



Rekindling Hopes, Rebuilding Lives

Time Critical
Debris Management Project



About UNDP

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Time Critical **Debris Management Project** for Typhoon Pablo

Compostela Valley and Davao Oriental
Philippines

December 2012 to June 2013

Ground zero. This was how a local official from the town of Baganga described what she saw after Typhoon Pablo (international name Bopha) wrecked havoc, destroyed properties and took the lives of many in parts of Southern Philippines. Baganga, a municipality in the province of Davao Oriental, was the place of landfall of one of the worst typhoons to enter the country, only a year after Typhoon Sendong hit the areas of Northern Mindanao.

Pablo also hit the next towns of Cateel and Boston and continued its path of devastation in Compostela Valley province. It damaged infrastructure and livelihood amounting to around Php 40 billion pesos and claimed the lives of more than 2,000 people. Many houses, buildings, roads and bridges were destroyed. Government operations and business were severely hampered.

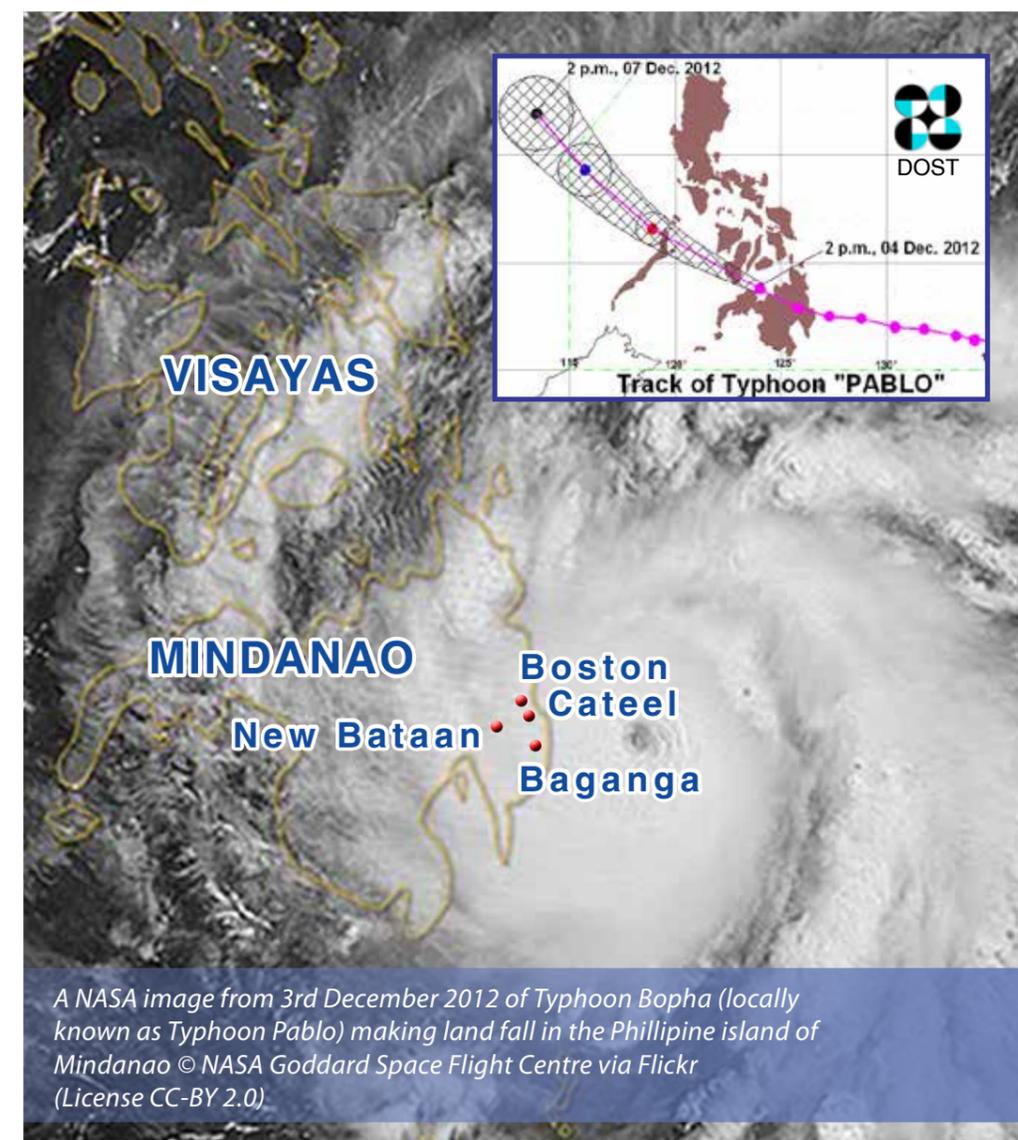
In Davao Oriental, a huge number of its coconut trees, the major source of their economy, were uprooted. In Compostela Valley particularly in the town of New Bataan, landslides and rockslides altered the landscape and nearly wiped out an entire barangay.

