housework and caring for the children and other dependents in the household. Opportunities for work are also diminished because of gendered employment patterns wherein certain jobs are ascribed to one gender. For example, carpentry is considered by society as a man's job and therefore a woman is less likely to get employment as a carpenter or, for that matter, any construction-related job.

Thus, the ILO gives special attention to giving women more access to decent work especially in post-calamity situations. It requires that gender equality be taken into consideration in project or subproject conceptualization and implementation.





The subproject must be able to address gender concerns (e.g., participation of women in work and social protection of women); its design must promote participation of both women and men; and it must be able to enhance capacities of women and men. The DFAT-ILO Bopha projects in particular require that at least 30 per cent of the workforce of a subproject should be made up of women. (Exceptions include the power restoration

subprojects where the manual extraction and installation of electrical posts are too physically demanding for women).

In the end, the ILO project was able to provide short-term employment to 915 women or 31 per cent of the total workers. In all subprojects, the women proved that they are able to work alongside men in clearing debris and vegetation, digging canals with shovels and digging bars, collecting stones, and other tasks that are traditionally reserved for men.



The subprojects were also designed to be responsive to the needs of women and children. The footbridge subproject in Mikit not only restored access and trading but also provided convenience and security for travellers, especially children, who, before the bridge was reconstructed, had to cross the river by foot to go to school. A cyclone wire barrier was

also added to the steel cable railing to further ensure the safety of those crossing the bridge, particularly young children and the elderly.

environmental protection and climate change adaptation

The ILO also actively supports interventions that promote green jobs and green works. Green jobs refer to decent employment in agriculture, industry, services and administration that contributes to preserving or restoring the quality of the environment, and to adapting to climate change impacts including disasters.



Some of the examples of green jobs are tree planting; diversified, contour and natural farming systems; drainage improvements; and other activities that help to control soil erosion and flood; and, at the same time, contribute to sustaining the productivity of economic resources. Green works, on the other hand, refer to the strategies to create green jobs such as the ILO's local resource-based methods to build infrastructure and community assets that have direct environmental benefits or are in response to a specific environmental context such as climate change hazards and disasters.

The key principles of green jobs and green works are: they generate employment and income for vulnerable groups; they combine short-term measures with longer-term recovery goals like training and extension; and they contribute to a sustainable management of resources and environmental quality and or climate change adaptation.

The SALT subprojects of the Bopha project provided both employment and environmental benefits including income and production skills for farmers plus cultivable land protected from flooding impact. The vermicast production subprojects in Cateel and Baganga also support already existing initiatives to promote the use of organic fertilizers among community association members and other farmers in the locality.

As much as the available resources would allow, extra attention also went into the the design and location of new or restored community infrastructures so that they are more likely to withstand climate change hazards. Road sections in Taytayan were climate-proofed by adding reinforced concrete pipe cross culverts, canals and riprapped embankments. New structures like the vermicast production facilities were intentionally located on higher grounds.

subproject procedures

engaging local organizations

An organization must have a legal personality to be able to enter into a contract with the DFAT-ILO projects. The organization has to be registered with an accrediting government agency in the Philippines such as DOLE, the Securities and Exchange Commission (SEC) or the Cooperative Development Authority (CDA). If a community association that is interested to become a subproject contractor is not yet registered, the ILO provides assistance in the organizing and registration phases. In the case of the Bopha projects, all local organizations engaged by the ILO already had legal identities before the subprojects started.

The organization must then submit a one-page project concept note describing the activities and location of the proposed subproject. To qualify for assistance, the subproject concept should meet the following criteria:

- The proposed activity aligns with the project focus, i.e., reconstructive works, livelihood restoration and or generation and green works.
- It uses a labour-intensive and local resources-based approach.
- It should be able to benefit a group of people and not just a few individuals. (It should not only benefit the workers hired for the subproject but also the bigger community that will also stand to gain from the subproject outputs. Restored infrastructures under the Bopha projects like the foot bridges and the barangay food terminal will benefit a large group of residents or even an entire barangay).

The ILO Project Coordinator will then conduct a site visit to validate the project concept, in particular, make an ocular inspection of damaged infrastructures or locations of proposed livelihood interventions, clarify DFAT-ILO project requirements and policies with the proponent, and make recommendations for proposal development if the subproject idea is found to be acceptable.

proposal development and pre-implementation

If the organization and subproject concept pass the initial screening, the proponent is then requested to develop a project proposal with a detailed programme of works and budget. Before each proposal for the Bopha projects is endorsed to the ILO Country Office for the Philippines, it may go through several drafts to incorporate inputs and comments from the ILO project coordinator, engineer and the administrative and finance officer and even personnel of other agencies assisting the organization. Because most of the local organizations have little experience in writing proposals especially for a construction-related project, it is not unusual for the proposal development stage to take about a month or even more.

The subproject proposal outline includes the following: a rationale or background; project objectives and expected outputs; number, profile (especially gender disaggregation), tasks, and workdays of workers; project activities and schedules; role and equity of the implementing organization; and the budget including the amount to be requested from the DFAT-ILO project and that to be borne by the proponent and other collaborating agencies. After the proposal is approved, the partnership between the ILO and the local organization is formalized through the signing of a service contract.

Even during proposal development, the association already starts recruiting workers for the subproject. If the subproject holder is not a community association, like the DORECO, recommendations from barangay officials are sought as to who should be employed for the subprojects given a criteria set by the organization.

project orientation

Once the contract is signed and the PPE arrive, the ILO and the local partner then conduct a project orientation and technical briefing for the workers. During this event, ILO staff gives a background about the DFAT-ILO project, occupational safety and health standards, the subproject targets, and some inputs on gender equality and climate change adaptation. The project's implementation policies are also thoroughly discussed and include the following:

- No work, no pay policy.
- No worker's substitution policy.
- Time offsetting policy.

- Social Security System, PhilHealth and accident insurance coverage for workers.
- Wearing of PPE while working (it is also a policy of the projects that the labourers should only start working when their PPE have already arrived).
- Proper handling of hand tools because some of which will be surrendered to the ILO after the implementation of the subproject so these can be used in other subprojects.
- Liquidation, monitoring and reporting guidelines of the ILO that the local organization should comply with.

The technical briefing elaborates how subproject activities are broken down into the specific tasks of workers to ensure the attainment of outputs.

subproject structure

The typical subproject management structure comprises of a project team leader, which is usually the head of the local association, supervisors or construction foremen, monitors (i.e., timekeepers-cum-documenters), on-site nurses and administrative support staff (i.e., clerks). Since a Bopha subproject usually employs 100 or more labourers in one work site or in several puroks or barangays, the workers are grouped into teams with one member selected as the team leader. If the work is spread over several locations, a monitor and a nurse is deployed for each site. Staff from the ILO project including the project coordinator, engineer, lead nurse and SALT technician also provide technical inputs and monitor the implementation of the subprojects from time to time.

wages and social protection payments

Project funds are directly downloaded to the local organization in three tranches. Given the processing, delivery and check clearing time, the local partner normally receives the funds one to two months (depending also on how fast the organization can submit its liquidation report for the previous tranche) after making the payment request to the ILO project office in Cateel. Since this is a rather long wait, the workers are advised even during the project orientation not to expect the wages to be handed out to them immediately after they have put in the work days required.

Since most the workers are not yet registered with SSS, getting social protection coverage for them also turned out to be a long process. During the project development stage, the proponents are already tasked to do an inventory of workers' social protection status, i.e, who among the workers have inactive SSS accounts, have no SSS accounts, have inactive PhilHealth accounts, and have no PhilHealth accounts. Workers who already have sponsored PhilHealth memberships and contributions from a local or national government programme are also identified early on since the DFAT-ILO projects no longer needed to pay any health insurance premiums for them.

Because the documents for SSS or PhilHealth registration take a while for the workers to complete and the processing of applications also usually take three weeks, the payment of contributions are scheduled after the downloading of the third and final payment to the organization. The one-year accident insurance, on the other hand, is paid first by the workers and then reimbursed by the ILO upon the release of the first tranche. This is so that from the time they begin work at the subproject site the labourers are already covered by an accident insurance policy.

local organizations as ‘big brothers’

Although the ILO project staff and partner government agencies provided technical assistance to community and local organizations, it was notable that subproject implementers that already have considerable knowledge and or have technical staff that can help design and implement livelihood and small infrastructure projects went out of their way to assist other local organizations.

Green Mindanao Association, Inc. (GMAI), an NGO, is the implementer of three subprojects in Baganga but also deployed an engineer to serve as technical adviser to the POs of two other subprojects in the same municipality. GMAI has already established ties with the local governments of the three target municipalities and other local organizations in the area prior to the project, also helped the ILO connect with potential partner POs and local government departments.

In Cateel, the TIA also acted as a big brother to the Buguis-Yahuno Irrigation Association (BYIA) by helping the smaller organization out in packaging their subproject proposal and terminal report. DORECO did the same for the Baganga Electricians Association (BEA) for the latter's power restoration subproject in Baganga and Cateel.

partnerships among peoples' organizations

There were also cases where several local organizations banded together to implement a common subproject idea. In Boston, three fisherfolk associations that were all interested in venturing into lobster production took part in the lobster in pen subproject which was established simultaneously in three barangays. In this case, the Cabasagan Fisherfolks Association (CFA) was the overall subproject contractor.

Another example is the vermicast production subproject in Baganga which was carried out by four farmers associations in different barangays. The Kinablangan Farmers Producers Cooperative (KIFAPCO), which was already managing a vermicast facility even before Bopha hit, became the subproject

holder. When the operations of the four new facilities started KIFAPCO took on the role of overall technical adviser and product consolidator.

SALT subprojects were also implemented by several community associations in different sites but the project tapped the bigger organizations among these as its three main SALT contractors. The Karancho-Cateel Nature Farming Advocates Association (KANAFARMA), is the subproject contractor for five SALT model farms in Cateel that was implemented with four other POs as cooperators. This was also the case of the SALT subprojects in Boston with the Boston Women's Association (BWA) managing four other organizations under one contract.

collaboration with government institutions

Although subprojects were implemented primarily through the community contracting approach, technical support and material and financial resources from government organizations, were crucial in achieving project targets. The following examples illustrate the range of assistance extended by government institutions, whether LGUs or national line agencies, to the project as a whole or to particular subprojects:

- The PCA lent chainsaws to the projects which was used in various subprojects to remove brush and fallen coconut trees during land clearing activities and also to cut logs into lumber for use as building materials of the proposed community structures.
- The NIA provided technical assistance to the five irrigation canal rehabilitation subprojects. It also provided construction materials to the San Isidro-Dapnan-San Victor Irrigators Association, Inc. (SAIDAVI) for the reconstruction of their association's office.
- The DENR gave technical inputs to the Baculin Fisherfolks Association (BFA) in Baganga in the implementation of its assisted mangrove regeneration subproject, particularly in the right way of selecting and planting propagules. It is also envisioned that with the establishment of the Baganga Bay Protected Landscape Monitoring Office (BBPLMO) in Baculin, the fisherfolks association shall become DENR's local partner for mangrove rehabilitation and protection and shall take on the responsibility of maintaining the office using income generated from ecotourism activities as well as from catering services for DENR and guests coming to the office.
- The DAR, aside from being the implementing partner of the FAO in the project's special intervention for Agrarian Reform Communities (i.e.,

Restoring Agricultural Livelihoods in Typhoon-affected Agrarian Reform Communities in Davao Oriental) in Boston and Cateel also provided guidance on project and financial management to KIFAPCO for its vermicast production subproject in Baganga.

- The DFAT-ILO project, four government agencies and the municipal governments of Baganga and Cateel collaborated in the implementation of the chili production and processing subproject as part of the RISE programme of DOLE, Philippine Army, DOST and DTI. The project shouldered the labour cost during land preparation and planting; DOLE provided the funds for the farm inputs, equipment, tools and materials; DOST conducted training sessions on chili processing; DTI provided marketing support; and the 67th Infantry Battalion of the Philippine Army with the assistance of the PESOs of the municipal governments took on the subproject management role at the community level.
- The municipal and provincial governments, especially the agriculture departments, also provided production inputs like planting materials and technical support on project proposal development, project and financial management and farming technologies in several subprojects. It is also worth mentioning that when a worker of the SAIDAVI irrigation subproject had an accident (slipped against the irrigation canal) at the work site, the municipal government of Baganga sent an ambulance to bring the worker to the regional hospital at Tagum City for a thorough medical check-up. The MSWDO and PNP of Boston and Cateel also actively participated in the gender equality education campaign implemented by CAM.
- Barangay governments also pitched in resources for some of the subprojects like the women's chili production in Baganga and the interventions in Mikit.

local initiatives to sustain project gains

Some local organizations like the Community Forestry Program-Taytayan Multi-purpose Cooperative (CFP-MPC) and the TIA in Cateel instituted mechanisms so that the workers can continue paying their social protection contributions (which for most of them was paid for the first time by the project). Even after their respective subprojects ended, both organizations continue to allocate part of the wages of workers hired in other projects or in maintenance works towards the payment of social security and health insurance premiums.

The Lambajon Parish Social Action Center that implemented a corn and cassava production subproject in Baganga has already identified an accredited buyer of dried cassava chips for a major feeds corporation and has secured a commitment from DA to provide the workers planting inputs for upland rice which they can rotate with corn in succeeding cropping cycles. The DA and DTI also agreed to train the workers on how to make decorative items or handicrafts out of corn husks as an additional income source.

The KIFAPCO and other ARB organizations that participated in the vermicast subproject, intends to sell their product not only to the communities where the vermicast production facilities are located but also to the other people's or farmers organizations in Baganga which they came to know of through the DFAT-ILO project, such as the irrigator's associations, the women's council and implementers of the other subprojects related to agricultural production. The project therefore not only opened opportunities for the POs to access additional support from government agencies but also allowed them to connect with other local organizations that they can do business with in the future.

Another example is the Baganga Women's Council (BWC) chili production site in Lucod where after getting the consent of the landowner, workers decided to expand the one-hectare farm to three hectares, so that they could plant other crops like cassava, vegetables, peanuts and corn.

lessonslearned

The lessons learned by the ILO project team from the Bopha projects on how to effectively and efficiently implement post-calamity livelihood recovery and reconstruction interventions can be summed as follows:

1. It is important to develop networks with local government and national government agencies the soonest possible to expedite information-gathering on potential subproject ideas and PO implementers as well as possible resources to tap for funding subproject costs that are not covered by the project or funding facility.
2. It also pays to seek partnerships with local NGOs that have worked in and are expected to remain in the target areas for the long-term are also a valuable source of information of project ideas as well as the socio-cultural and political factors that should be taken into account in assessing and enhancing the likelihood of project success and sustainability.
3. Taking into account the local production cycles or seasons is also crucial in timing and scheduling interventions especially those that are related to crop production and irrigation system rehabilitation, e.g., when is the best time to plant, the rainy season, the harvest season, etc.
4. A thorough assessment of the subproject proponent should be conducted to determine three things: its capacity to implement the subproject; its requirements for technical assistance and coaching; and its integrity in managing project funds. In the case of the DFAT-ILO projects, a background check on the proponent organizations was done with government agencies or with other POs that were already contracted to do other subprojects to ensure that these were of good repute.
5. Getting social protection for all workers proved to be a challenge because some of them could not comply with the documentary requirements for registration like marriage contracts and birth certificates which may have been lost during the typhoon or because they belong to an indigenous peoples' ethnic group that customarily do not register births. The ILO project team thus encouraged these workers to get temporary accounts with the SSS or PhilHealth so that the payment of contributions can still be made and later credited to their regular accounts once they have complied with the requirements. Another challenge is in motivating the workers to set aside income to continue with the payments given that in most households, especially in poor and rural communities, such an expense is not a priority.

It is also worthwhile to look for accident insurance policies that can be provided to the workers that not only covered dismemberment or loss of limbs but also minor injuries. There were cases of minor injuries sustained by workers at the work sites of the DFAT-ILO projects which were not covered by the accident insurance and their treatment had to be paid for by the PO or by the local government.

subprojectbenefits

the subprojects

Between the two DFAT-ILO projects, excluding those subcontracted to FAO-DAR and UNFPA-CAM, a total of 22 subprojects were implemented in the three municipalities. As shown below, eight of these are direct agriculture-based livelihood development interventions, five center on irrigation system desilting and rehabilitation, six on the reconstruction or upgrading of community or public infrastructures and utilities, two on the reconstruction of local government facilities and one on environmental resource generation.

Table 6. List of subprojects under the DFAT-ILO projects

Subproject title description	Subproject contractor	Municipality
A. Agriculture-based livelihood development		
1. Corn and Cassava Production	Social Action Center of Lambajon Parish	Baganga
2. Chili Production and Processing	Department of Labor and Employment (DOLE) Region XI	Baganga and Cateel
3. Establishment of Vermicast Production Facilities	Kinablangan Farmers Producer Cooperative (KIFAPCO)	Baganga
4. Hot Chili Production	Baganga Women's Council, Inc. (BWCI)	Baganga
5. Lobster Production in Pens	Cabasagan Fisherfolks Association (CFA)	Boston
6. Sloping Agricultural Land Technology	Boston Women's Association (BWA)	Boston
7. Sloping Agricultural Land Technology	Karancho-Cateel Nature Farming Advocates Association, Inc. (KANAFARMA)	Cateel
8. Sloping Agricultural Land Technology	PARA-ISO Association	Cateel

Subproject title description	Subproject contractor	Municipality
B. Irrigation system rehabilitation		
1. Irrigation Canal Repair and Desilting in San Isidro - Phase 1	Green Mindanao Association, Inc. (GMAI)	Baganga
2. Irrigation Canal Repair and Desilting in San Isidro - Phase 2	Baganga Irrigators Association, Inc. (BIAI)	Baganga
3. Irrigation Canal Desilting and Reconstruction of Irrigators' Association Office	San Isidro-Dapnan-San Victor Irrigators Association, Inc. (SAIDAVI)	Baganga
4. Irrigation Canal Desilting	Buguis-Yahuno Irrigators Association, Inc. (BYIAI)	Cateel
5. Irrigation Canal Repair and Desilting, Vermicast Facility Construction and Coconut Nursery Establishment	Taytayan Irrigators Association, Inc. (TIAI)	Cateel
C. Reconstruction or improvement of roads and utilities		
1. Eco Park and Access Road Rehabilitation	Community Forestry Program-Taytayan Multi-Purpose Cooperative (CFP-TMPC)	Cateel
2. Rehabilitation/Improvement of Road Sections along Hebron to Mantunao Eco Park and Rehabilitation of Central Nursery	CFP-TMPC	Cateel
3. Hanging Bridge Construction and School Canteen and Kitchen Rehabilitation	Green Mindanao Association, Inc. (GMAI)	Baganga and Cateel
4. Initial Implementation of Power Restoration	Davao Oriental Electric Cooperative (DORECO)	Boston and Cateel
5. Power Restoration Activities	Baganga Electricians Association (BEA)	Baganga and Cateel
6. Reconstruction of Potable Water Supply System	Green Mindanao Association, Inc. (GMAI)	Baganga

Subproject title description	Subproject contractor	Municipality
D. Reconstruction of local government facilities		
1. Rehabilitation of Municipal Nursery	Boston Coffee Growers Association (BOCGA)	Boston
2. Improvement of Barangay Food Terminal and Repair/Improvement of Barangay Hall and Day Care Center	San Rafael United Women's Association (SARUWA)	Cateel
E. Environmental resource regeneration		
1. Mangrove Habitat Assisted Regeneration, Establishment of the Bagangay Bay Protected Landscape Monitoring Office and Rehabilitation of the Access Road	Baculin Fisherfolks Association (BFA)	Baganga

The activities, accomplishments and challenges of and the lessons and experiences drawn from each subproject are described in detail in individual profiles found in the last part of the document entitled the Case Profiles. The SALT subproject profiles, however, are attached to the SALT manual.