“The impact of the typhoon was so vast that it changed our landscape. The waterways were rechanneled bring huge rocks from the mountains. Debris were swept away from the rivers to poblacion areas damaging houses, agriculture and livelihood.”

Mayor Lorenzo Balbin, New Bataan, Compostela Valley

The massive damage and impact was unprecedented in history of both provinces. The level of preparedness was no match to Pablo's catastrophic magnitude. More than changing the landscape, it created emotional and psychological rifts to those who survived it and experienced its wrath.

Both survivors and disaster responders share stories of heartbreak. But just like the “Building Back Better” and *Tindog Comvall!* (Stand up, Comvall!) slogans one sees while passing by provincial roads, there are more stories full of unbridled hope. Hope to rebuild their lives. Hope to reclaim their futures.



▲ Compostela Valley and Davao Oriental woke up to the face of devastation after Typhoon Pablo brought provinces to a standstill, wreaking havoc in its path and claiming the lives of thousands. It was the most destructive disaster hit the region.

▼ Townsfolk in New Bataan look up for dead family members and relatives in announcement boards after raging waters carrying huge rocks and debris wiped out this portion of Barangay Andap in Compostela Valey.



**“ Ang mga tao naa sa labing kasubo
(People were devastated). We lost lives,
homes, our livelihood, our farmlands and
coconut lands.”**

Lelisito Salvana, debris management focal person
– Cateel, Davao Oriental

Following relief and rescue assistance, one of the most critical needs that local government units identified after the typhoon was managing the amount of debris. At the onset, massive debris – fallen trees, rocks and garbage among others – obstructed roads, aggravated damage to properties and harmed the lives of those

already bearing the brunt of the typhoon’s destruction. If left unattended, vegetative debris like uprooted coconut trees, common in both provinces, can pose serious health risks and render farmlands unutilized. The removal of debris is in fact among those immediate activities that needed to be done, because according to

Romeo Celeste, Provincial Planning and Development Officer of Compostela Valley, managing the debris is the first step to accessibility “otherwise relief and rescue operations could be delayed” and recovery and rehabilitation of communities will be unlikely.

THE PATH OF DESTRUCTION:

Total damages:	Php 40,227,820,474.02
Infrastructure:	Php 8,804,109,282.82
Livelihood:	Php 25,972,120,483.00
Social:	Php 608,142,548.20
Resettlement:	Php 4,843,448,160.00
Number of fatalities:	1,718 (plus 3,156 injured and 1,262 missing)

Source: Post-Disaster Needs Assessment of Compostela Valley and Davao Oriental

The shoreline in Poblacion, Cateel, Davao Oriental



Debris management is critical in preventing pest infestation such as the bakukang (rhinoceros beetle) which breeds in fallen coconut trees. The local government of Davao Oriental estimated that around 3.5 million coconut trees were uprooted while Compostela Valley estimates 1.27 million cubic meters of coconut trees were felled.

About the Project

The first of its kind in the Philippines, the Time-Critical Debris Management Project was implemented by the United Nations Development Programme (UNDP).

The project covered the towns of Laak, Montevista, Monkayo, Compostela, Mabini and New Bataan in Compostela Valley and Boston, Baganga and Cateel in Davao Oriental.

The project was able to integrate debris management into disaster preparedness measures, livelihood and skills development activities and solid waste management. It has assisted the affected areas in managing their debris – from clearing to proper disposal to engaging in productive livelihood ventures using the collected debris.

The debris clearing activities started with the clean-up of roads and public facilities including schools, public markets, bus terminals, health centers and other municipal structures enabling the restoration of government and business operations. Debris management teams were deployed to clear vegetative debris, which consisted mainly of uprooted coconut trees, enabling lands to become useful for planting short-term crops and other agricultural activities. Teams were also deployed to clear rivers, creeks and other waterways.

Temporary employment opportunities were generated through Cash-for-Work activities providing men and women in the critically-affected communities with income to help in their daily basic needs while they wait for their lands to become productive again or before they resettle into safer homes and communities.

Debris clearing activities helped in preventing the deterioration of health conditions due to prolonged exposure to unsanitary environmental conditions. Early responders noted the amount of household waste including waste from public markets littered in town centers. This was among the first types of waste cleared including those the obstructed schools in order to restore public and private operations.

Further, debris management is a comprehensive development strategy that also takes into consideration the development and recovery of dumpsites, material recovery facilities (MRFs) and implementing sustainable livelihood projects that will impact the overall socio-economic development of the communities.

“ Debris cleanup was one of the immediate consideration after the typhoon hit because of its direct impact on the health of the people.”

Evangeline Nazareno, former Municipal Administrator – Baganga, Davao Oriental



Understanding Debris Management

Debris management is vital in the early recovery of disaster-stricken communities. Through early debris clearing, relief and rescue assistance is eased and its delay prevented. Because roads are cleared from obstructions due to debris, public facilities are immediately made accessible and transportation returns to normal. The displaced population also can go back to their homes provided that these are already safe for habitation and families can resume their livelihood. Debris clearing also prevents further harm to humans particularly in preventing the spread of disease and pest infestation to remaining vegetation and livestock.

The damage brought about by Typhoon Pablo has put the development continuum to a halt because of the vast immediate needs to be addressed. Recovery from disaster needs to commence as soon as possible and link efforts to current strategies for long-term development. The experience of Compostela Valley and Davao Oriental generated innovative approaches to debris management and yielded "lessons learned" and good practices which can be replicated in other areas.

Creation of DM teams

- Coordination with LGUs
- Conduct of pre-deployment orientation on debris management
- Mobilization of provincial, municipal and barangay debris management teams

Debris clearing

- Debris cleaning and clearing – Following the provisions of the RA 9003 or the Ecological Solid Waste Management Act, the following activities were done:
 - ▲ Segregation and identification of waste/ disaster debris – The debris found can be classified into: recyclables, biodegradables, residual waste. Biodegradable wastes are those that can be deposited into composts and used as fertilizer. The residual wastes are those that are brought to dumpsites. Disaster debris such as those that are a result of Typhoon Pablo includes construction and infrastructure materials, household

wastes, commercial wastes, parts from public facilities such as power grids, liquid wastes, among others.

- ▲ Clearing of public facilities such as schools, public markets, bus terminals, municipal and barangay halls and major thoroughfares is a critical first step to restore government functions and aid in the smooth delivery of relief and rescue assistance