The following subsections offer a glimpse of how the different subprojects have so far impacted or benefited the workers, the PO, and the bigger community at the end of the project.

livelihood development

The livelihood development subprojects gave workers and their families not only additional sources of food such as corn, cassava and vegetables but also surplus production to sell in and outside their communities. Among these subprojects, the SALT subprojects in Cateel have already reported sales from their first harvest – that of chili from the PARA-ISO Association site and corn and vegetables from the KANAFARMA sites.

In some cases, like the various chili production subprojects and the corn and cassava production, where the first harvest is yet to take place in another two or three months, the workers have already started expanding and adding other types of crops to their production sites and getting support from government agencies on value-adding and processing – all to meet what they deem is the market demand. Some associations have also become more enterprising and taking steps to consolidate their produce and link with big traders or institutional buyers, e.g., a dried cassava chips assembler of a major feeds corporation.

The harvest from the various vermicast facilities and the lobster pens are also expected to take place within a few months after the end of the projects. However, the local organizations implementing these and other subprojects mentioned above have already laid down schemes for product consolidation, marketing and profit-sharing. The subprojects therefore have motivated POs to develop community-based group enterprises.

irrigation water restoration

Five subprojects that were instrumental in the rehabilitation of four irrigation systems in Baganga and Cateel in the aftermath Typhoon Bopha and Tropical Storm Agaton should contribute to restoring lowland rice production total volume and yield to pre-calamity levels in their respective areas.

The irrigation desilting works in Cateel was carried out just in time at the end of the wet season and therefore allowed farmers irrigate their paddies and plant for the second cropping during the dry season.



According to the Mayor of Baganga, Mr Arturo Monday, who is also a member of SAIDAVI, the value of production of the 300-hectare service area of SAIDAVI is PhP10 million per cropping. “With the restoration of

irrigation water, rice farmers can also plant during the dry season which would double our total value of production to PhP20 million per year,” he says.

It is also important to note that the lack of irrigation water is always a source of tension among farmers who complain of unfair distribution of irrigation water. (In San Isidro, Baganga the fights over irrigation water reportedly became physical). Thus, the rehabilitation of irrigation systems has also served to improve relationships among community members.

access and utilities restoration

Five subprojects have components related to restoring access through road rehabilitation or footbridge reconstruction, i.e., road sections leading to the Mantunao Eco Park in Cateel, access road to the Baculin mangrove regeneration site in Baganga, the 60-meter hanging bridge over Mikit River in Baganga, and a small footbridge over the Taytayan Irrigation System main canal in Cateel.

These subprojects not only secured the safety of children, women and other community members who before the rehabilitation and reconstruction had to pass bad roads or had to cross waterways by foot to go to school, to health facilities, to government offices or to the trading center. These subprojects also made transport of agriculture produce easier and less costly to farmers. The hanging bridge in Mikit, in particular, is a great relief to the community that otherwise would have become isolated every time the river rises during extreme weather conditions.

The reconnection of barangays to the power grid, on the other hand, restored safety and convenience especially during nighttime and a more convenient and less expensive source of energy to residents who had to buy fuel for gas lamps and generators for over a year to light up their homes. Economic activities are also picking up after the power restoration activities including businesses selling cold refreshments, meat and fish.

The construction of a developed spring potable water system also in Mikit has restored access to cleaner and safer drinking water to 335 households, which will result in better health and personal hygiene.

restoration of local government facilities

The resumption of the Municipal Nursery operations in Boston through the subproject managed by a coffee growers association in partnership with MAO will restore access of local farmers to good quality but low-cost seedlings and starter stocks for pig, goat or poultry-raising.

The women's association in San Rafael, Cateel not only started its own group enterprise with the construction of a Barangay Food Terminal (BFT) to sell food products like meat, poultry, fish, vegetables and fruits but also implemented the rehabilitation of the Barangay Hall and the Day Care Center which were severely damaged by Typhoon Bopha. These barangay facilities are now being used again after more than a year.

environmental resource regeneration

Although it is still too early to see the impact of the 50-hectare mangrove habitat assisted regeneration subproject in Baculin, Baganga the planting of propagules and stricter monitoring mechanisms are expected to speed up the restoration of this natural barrier against strong winds and storm surges. Furthermore, the rehabilitation of the mangrove is vital in improving fish stocks that will ultimately result in increased incomes among fishing households.

human and social development

With their newfound skills some of the workers were rehired for a second subproject and about five skilled workers (from barangays San Isidro and Mikit in Baganga) have found employment in the reconstruction works in Tacloban City after it was hit by Typhoon Haiyan.

A lot of the farming technologies adopted in the SALT and in other crop production subprojects are also new knowledge and skills for the workers who were mostly dependent on copra production prior to Bopha. Some of the workers have also allocated part of the wages they received from the subprojects to cover production expenses such as the purchase of farm inputs and livestock and poultry stocks.

On top of the project management skills learned while implementing the subprojects, the local organizations also developed networks and relationships with other POs, government and NGOs that could support them carry out other plans for livelihood development and reconstructive works.

The hand tools like digging bars, shovels, picks and the assortment of farming tools donated by the DFAT-ILO projects to the associations also make it easier for them to continue maintenance works to the subproject outputs like the production sites or the newly-rehabilitated roads.

Gender sensitivity has also increased among PO and community members as the women workers proved that they could also do manual labour as efficiently as, if not better, than their male counterparts.

Finally, the opportunities provided by the subprojects to the workers to get short-term employment and earn some cash especially at a time when the local produce is still in short supply and food is relatively expensive has helped eased the stress and trauma brought on by not one but two calamities (Typhoon Bopha and Tropical Depression Agaton) within a period of just over a year.

The DFAT-ILO subprojects have given the workers, as Fr Darwey Clark, the Parish Priest and Director of the Social Action Center of Lambajon, put it, hope and dignity. Armed with new knowledge and skills, a bigger support system and the use of new or restored production sites, facilities and infrastructures, the workers and other community members have a renewed sense of determination and a clearer direction on how to rebuild their lives.

caseprofiles

agriculture-based livelihood development

Corn and Cassava Production

**Social Action Center of
Lambajon Parish**

Baganga

**Rebuilding Communities
through Convergence**

**Department of Labor and
Employment (DOLE) – Region XI**

**Baganga and
Cateel**

**Establishment of Vermicast
Production Facilities**

**Kinablangan Farmers Producer
Cooperative (KIFAPCO)**

Baganga

Hot Chili Production

**Baganga Women's Council, Inc.
(BWCI)**

Baganga

**Construction of Lobster Pens
for Production**

**Cabasagan Fisherfolks
Association (CFA)**

Boston



CORN AND CASSAVA PRODUCTION

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A faith-based organization takes action

The Social Action Center (SAC) of Lambajon is a church-based, non-stock, non-profit organization established by the Diocese of Mati in Lambajon, Baganga, Davao Oriental. It holds office at the Sacred Heart of Jesus Parish in Lambajon where the parish priest, Fr Darwey P. Clark, is also the SAC Director.

In May to June 2013, the organization implemented one of ILO-CERF's cash-for-work debris clearing projects in Baganga. Fr Clark noted however that there was hardly any other short-term employment or livelihood recovery intervention being done in Barangay Lambajon.



"Whenever government or other organizations carry out agriculture-based livelihood projects for Typhoon Bopha victims, Lambajon was always overlooked because it only has a few farmlands compared to other barangays," he says. (Lambajon is an urbanizing coastal barangay).

The organization already had access to corn seeds from the Municipal Agriculture Office (MAO) and it set out to look for idle lands in Lambajon where a crop production project for poor members, mostly tenant farmers, of the church-based community could be implemented with the consent of the landowners.

White corn and cassava were the main crops selected because these were found to have a good market and could also be alternative staple foods. Moreover, Fr Clark already had connections with an accredited assembler or buyer of dried cassava chips for a major animal feeds corporation in the Philippines. SAC eventually submitted a proposal to the DFAT-ILO project for a corn and cassava production subproject in Lambajon and in four other barangays in Baganga that are also under the jurisdiction of the Lambajon parish church.

Subproject at a glance

CORN AND CASSAVA PRODUCTION		
Location	Barangays Campawan, Dapnan, Lambajon, Mikit and San Isidro, Municipality of Baganga, Davao Oriental	
Duration	July 21-August 14, 2014	
Partner local organization	Social Action Center (SAC), Sacred Heart of Jesus Parish, Lambajon, Baganga, Davao Oriental	
Project funding	DFAT-ILO	US\$23,708.01
	Farmers, MAO, SAC	US\$63,459.32
Work days	2 758	
Workers	138 total; 63 males (46 per cent); 75 females (54 per cent); 37 Indigenous Peoples; 354Ps* beneficiaries	
Work tools	Rakes, pick mattocks, bolos, grass hooks, scythes	

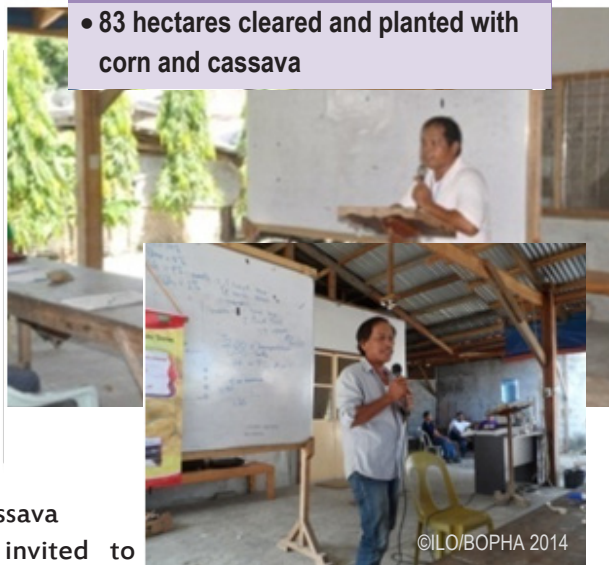
*4Ps (Pantawid Pamilyang Pilipino Program) is a national government programme for poor households.

Activities and accomplishments

On July 22, 2014 an orientation on corn and cassava production as well as on the DFAT-ILO project was conducted in Lambajon. The ILO staff presented the project objectives, implementation procedures, occupational safety and health policies and advocacies on gender equality. Agricultural technicians from the Municipal Agriculture Office of Baganga discussed corn production technologies while another technician from the San Miguel Corporation, Inc. (SMCI) talked about cassava production and the huge demand of San Miguel for cassava as raw material for its animal feeds operation. The president of the Tiblawan Farmers Cooperative of Governor Generoso, Davao Oriental, an accredited SMCI

Physical accomplishments

- 83 hectares cleared and planted with corn and cassava



assembler of cassava chips, was also invited to discuss their buying price for dried cassava chips.

Subproject implementation started simultaneously in six sites as soon as the personal protective equipment were distributed to the workers. The site with the biggest land area is in Block 1 Lambajon which is located beside an airstrip of an old logging company.

Because all of the sites have not been cultivated before or have only been planted with coconut, the biggest challenge encountered by the workers was removing the thick brush, which was neck-high in some areas, and the deep-rooted grasses and weeds. Weeding had to be done in the same spot two to three times during the clearing stage because the grasses quickly grew back. Thus, as soon as a group of workers have cleared a portion of the land, another set of workers would immediately follow to plant the corn seeds. Workers then brought whatever available cassava stalks they already had in their farms and planted these in some portions of the site.

After the 20-day period funded by DFAT-ILO ended, the workers still continue to report to the sites on an agreed regular schedule to do weeding, replanting to replace seeds or seedlings that have not thrived, and other maintenance works. "In November when the corn is ready to be harvested, the parish will hold a harvest festival to celebrate," Fr Clark enthuses.



Impact

Livelihood and skills development.

The wages from the project were not only used to cover basic household expenses but were also used by a small number of workers to buy chickens or a pig so they could start raising poultry or livestock in their backyards. At the airstrip site in Lambajon, workers agreed to allocate an area for a tenant of the land who would also serve as the caretaker of the entire subproject site. The days that some workers put in for maintenance works are being recorded so that their wages can be later sourced from the sales of the corn and cassava.

All remaining income after expenses will then be shared among the workers including the caretaker. Although, the landowners in the two sites in Lambajon have allowed SAC to use their land for free, Fr Clark admits that there is a possibility that the landowners may decide to use the land for other purposes in the future. "It may be temporary but at least the workers have the opportunity to earn an income while the land is still available for their use," he explains. Land ownership is less of a concern in the other barangays because most of the workers are landowners and a number of them have agreed to have their land used for the group endeavor in return for a share in the profits.

Fr Clark also revealed that the Department of Agriculture (DA) has agreed to provide planting materials for upland rice which the workers can rotate with corn in succeeding cropping cycles. On top of that, before the first harvest of corn, DA and the Department of Trade and Industry (DTI) will train workers on how to make decorative items or handicrafts out of corn husks as an additional income source.

Gender equality. Ms Mary Ann Tagsik, 40 years old, is a resident of Barangay Lambajon who never had experience in farm work before she participated in this subproject. She was a full-time housewife until her husband, who was a tricycle driver, died in December 2013 leaving her to tend to her children as well as eke out an income for the household on her own. "The work is new and hard but I have come to enjoy the company of the other workers. It isn't so tiring when there are many of you working together", she reports.



REBUILDING COMMUNITIES THROUGH CONVERGENCE



The *Rebuilding Through Innovations, Sustainable Employment and Enterprise (RISE) Program* is a convergence of services by the Department of Labor and Employment (DOLE), Department of Trade and Industry (DTI), Department of Science and Technology (DOST) and the Office of the Provincial Agriculturist, Province of Davao Oriental aimed to provide reconstruction assistance and promote livelihood and employment opportunities to communities in the municipalities of Baganga and Cateel, two of the municipalities most heavily devastated by Typhoon Bopha in December 2012 .

With the goal of reaching poor farmers greatly affected by the typhoon particularly in sitios and barangays located in geographically isolated areas, the RISE Program, led by the DOLE, enriched its convergence approach through a partnership with the Philippine Army represented by its 67th Infantry Battalion of the 10th Infantry Division (67th IB, 10th ID) and the Department of Foreign Affairs and Trade-International Labour Organization (DFAT-ILO) for the implementation of the *Kabuhayang Pansakahan para Matugunan and Kahirapang Dulot ng Kalamidad* Project (i.e., crop production livelihood to reduce the poverty brought on by the calamity) with chili production and processing as the core enterprise.

The subproject aimed to mitigate displacements, promote peace and development, and fill the need for employment and income generation of 197 farmer-beneficiaries in 10 barangays in Baganga and Cateel, specifically five in Baganga (Ban-ao, Binondo, Batawan, Mahan-ub and Salingcomot) and five in Cateel (Maglahus, Mainit, San Miguel, Abejod and Aliwagwag).

The DOLE, PA and DFAT-ILO took the lead in the implementation of its first two components - livelihood component (chili production and processing) and emergency employment (land preparation). The DOST and the DTI will focus on succeeding stages which are technology enhancement (processing and production of pastes, powder and other chili products) and product development and market promotion, respectively.

The PA facilitated the use of 50 hectares of farmland (30 hectares in Baganga and 20 hectares in Cateel) that were affected by Bopha. Each farmer was allocated an area of 200 square meters for chili production.

While the DOLE and the PA provided farm inputs, equipment, tools and materials and

Subproject at a glance

KABUHAYANG PANSAKAHAN PARA MATUGUNAN ANG KAHIRAPANG DULOT NG KALAMIDAD PROJECT

Location	Barangays Ban-ao, Binondo, Batawan, Mahan-ub and Salingcomot of the Municipality of Baganga and Barangays Maglahus, Mainit, San Miguel, Abejod and Aliwagwag of the Municipality of Cateel, Davao Oriental	
Duration	April 21–June 17, 2014	
Project partners	DOLE XI; DOST XI, DTI XI and 67th IB, 10th ID, Philippine Army	
Project funding	DFAT-ILO	US\$21,374.88
	DOLE Grant	US\$15,916.72
	DOST Share	US\$5,596.60
	DTI Share	US\$5,148.87
	67th IB, PA	US\$2,238.64
Work days	3 135	
Workers	209 total; 167 males (80 per cent); 42 females (20 per cent); 209 Indigenous Peoples; 32 4Ps* beneficiaries	
Work tools	Sledgehammers, shovels, digging bars	

*4Ps (Pantawid Pamilyang Pilipino Program) is a national government programme for poor households.

technical inputs for chili production, the DFAT-ILO covered the wages of the 209 farmers for a total of 3 135 work days, provided personal protective equipment (PPE) as well as social protection (social security, health insurance and accident insurance). Soldiers that also served as agriculture technicians, together with the *Agricultural Makamasang* Barangay Extension Technician or AMBETS, took charge of community organizing and social preparation activities as well as regular monitoring and provision of on-site support to ensure land utilization and maximum participation of the local leaders and their constituents.

The PA collaborated with the Public Employment Service Office (PESO), and the Municipal Agriculture Office of Baganga and Cateel for the selection of farmer-beneficiaries.



Project Manager Capt Edwin Soquila noted that selection was focused on those who were affected by Typhoon Bopha in areas not often reached by government services and who were perceived to be vulnerable to the influence of insurgents. One of these areas was Barangay Batawan where some soldiers died during an encounter with communist rebels. Private First Class (PFC) Rengie T. Baguio and Rex Baleras said that they are committed to helping the communities earn a living, address their basic needs and connect with government agencies. Communities trusted them more now, they added, especially because the Philippine Army was the first to reach and help them after the onslaught of Typhoon Bopha.

Activities and accomplishments

The subproject was formally launched on March 24, 2014 with the signing of the Memorandum of Agreement (MOA) by the congressional and provincial representatives of Davao Oriental, the regional directors of the DOLE, DTI and DOST, the Commanding General of 67th IB and 10th ID of the Philippine Army and the Project Coordinator of the DFAT-ILO.

The 15-day land preparation phase was implemented starting April 21, 2014 with the project briefing and technical orientation of workers in 13 areas. Workers were oriented on the project and on labour policies, social protection and occupational safety and health. They were then provided with personal protective gear and equipment, hand tools, and social protection coverage.

Capt Soquila noted that one of the challenges in acquiring social security protection for the beneficiaries was the lack of basic documents like their birth certificates that are required for registration. This was especially true for the beneficiaries belonging to indigenous peoples' (IP) groups. To address this, they coordinated with IP groups and the barangay local government for the issuance of certificates confirming the identity of the beneficiaries. This was then used to facilitate the late registration of birth with the local Civil Registrar.

Physical accomplishments

- Prepared 30 hectares of land for chili production in Baganga and 20 hectares in Cateel





The farmers' tasks included debris clearing, lumber making, nursery shed construction, land preparation (slashing and weeding), preparation of soil media, sowing of seeds and seedlings, establishment of hedgerows and contour lines, gathering, cutting and staking of *madre de cacao* and gathering of stones for solar dryer tunneling.