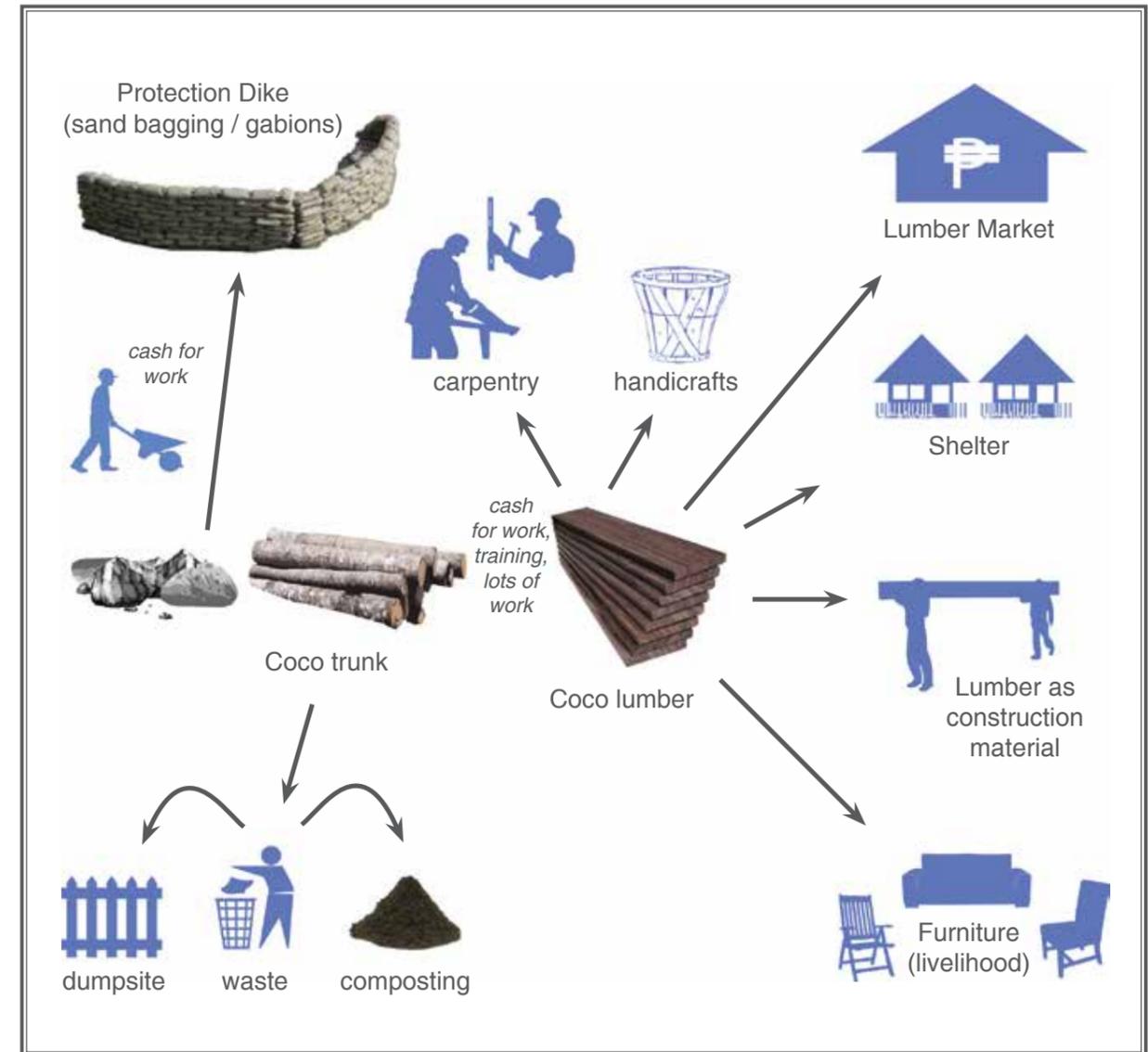
- ▲ Clearing of debris in temporary dumpsites

- ▲ De-silting/clearing of debris in creeks, rivers and waterways. In New Bataan, heavy equipment such as backhoes were used to prepare the river for the installation of protection dykes.

- Vegetative/agricultural debris clearing

- ▲ Clearing of vegetative debris along national roads

- ▲ Clearing of vegetative debris for pest control, sanitation and food production – Disposal of fallen coconut trees is critical to prevent the spread of pests such as the rhinoceros



Debris management made easy: A guide to debris management activities as implemented in Compostela Valley and Davao Oriental





Controlled dumpsites have been converted into ecological parks by the local government. The debris management project strengthened the implementation of solid waste management by assisting in the rehabilitation and construction of dumpsites. In this photo, the people of Boston participated in the greening of the dumpsite by planting trees.

beetle which damages the crops

- Cutting of debris into appropriate sizes for disposal
 - Cutting of debris for lumber purposes. In Monkayo, the DM team implemented the timber-to-lumber project. The lumber would be use for shelter or as construction material.
 - Segregation and hauling of debris
 - Provision of equipment such as chainsaws for cutting and protective gears such as gloves, face masks, boots and long-sleeve shirts
- Composting – This includes the selection and construction of composting site and the putting of the appropriate waste for composting.
 - Installation of protection dykes in rivers and creeks through sandbagging. CfW beneficiaries were employed for the sandbagging

Cash-for-Work

The cash-for-work strategy were conducted for debris clearing activities in public areas, segregation, debris clearing in roads and shorelines, vegetative debris clearing, and debris clearing in and upgrading of controlled dumpsites.