Ms Emily Lancian of Sitio Tubigan, Barangay Batawan shared that she and her husband have had to innovate the style of planting chili seedlings; instead of propagating seedlings in one big seedbed, they separated each seedling using cut-up rubber hoses. This made transplanting easier and resulted in better plant growth than those in other farms.

As an on-site nurse, Ms Lancian was tasked to regularly monitor the health of the other farmers in the area, giving first aid and dispensing basic medical care when necessary.



Thematic accomplishments

Support to livelihood. Workers like Ms Lancian, and Ms Memor Pacaldo and Ms Engeline Masinapoc of Sitio Tayudong, Barangay Salingcomot noted that they greatly benefited from the wages received which they used for purchase of food, payment for school and other fees, and as additional capital to their farming.

"We were able to buy corn and peanut seeds for our farm from my wages," Ms Lancian said, adding, "My husband and I can also earn from them now, aside from our chili harvest".





Ms Pacaldo was also able to get back the family motorcycle from the repair shop. She added, “My husband uses this to ferry our two children to school. Now they don’t have to walk or pay PhP70.00 (US\$1.55) per trip”.

Furthermore, in the case of neighbors like Ms Pacaldo and Ms Masinapoc, the subproject strengthened their relationship. They now help each other out in farming activities and whenever their families need moral, physical and financial support.

Social protection. Ms Pacaldo noted that the health monitoring and wearing of the PPE made them feel valued and protected, even if they were just farmers. The PPE protected them from the heat, injury, insect bites and other hazards of farming.

Impact

Economic impact. Capt Soquila noted that their aim is for all the 197 farmers to have incomes from PhP7,000 (US\$156) to PhP10,000 (US\$222) per week. While the minimum target was already achieved with the introduction of diversified crops and organic vegetable farming, he noted that their soldiers cum farm technicians will continue to provide regular technical support until farmers and their families earn as much as PhP40,000 (US\$981,000) a month, especially with the introduction of chili production which can be harvested continuously for three years.

Improved access to resources and peace and development. DOLE Regional Director Joffrey M. Suyao believes that the convergence approach is necessary to ensure sustainability of the livelihoods introduced in the communities. Because the subproject aligns with national, provincial and municipal development objectives, multiple resources are made available for communities which include material inputs, financial and technical resources, and regular on-site support and monitoring. He added that the approach further made partnership with the DFAT-ILO possible.



Deputy Brigade Commander Col. Victor J. Tan, FA (GSC) noted that the convergence approach showed the community that the different agencies were united in helping them. It gave them reason to believe in the government again and to veer away from joining or cooperating with insurgents.

Congressman Nelson Dayanghirang further noted that the convergence approach brought in more resources for the community including that coming from congressional development funds. He also pointed out that as experienced during the Programme Assessment on June 27, members of the community have learned to communicate their issues and concerns, trusting that these will be immediately addressed by the appropriate agency. “This shows there is increased interaction between farmers and agencies and that the farmers have restored confidence in government,” he muses.





ESTABLISHMENT OF VERMICAST PRODUCTION FACILITIES

Impact of Typhoon Bopha on agrarian reform communities

The Department of Agrarian Reform (DAR) which is the government agency mandated to implement the Comprehensive Agrarian Reform Program (CARP) has reported that about 15 000 agrarian reform beneficiaries (ARB) households have been severely affected by Typhoon Bopha. These ARBs belong to six Agrarian Reform Communities (ARCs) in Davao Oriental covering an estimated 34 000 hectares of agricultural land.

The farmers have lost most of their production assets during the disaster such as draft animals, small livestock, farm machinery and tools as well as fishing gears. At present, some farmers have not yet resumed farming operations due to lack of capital and inputs. Debris that still obstruct some farms and the high cost of fertilizers and agricultural inputs also contribute to the farmers' loss of motivation to return to farming.

In 2013, DAR together with the United National Industrial Development Organization (UNIDO) and the World Food Programme (WFP) assisted an association of ARBs in Kinablangan, Baganga, the Kinablangan Farmers Producers Cooperative (KIFAPCO), set up an organic fertilizer production facility particularly for vermicast. The cooperative was given training, technical assistance, start-up African night crawlers, and a shredder for preparing the substrate materials. The facility was built in Sitio Hubason, Kinablangan which the cooperative was able to use only briefly because the Tropical Depression Agaton in January 2014 damaged and flooded the worm beds.

Thus, the cooperative had to restart from scratch and use its own resources to repair the beds and the building. DAR and KIFAPCO then approached the ILO with a subproject idea for the establishment of another vermicast production facility for KIFAPCO but in another site in Kinablangan that is not prone to flood.

Eventually, it was ascertained that there would be enough resources to put up three more facilities in other barangays, which can be operated by local ARB associations, but with KFP as the subproject holder, and when operations start, as overall technical adviser and product consolidator.

Subproject at a glance

ESTABLISHMENT OF VERMICAST PRODUCTION FACILITIES		
Location	Barangays Ban-ao, Dapnan, Kinablangan and San Victor, Municipality of Baganga, Davao Oriental	
Duration	July 24-August 14, 2014	
People's organization	Kinablangan Farmers Producers Cooperative (KIFAPCO), Lawis, Kinablangan, Baganga Davao Oriental	
Project funding	DFAT-ILO	US\$ 14,862.45
	KIFAPCO	US\$ 2,861.10
Work days	1 140	
Workers	77 total; 61 males (79 per cent); 16 females (21 per cent); 49 indigenous peoples; 8 4Ps* beneficiaries	
Work tools	Shovels, digging bars, wheel barrows	

*4Ps (Pantawid Pamilyang Pilipino Program) is a national government programme for poor households.

Activities and accomplishments



Physical accomplishments

- Four vermicast production facilities with 10 beds each in barangays Kinablangan, Ban-ao, Dapnan and San Victor

A total of 77 ARBs were recruited for the project to make up the workforce that included unskilled labourers, carpenters, masons, on-site nurses, monitoring staff and administrative staff. The ARBs whose farm lands were badly damaged by Typhoon Bopha were given the first priority in the selection of workers.

After the orientation and distribution of personnel protective equipment to the workers by ILO project staff, the subproject started implementation in all four sites at the same time.

Work began with clearing the land on which the buildings were to be constructed. Felled coconut trees found in nearby farmlands were then cut by chainsaw into lumber that were then used as construction materials for the vermi house and the beds.

Debris and vegetation were also removed but biodegradable materials that can be used as substrate for the worms were segregated and stockpiled. While the lumber served as the counterpart of the local associations, the cost of nipa shingles, an indigenous roofing material and the nets to serve as the walls of the buildings were shouldered by the DFAT-ILO project.



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So that the three associations can start their vermicast production operation, KIFAPCO conducted a training and lent their shredder and 20 kilograms of African night crawlers to each association. (DAR had provided 200 kilograms of the worms to KIFAPCO in time for the operation of the new facilities).

After one year, when the worms have already multiplied, each association can return the 20 kilograms of worms to KIFAPCO. To ensure the quality of the product and guide the other ARB organizations in the production processes, KIFAPCO assigned three of its members to monitor each of the three sites.



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Impact and lessons

Livelihood development. The vermicast production facilities can contribute to the livelihoods of the association members in two ways: (a) the application of vermicast in their individual farms is expected to improve crop yields; and (b) members can earn additional income from the sale of vermicast through the organizations' proposed profit-sharing schemes. Each of the four organizations involved in the subproject have different ideas on apportioning income generated from the facilities but are essentially the same in first allocating 10 per cent for the land owner, some percentage for the caretaker, and another portion for organizational funds, before equally dividing the profit remaining among members.



The organizations can also tap into the fishpond fertilizer market. Ms Mera Rabadon, a member of KIFAPCO and the monitor for the Ban-ao site relates, "Personnel from the Bureau of Fisheries and Aquatic Resources (BFAR) once approached KIFAPCO because they wanted to buy vermicast from us but we could not meet the volume they required". She explains, "Vermicast can also be applied in fishponds to promote the growth of *lumot* (algae)".

The organizations may also venture in propagating African night crawlers which they can sell to other farmer associations or even to farmers who wish to produce vermicast in their own backyards.

Skills development. Currently KIFAPCO already has 10 vermicast production technicians among its members which can pass on their knowledge and skills to the other three organizations and their members. Mr Atcher Lipio, president of the New Life Farmers Association in Ban-ao, already has his own vermi beds thus the technology is not new to him. However, he says that the subproject also developed construction skills among the ARBs and also taught him how to plan and implement a project as well as manage people. The New Life association was formed in May 2014 and the vermicast facility is their first project.



Climate change adaptation. Ms Mera Rabadon, who also happens to be the daughter of the chairman of KIFAPCO, reveals that the ultimate goal of the subproject is to promote organic farming among ARBs. The members of the organizations should use the vermicast produced from the facilities as fertilizer in their own farms. They should be able to learn that making vermicast is easy and that it is actually less expensive to use organic instead of inorganic fertilizer in their farms. As a climate change adaptation strategy, organic farming not only increases yield but also improves soil water retention and drainage (which results in better response to droughts and floods), protects biodiversity and enhances ecosystem balance, and avoids land degradation¹.

¹Wani S. A, Chand S, Najar G. R, Teli M. A. Organic farming: as a Climate Change Adaptation and Mitigation Strategy. Curr Agri Res 2013;1(1):45-50. Available from: <http://www.agriculturejournal.org/?p=510>



Empowering Baganga women after Typhoon Bopha

The Baganga Women's Council is a federation on 110 women's associations in Baganga that was registered with the Securities and Exchange Commission in 1996. The current number of individual members is around 6 000 which is actually about 1 000 less than the membership size before Bopha. Ms Thelma Miñoza, President of the BWC, explains that this is mainly because after the typhoon a lot of their members left Baganga to live elsewhere. Majority of the members are housewives and farm workers belonging to low-income households. Thus, the Council, with the help of the Municipal and Provincial governments, has been looking for opportunities to help women, one of the most vulnerable sectors of the population especially during calamity situations, become economically productive and contribute more to restoring or improving household incomes.



The Council requested funds from the DFAT-ILO project to cover the labour component of a hot chili production project, an industry that is being promoted and dubbed by the Provincial Government of Davao Oriental as "Hot Pablo" chili, Pablo being the Philippine name for Typhoon Bopha.

According to Ms Mila C. Detros, Women Coordinator of the Provincial Population Commission Office, aside from the increasing demand for hot chili powder and sauces, chili production is also a good income source for women because growing and processing chili is something women can easily do.



Subproject at a glance

HOT CHILI PRODUCTION		
Location	Barangays Ban-ao, Kinablangan, Lambajon, Lucod, Mahan-ub and San Isidro, Municipality of Baganga, Davao Oriental	
Duration	July 28-August 15, 2014	
People's organization	Baganga Women's Council, Poblacion, Baganga, Davao Oriental	
Project funding	DFAT-ILO	US\$28,025.76
	BWC	US\$44,160.70
Work days	3 225	
Workers	215 total; 77 males (36 per cent); 138 females (64 per cent); 194 Indigenous Peoples; 64 4Ps* beneficiaries	
Work tools	Shovels, digging bars, pick mattocks	

* 4Ps (Pantawid Pamilyang Pilipino Program) is a national government programme for poor households.

Activities and accomplishments

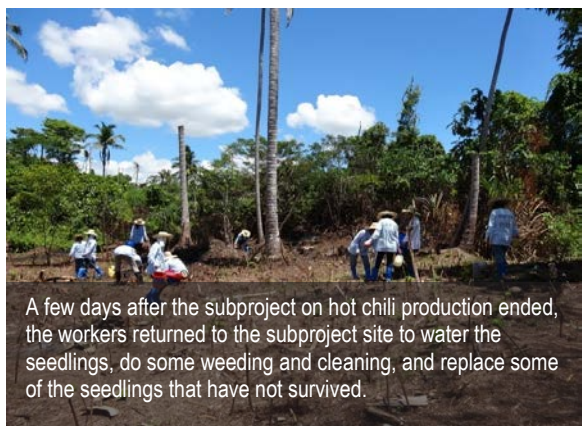
The Council identified eight sites where chili can be planted on at least one hectare of land each which comes to a total of at least eight hectares for the whole subproject. Since the scheme was for the workers or Council members to plant and operate a chili farm as a group, the Council had to look for members who are landowners and who are willing to have their land used for chili production for a minimum of three years, the length of time in which the chili plant is still productive, in exchange for a portion of the profit from

the harvest. Thus, the sites covered by the subproject are spread over six barangays in Baganga, as follows: (a) Centro, Ban-ao; (b) Cadungonan, Ban-ao; (c) Centro, Kinablangan; (d) Lawis, Kinablangan; (e) La Paz, San Isidro; (f) NASA, Lambajon; (g) Igawon, Mahan-ub; and (h) Bauyan, Lucod.

The Council recruited a total of 215 workers including labourers, chainsaw operators, carpenters, administrative support staff, monitoring staff and on-site nurses. The average number of labourers per site is 23 and six to eight of these are men. The male workers are husbands or other family members of women association members. Also, the workers in one site do not belong to one primary women's association but rather represent several purok- or 'block'-level associations. For example, the site in Lambajon engages 10 women's associations while that in Lucod involves 12 associations such that one association can have two or three representatives per site.

The chili seeds were provided by the Department of Agriculture (DA) through the Provincial Government while lumber for the sheds were sawn from fallen coconut trees found on the site or from the lands of association members and barangay officials.

After an orientation and the distribution of protective personnel equipment and work tools to workers, the subproject started simultaneously in the eight sites. Although the 15 days of work funded by DFAT-ILO were already completed in all sites on August 15, 2014 workers still continue to go to the sites to weed, to water the plants and do other maintenance works. In Lucod, the workers even expanded their area to two more hectares after securing permission from the landowner so that they could plant more chili and other crops like cassava, vegetables, peanuts and corn. In all sites, the workers have agreed to attend to their respective chili farms twice a week.



A few days after the subproject on hot chili production ended, the workers returned to the subproject site to water the seedlings, do some weeding and cleaning, and replace some of the seedlings that have not survived.



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Physical accomplishments

- Eight hectares of idle land cleared and planted with 200 000 hills of chili (one hectare per site and 25 000 hills per hectare).
- Eight farm huts or sheds constructed (one per site).

The subproject implementation had proceeded smoothly but for one challenge faced by the workers. Because July and August are typically dry months, workers had to fetch water every day from the nearest water source in or around the site to water the plants. In Lambajon, workers even brought water in jerry cans from their own water pumps when they travelled to work every morning. When the water brought from home run out, the workers, male or female, had to fetch water from a river located 50 meters downhill from the site.



Impact and lessons

Livelihood development. The first harvest of chili will be done three months after planting and the Baganga Women's Council, which shall serve as the consolidator of the produce from all sites, has already approached the investments unit of the Governor's Office to report their expected production volume and to ask assistance in looking for buyers. It was agreed that 15 per cent of the sales of each site will be shared by the Council and the landowner and the remaining 85 per cent will be shared equally among the workers.



The Department of Labor and Employment (DOLE) has also indicated that it will provide additional funds for the labour costs in two out of the eight sites where area expansion is possible. It will also provide two grinders to BWC for processing chili into powder.

Gender equality. Ms Miechile Majaba, 42 years old and mother of four, is one of the members of Block 9 Lambajon Women's Association. Although she and her husband grows corn, peanuts, vegetables and other crops, their income from farming has not been steady since Typhoon Bopha struck because of the lack of production capital. Thus, her husband also works as a labourer in construction projects from time to time. Like most of the women workers in the subproject, this is her first time to get short-term daily wage employment after the typhoon. "I told my husband that the income I will get from chili, the wages and also the sales from the harvests in the future is all mine. I am still going to use the money mainly for my children's school expenses but I get to keep it and decide what to do with it", she says. This was also a learning experience for her since this was her first time to plant chili. The same is actually true for all men and women labourers of the subproject.





Casting nets for sustainable livelihood of coastal communities

In 2007, the Department of Agriculture-Bureau of Fisheries and Aquatic Resources (DA-BFAR) implemented its Integrated Coastal Resource Management Project (ICRMP) in the municipality of Boston, Davao Oriental. It aimed to provide sustainable livelihoods for coastal communities and improve the management of the municipality's 9 177.31 hectares of coastal resources.

Capitalizing on the rich lobster habitat in the coastal areas, the DA-BFAR engaged the Poblacion Boston Lobster Grower Association (PBLGA), Cabasagan Fisherfolk Association (CFA) and Sibahay Fisherfolks Association (SFA) to construct, manage and operate demonstration lobster pens for the production of tiger lobsters (*Panulirus ornatus*).

Subproject at a glance

CONSTRUCTION OF LOBSTER PENS FOR PRODUCTION IN BOSTON

Location	Barangay Cabasagan, Barangay Sibahay and Barangay Poblacion, Municipality of Boston, Davao Oriental	
Duration	April 4–May 6, 2014	
Project partners	Poblacion Boston Lobster Grower Association, Cabasagan Fisherfolk Association and Sibahay Fisherfolks Association	
Project funding	DFAT-ILO	US\$17,687.29
	BFAR	US\$22,862.13
	Peoples' Organizations	US\$279.83
Work days	2 100	
Workers	85 total; 66 males (78 per cent); 19 females (22 per cent); 50 Indigenous Peoples, 32 4Ps* beneficiaries	
Work tools	Sledgehammers, shovels, digging bars	

* 4Ps (Pantawid Pamilyang Pilipino Program) is a national government programme for poor households.

Typhoon Bopha aftermath. On December 4, 2012, Typhoon Bopha not only destroyed the fishing grounds and equipment of the municipality's coastal communities, it also destroyed the newly constructed lobster pens.

While the municipality declared a loss of PhP465 million in agriculture production, members of the PBLGA, CFA and SFA – fishers, gleaners, small fish traders and other fishery-dependent livelihood workers – lost their means of livelihood and over PhP1.9 million of potential annual income from lobster production.

Partnership with the DFAT-ILO. Although the DA-BFAR continued its support to the three people's organizations (POs), providing the construction materials, tools and equipment for the reconstruction and operation of lobster pens, the POs were only able to provide minimal and intermittent labour counterpart as members were more concerned with looking for immediate sources of cash to buy food for their families. This resulted to the delayed reconstruction of the demo-lobster pens.

In March 2014, the DA-BFAR established partnership with the DFAT-ILO which agreed to cover the following costs: the wages of 85 workers for 2 100 work days; personal protective equipment and gears (PPE, PPGs), i.e., aqua boots, goggles and thermal shirts for divers and other skilled workers and buri hats, work shirts, gloves, socks and rubber boots for labourers; some working tools and equipment (sledgehammers, square edge shovels, digging bars); social protection coverage (social security, health insurance and accident insurance). The project team also instituted occupational safety and health practices by deploying on-site nurses. The DA-BFAR provided construction materials, netting, lobster juveniles, equipment and overall project supervision. Finally, the POs were responsible for project management and equipment support.