- Coordination with municipal and barangay local government units for the selection of cash-for-work beneficiaries
- Selection of beneficiaries – The beneficiaries of CfW activities are those that belong to the poorest of the poor or the lowest quintile of the population
 - Hiring of a minimum of 40 percent women prioritizing vulnerable groups
 - Standardization of daily rate for payment (75 percent of minimum wage)

Livelihood and skills development

- Emergency livelihood (cash-for-work)
- Carpentry training for selected beneficiaries – The beneficiaries of the

training are survivors of affected municipalities

- Handicraft training for IP women
- Debris to driftwood furniture project – The project was initiated by the municipality of Boston where driftwood collected from debris clearing activities were transformed into furniture and other decorative set pieces.

Upgrading of dumpsites and material recovery facilities (MRFs)

- Establishment of and rehabilitation of existing of dumpsites. In Baganga and Boston, the controlled dumpsites were established into ecotourism parks highlighting solid waste management practices in the area.
- Upgrading of dumpsite roads
- Establishment of material recovery facilities including shed, fence, catchment canals
- Tree planting activities as part of the eco-park conversion of dumpsites

“ Communities learned the essence of cooperation as a key to recovery.”

Judith Castres, debris management focal person, Boston, Davao Oriental





Cash-for-work participants were given pre-deployment orientation before participating in debris clearing activities in their communities.

Gearing up for debris management

To facilitate effective debris management activities, debris management teams in the provincial, municipal and barangay levels were created. The capacities of these teams were strengthened through the conduct of pre-deployment orientations training the teams with correct process of debris clearing. As leaders of their communities, barangay captains were also capacitated and involved to help oversee the conduct of debris management activities.

The framework for Building Back Better, a movement initiated by the provincial government of Davao Oriental as part of its rehabilitation and development program, also integrated debris management in its early recovery activities. A technical working group (TWG) was formed with the help of the Mindanao Development Authority (MinDA) which

strengthened inter-agency coordinative mechanisms and strategies to facilitate the implementation of debris management activities. The provincial TWGs were given technical input on debris management implementation putting together policies and guidelines.

The Philippine Coconut Authority (PCA) chairs the regional working group with the UNDP as co-chair. The group is also composed of relevant government agencies like the Department of Science and Technology (DOST), Department of Environment and Natural Resources (DENR), Department of Trade and Industry (DTI), Department of Labor and Employment (DOLE), Department of Agriculture (DA), and the Department of Social Welfare and Development (DSWD).

“Through the debris clearing activities, huge amount of debris like rubble, fallen trees and other wastes detrimental to health were collected and disposed appropriately, which lessened the health risks and other illness it pose to families like my own.”

Merlyn Ligasan, Cateel Central Elementary School



Farmers make productive use of land after debris clearing in Davao Oriental

Edwin, 46 and Abelia Castilliones, 58, of Barangay San Alfonso, Cateel, Davao Oriental have been tenants of a 5 hectare coconut farm for 35 years.

They lost 90 percent of his coconut farm area during the onslaught of Typhoon Pablo. The main source of their income was debilitated right away and their family depended on relief food for weeks.

Edwin joined the debris clearing team in their barangay organized by the local government of Cateel with support from the Debris Management Project of the United Nations Development Programme (UNDP). The project aims to manage the massive amounts of debris caused by Typhoon Pablo with the conduct of debris clearing activities in farmlands and make it useful again for agricultural use.

The Cash-for-Work activities did not only provide temporary income to Edwin but after the clearing activities they were able to plant vegetables in some of the cleared areas on their farm.

"We are very happy that were allowed by our land lord to plant a 900 square meter vegetable garden after the debris were cleaned up," said Abelia, who also shared that planting in the garden has also strengthened their relationship as a couple.

According to Edwin, their landlord allowed them to utilize a portion of the farm for

vegetable production since he (the landlord) does not have current capital to replant his farm yet. It will take about 7 to 10 years to be able to get income out of a full-grown coconut tree.

Less than a month after planting, some of the vegetables like mungo beans, squash, string beans and eggplants were already bearing fruit.

"The debris clearing support enabled us to pay our debt," said Edwin. The couple is hopeful that they will gain additional income once they will be able to sell their vegetables.

Just like the Castilliones couple, Ryan Combas, 27, lost his coconut farm during Typhoon Pablo. Only eight coconut trees remained, which is really nothing compared to the 2-hectare full of coconut trees he once had and where he gets his livelihood to support his young family.

Ryan also participated in the debris clearing activities in his barangay in Sitio Lambog, Boston, Davao Oriental through Cash-for-Work activities

supported by the UNDP.