ACTIVITIES

General Orientation and Technical Briefing

Jointly conducted by the DA-BFAR and DFAT-ILO in three project sites with distribution of PPE, tools and materials

CONSTRUCTION OF LOBSTER PENS

In the Three Sites (Barangay Cabasagan, Barangay Sibahay and Barangay Poblacion)

With On-site Training, Health Monitoring, Orientation on Social Protection

POST ERECTION

- On-site pen layout
- On-site excavation
- Sharpening of posts
- Hauling and sea transport
- Post erection and post bracing

CARPENTRY

- Construction of caretaker hut
- Structure studding
- Structure framing

NET INSTALLATION

- Fixing net structure
- Installation of net stalker

NET SEWING

- Net stretching
- Rope stretching
- Footline adjoining
- Hanging line adjoining
- Net structure conjoint

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Impact and lessons

Support to livelihood. The project provided both short- and long-term livelihood opportunities to the 85 workers, their families and their barangays. “We used the wages to buy food, school supplies and as capital for fishing and farming”, says CFA Chairman Leonardo Monte de Ramos.

Each group expects an annual harvest of 800 kilos from the initial seeding of between 1 250 to 2 000 juvenile tiger lobsters, which will take six months to mature. With proper care, each lobster will weigh an average of 500 grams four months after seeding (in this case, August). Harvests will be distributed and managed monthly from August to November at 200 kilos per harvest, with each association potentially earning PhP160,000 per harvest or PhP640,000 annually.

PBLGA Executive Committee President Lucilito Badang also indicated that they could now offer their skills to construct lobster pens to other interested groups or entrepreneurs in the barangay.

Organizational strengthening. “After the typhoon struck, we became preoccupied with getting food for our families each day. We lost hope that we could work together again. The project strengthened us and gave us discipline and purpose,” noted SFA Chair Romeo C. Noquiao.

Environment protection. SFA Chair Noquiao further revealed that they were working on appointing members of the association as members of the *Bantay Dagat* or community coastal guards, given that they were already trained and are already guarding the pens and their environs from illegal fishing practices 24 hours a day.

Gender equality. Although the 19 female workers were initially tasked to prepare the nets for installation and monitor the health status of the workers, those with carpentry and diving skills helped construct the rafts, installed the posts, dove the waters to set the net anchors and did general carpentry work on the pens. They also took on coastal guard duties and have continued monitoring the health status of their co-members even after the subproject ended.

irrigation system rehabilitation

Restoring the Baganga Rice Granary: Irrigation Canal Repair and Desilting in San Isidro - Phase I and Phase II	Green Mindanao Association, Inc. (GMAI) and Baganga Irrigators Association, Inc. (BIAI)	Baganga
Irrigation Canal Desilting and Reconstruction of Irrigators' Association Office	San Isidro-Dapnan-San Victor Irrigators Association, Inc. (SAIDAVI)	Baganga
Irrigation Canal Desilting	Buguis-Yahuno Irrigators Association, Inc. (BYIAI)	Cateel
Irrigation Canal Repair and Desilting, Vermicast Facility Construction and Coconut Nursery Establishment	Taytayan Irrigators Association, Inc. (TIAI)	Cateel



RESTORING THE BAGANGA RICE GRANARY: IRRIGATION CANAL REPAIR AND DESILTING IN SAN ISIDRO

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Typhoon Bopha aftermath

Barangay San Isidro with its 5 000 hectares of rice fields, is considered as the rice granary of the municipality of Baganga. It is still recovering from the destruction wreaked by Typhoon Bopha in December 2012 that not only destroyed crops but damaged agricultural infrastructure, including the San Isidro irrigation system and canals that serve around 600 farmers in the area. From the average yield of 120 sacks of palay per hectare, production after the typhoon plummeted to only 30 sacks per hectare.

Such was the experience of the 165 members of the Baganga Irrigators Association, Inc. (BIAI), whose total farm lands of 275 hectares was reduced to 168 hectares. The damaged irrigation system also significantly reduced irrigation areas, income levels and employment opportunities, and have even caused conflict among family members. Annual income from rice production decreased from PhP50.5 million to around PhP7.7 million after the typhoon.

Bridging partnerships

To implement the partial rehabilitation of the 17-kilometer San Isidro irrigation system, the BIAI entered into a partnership with the Green Mindanao Association, Inc. (GMAI) and sought the DFAT-ILO project for assistance in December 2013 specifically for labour, social protection, hand tools and provisions for construction materials. The GMAI provided both technical supervision and mentored the BIAI on project management.

Phase I, their first DFAT-ILO subproject, focused on desilting and clearing 7 kilometers of the main irrigation canal that fed at least 80 hectares. It generated 2 965 work days for 152 labourers, all of whom were from BIAI. Applying what they learned from Phase I, the BIAI managed Phase II of the rehabilitation works that covered 10 kilometers of the main canal and also secondary canals. This second subproject generated 3 392 work days for 168 workers.



Activities and accomplishments



Both DFAT-ILO subprojects started with a workers' orientation on reconstructive works on irrigation systems, labour standards, social protection and occupational safety and health standards.

Workers were provided with personal protective gear and equipment like rubber boots, hand gloves, socks, buri and hard hats, long-sleeved work shirts, hand tools and social protection coverage

specifically social security, health insurance and accident insurance coverage.

The work began on December 9, 2013 with the repair, realignment and installation of the steel gate and repair of the main dam. Gabions were installed and the flumes were rippedraped to reinforce the scoured foundation. Clearing, declogging and desilting were done at the box culvert and open canals. The embankments were contoured and planted with *madre de cacao* to prevent soil erosion. (The tasks of female workers included clearing the embankments and preparing these for planting).



On the third week of January 2014, Tropical Depression Agaton caused the Mikit River to overflow which damaged the irrigation system's two flumes, steel gate and once again choked up the canals with debris. Despite this setback, the group was able repair the structures and clear 7 kilometers of the irrigation canal which is more than the Phase I initial target of 5 kilometers.

During Phase II, workers put into practice what they learned and cleared the remaining 10 kilometers of the canal more efficiently. This time, BIAI officers played a major role in the management of the work teams. They further expanded their clearing work to the five lateral canals and facilitated the fabrication and installation of irrigation steel screen at the irrigation flumes.

Subproject at a glance

DESILTING AND CLEARING OF THE BARANGAY SAN ISIDRO IRRIGATION CANAL (PHASES I AND II)

	Phase I	Phase II
Location	Barangay San Isidro, Sitios Tambinasan, Bahada C-4, BPI, Dum-ag, Lubong, Paglintian and Mimis	Sitios Bajada, Luoban/ Paglintian, Curbada Veneer, Junction, Dapnan
Duration	December 9, 2013-January 31, 2014	July 7-31, 2014
Partner organizations	Green Mindanao Association Inc. (GMAI)	Baganga Irrigators Association, Inc. (BIAI)
Project funding	DFAT-ILO US\$27,967.85 GMAI US\$2,202.24	DFAT-ILO US\$29,698.69 BIAI US\$2,202.24
Work days	2 965	3 392
Workers	152 total; 118 males (77 per cent); 34 females (23 per cent) 152 Indigenous Peoples; 54 4Ps* beneficiaries	168 total; 117 males (71 per cent); 51 females (29 per cent) 155 Indigenous Peoples; 75 4Ps* beneficiaries
Work tools	Shovels, digging bars, sledgehammers, wheel barrows	

* 4Ps (Pantawid Pamilyang Pilipino Program) is a national government programme for poor households.

Thematic accomplishments

Support to livelihood. Around 170 hectares of rice fields now have sufficient water supply and have been prepared in time for planting. Also, no more conflicts have occurred due to scarcity of water supply. The BIAI was also able to resume the collection of irrigation fees and payment to the National Irrigation Authority (NIA).

Workers also benefited from the wages received, which they used to augment income from farming, specifically to purchase food, pay for school expenses, and add to their production capital.



Indigenous peoples (IP) rights. With the community mostly from the Mandaya tribe, farmers were oriented on and appreciated the IP Rights Act of 1997 and its relevance to their lives. Mr Lucido Magkidong said that they have started invoking their rights as IPs to access government support and the possibility of establishing a tribal barangay.

Physical accomplishments

- 17 kilometers of irrigation canal desilted and rehabilitated and supplying 170 hectares
- *Madre de cacao* planted along both sides of the cleared irrigation canal to prevent soil erosion
- Repair, realignment and installation of the steel gate and its rod, the concrete structure of the main dam, gabions installed and riprapped

Labour-intensive approach.

Desilting and rehabilitation of the irrigation canal required labour-intensive work to remove the thick layer of silt and mud, boulders and other debris. It generated a total of 6 357 work days.





Climate change adaptation. As part of their advocacy, the GMAI conducted trainings on Community-Based Disaster Risk Reduction and Climate Change Adaptation (DRR-CCA) for all of the workers, and members of the barangay council and community. GMAI's Engr Roel Caseñas noted that, as hoped, the council and BIAI have decided to adopt DRR-CCA practices and craft appropriate policies in the management of the irrigation system, protection or regulation of settlements along river banks and maintenance of their foot bridge.

The council and association also decided to adopt the practice of planting *madre de cacao* trees – gathered from the surrounding farms – along the riverbank and the canals as long-term mitigating measure against floods.

Impact and lessons

Skills development. Having learned and successfully applied their skills on reconstructive work, majority of the workers were rehired for Phase II of the irrigation system clearing and desilting activities. Some, like Ms Grace Macalinao, were hired as administrative staff by the GMAI which is now considering deploying her to their projects in areas affected by Typhoon Haiyan. Other skilled workers like carpenters and chainsaw operators have already been hired by other NGOs.

Economic recovery. With at least 170 hectares of farm land being properly irrigated, BIAI President Krusaldo Batao shared that farmers are expecting a rise in production within the year, from 30 sacks per hectare to 100 sacks per hectare (or five tons per hectare per cropping).

The lateral canals are also able to irrigate the fields of other farmers within 12 kilometers from the dam under good weather conditions. Mr Batao expects that the total annual income of BIAI and other farmers benefiting from the system will reach Php26 million.

Employment generation. Consequently, other economic activities like employment of farmhands and other labourers are also expected to increase in the next few months.

The two DFAT-ILO irrigation subprojects in San Isidro have therefore ushered in the rebirth of the municipality's rice granary.



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DESILTING THE SAN VICTOR COMMUNITY IRRIGATION SYSTEM

Typhoon Bopha aftermath

Rice farmers of the municipality of Baganga were among those who suffered most from the destruction brought on by Typhoon Bopha in December 2012. The municipality, once considered as the rice granary of province, suffered losses in agriculture amounting to around PhP400 million.

The disaster not only destroyed crops but damaged agricultural infrastructure, including the 5.2-kilometer San Victor Community Irrigation System (CIS) that services the 225 hectares of rice lands of 157 members of the San Isidro-Dapnan-San Victor Irrigators Association (SAIDAVI), Inc. Since then, the system could only service 30 hectares, and with a decreased yield of 30 sacks per hectare, resulted in the decrease in the annual income of farmers from PhP41.3 million collectively to PhP1.4 million annually.

SAIDAVI President Nestor Monday reported that almost all the farmers in the area have since done minimal or altogether stopped rice farming because the massive build-up of debris and silt in the irrigation canals has blocked the water supply. The typhoon also destroyed the association's office which further weakened the farmers' ability to operate as a group.

Other facilities and equipment like vermibeds, shredder and dryer were also not spared.

Subproject at a glance

DESILTING AND CLEARING OF THE SAN VICTOR COMMUNITY IRRIGATION SYSTEM

Location	Barangay San Isidro, Dapnan and San Victor	
Duration	July 9 - August 1, 2014	
People's organization	San Isidro-Dapnan-San Victor Irrigators Association, Inc. (SAIDAVI)	
Project funding	DFAT-ILO	US\$29,723.75
	SAIDAVI	US\$871.52
Work days	3 180	
Workers	159 total; 108 males (68 per cent); 51 females (32 per cent); mostly indigenous peoples; 66 4Ps* beneficiaries; 1 person with disability (PWD)	
Work tools	Shovels, digging bars, sledgehammers	

*4Ps (Pantawid Pamilyang Pilipino Program) is a national government programme for poor households.

Physical accomplishments

- 5 kilometers of irrigation canal desilted and rehabilitated supplying at least 225 hectares
- Clearing of turn-outs, inlets and secondary canals
- Reconstruction of the SAIDAVI office



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Bridging partnerships

The organization has since found it difficult to organize volunteers for the desilting and rehabilitation of their irrigation system and the reconstruction of their office as members prioritized other opportunities that could immediately put food on their tables. This prompted SAIDAVI officers to partner with the DFAT-ILO in July 2014, specifically to seek support in the form of worker wages, social protection, working tools and construction materials. They also partnered with the Green Mindanao Association, Inc. (GMAI) for technical supervision.

Activities

A workers' orientation on reconstructive works on irrigation systems and on labour standards, social protection and occupational safety and health was given by the DFAT-ILO project team. Workers were provided with personal protective gear and equipment like rubber boots, hand gloves, socks, buri and hard hats, long-sleeved uniform shirts, and hand tools, and social protection coverage specifically a month's contribution for Social Security System (SSS), three months of PhilHealth insurance premiums and one-year accident insurance coverage. Workers' health conditions were closely monitored by the on-site nurses.



After repair works on and the reopening of the Kampawan River Dam, the system's water source, teams were organized for brush clearing, excavating earth canals and contouring and landscaping of surroundings. Another group was also tasked to reconstruct the SAIDAVI office.



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Accomplishments

Support to livelihood. The 225 hectares of service area of the San Victor Community Irrigation System (CIS) now have sufficient water supply. Around 75 hectares of non-members are also being irrigated by the turn-outs and secondary canals, expanding the service area to 300 hectares.

Workers also benefited from the wages received, which they used to buy food, pay for school expenses, and add to the production capital.

With the resumption of rice production, the SAIDAVI expects to be able to resume the collection of service fees and continue payment to the National Irrigation Authority (NIA).



Labour-intensive approach.

The desilting and rehabilitation of the irrigation canal required labour-intensive work in order to remove silt, mud, boulders and other debris. It generated a total of 3 180 work days with 159 workers.



Gender responsiveness. Female members of the workforce were given leadership positions and provided equal opportunity to do the work required both for the irrigation system and for the construction of the office. Team leaders Ms Puriza Monday and Ms Carmelita Diansay noted that the female workers willingly did their share of work, welcoming the opportunity to earn and to revive their farms.

Social protection. All 159 workers were newly registered to SSS which, along with the accident insurance, they believed would provide them and their families with long-term benefits in the form of pension and access to loans. Health insurance was provided to the 87 workers who were not beneficiaries of the government's 4Ps programme.





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Impacts

Skills development. Having learned and successfully applied their skills on reconstructive work, the association plans to continue clearing other secondary canals in the area. They have also started working with other farmers who are non-members in clearing activities.

Economic recovery. With at least 225 hectares of farm land being properly irrigated, rice production is expected to increase within the year from 30 sacks per hectare to at least 100 sacks per hectare (5 tons per hectare per cropping) which translates to an annual production value of PHP34.4 million (US\$766,147). Consequently, other economic activities like employment of farmhands and other labourers are also expected to increase in the succeeding months.

Access to resources. A major challenge noted by the farmers was the lack of capital to resume production after Typhoon Bopha. In the course of subproject implementation, the SAIDAVI was able to reestablish partnership with the Provincial Agriculture Office (PAO) who committed to providing planting materials for 30 hectares under a Plant-Now-Pay-Later arrangement which, Mr Nestor Monday noted, was something they direly needed.

They were also able to have initial discussions with the Provincial Agrarian Reform Office (PARO) for technical and other assistance in reviving their organic farming practices and support for reestablishing their vermiculture production. As their counterpart, the association will be utilizing their funds for the repair of their vermibed, sheds and shredder. They also intend to use some of the materials gathered from the canal clearing activities as input to their vermiculture.

Organizational strengthening. The project strengthened the project management and leadership skills of SAIDAVI officials who have also realized the importance of reviewing and properly implementing the association's policies and procedures. On-site nurse Ms Melchie Astudillo, team leaders Ms Monday and Ms Diansay, and the other officers indicated their willingness to apply the social protection and occupational safety and health policies and procedures introduced by the project in their future activities.

DESILTING OF THE BUGUIS-YAHUNO IRRIGATION CANAL

Rice production after Bopha

More than a year after Typhoon Bopha, its adverse impact on livelihood, including rice production, one of Cateel's major sources of income is still being felt. The Buguis-Yahuno Irrigation System allows farmers in barangays San Antonio and Alegria to produce rice in two croppings per year: from December to April, the wet season, and from May to October, the dry season. Although Typhoon Bopha only damaged 300 meters of the 2.4-km irrigation canal, crop yield has plummeted. Mr Joseph Alonzo, president of the irrigators association, reports that the average yield in the 92-hectare service area used to be 100 sacks per hectare. After the typhoon, farmers are only able to harvest a maximum of 60 sacks per hectare.



Tropical depression Agaton hits Bopha-affected areas

A low pressure system in January 2014 brought a week of non-stop rains and developed into a storm locally named "Agaton". This resulted in widespread flooding in the same areas devastated by Typhoon Bopha in Davao Oriental. This also inflicted the bigger damage to irrigation systems including the Buguis-Yahuno Irrigation System whose entire length of canal was covered with the earth and debris

carried by floodwaters. The members of the irrigator's association immediately started desilting the concrete-lined irrigation canal as well as the earth ditches of their respective farms. In February 2014, the irrigation association sought assistance from the DFAT-ILO project in cleaning up the remaining 1.6-km section of the canal that the group of farmers had not yet worked on.

THE BUGUIS-YAHUNO IRRIGATORS ASSOCIATION



The Buguis-Yahuno Irrigators Association was registered with the Securities and Exchange Commission in 2006. It has 40 members, 37 of which are men and three are women. Aside from rice, these farmers also grow coconut, cacao and falcata to augment their household income. The PO's activities are focused mainly on the operation and maintenance of the irrigation system which was upgraded to a concrete canal four years ago. It charges its members an irrigation fee of 125 kg of fresh palay per hectare.

Subproject at a glance

DESILTING OF THE BUGUIS-YAHUNO IRRIGATION CANAL

Location	Barangay San Antonio, Municipality of Cateel Davao Oriental	
Duration	April 10-May 3, 2014	
People's organization	Buguis-Yahuno Irrigators Association, Inc. (BYIA) San Antonio, Cateel	
Project funding	DFAT-ILO	US\$4,335.66
	BYIA	US\$225.00
Work days	501	
Workers	33 total; 23 male (70 per cent); 10 female (30 per cent); 23 Indigenous Peoples; 10 4Ps* members	
Work tools	Shovels, digging bars, bolos	

* 4Ps (Pantawid Pamilyang Pilipino Program) is a national government programme for poor households.

Activities and accomplishments

Mr Alonzo said this was the first time he had tried to access support from an international organization and was unfamiliar with the project development process it entailed. Thus, he sought and received the assistance of the president of the bigger Taytayan Irrigators Association (TIA), Ms Chorna Cabañog, in preparing the subproject proposal. (TIA also received DFAT-ILO funding for its own irrigation canal desilting).

Physical accomplishments

- 1.6 kilometers of irrigation canal desilted
- 1 250 hills of banana planted alongside the canal to prevent soil erosion
- Additional clean-up of dam and the remaining 800-meter section of the irrigation canal

A day after the subproject orientation on April 9, 2014, work on removing soil and vegetation from the irrigation canal started. Thirty-three workers who are all rice farmers were mobilized including 10 women. Because neither reconstruction nor repair of the concrete-lined canal was required, all 30 labourers were unskilled. Three more workers served as on-site nurse, administrative support and monitoring staff.

The work not only consisted of unclogging the channel but also removing earth and overgrown weeds and planting 1 250 banana plants beside the canal to prevent the soil from eroding and spilling into the irrigation system. The banana suckers were procured for free from existing plants around the area. When asked why banana was chosen for soil stabilization, Mr Alonzo said that aside from the fact that bananas can provide additional income, their roots, more importantly, are not likely to damage the concrete canal.



The project provided hand tools including shovels, digging bars and bolos and personal protective gear like rubber boots, long-sleeved work shirts, buri hats and socks. It also shouldered a month's contribution to the Social Security System (SSS), three months of PhilHealth insurance premiums and one-year accident insurance policy.

Because the group normally start working at 6 a.m. and put in more than eight hours of work per day, the 1.6 kilometers targeted by the subproject were desilted four days before the scheduled completion date. The extra days were then used to clean up the rest of the irrigation canal, the dam and some of the earth ditches. Thus, the subproject was completed as scheduled on May 3, 2014 in time for the land preparation stage of the next cropping season.



In May 2014, two weeks after participating in and completing the irrigation canal desilting subproject in San Antonio, Cateel, rice farmers like Nicasio Mendes were able to start preparing their land in time for the dry season cropping. As irrigation water started filling up the rice paddies, farmers lined up sacks of palay seeds by the newly unclogged main canal.

Impact and lessons



Climate change adaptation. The rice farmers relate that rainwater and runoff inundating their rice fields is a common occurrence from December to February. Lately, however, they observed that just two days of continuous rain can already trigger a flood that can reach the houses in the community. They hope that planting banana alongside the canal and regular clean-up by members of irrigators association will help mitigate flooding in their rice farms.

Support to livelihood. The workers were grateful that the subproject was implemented just before the dry cropping season began. Now, irrigation water can already be conveyed to all sections of the service area and hopefully improve the yield of all 40 member-farmers. Moreover, the wages received from the project were primarily used to purchase inputs, tractor fuel and cover other expenses related to land preparation and planting. The bananas placed alongside the canal will also provide additional income to farmers.



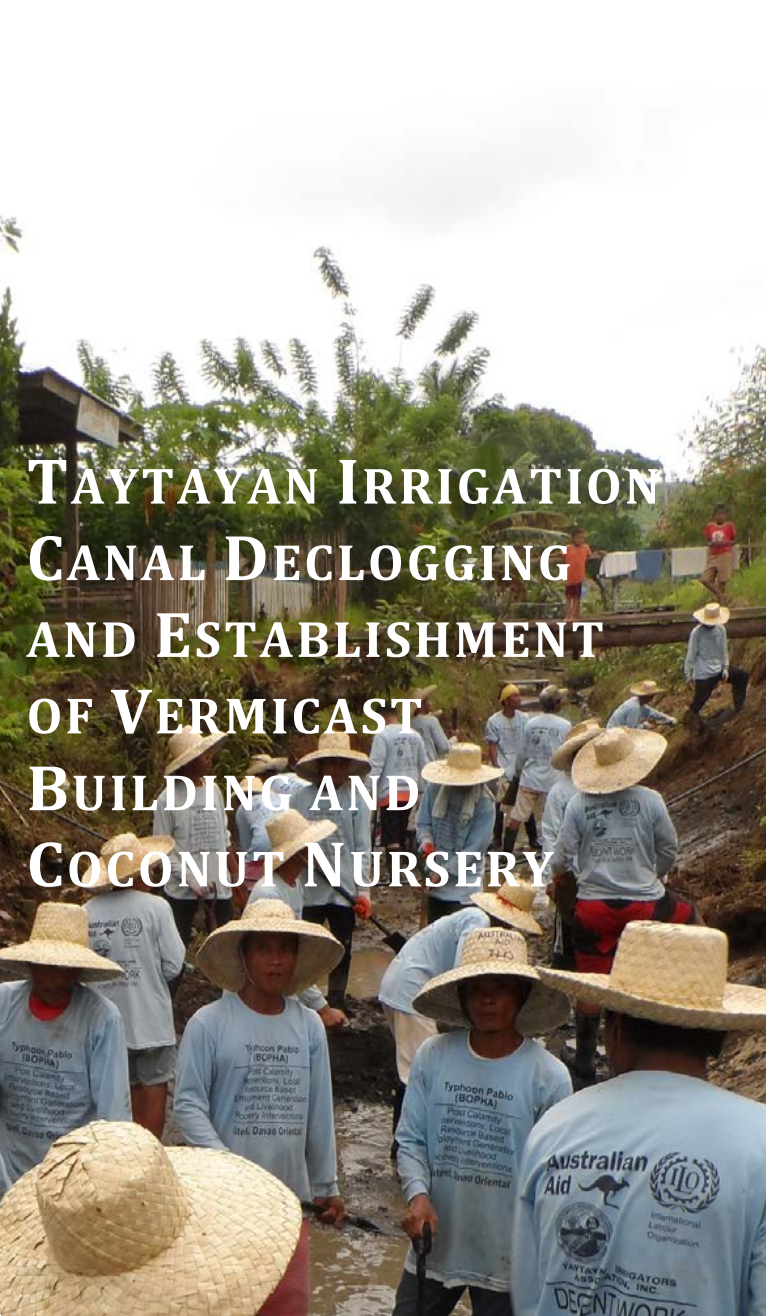
Gender equality. The women that made up almost a third of the workers said that they had no trouble working alongside the men because the job of digging earth and weeding was not new to them being rice farmers. In fact, the women were said to be more meticulous than their male counterparts. The men worked faster but the women were more conscious about the quality of their output, often pointing out to the men what they have overlooked or required more cleaning.

One woman who is also a Barangay Health Worker served as an on-site nurse.

Social protection. When asked what they learned from the subproject, one worker readily replied and the others concurred, “We didn’t know that farmers could be covered by SSS. We thought that SSS was only for professionals”. All 33 workers are now newly registered to SSS and 19 workers are newly enrolled to PhilHealth. To sustain the monthly contributions, the association’s Board of Trustees are planning to implement a policy that will require members to turn over additional kilos of palay to the association, on top of the irrigation fee, to cover the cost of their respective social security and health insurance premiums.



“We didn’t know that farmers could be covered by SSS. We thought that SSS was only for professionals”.



TAYTAYAN IRRIGATION CANAL DECLOGGING AND ESTABLISHMENT OF VERMICAST BUILDING AND COCONUT NURSERY

The Taytayan Irrigation System after Typhoons Bopha and Agaton

Barangay Taytayan is host to the biggest irrigation system in Cateel, Davao Oriental and is considered as the rice granary of the municipality. However, its vast rice land is also highly susceptible to flooding. While post-Bopha rehabilitation work on the Taytayan Irrigation System was still ongoing, the irrigation canals were again filled up with earth and debris as a low pressure system which developed into Tropical Depression Agaton flooded the same areas on January 2014.

The Taytayan Irrigators Association, Inc. (TIA) manages the system which can currently serve around 120 hectares out of a potential of 167 hectares. By February 2014, TIA was only able to restore irrigation supply to half of its service area; repair works and desilting along the main and lateral canals still had to be implemented. TIA's vermicast production building also had to be replaced and transferred to a flood-free location.

The Taytayan Irrigators Association (TIA)

Although the beginnings of the irrigation system in Taytayan date back to the 1960s, it was only in 1999 when TIA acquired a legal identity from the Securities and Exchange Commission (SEC). It now has 84 irrigation system members, 13 of which are female.

On top of managing the distribution of irrigation water, TIA also operates several production and post-harvest facilities like a rice mill, warehouse, dryer, multi-purpose thresher, power tiller, hand tractor and a community seed bank. TIA also produces vermicast, compost and tea for corn and vegetable production.

"The Department of Agriculture distributed upland rice through our association in 2012 so all in all we now have 254 members to include those who are not engaged in irrigated rice production," relates TIA President, Ms Chorna Cabañog. When Bopha struck, TIA's buildings and irrigation structures, including the dam and canals, were damaged. TIA members also lost other important sources of income like coconut and abaca.

Subproject at a glance

Location	Barangay Taytayan, Municipality of Cateel Davao Oriental
Duration	April 14-May 20, 2014
People's organization	Taytayan Irrigators Association, Inc. Cateel, Davao Oriental
Project funding	DFAT-ILO US\$23,901.71 TIA US\$2,166.48
Other resources	15 000 seed nuts from the Provincial Government and the Philippine Coconut Authority (PCA)
Work days	2 653
Workers	189 total, 124 males (66 per cent), 65 females (34 per cent), 136 Indigenous Peoples, 23 4Ps* members
Work tools	Shovels, digging bars

*4Ps (Pantawid Pamilyang Pilipino Program) is a national government programme for poor households.

Activities and accomplishments

Project development began in early February 2014 with a site inspection of the irrigation system by TIA officers and the ILO Project Engineer to ascertain the coverage of an irrigation canal desilting and repairs subproject. Revisions to the original proposal soon followed when TIA decided to also include the construction of a bigger vermicast building as well as the establishment of a coconut nursery in a sitio located on a higher elevation in Taytayan. The Provincial Agriculture Office had recommended that TIA manage the said nursery as part of the coconut rehabilitation programme of the Provincial Government and the Philippine Coconut Authority (PCA) for the Typhoon Bopha-affected areas.

At the request of the community, a timber bridge across the main canal in Purok Agdao to replace a damaged concrete bridge was also added to the design.

From the original proposal of 91 workers, the workforce requirement increased to 189 in the approved programme of works. Subproject implementation finally started on April 14, 2014, a day after the orientation and distribution of personal protective equipment to the workers.



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Physical accomplishments

- 4 kilometers of main irrigation canal desilted and repaired
- Canal embankments cleared and planted with *madre de cacao*
- Timber bridge across the main canal at Purok Agdao constructed
- 8 m x 10 m vermicast production building with 10 beds constructed
- 1 200 sq m coconut nursery established and stocked with 15 000

Challenges

The implementation of the subproject, particularly for the irrigation canal component, had to be timed with the local rice production cycle.

"In order to desilt and make repairs to the canal, the irrigation system has to be closed. The project could not start until after the flowering stage of the rice in the paddies had ended. Irrigation water is still important for that stage," Ms Cabañog explains. Some workers also incurred absences when they had to attend to their rice farms during harvest time. This and the delay of the delivery of the coconuts from PCA pushed back the completion of the project two weeks later than the target date.

Ms Cabañog recalled that she had difficulty getting the required number of workers, especially women, for the subproject so they offered the jobs to all TIA members, even those not in good standing. "I was also told by the ILO Project Coordinator that at least 30 per cent of the workforce should be female so we also allowed couples who did not have small children to apply," she said.



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Impact and lessons

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Components	Number of Workers		
	Male	Female	Total
Irrigation canal	95	54	149
Vermicast building	11	6	17
Coconut nursery	17	5	22
Total	124	65	189

Job generation and social protection. The subproject provided short-term employment to 189 workers and capacitated them on reconstructive works. Nearly 35 per cent of the workers are female. Social protection coverage including Social Security System (SSS) pension, PhilHealth insurance and accident insurance were provided to workers. Some 108 were enrolled to SSS and 60 to PhilHealth for the first time. TIA intends to assist workers who wish to continue

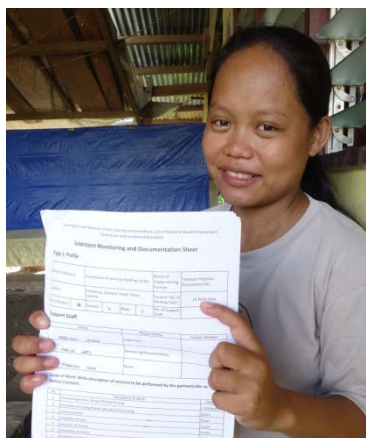
their SSS and PhilHealth contributions by deducting the cost of premiums from their wages in succeeding TIA projects and facilitating the payments. (This scheme is already being used by TIA for a solar dryer project funded by the Department of Agriculture (DA) that started after the subproject). Irrigation system members will also be encouraged to allocate a few bags of palay after every harvest to cover their SSS and PhilHealth expenses.

Support to livelihood and climate change adaptation.

The construction of the bigger vermicast facility is envisioned to provide more income for the organization as well as promote production of organic produce like rice, corn and vegetables. The facility can also employ three to four workers. The coconut nursery on the other hand will provide coconut farmers in Taytayan access to good quality seedlings and incentives from the PCA (PhP40.00 per hill). The nursery will ultimately contribute to the restoration of the coconut industry in the province. As a climate change adaptation measure, the two facilities were built adjacent to each other on a flood-free area. The *madre de cacao* planted along the canal berm is not only intended to control soil erosion but is also a source of substrate material for the worm beds at the vermicast facility. Finally, the timber bridge will restore and provide safe access of about 100 households that have to cross the irrigation canal to get to the barangay road.



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Gender equality. Ms Marlyn Lopez, 24 years old, is one of the women workers in the subproject. "I was the monitor for the vermicast building team. As a monitor, I checked if the workers had on their complete uniform. I checked the supplies and I was also the timekeeper. I used this monitoring form," she explains. "Other women workers in my team were in charge of clearing vegetation, digging canals, planting the lemon grass and cleaning up around the construction site. Women are more conscious about keeping the surroundings clean and beautiful," she relates.

Ms Cabañog adds, "The first proposal I made only indicated 15 females because I was also hesitant about employing women for such laborious work. But I soon found out that women were more serious workers and took no breaks. The men, on the hand, took 10-minute cigarette breaks," she adds.

caseprofiles

reconstruction or improvement of roads and utilities

Eco Park and Access Road Rehabilitation	Community Forestry Program-Taytayan Multi-Purpose Cooperative (CFP-MPC)	Cateel
Rehabilitation/Improvement of Road Sections along Hebron to Mantunao Eco Park and Rehabilitation of Central Nursery	Community Forestry Program-Taytayan Multi-Purpose Cooperative (CFP-MPC)	Cateel
Hanging Bridge Construction and School Canteen and Kitchen Rehabilitation	Green Mindanao Association, Inc. (GMAI)	Baganga and Cateel
Initial Implementation of Power Restoration	Davao Oriental Electric Cooperative (DORECO)	Boston and Cateel
Power Restoration Activities	Baganga Electricians Association (BEA)	Baganga and Cateel
Reconstruction of Potable Water Supply System	Green Mindanao Association, Inc. (GMAI)	Baganga



The Community Forest Program–Taytayan Multi-Purpose Cooperative (CFP-TMPC)

As the tenure holder of the 1 000-hectare Community Based Forestry Management Area (CBFMA) in Taytayan, Cateel, the CFP-TMPC implements forest protection and reforestation activities and livelihood projects for 144 members as well as the bigger community. It established a 301-hectare rubber plantation as well falcata and coffee production inside the CBFMA. With its pool of farm tractors and post-harvest equipment, it is able to provide farm services to rice and corn farmers.

It also implements a community seed banking programme, farmers' field schools, organic fertilizer production and horses-for-hauling services. On top of these, the CFP-TMPC operates the Mantunao Eco Park that features the Sungkoan waterfalls, the Sungkoan cave and the Simsimon waterfalls. The Eco Park is not only an ecotourism destination but has also become an important local venue for training activities and research related to the environment.

The Eco Park generates some income for the cooperative through the collection of entrance fees and function hall rentals and also provides employment for cooperative members, including women, who maintain the park and provide 'Forest Adventure' tour services.

The aftermath of Typhoon Bopha



When Typhoon Bopha bore down on Cateel on December 4, 2012, almost 70 per cent of the project production areas of the CFP-TMPC was damaged. This was when the farmers were yet to harvest the rubber and falcata for the first time.

The typhoon also destroyed the homes and cash crops of cooperative members as well as the cooperative's two fishponds. It left the structures inside the Eco Park in shambles and obliterated trails and pathways. Fallen trees and landslides obstructed the original course of the water leaving some portions of the falls to dry up.

Subproject at a glance

ECO PARK AND ACCESS ROAD REHABILITATION		
Location	SitioMantunao, Barangay Taytayan, Municipality of Cateel, Davao Oriental	
Duration	January 27-February 21, 2014	
People's organization	Community Forest Program–Taytayan Multi-Purpose Cooperative (CFP-TMPC), Cateel Davao Oriental	
Project funding	DFAT- ILO	US\$27,955.08
	CFP-TMPC	US\$2,425.58
Work days	2 510	
Workers	129 total; 86 male (67 per cent); 43 female (33 per cent);16 indigenous peoples; 9 4Ps* members	
Work tools	Shovels, digging bars, bolos, sledgehammers, wheel barrows	

*4Ps (Pantawid Pamilyang Pilipino Program) is a national government programme for poor households.



Physical accomplishments: Eco Park

- 2 Eco lodges (wood cabins)
- 73-meter pathway to Sungkoan Falls
- 3-km trail to Simsimon Park with handrails
- 100-meter graveling
- 100 mahogany trees planted
- 2 hectares cleared of debris



Physical accomplishments: Access

- Cross drain culverts with a 25.5-meter riprap
- 70-meter concrete canal
- 70 meters of roadside hill slopes contoured and planted with *madre de cacao* trees and bermuda grass



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Activities and accomplishments

In November 2013 the CFP-TMPC sought assistance from the DFAT-ILO Typhoon Bopha Joint Response project to implement the rehabilitation of the Eco Park and a portion of its access road. After a series of consultations between ILO and cooperative officers and members, site validation and Programme of Works and project proposal preparation, the subproject officially began on January 27, 2014. Prior to the launching, the PO officers also started screening about 200 job applicants from the community including those who were not members of the cooperative. They also facilitated the preparation of requirements to have the workers enrolled to the PhilHealth insurance system, the Social Security System, and to a short-term accident insurance policy.

The ILO and CFP-TMPC conducted the project orientation, provided inputs on disaster risk reduction and climate change adaptation and gender and development and distributed personal protective equipment (PPE) including hats, gloves, boots, long-sleeved work shirts and socks. Work tools like shovels, digging bars and bolos were also provided to the workers.

The 129 workers composed of unskilled labourers, support staff, on-site nurses, chainsaw operators, tractor operators, carpenters and masons worked for 20 days at the Eco Park and on the road rehabilitation site. A civil engineer deployed by the ILO project provided technical direction.

Inside the Eco Park two lodges were constructed out of wood salvaged from trees that fell during the typhoon, the pathway to Sungkoan Falls and the foot trail to the Simsimon Park were repaired, debris were cleared, trees and ornamental plants were planted and slopes were riprapped or contoured. Over at the access road, the road surface was reshaped, drainage canals and culverts armoured with riprap were installed, and hill slopes by the roadside were contoured and planted to prevent soil erosion.

Impact and lessons



Job generation and social protection

Due to ILO's labour-intensive approach the subproject was able to provide work to more members of the cooperative and the community. The workers greatly appreciated their registration to the Social Security System (SSS) and one-month contribution provided by the DFAT-ILO project. As a result of this initiative, the PO has partnered with SSS to launch an SSS AlkanSSSy programme that will encourage workers to save up for their succeeding monthly SSS contributions.

Use of local resources

The cost of building materials for the subproject was kept to a minimum because the community was able to utilize local resources including sand, gravel, rocks, boulders and wood.