He said that not only did it give him opportunity to earn from work, *"it is also preparing the land for crop production after the debris clearing activities are completed in my landlord's farm."*

"I saved the 2,000 pesos I got from the Cash-for-Work to pay for the for the partial enrollment fees of my two sisters in who will be in college this school year," he shared.

Ryan plans to till the land for rice crop production after the debris clearing activities are completed. *"The 75% share I will get from the rice farming as tenant will at least be a big help to support the basic needs of my family,"* he said.

But cash-for-work activities did not just extend emergency livelihood assistance to families that need it the most. According to Mr. Judith Castres, debris management focal person of Boston, Davao Oriental, communities learned the essence of cooperation as a means to recover fast from the tragedy.

"People were interested in participating not just for the income but because they also want to clean up their communities. Because of that Boston is ready to get back on its feet," he said.



After their land has been cleared of debris, the Castilliones couple were allowed by their landlord to convert a portion of the land for vegetable gardening to augment the family's daily subsistence. Within a month's time, the couple harvested some of the vegetables including squash and string beans.

Compostela Valley ●
Davao Oriental ●

RESULTS

- **119 barangays** assisted on debris clearing
- **179 roads** (152.3 kms) cleaned
- **92 creeks and drainage canals** cleaned
- **11 rivers** cleaned
- **33 communal farms and tree parks** cleaned
- **30 Barangay Health Centers and hospitals** cleaned
- **75 schools** cleaned
- **81 multi-purpose and barangay halls** cleaned
- **25 public markets, bus terminals** (other public facilities) cleaned



RESULTS

- **15,762** (100% target) total number of participants engaged in debris clearing and clean-up through the CfW scheme
Male: 9,709
Female: 6,053
- **458,840.05** cu. meter volume of debris cleared and cleaned
- **157,620** person days consumed on debris cleaning



Comvaleños rebuild lives and communities through carpentry and livelihood trainings

The combination of strong winds and water brought about by Typhoon Pablo damaged many houses in some barangays in the town of Montevista in the province of Compostela Valley. Among them left homeless is the family of Oscar Quinones, 35, a resident of Barangay Dauman, one of those badly hit areas.

Relying heavily on relief food and staying in a temporary shelter up to now, he did not hesitate to join their town's contingent in a Carpentry Training-cum-Production project with the support of UNDP's Debris Management Project. He is joined by 77 men from the neighbouring towns of Monkayo, Compostela and New Bataan, where the training was conducted.

"The carpentry training has really helped me a lot and others not just with a temporary livelihood but with the knowledge and skill that will be useful for future use," said Oscar, who was also among those picked by their trainers as best trainees during their graduation held after their 15-day workshop.

Oscar is part of the first batch of trainees of the carpentry training which is done in partnership with the Association of Construction and Informal Workers (ACIW). The training consisted of lecture and application through actual construction in an area provided by the private sector and the LGU.

UNDP also provided tools and

equipment as well as built temporary workstations for the trainees.

A second batch of 80 participants coming from New Bataan and Compostela will also benefit from the training.

"I will share the skills I have now in helping rebuild my own community," shared Oscar, adding that this will enliven the spirit of resiliency as the province slowly gets back on its feet.

"Mubarog mi (we will stand), and help rebuild Comval through our skills," he said.

His fellow trainee Raphael Aligway of the town of Monkayo said that as Panday ng Bayan trainee-graduates, they will be a reliable addition to the provinces workforce particularly in the rehabilitation efforts.

The Technical Education and Skills Development Authority (TESDA) assisted in the

certification of the trainee-graduates.

Those who will pass the evaluation will be given NC (National Competency) II Certification and which immediately gives them an edge in finding jobs, according to TESDA Provincial Director Remegias Timonio.

"We plan to have a training center here with provision of tools from the LGU so that this effort can be sustained," he said.

Meanwhile, the UNDP project also supported the conduct of the Handicraft Training-cum-production for the indigenous women of New Bataan, facilitated by the ACIW and the local government.

Around 61 women from the affected barangays participated in the five-day training which yielded various handicraft products that the LGU will showcase in their souvenir shop as marketing. There are also talks of exporting the products to Australia.