Support to livelihood

The rehabilitation of the Eco Park and the access road is expected to generate more revenue for the PO and improve the livelihood of the community through the resumption of the ecotourism activities. With the improvements done to the park, visitors have started to come back. On the other hand, the improved road section will not only benefit the Eco Park operations but also the more than 200 households that use the same road to

transport their farm produce.

Climate change adaptation

The cooperative regularly maintains the access road, an old logging road, especially during the rainy season, which Mr Jupiter Gayanilo, its secretary, says has become longer due to climate change. The provision of proper drainage systems through the ILO project will make the road more climate-resilient and is expected to reduce the frequency and cost of future maintenance works for the PO. The rehabilitated Eco Park will also enable the PO to continue its advocacy for forest protection.



Awareness raising and skills development

This was the first road rehabilitation project ever implemented by the CFP-TMPC, thus the skills of local workers, especially women, on road construction and rehabilitation were developed. The workers also have increased awareness on gender equality, climate change and the importance of social protection and safety in the work place.

The subproject further honed the cooperative officers' project development and management skills. (Their proposal was picked apart by the ILO Project Coordinator, Mr Jedel Tabamo, and it took three months of writing and revising before it got approved). The experience also taught them to make more accurate budget estimations for their second ILO subproject proposal. Mr Gayanilo also revealed that due to the success of the subproject they have received 65 applications for membership to the cooperative.



"It was not hard," 47-year old Lilybeth Espinosa said that the work women did during the ILO subproject, "I learned how to use the bara (digging bar), do contour planting and make a riprap". She was also able to buy medicines and fertilizer and pay for school expenses using the wages she received from ILO.

The cooperative continues to employ her and other PO women members to maintain the Eco Park after the subproject ended. Rehabilitating the Eco Park was important to her and other PO families since ecotourism provides additional income to them who are mostly poor rice farm tenants and upland farmers.

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Gender equality

One third of the workers employed by the subproject are women. They removed debris and weeds, gathered and piled

rocks for the riprap, dug ditches, and planted trees and other plants at the Eco Park and along the side of the rehabilitated road for slope protection and beautification. Two women were also trained as on-site nurses.

The cooperative Chairman Mahlon Pejana and Vice Chairman Eliel Ocon agreed that the subproject led to a shift in the mindset of community members on gender roles. "The women proved that they are as capable as the men and that they can also earn a living for the family. The husbands have become more considerate about doing housework and even prepare the food for the women workers," they enthused

Ms Esther G. Albino took over as General Manager of the CFP-TMPC in 2007 three years after the volunteer group she chaired, Bantay Kalikasan, exposed how the cooperative was used as a front for illegal logging activities. Today, she and other PO members including reformed illegal loggers in the community have re-established the CFP-TMPC as a true steward of the Taytayan CBFMA. The cooperative received the Inang Kalikasan (Mother Nature) award of the DENR in 2013.

Ms Albino is known in Davao Oriental as an incorrigible and staunch advocate of the environment. Despite being a very active woman herself even now in her 70s, she was reluctant about hiring women workers for the ILO subproject. When asked about the lessons she learned from the ILO subproject, her prompt response was, "I didn't think the women could handle the heavy work. It turned out that the women worked as hard as, if not better, than the men. They carried the rocks and used the heavy hand tools, were always on time, and never complained".



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2014

IMPROVEMENT OF ROAD SECTIONS TO MANTUNAO ECO PARK AND CONSTRUCTION OF CENTRAL NURSERY

CFP-TMPC takes on another subproject

After the successful completion of the Mantunao Eco Park and access road rehabilitation subproject, the CFP Multi-Purpose Cooperative again sought assistance from the DFAT-ILO project to implement additional improvements on the road leading to the Eco Park. This time, the cooperative wanted to address the poor surface and drainage conditions of a road section near the entrance of the Mantunao Park, also of another segment adjoining the one that was rehabilitated during the first subproject (which was named by the barangay as the ILO Avenue), and the soil that have started to erode from the slopes along one side of the road.

The cooperative also identified another road section at Sitio Hebron that was in need of gravelling and drainage. A detour road beside a small bridge in Sitio Lagunlongan, which was damaged during the typhoon, had also started to sink. The cooperative proposed the rehabilitation of all of these road segments under a second DFAT-ILO project fund request.

The cooperative also runs a central nursery on a 1.7-hectare lot in Sitio Tagadao, Barangay Poblacion. Before it was damaged by Typhoon Bopha the nursery used to supply government projects with rubber and falcata seedlings. Indigenous trees and bamboo were also propagated at the facility. The nursery also used to distribute vegetable seedlings for free and hired workers to bag seedlings and do other maintenance works. CFP therefore decided to include the construction of a new nursery building in the second subproject proposal so that the nursery can resume operations and provide better services to its members and the bigger community.

Subproject at a glance

IMPROVEMENT OF ROAD SECTIONS TO MANTUNAO ECO PARK AND CONSTRUCTION OF CENTRAL NURSERY

Location	Barangays Taytayan and Poblacion, Municipality of Cateel, Davao Oriental	
Duration	April 28-May 15, 2014	
People's organization	Community Forest Program-Taytayan Multi-Purpose Cooperative (CFP-TMPC), Cateel, Davao Oriental	
Project funding	DFAT-ILO	US\$21,133.62
	CFP-TMPC	US\$2,425.58
Work days	2 069	
Workers	138 total; 90 male (65 per cent); 48 female (35 per cent), 16 indigenous peoples; 10 4Ps* beneficiaries	
Work tools	Shovels, digging bars, wheel barrows, sledgehammers, axes, hardhats	

*4Ps (Pantawid Pamilyang Pilipino Program) is a national government programme for poor households.



Accomplishments

Most of the workers hired for this subproject already participated in the first one (only 41 out of the 138 workers were new hires) and the tasks given to them were also the same as before, i.e, clearing vegetation, road filling, digging canals and riprapping, installing culverts and landscaping. Thus, the cooperative and most of the workers were already familiar with the subproject implementation procedures and policies.

The physical outputs of the road rehabilitation activities in the four sites (Eco Park access road, road adjoining the ILO Avenue, Sitio Hebron road, and Sitio Lagunlongan detour road) can be summed up as follows: 100 meters of road resurfacing and embankment, 290 meters of drainage canals, four cross drainage culverts, 21 meters of riprapped embankments and 50 meters of landscaped roadside.

At the central nursery, a two-storey building with an open garage on the ground floor was built and one-hectare area was cleared and fenced with *madre de cacao* wood. While the road sections were completed within the 15-day target period without a hitch, the nursery building took another 17 days to finish because two of the four carpenters stopped working midway and the cooperative could not find replacements since many of the skilled workers were already employed in government housing projects for typhoon-affected residents.

Social protection coverage and benefits

While the accident insurance coverage was only good for four months in the first subproject, the second subproject had enough funds to pay for one-year insurance policy for all 138 workers. The second subproject also sponsored one-month of social security contribution of all workers and three months of health insurance premiums of 114 workers. (Some 24 workers that already had PhilHealth contributions sponsored by the provincial government were excluded from the subproject's health insurance budget). Also, the 41 new workers of the second subproject represent the number of new SSS and PhilHealth accounts that were opened as a result of the DFAT-ILO social protection grant.



Physical accomplishments

- Eco Park access road
- Road adjoining the ILO Avenue
- Sitio Hebron to Sitio Mantunao road
- Lagunlongan detour road
- Central nursery at the poblacion



Mr Mahlon Pejana, the Chairman of the Board of CFP-MPC had started paying social security monthly contributions in February 2014 when the DFAT-ILO project sponsored one month of SSS contribution of all workers in the first CFP subproject. When he passed away suddenly on May 21, 2014, his widow, Renie Pejana (pictured, wearing black) was able to claim a funeral grant of Php20,000 (US\$445) and a death benefit of Php12,000 (US\$267) from SSS.

Mr Ramises Corsiga's job skill as a chainsaw operator got him hired in both CFP subprojects. He first got registered to SSS and PhilHealth during the first one. On August 11, 2014, his wife delivered their fourth child at a government hospital. Although it was a normal delivery, the baby had to stay in the hospital for three more days because of an infection. "The cost of the delivery and the four-day stay in the hospital amounted to Php15,500 (US\$345,000)," he said. "But we were not charged anything because of PhilHealth coverage". The only expense that they had to shoulder was the antibiotics that they had to continue giving to the baby for five more days after leaving the hospital.





REBUILDING BARANGAY INFRASTRUCTURE

REHABILITATING THE BARANGAY MIKIT FOOTBRIDGE AND THE ABEJOD ELEMENTARY SCHOOL CANTEEN AND KITCHEN

Typhoon Bopha aftermath

Barangay Mikit Footbridge. One of the critical infrastructures destroyed by Typhoon Bopha on December 4, 2012, was the 60-meter wooden bridge connecting the lower and upper sitios of Barangay Mikit, Baganga, Davao Oriental. The bridge provided access to schools, hospitals, government offices and other social infrastructures and was used for the transport of farm and other market goods. Some 1 457 residents of the barangay including 391 school-age children and other communities in neighboring Barangay San Isidro and Campawan cross this bridge.

Since its destruction, transport of people and goods were done either by foot or by motorcycles, exposing travelers to higher health and safety risks especially during rainy weather. At the time of Tropical Depression Agaton in January 2014, residents used wooden rafts, small bancas or a wooden carrier attached to a steel cable set up by the barangay to cross the river.

Barangay Abejod Elementary School. Principal Cora Fe P. Delos Santos relates that while the school's classrooms and other facilities that were destroyed by Typhoon Bopha were already rebuilt with the assistance of aid organizations, the school's kitchen and canteen remained unrepaired. Feeding programmes for school children were done either by temporarily converting one of the classrooms into a kitchen or out on the school field, increasing the health risks from possible food contamination.

As a father of five pupils and a member of the neighborhood watch, worker Mr Nelson Delos Santos believed that having a proper canteen would not only ensure availability of healthier food choices but also ensured that children are safely inside school premises during class hours.

Subproject at glance

REHABILITATION OF THE BARANGAY MIKIT HANGING BRIDGE AND REHABILITATION OF THE ABEJOD ELEMENTARY SCHOOL CANTEEN AND KITCHEN

Location	Barangay Mikit, Baganga, and Barangay Abejod, Cateel, Davao Oriental		
Duration	April 28-June 7, 2014		
Project partners	Barangay Mikit officials , Green Mindanao Association, Inc., Abejod Elementary School		
Project funding	DFAT-ILO	US\$29,934.88	
	Barangay Mikit	US\$9,994.15	
	Abejod Elementary School	UA\$709.60	
	GMAI	US\$2,202.24	
Work days	1 950		
Workers	130 total; 104 males (80 per cent); 26 females (20 per cent); 130 indigenous peoples, 54 beneficiaries of 4Ps*		
Work tools	Wrenches, safety harnesses, shovels, digging bars		

*4Ps (Pantawid Pamilyang Pilipino Program) is a national government programme for poor households

Physical accomplishments

Barangay Mikit Footbridge

- 60 X 1.7 meter steel hanging bridge constructed
- Foundation site cleared of rubble and repaired
- Concrete embankment installed at the bridge foundation
- Steel cables, wooden running board, clamps and others materials from old bridge retrieved and reused

Abejod Elementary School Canteen and Kitchen

- Rehabilitated and improved the school multi-purpose room and kitchen



Bridging partnerships

The Mikit barangay council requested for technical assistance from the Green Mindanao Association, Inc. (GMAI) for the reconstruction of the hanging bridge. GMAI agreed to help the barangay and they submitted a subproject proposal to the Department of Foreign Affairs and Trade–International Labour Organization (DFAT-ILO) project in April 2014. The barangay council allocated part of their development fund for the purchase of materials (GI pipe, steel plate, washers, steel cables and clamps) amounting to Php444,740.

As a result of a chance meeting with the DFAT-ILO project staff, Principal Delos Santos also requested for assistance from GMAI in the repair of the school canteen and kitchen. GMAI's Engr Roel Caseñas agreed to oversee the design and construction of both the bridge and the school facilities. The school then allocated Php31,755 for construction materials, particularly, coconut lumber.

Activities and accomplishments

A workers' orientation on bridge reconstructive works, basic construction on labour, social protection and occupational safety and health standards was conducted by the DFAT-ILO project team. While the GMAI gave the technical orientation, they also conducted three batches of community-based Disaster Risk Reduction and Climate Change Adaptation (DRR-CCA) orientations for workers in both sites, and for members of the Mikit barangay council.

All 115 workers for both subproject components were provided with personal protective equipment (PPE) and gear and hand tools like buri hats, rubber boots and shirts and rubberized gloves. Only 65 workers were provided with social security, health and accident insurance under the subproject because 50 workers were already provided with social protection packages as part of a DFAT-ILO subproject completed earlier.

For the Mikit footbridge, workers chipped off the old concrete foundation to prepare the new one; gathered large river rocks and sacked washed sand for riprapping the bridge gabion; and retrieved other usable parts of the old broken bridge, like wooden boards, steel cable and clamps, as well as the broken concrete from the foundations of the old bridge. They then installed the concrete foundation footings to support the 10-meter high galvanized iron posts; anchored the 2mm steel tension cables to support the wooden planks and boards; installed the running boards and steel cable railings. As an additional safety feature for children, a cyclone wire fence along the railing was also set up.

Apart from health monitoring and on-site nursing assignments, female workers were also tasked to gather rocks, sand and other materials for riprapping, do foundation digging work, plant *madre de cacao* saplings along the river and landscaping of the general area.

For the Abejod Elementary School kitchen and canteen, workers started with the demolition and realignment of the damaged wooden walls of both structures to the ceiling joints. They then proceeded with the repair of the roof, installation of the wall, ceiling and partitions. Workers finished up the repairs by painting both structures and landscaping the surrounding areas, which included digging canals to prevent runoff from flooding the buildings.



Thematic accomplishments

Support to livelihood. The subproject generated 1 950 work days for 130 workers collectively. Mr Delos Santos noted that like most of the workers, he used his wages to buy rice, school supplies and uniforms for his children.

Social protection. Workers Milaflor P. Meno, Mary-Ann A. Mantia and the 32 other female workers appreciated the care and regard for their health and safety instituted by the ILO during the reconstruction of the bridge.

Utilization of local resources. Apart from using the recyclable parts of the old bridge like the wooden boards, steel cable and clamps, river rocks and sand were used for the bridge gabion.

Gender equality. The 26 female workers were given equal opportunity to participate, with work tasks including gathering of large river rocks, sacking of washed and retrieval of other usable parts of the old broken bridge. They were also tasked to beautify the bridge entry points and the monitoring of the health conditions of workers.

Climate change adaptation. Trainings on community-based Disaster Risk Reduction and Climate Change Adaptation (DRR-CCA) were conducted for all of the workers, barangay council and community members to raise their awareness on climate change, adaptation and mitigation. Trees were also planted along the riverbank as a long-term mitigating measure against floods.



Impact

Safety and security. Ms Meno noted that she and other parents were thankful because their children could now safely cross the river. "My son became terrified when we had to ride the cable carrier to get home after his graduation from kindergarten in March," Milaflor related. "Most of the time, I would carry him while crossing the river, on foot in the cold water. Now, we feel very relaxed and happy walking on the bridge".

Restored accessibility of community. The rehabilitation of the bridge restored the accessibility of the community, enabling travel to and from the area, transport of goods and access to services, and passage to other areas. In addition, travelers using motorcycles are not putting their health and machines at risk from water damage. All 335 households and 1 457 residents benefited from the restoration of the bridge.

Economic impact. Barangay Captain Crisologo A. Oronan enthused that farmers like him could now bring their produce to the market in San Isidro and the Poblacion safely and more often. Monitor and former barangay councilor Gildo L. Liwana also noted that the 100 motorcycle drivers like himself and Capt Oronan do not need to do weekly replacements of the bearings of their machines which, prior to the bridge reconstruction, were often submerged in and damaged by the river water.

Support for health and wellness. Principal Delos Santos said that with the repair of both the school kitchen and canteen, they were able to properly support the feeding programme of the Department of Education (DepEd) which aims to eradicate malnutrition. While all 391 pupils benefitted from the programme, it especially targeted the 58 pupils considered malnourished, all of whom belonged to families whose farms were damaged by Typhoon Bopha. She further noted that the facilities were important in ensuring proper nutrition of both the present and future school population.



INITIAL IMPLEMENTATION OF POWER RESTORATION



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Disaster response of the energy sector

Typhoon Bopha left the entire towns of Baganga, Cateel and Bostan without electricity as strong winds damaged the substations and distribution lines of the Davao Oriental Electric Cooperative, Inc. (DORECO). As a result, DORECO lost Php216 million worth of infrastructure and 12 000 of its 60 000 member-consumers lost electrical connection. With the help of other electric cooperatives in Mindanao as well as private distribution companies, DORECO immediately provided back-up generators and started rehabilitation work to restore power in Poblacion barangays and communities along the highways.

In May 2013, DORECO was able to access assistance from the United Nation's Central Emergency Response Fund (CERF) through the ILO's Community Emergency Employment Project (CEEP). The project was able to provide short-term employment for 179 workers in nine barangays in Baganga who were hired to remove electrical debris, particularly electrical poles that fell down or were leaning precariously and all line materials attached to them.

By November 2013, when the ILO started the DFAT-funded Bopha joint response project, DORECO had yet to clear the electrical debris in many interior barangays of Cateel and Boston. With this new subproject, the DFAT-ILO provided the needed momentum for DORECO's "Balik Kuryente and Ilaw Program" to restore power in 25 remaining Bopha-affected barangays.

Subproject at a glance

INITIAL IMPLEMENTATION OF POWER RESTORATION		
Location	Barangays Abejod, Alegria, Aliwagwag, Aragon, Baybay, Mainit, Maglahus, San Alfonso, San Antonio, San Miguel, San Rafael, San Vicente, Sta. Felomina and Taytayan, Municipality of Cateel, Davao Oriental Barangays Cabasagan, Carmen, Cawayanan and San Jose, Municipality of Boston, Davao Oriental	
Duration	December 9, 2013-January 31, 2014	
Partner organization	Davao Oriental Electric Cooperative, Mati City Davao Oriental	
Project funding	DFAT-ILO	US\$19,133.78
	DORECO	US\$2,883.72
Work days	2 570	
Workers	144 total; 134 males (93 per cent); 10 females (7 per cent); 20 indigenous peoples; 20 4Ps* beneficiaries	
Work tools	Shovels, digging bars, wrenches, pliers	

*4Ps (Pantawid Pamilyang Pilipino Program) is a national government programme for poor households.

Activities and accomplishments

On November 13, 2013, DORECO and ILO representatives conducted site inspection of targeted areas. After subproject approval, DORECO's Project Coordinator, Mr Mario Cabueñas started conferring with Barangay Captains for recommendations in the selection of workers. Aside from the endorsement of the Barangay Captain that the worker is a resident of the target barangay, individuals that were prioritized for recruitment are those that are member-consumers of DORECO prior to Bopha, have not been previously employed in any cash-for-work programme during the disaster response stage, and must be strong and healthy enough to carry out the physical strain that the tasks of removing and carrying electrical debris demanded. 10 female Barangay Health Workers were also chosen to serve as on-site nurses.

A day before actual work commenced on December 10, 2013, DORECO and ILO representatives conducted an orientation for workers to explain the work required of them, the obligations of DORECO as well as the objectives of the ILO to support power restoration and other post-calamity recovery interventions.

The 144 workers hired for the subproject were taught how to safely perform the following tasks in electrical debris clearing: (a) clearing the paths leading to the electrical poles; (b) loosening and retrieving bolts and other line materials attached to damaged, leaning or collapsed electrical structures; (c) uprooting leaning electrical poles that pose a danger to the public; (d) dragging uprooted electrical poles to the roadside; and (e) safekeeping, loading and unloading retrieved materials.

DORECO closely supervised the workers as the subproject were carried out simultaneously in 14 barangays in Cateel and four barangays in Boston by deploying project coordinators to all sites. It also facilitated the registration of qualified workers to the Social Security System (SSS) and Philippine Health Insurance Corporation (PhilHealth) and the payment of one month SSS contribution and six months of PhilHealth premiums. The project also provided protective personal equipment and shovels and digging bars.

Physical accomplishments

- 799 electrical poles uprooted from 18 barangays
- 7 880 bolts, nuts, pins and other hardware detached from poles
- 154 guy wires retrieved and bundled

How to clear electrical debris labour-intensive style

- 1 Uproot damaged or leaning electrical poles by pushing, pulling, and digging using shovels, bars, ropes and the strength of 10 or more men.
- 2 Loosen and retrieve bolts and other materials attached to electrical structures using wrenches and pliers.
- 3 Pile and bundle salvaged wires and accessories.
- 4 Carry the uprooted electrical pole to the side of the road for loading and transport to the substation.



Subproject challenges

- Subproject development took a lot of time because DORECO had to first inventory the actual number of poles to include in the retrieval effort. (Many electrical structures, transformers and hardware were stolen after the typhoon. Some wooden poles were even used by residents to construct fences).
- The programme of works factored in the rainy season at the time of implementation and the timetable was laid out conservatively in anticipation of delays due to bad weather.
- Of the 956 targeted electrical poles, only 799 or 84 per cent were uprooted. This was because some poles were located on dangerously steep slopes while other poles were too close to houses making manual uprooting complicated and risky for workers and or residents.
- Some workers discontinued working due to health reasons or because they had other priorities like home repair and farm work. This did not cause much delay as DORECO immediately found replacements.
- There was one incident of an accident when a worker got hit by a wooden pole in his groin. He was quickly rushed to the District Hospital. DORECO paid for the treatment because the accident insurance provided by project did not cover minor injuries.
- Only 118 of the 144 workers were registered to SSS because some workers in Cateel were not able to submit their birth certificates and other documentary requirements. (At that time, there was no local civil registrar reporting for duty at the municipal hall).

Impact and lessons

Job generation. The subproject provided short-term employment to 144 workers who are mostly heads of households. The wages received were mainly used to buy food. It was also very timely that one payout was right before Christmas so the workers were able to spend some of the money received for the “noche buena” dinner. Mr Ephraim Peros, a worker, appreciated that the men recruited in Cabasagan, Boston came from all puroks of the barangay. Residents therefore had a fair chance of participating in the project.

Labour-intensive approach. Engr Ferdinand Hernaez, DORECO’s Area Manager, explains, “Because of the rolling terrain and because most of the structures are in places not accessible to vehicles, we cannot deploy equipment or boom trucks to extract the poles. The task really required manual labour”. He said that a team of 12 persons can uproot only four to seven poles in a day so a lot of workers were needed to remove more than 900 poles within 20 working days. The workers were slow at first since they were still learning but because of the skills they gained from the project, they can be tapped by DORECO in succeeding power restoration activities or in building new lines.

Salvaging power infrastructure resources. The subproject supported DORECO’s effort to retrieve electrical materials that pose danger to lives and properties. Many of these materials can be reused during the reenergization stage. Engr Hernaez said that even damaged wooden poles can be used as anchor logs to new poles (or to salvaged poles that can be re-installed). Ms Mary Ann Santos, Human Resources Manager of DORECO, shared that an important lesson she learned is to implement the retrieval of line structures and materials after a calamity as early as possible so that more can be salvaged and reused.

“It takes patience and creativity...”



Mr Jimmy Osman served as team leader for one of the two teams assigned at the San Rafael-San Alfonso site in Cateel. “I am an electrician but I still learned a lot from the subproject,” he said. “It was challenging to remove the poles because some were buried really deep. There was one that had a big rock in the way. The other team gave up on that and moved on to another pole, but my team persevered and slowly but surely got the job done. Another time, we had to make a pulley so that the worker can climb up against the side of a cliff to get to a guy wire that was anchored high up the slope. It takes patience and creativity to get those poles down”.



POWER RESTORATION ACTIVITIES IN CATEEL AND BAGANGA

Power restoration a year after Typhoon Bopha

Although power was restored in the majority of typhoon-affected barangays in Davao Oriental, 25 barangays had yet to be re-energized more than a year after the onslaught of Typhoon Bopha. The Davao Oriental Electric Cooperative (DORECO) received much-needed support from the national government when President Benigno Simeon C. Aquino directed the release of a calamity fund for the power sector after a visit to Cateel on February 24, 2014. The National Electrification Administration (NEA) immediately mobilized eleven other electric cooperatives in Mindanao under the “Task Force Kapatid – Pablo” to help restore power in the remaining 25 barangays in Boston, Cateel, Baganga and Caraga.

Within two weeks, the DFAT-ILO project also approved the Baganga Electricians Association, Inc. (BEA)’s proposal to partner with DORECO and to help fast-track the implementation of the re-energization programme in Baganga and Cateel.

Subproject at a glance

POWER RESTORATION ACTIVITIES		
Locations	Barangays Batiano, Campawan, Mahan-ub, and Mikit Baganga, Davao Oriental	
	San Rafael, Abejod, Taytayan, Aragon, Aliwagwag and Maglahus in Cateel, Davao Oriental	
Duration	March 9-29, 2014	
People’s organization	Baganga Electricians Association (BEA), Baganga Davao Oriental	
Partner organization	Davao Oriental Electric Cooperative, Mati City Davao Oriental	
Project funding	DFAT-ILO	US\$ 23,502.45
	DORECO/BEA	US\$109,176.33
Work days	1 512	
Workers	179 total; 170 males (95 per cent); 9 females (5 per cent); 27 4Ps* beneficiaries	
Work tools	Shovels, digging bars, axes, bolos	

*4Ps (Pantawid Pamilyang Pilipino Program) is a national programme for poor households.

The DORECO and BEA partnership

In January 2014, DORECO completed the DFAT-ILO-funded electrical debris clearing subproject in Cateel and Boston. For the power restoration stage, it recommended BEA to the ILO as subproject holder, but with DORECO providing the materials, fuel and vehicles, wages for the linemen and overall technical supervision. (The 11 electric cooperatives of the Task Force Kapatid also provided the boom trucks and deployed their linemen to the re-energization activities in Davao Oriental including those funded by the DFAT-ILO project). Specifically, BEA was charged with identifying and managing the workers, monitoring progress in the various barangays, coordinating with the linemen, providing social protection coverage for workers, and releasing their wages. In the selection of workers, priority was given to BEA members and to those who participated in the power restoration pre-implementation subproject of DORECO.



Aside from providing electrical services for house wiring, BEA is also one of DORECO's accredited meter readers and is authorized to connect, disconnect, and reconnect houses to DORECO's distribution lines. After Typhoon Bopha hit, its members also lost work until two months later when the demand for reconnection services picked up. BEA also participated in DORECO's programme that subsidized materials and labour cost for the rewiring of houses of some Typhoon Bopha-affected families. BEA is registered with the Department of Labor and Employment (DOLE) and currently has 52 members. For the subproject 13 of its members were hired with two assigned to monitor and the 11 carrying out manual labour like the rest of the workers.

Physical accomplishments

- 43 poles dragged to their respective spots
- 319 holes for poles dug
- 303 anchor logs set
- 45.9 km along power lines cleared of vegetation
- 10 barangays reenergized

Activities and accomplishments

An orientation was conducted by BEA, DORECO and the ILO on separate venues for Baganga and Cateel workers before the actual work commenced on March 10, 2014. Of the 112 hired workers, six are women. Five of the women served as on-site nurses while one helped in the clearing of vegetation around the work sites. Skilled linemen took the lead in carrying out the tasks. The project provided workers with personal protective equipment (PPE) like sweat shirts, hard hats, gloves, rubber boots (or steel-toed shoes for the linemen) and socks as well as various work tools. DORECO also deployed vehicles to transport workers to and from their assigned barangays.

Because of the equipment and personnel provided by other Mindanao electric cooperatives the power restoration activities were expedited. The workers were able to participate in the re-energization of 10 instead of five barangays originally targeted. Ultimately, the subproject contributed significantly to DORECO's successful attainment of its commitment to reenergize the remaining "Pablo barangays" within a month's time.

How to install power lines labour-intensive style

- 1 Drag the pole to the spot where it will be erected.
- 2 Dig a hole in the ground to a depth specified for the pole (5 to 6 feet).
- 3 Manually erect the pole with the aid of a pole spike.
- 4 Excavate to set the anchor log, attach the guy wire, and backfill to support the pole.
- 5 Install electrical hardware on the pole.
- 6 Clear or trim vegetation that get in the way of the distribution lines.
- 7 Pull out the conductor wire to be laid from pole to pole.



Impact and lessons

Skills development. Majority of the workers were rehired from the ILO-funded and DORECO-managed electrical debris clearing subproject. This subproject further honed the workers' skills and knowledge of the procedures and materials used in the construction of power lines. This gives them a better chance of getting re-employed by DORECO in the maintenance of existing lines and construction of new lines.

Convenience and public safety. With the power already restored, people are able to go about their daily lives comfortably especially at night. Major barangay roads are already well-lighted making residents feel safe.

Lower lighting cost. Residents in barangays where power has not returned for over a year had to depend on gas lamps for light. The cost of fuel for lighting alone ranged from 10 to 20 pesos per day or 300 to 600 pesos per month. After being reconnected to DORECO, a subproject worker in San Rafael reports that his monthly bill is only Ph40 pesos (less than one US dollar) since his household only uses the electricity for light and for charging his cellular phone.

Economic recovery. The restoration of power services is expected to speed up the recovery of economic activities. Electricity enables small sari-sari stores to sell cold refreshments and also fisherfolks to store their catch. Meat selling has also resumed in some barangays.

Next steps

The next power restoration phase to be implemented by DORECO will be the *sitio* electrification programme wherein less populated areas that lie beyond the barangay centers will be reenergized. "The workers who are already trained because of the DFAT-ILO project can be prioritized for employment for this next stage and for other future projects of DORECO," Engr Ferdinand Hernaez, DORECO's Area Manager, says. When asked what can be done to make the power lines in Davao Oriental more resilient to typhoons, he replied, "The design could be improved. Storm guys can be added to electrical poles every 300 meters so that when one pole falls during a typhoon, the rest of the poles won't go down like dominoes".

Engr Gregory A. Dukil, the Chief Executive Officer of DORECO, is grateful to the Bopha joint response project for its assistance to the power and energy sector in Davao Oriental and hopes that the DFAT and the ILO continue to do the same for other typhoon-affected areas. "Early restoration of electricity after a calamity is vital since it supports communication facilities. It is needed to power cell sites and recharge phones. It is needed to refrigerate foodstuffs and medicines. Light is also important not only for convenience but also for safety as it is a crime-deterrent," he explains.



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DORECO already has its own weather station that was provided by a private power distribution company but Engr Dukil says that the cooperative still has to implement more disaster preparedness measures such as the conduct of disaster-preparedness trainings, creation of a calamity fund, and the acquisition of additional back-up generators.



BRINGING POTABLE WATER TO MIKIT: RECONSTRUCTION OF THE BARANGAY WATER SUPPLY SYSTEM



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Typhoon Bopha aftermath

When Typhoon Bopha struck Barangay Mikit in December 2012, aside from other structures, it damaged the community's water system which supplies water to all of its 335 households and 1 475 residents.

Since then, residents had to fetch water from Bag-idan Spring in the barangay interior. A relocation site for residents living beside Mikit River is being planned in the interior of the barangay and once this is occupied, the Bag-idan Spring's water flow will not be sufficient to supply the entire population of Mikit.

Continuing the partnership

Seeing the need for a better supply of potable water for the community, the barangay council requested the Green Mindanao Association, Inc. (GMAI) and the Australian Department of Foreign Affairs and Trade-International Labour Organization (DFAT-ILO) to continue their partnership which started with the successful rehabilitation of the 60-meter Mikit hanging bridge. The barangay officials earmarked a portion of their 20 per cent development fund to augment costs of materials for the project amounting to US\$4,859.06 (PhP207,720.50). Along with technical supervision and project implementation, the GMAI also wanted to organize and train the Mikit Water System Association (MIWASA) that will be tasked to maintain and manage the Level II water supply system. The DFAT-ILO project, on the hand, will cover worker wages, personal protective gear and equipment, hand tools, social protection and other related labour costs.

Subproject at a glance

RECONSTRUCTION OF MIKIT WATER SUPPLY SYSTEM

Location Barangay Mikit, Baganga, Davao Oriental

Duration July 24-September 15, 2014

Project partner Green Mindanao Association, Inc. (GMAI)

Project funding DFAT-ILO US\$29,951.23

LGU US\$4,859.06

GMAI US\$1,403.50

Work days 2 301

Workers 101 total; 69 males (68 per cent); 32 females (32 per cent); 99 Indigenous Peoples

Work tools Shovels, digging bars, wrenches, threader



Activities and accomplishments

A workers' orientation on reconstructive works on water supply systems and on labour policies, social protection and occupational safety and health standards was conducted by GMAI and the ILO project team. Workers were provided with personal protective gear and equipment like rubber boots, hand gloves, socks, buri and hard hats, long-sleeved work shirts, and hand tools, and social protection coverage specifically social security, health insurance and accident insurance.

A survey of possible water sources in the area was then conducted and Sinuwagan spring was chosen as the ideal water source. A Memorandum of Agreement (MOA) between the landowner and the barangay on the use of the Sinuwagan spring and the areas required for the water system was then prepared.

On August 10, 2014, the barangay conducted a community meeting to organize and elect the first set of officers for the MIWASA. The officers and other community leaders were then given leadership training, training on water system maintenance and troubleshooting, financial management and bookkeeping, and watershed rehabilitation and management. Newly elected MIWASA President Filemon Liwana stated that they needed a strong association to be able to sustainably manage the water supply system. Noting that all the workers were the first members of the association, he believed that the training they received from the project was invaluable in their roles as caretakers of the system.

Construction works on the intake box, the 25 000-liter ferro-cement water tank reservoir up the Bagtusan Hill, and laying of polyethylene pipes to connect these two facilities were implemented simultaneously.



Ms Elmie Bautista, newly elected bookkeeper of the MIWASA, said that female workers were given various tasks including gathering of sand and brushing of stones and rocks to be used as filters in the intake box; digging and covering up of the trenches for the pipe system; and minor masonry work for the reservoir construction.

Anticipating the expansion of services, a separate valve for the community center of Barangay San Isidro was also installed in the reservoir.

Physical accomplishments

- Constructed water intake box (1.8m x 1m x 1m with 5m wing wall) and 25 000-liter ferro-cement reservoir (13.2m x 1.8m with 4.2m radius and 4.2m diameter).
- Installed water main line and distribution line.
- Excavation and concreting of footings and foundation for the intake box, reservoir and pipes.

Thematic accomplishments

Support to livelihood. The project generated 2 301 work days for 101 workers from the barangay. Workers used the wages received to purchase food, pay for school expenses and as additional farming capital. After ensuring sufficient water supply for the members of the MIWASA, the organization plans to expand its service area to neighboring Barangay San Isidro. It will charge appropriate fees which will be used for system maintenance and other activities.

Labour-intensive Approach. The construction works employed 101 workers who were organized in work groups handling different parts of the system.



Climate change adaptation. As part of their advocacy, the GMAI conducted trainings on Community-Based Disaster Risk Reduction and Climate Change Adaptation (DRR-CCA) for all of the workers, members of the newly-formed MIWASA and other community members. The council and the MIWASA have decided to adopt DRR-CCA practices and formulate related policies. One of these is to acquire, declare and develop the three-hectare area around the water source as a protected area.

Utilization of local resources. The project utilized local resources like river sand, stones and rocks as natural filters for the water intake box and local lumber for the construction frames. *Madre de cacao* seedlings were also gathered and planted in the areas surrounding the water source to help preserve the watershed.



Impact

Establishment of potable water supply. The reconstruction of the Level II water supply system addresses a community's basic need and helps ensure the health and wellness of its residents.

Skills and organizational development. While workers developed construction skills, members of the barangay council and the officers of the MIWASA gained knowledge and skills on water system management, financial management and bookkeeping and watershed rehabilitation and management. Essentially, the new association now have the tools to effectively and efficiently provide safe and a sustainable source of drinking water to the barangay.

Sustainability of natural resources. To complement their learnings on watershed rehabilitation and management, the barangay council will conduct tree planting activities in and around the spring water source to ensure the sustainable recharge of water supply and to avoid soil erosion. They will also be crafting regulations against the cutting of trees within the area. The MIWASA also plans to purchase three hectares of land that surrounds the water source, fill it with trees and turn it into a protected area.

caseprofiles

reconstruction of local government facilities

Rehabilitation of Municipal Nursery

**Boston Coffee Growers
Association (BOCGA)**

Boston

**Improvement of Barangay Food
Terminal and Repair/Improvement of
Barangay Hall and Day Care Center**

**San Rafael United
Women's Association
(SARUWA)**

Cateel



REHABILITATION OF THE MUNICIPAL NURSERY AT CARMEN, BOSTON

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A farmers association teams up with the agriculture office

The municipal nursery was established in 2002 by the municipal government of Boston to support the programmes and projects of the Municipal Agriculture Office (MAO). The 2.7-hectare facility featured nursery buildings for assorted planting materials, slaughterhouse, an artificial breeding center for hogs, a grove of different fruit tree scions and a building that served as an office and storage area as well as a venue for agriculture-related training courses and conferences. Vermicast was also being produced on a small-scale to use as fertilizer for the plants grown inside the nursery which also included rubber, corn and coffee.



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Before Typhoon Bopha struck in December 2012, the nursery already had 300 fruit-bearing trees including durian, rambutan, mango, mangosteen and pomelo. The typhoon took down all those trees and damaged all the structures inside the facility including the perimeter fence.

Ms Victoria R. Pagaduan, the Municipal Agriculture Officer adds, “Our breeding center which has 10 pens was generating PhP70,000 (US\$1,559) to PhP80,000 (US\$1,782) a year from the sale of piglets to backyard hog raisers. After the typhoon, the pigs got sick and died and only two sows were left”.

The nursery also lost its water connection and the sows had to be kept elsewhere until such time when the MAO got the water system running again.

Subproject at a glance

REHABILITATION OF THE MUNICIPAL NURSERY AT CARMEN, BOSTON

Location	Barangay Carmen, Municipality of Boston, Davao Oriental	
Duration	May 7-23, 2014	
People's organization (PO)	Boston Coffee Growers Association (BOCGA), Barangay Poblacion, Boston, Davao Oriental	
Project funding	DFAT-ILO	US\$7,589.07
	BOCGA	US\$5,050.74
Work days	900	
Workers	60 total; 50 males (83 per cent); 10 females (17 per cent)	
Work tools	Shovels, digging bars, wheel barrows	



Physical accomplishments

- Nursery office building repaired
- Breeding center/Piggery repaired
- Earth canals re-excavated
- Perimeter fence reinstalled

Additional works:

- Poultry house constructed
- Goat house constructed
- Roof over the water pump installed
- Tarpaulin roof over the vermiculture building installed
- Vegetable beds prepared
- Locations for planting fruit trees staked

More than a year after the calamity, the municipal government still had not rehabilitated the nursery because of financial constraints. Ms Pagaduan had already started looking for sources of construction and planting materials from different government and non-government agencies but she still had no funds to cover the labour cost.

The Boston Coffee Growers Association (BOCGA) whose farmers were once the beneficiaries of the municipal nursery's coffee seedling dispersal project in 2012 (under the Department of Agriculture's Mindanao Rural Development Program) agreed to help the MAO access funding from the DFAT-ILO project and recruit and manage workers for the rehabilitation and construction works at the nursery. In May 2014, BOCGA submitted its subproject proposal to ILO.

Activities and accomplishments

After the subproject orientation and distribution of personal protective equipment (PPE) and hand tools, 60 workers, 10 of them skilled in carpentry, masonry and chainsaw operation, began work at the nursery. The workers were divided into teams, one for each of the four major target outputs of the subproject: (a) repair of the nursery office building; (b) repair of the piggery or artificial breeding center; (c) re-excavation of the earth canals; and (d) re-installation of the perimeter fence.

Ten women labourers were tasked mainly to help in the digging of the canals and the removal of weeds and debris from the nursery fields. When work on the canals was completed earlier than expected, the women moved on to preparing vegetable beds. The other teams charged with repairing the various structures also took on additional tasks that were originally not part of the subproject's programme of works, i.e., (a) construction of a poultry house, (b) construction of a goat house, (c) installation of a galvanized iron sheet roof over the water pump, and (d) installation of a tarpaulin roof over the vermicast building.



When the FAO, which was implementing a DFAT-ILO intervention in agrarian reform communities in Boston, provided the nursery with fruit tree seedlings, some of the workers were also tasked to put stakes to mark the spots where these were to be planted.

The speedy implementation of the subproject can be attributed mainly to the regular monitoring being done by BOCGA and MAO personnel.



Ms Florina Paguyan, a Barangay Health Worker and the on-site nurse, also reveals that labourers report to work at six in the morning so that they can take a break at 10 a.m. and avoid the heat of the midday sun.

Aside from the PPE and the deployment of an on-site nurse, the workers were also provided with social protection coverage that included health insurance premiums for three months, social security contribution for one month, and accident insurance policy for one year.

Impact and lessons

Support to livelihood. Aside from providing short-term employment to farmers from barangays Poblacion and Carmen, the subproject got the nursery operating again after a year and a half of inactivity. The benefits arising from the resumption of the facility's operation come in the form of good quality but low-cost planting materials and livestock and poultry starter stocks as well as training on agricultural production technologies, which local farmers sorely need after losing their livelihoods to Bopha.

In July 2014, the nursery finally got its water connection back and one sow was returned to the newly-repaired Artificial Breeding Center. The new poultry house also got its first stock of native chickens.



Government and PO/NGO collaboration

The subproject showcases how the collaboration between a people's organization (PO) and the municipal government can mutually benefit both parties. While BOCGA was instrumental in accessing DFAT-ILO funds for the rehabilitation of the nursery, the local agriculture office helped strengthen the PO's capacity on project and financial management.

Ms Arnie B. Monredondo, president of BOCGA reveals, "Our partnership with the MAO will extend beyond the subproject. A portion of the nursery will be allocated for the association members where we can plant vegetables, legumes and corn. We can also manage the vermi compost production". She adds that with the new job skills developed among workers, BOCGA can also provide labour for future maintenance or construction works inside the nursery.

BOCGA and MAO also found it necessary to network with other government and non-government organizations (NGO) like the provincial government and an international NGO called Plan International in order to secure the construction materials which made up 36 per cent of the total subproject cost.

Five organizations share the cost of construction materials



BOCGA's subproject counterpart was mainly the lumber salvaged from trees felled by the typhoon. However, other government and non-government organizations also pooled resources for additional lumber and other building materials needed for the subproject.

The provincial government of Davao Oriental donated the cyclone wire for the perimeter fence and some of the lumber. The municipal government of Boston funded the plywood, cement, electrical rewiring materials, reinforcement bars, and also sand and gravel for the rehabilitation of the facility's access road. Plan International, a humanitarian aid organization also doing recovery interventions in the Bopha-affected areas at the time, sent galvanized iron roofing materials. Finally, the Philippine Coconut Authority lent a chainsaw and provided the fuel for its operation.



Typhoon Bopha aftermath

In December 2012, Typhoon Bopha destroyed agricultural crops and livelihoods of residents of Cateel, Davao Oriental. Since then, residents have had to either struggle to return to farming or engage in other income generating activities or businesses. To help in the efforts to recover livelihoods in the aftermath of Typhoon Bopha, the San Rafael United Women's Association (SARUWA) provides micro-financing, technical and other business support services to its 42 members and their families.

With the support of the barangay council, it also constructed the Barangay Food Terminal (BFT) which serves as the barangay food depot and distribution center for products like meat, poultry, fish, vegetables and fruits. In its bid to provide better services to the community, the association sought DFAT-ILO assistance for the expansion of the facility.

SARUWA President Andresa A. Reyes who is also a barangay councilor also took the opportunity to include the rehabilitation of the barangay hall and day care center, which were both damaged by the typhoon, in the subproject proposal it submitted to the DFAT-ILO project. "Almost two years since Bopha, barangay officials were still holding office in the tents provided by aid groups and the day care center was still not being used," she revealed.

Subproject at glance

CONSTRUCTION OF THE BARANGAY SAN RAFAEL FOOD TERMINAL, BARANGAY HALL AND DAY CARE CENTER

Location	Barangay San Rafael, Cateel, Davao Oriental	
Duration	April 25 - May 13, 2014	
People's Organization	San Rafael United Women's Association (SARUWA)	
Project funding	DFAT-ILO	US\$10,325.56
	SARUWA	US\$3,631.02
Work days	836 (BFT: 428; Barangay Hall and Day Care Center: 408)	
Workers	62 total; 43 males (70 per cent); 19 females (30 per cent); 62 Indigenous Peoples; 42 4Ps* beneficiaries; 2 staff	
Work tools	Hammers, shovels, digging bars, wheelbarrows	

*4Ps (Pantawid Pamilyang Pilipino Program) is a national government programme for poor households

Activities and accomplishments



Physical accomplishments

- Improvement of the Barangay Food Terminal
- Rehabilitation of the Barangay Hall and Day Care Center
- Clearing of areas including cutting and dragging of uprooted and cut trees

General orientation and technical briefing.

The subproject started with the DFAT-ILO team first giving workers a technical orientation on the program of works and on labour standards and policies, social protection and occupational safety and health and gender equality advocacies.

Physical and social protection. The 62 workers were provided with personal protective gear and equipment and hand tools. They were also provided with social protection coverage specifically accident insurance, social security and health insurance. (The last was not given to 21 workers because they already had sponsored health insurance membership and contributions).



Clearing and construction. Actual construction started on April 25, 2014 and the food terminal extension was completed before the target date. While other workers moved on to making tables and benches, repair work on the barangay hall and day care center continued until May 13, 2014.



Thematic accomplishments



Support to livelihood. SARUWA President Andresa A. Reyes said that the food terminal is intended as an alternative trading center for products of farmers and small enterprises of the 42 members of the association. She added that the PO intends to access technical support from government agencies for its members so that they are able to produce food products unique to each sitio such as mushrooms, chili powder, native chicken and processed meat products.

The subproject also provided the means for workers – usually the head of their families – to purchase food for their families, especially since most of them were dependent of their crops, which were severely damaged by the typhoon.

Equal opportunity employment generation and skills building. The subproject generated short-term employment to 62 workers for a total of 836 work days, providing them with wages they used for food, school-related and other expenses. Equal opportunity was provided to both male and female workers. PO members have demonstrated their newly acquired carpentry skills with the construction of tables and benches for use in the food terminal.

Social protection. All of the workers were provided with social protection coverage like the social security, health insurance and accident insurance, and applied occupational work and safety practices such as wearing of personal protective equipment (PPE) and close monitoring of their vital signs. With the health monitoring, workers with health conditions such as high blood pressure were identified and the association was able to avoid putting them at risk.

Impact and lessons

Access to government services. The improvement of the food terminal consequently strengthened the association; it is now able to facilitate access of farmers and entrepreneurs to training and other technical support from municipal, provincial and national government offices like the Department of Science and Technology (DOST), the Department of Trade and Industry (DTI) and the Department of Agriculture-Bureau of Fisheries and Aquatic Resources (DA-BFAR). The facility can also be used as on-site training venue for courses like food processing.

Entrepreneurship support. To further ensure sustainability of income generation for both individual members and the BFT, SARUWA members were encouraged to engage in entrepreneurial activities like production and marketing of mushrooms, chili powder and processed meat.

Skills building and values transformation. Construction skills acquired by workers have increased their chances of being hired in the different construction work in the Bopha-affected municipalities especially in the housing projects of the provincial government. They also showed a high degree of professionalism and teamwork during the implementation of the subproject. Ms Reyes further noted that the subproject helped minimize the mentality of mendicancy, with workers becoming less dependent on aid from government and other organizations and more self-sufficient, confident about their future and disciplined.



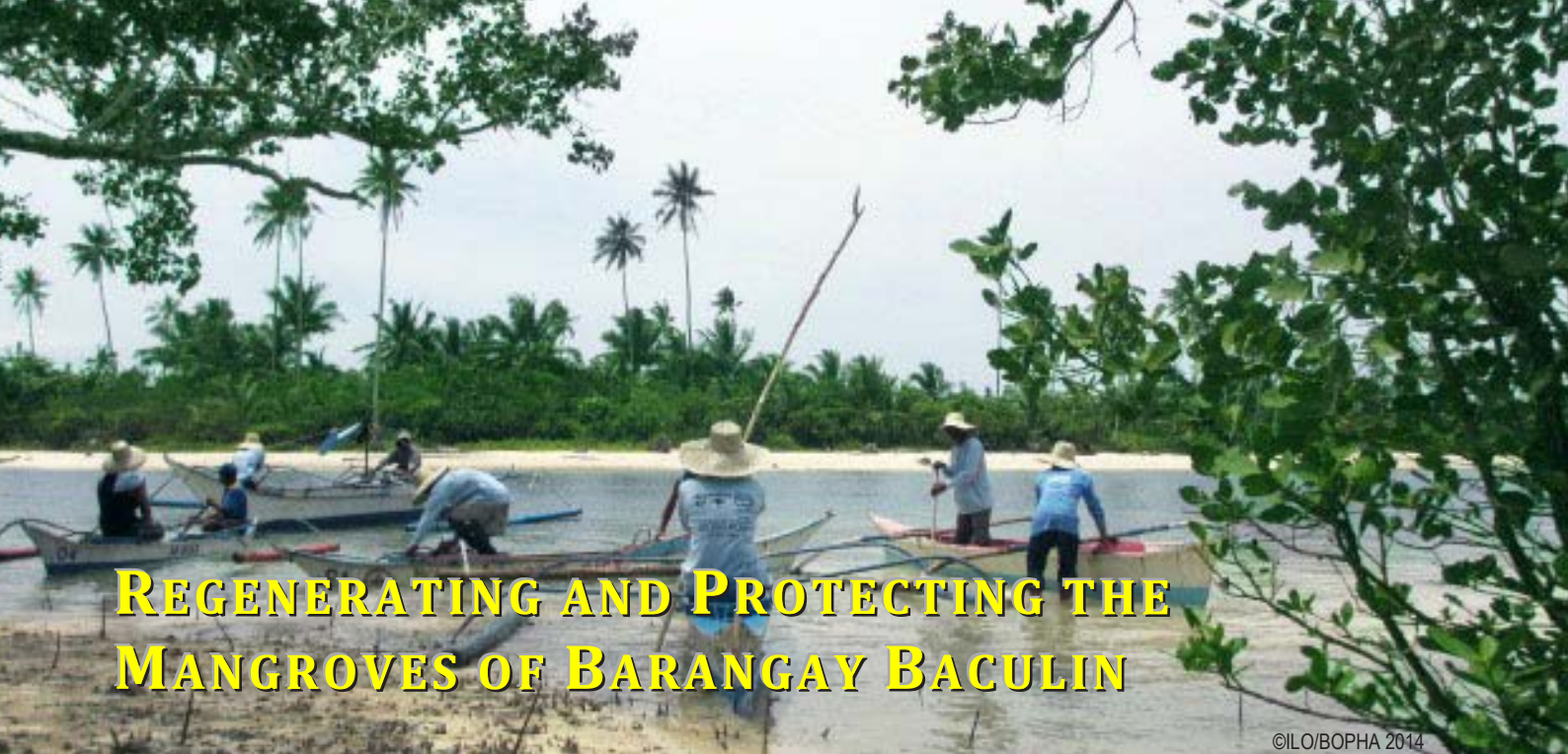
caseprofiles

environmental resource regeneration

**Mangrove Habitat Assisted Regeneration,
Establishment of the Bagangay Bay Protected
Landscape Monitoring Office, and
Rehabilitation of the Access Road**

**Baculin Fisherfolks
Association (BFA)**

Baganga



REGENERATING AND PROTECTING THE MANGROVES OF BARANGAY BACULIN

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Typhoon Bopha aftermath

In December 2012, as Typhoon Bopha made landfall in Baganga, Davao Oriental, it felled and uprooted the mangroves along the coastal areas of the 114-hectare Baganga Bay Protected Landscape and Seascape. It stripped and destroyed at least 50 hectares of mangroves in Barangay Baculin which functioned as habitat to the fish, crabs and other aquatic life that were sources of livelihood of fisherfolks. The mangrove also served as the last natural barrier that protected the community along the coastline from storm surges and strong winds.

This prompted the Baculin Fisherfolks Association (BFA) to propose an integrated approach to regenerate the mangrove habitat and ensure the sustainability of their livelihood. They intended to: (a) establish a Baganga Bay Protected Landscape Monitoring Office (BBPLMO) with support facilities in the Languyan Beach mangrove habitat area and take on the responsibility of monitoring and protecting the mangrove area; (b) collect 20 000 mangrove propagules and plant at least 15 000 in 50 hectares of the mangrove habitat; (c) establish and manage the Languyan Beach resort with a 500-meter stretch of beachfront and ten cottages to augment the association's income and fund activities related to preserving the Baganga Bay Protected Landscape and Seascape; and (d) ensure access to the office and resort by clearing and improving the 1.85-kilometer access road.



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Subproject at a glance

MANGROVE HABITAT ASSISTED REGENERATION, ESTABLISHMENT OF THE BAGANGAY BAY PROTECTED LANDSCAPE MONITORING OFFICE AND REHABILITATION OF THE ACCESS ROAD

Location Barangay Baculin, Baganga, Davao Oriental

Duration July 24 - August 21, 2014

Peoples' organization BaculinFisherfolks Association (BFA)

Project funding DFAT-ILO US\$19,146.72
BFA US\$3,324.16

Work days 2 040

Workers 102 total, 75 males (85 per cent); 27 females (15 per cent); 40 indigenous peoples; 17 beneficiaries of 4Ps*

Work tools Shovels, digging bars, rakes, wheel barrows

*4Ps (PantawidPamilyang Pilipino Program) is a national government programme for poor households.

Engaging with partners

The BFA only had enough resources to purchase PhP142,108 (US\$3,165) worth of construction materials for the office that will be used by experts during missions in the area and serve as a training venue. The association therefore sought and got the support of the Department of Environment and Natural Resources (DENR) and the Community Environment and Natural Resources Office (CENRO) for technical assistance to implement the assisted regeneration of the mangrove habitat. The BFA also solicited filling materials for the access road from the barangay council, and borrowed chainsaws from the Philippine Coconut Authority (PCA).

Physical accomplishments

- 21 420 mangrove propagules collected
- 15 000 mangrove propagules planted in 50 hectares
- constructed BBPL Monitoring Office with training center
- 10 beach cottages constructed and surrounding area cleared
- 1.85 km road cleared and improved with sand and gravel filling

Building on the partnership established with the ILO during a 10-day debris clearing cash-for-work activity in early 2013, the BFA also approached the Department of Foreign Affairs and Trade-International Labour Organization (DFAT-ILO) project for assistance to cover wages of workers, provide personal protective equipment (PPE) and gear (aqua boots, goggles, buri hat, work shirts, gloves, socks), social protection coverage (social security, health insurance, and accident insurance), and implementation of occupational safety and health practices, and some hand tools and equipment (sledgehammers, shovels, digging bars). The 102 workers were made up of 44 members of the BFA, 54 representatives of the 14 puroks of Barangay Baculin, and two technical experts from the CENRO.

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Activities and accomplishments

Implementation began on July 24, 2014 with the subproject briefing and technical orientation of workers, where subproject staff oriented the group on labour standards, social protection and occupational safety and health.

Workers were provided with personal protective gear and equipment, hand tools, and social protection coverage specifically a month's contribution for social security, three months of health insurance premiums and one-year accident insurance coverage. They were divided into teams of 10 to 25 members.

A team of 25 workers was able to gather 21 420 mangrove propagules and plant them in the 50 hectares of mangrove habitat at the Languyan beach area. Ms Lee Pansan shared that while the work was difficult, they were proud that they exceeded the 20 000 target number of propagules. She and BFA President and Barangay Kagawad Edwin Garcia attribute this achievement to the guidance provided by the CENRO technician, the strict adherence to work times and the regular monitoring done on subproject performance.





The group in charge of the propagules then participated in debris clearing along the access road and at the Languyan Beach resort area.

Felled coconut trees were cut into lumber and later used for the construction of the cottages, the BBPLMO and training center. Using the chainsaw lent by the PCA, they also created makeshift chairs and tables.

While most female workers started with gathering and planting of mangrove propagules, they were given other tasks with other workgroups, taking part in clearing the area and even filling in potholes.

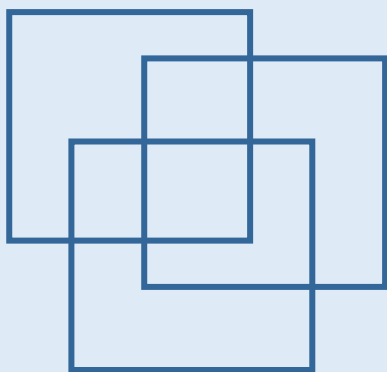


Support to livelihood. BFA member and worker Mr Nemecio A. Garcia said that while wages from the subproject are primarily used by workers for food, education and fishing costs, the association also plans to purchase either new pump boats or a fish truck for transporting fish catch and other goods by calling members to pool PhP500 (US\$11) each out the wages. The association had managed to purchase non-motorized and motorized fishing boats in the same manner before, i.e., collecting equal amounts of contribution from 35 members out of their cash-for-work wages.

Economic and environmental impact.

Mr Garcia and other fishers have already observed large schools of fry in the mangrove area. He added that the DENR also noted an increase in the fish population 100 meters away from the shore. The members of the fisherfolks association are certain that with the regeneration of the mangrove habitat, a new office and improved knowledge and skills in monitoring, managing and protecting this marine protected area there will be a marked increase in the fish population in two to three years.





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