"It is a privilege to have this kind of knowledge because we can use this as an additional livelihood as well as for



Around 160 men from affected towns of Compostela Valley benefitted from the carpentry training supported by UNDP. Equipped with basic carpentry skills, they can now be a potent workforce in the rebuilding of their province. In New Bataan, 60 indigenous women gained livelihood skills on handicraft making.

household use," said Marie Clare Sequira, 31, of Barangay Magangit.

Also from the same barangay, Gloria Romo, 40, said that she hope they will be given additional tools by the LGU so that they can increase their production in their individual capacities.

While other women participants

from other barangays said that the training gave them an idea that they can use other indigenous crops for handicraft.

According to Mayor Lorenzo Balbin, the women have become partners in the continued efforts to rehabilitate their town because of the added knowledge from their training-cum-production activity. He added that if

developed, the livelihood products can become one of the *"mitigation measures to alleviate the effects of climate change"* in their locality.

The local government also plans to organize the IP women group into an association to sustain the livelihood efforts.

Compostela Valley ●
Davao Oriental ●

Boston youth group rebuild lives from Typhoon Pablo debris

debris-to-livelihood project to send out-of-school youth to college

When Typhoon Pablo was wreaking havoc in the town of Boston, Davao Oriental, Kimberly Dela Torre, 18, was still able to help in bringing some of the townspeople to safety, accompanying them to their elementary school, one of the identified evacuation centers.

Already soaked in rain, she comforted some of the children who became increasingly distraught by the raging winds. *“One child was even unconsciously left by the mother who was already in a state of shock and panic,”* she said.

But when the rains and winds subsided Kimberly, who was a freshman in the nearby community college in the town of Cateel, was suddenly faced with bigger uncertainties including the fact that she might not be able to continue her schooling.

She and many of her friends stopped schooling because their parents cannot afford to pay for their tuition. With the loss of around 90 percent of coconut farmlands, the main source of livelihood of the town was cut short.

“A lot of us youth have to stop school and help out our families,” she said.

But with the recent livelihood project initiated by the town’s mountaineering and nature conservation group, which she

is also a member, she and some of her contemporaries may get to enroll in the next school year.

Using the huge amount of debris that was washed up in their shores, they partnered with the Boston Woods and Crafts (BOSWAC) group to transform the debris and drift wood into woodcrafts and furniture. The driftwood were collected during their coastal clean-up activities, part of their mountaineering group’s work.

“I am hopeful that we could sell their products so that we can raise a scholarship fund to most deserving members to pursue their college education” shared Ms. Susitte Waniwan, founding adviser of BOSWAC.

The ten-day debris to woodworks training-cum-production was supported by the Debris Management

Project of the United Nations Development Programme (UNDP) through Cash-for-Training scheme.

Aside from the driftwood collected near the coastal areas, the project commenced with debris clearing activities in public areas such as markets and bus terminals, schools, and other public facilities to restore government and commercial operations.

UNDP’s support to the out-of-school youth is part of the project’s thrust to ensure that only residual debris shall be finally disposed to the dumpsite.

With the help of trainers from the BOSWAC group, they transformed the debris into furniture, handicrafts, and novelty items, which are ready for exhibitions and marketing.

The products have been exhibited for sale during Davao Oriental’s founding anniversary aside from the Tourism Hall in their town. The group is also coordinating with government agencies such as the Department of Trade and Industry and the provincial



By spearheading the debris-to-livelihood project, the youth of Boston, Davao Oriental made a big step towards rebuilding their lives. Members of the town’s mountaineering and nature conservation group made furniture and handicraft pieces out of driftwood they collected. The local government is helping them market their products as the revenue generated will be used for their scholarship fund.

government to help market the products.

Boston Board Member Virgilio Castellones said that the products of the training-workshops, along with the carpentry training partnered by the Department of Science and Technology, can be developed into an entirely new industry for woodcraft making.

The output and graduates

produced in the carpentry training shall also help in building additional shelters in Boston.

“A clear sign that an opportunity always arise out of rubble,” he said.

“We are hopeful that if we will be able to make this initiative sustainable, we can make woodcrafts out of debris as part of the national government’s

One-Town One-Product program,” Ms. Waniwan said.

She added that the debris management project’s initiatives were an *“eye-opener”* for their community to *“become more resilient”* and also enforce stronger policies on solid waste management.

Compostela Valley ●
Davao Oriental ●

LGUs strengthen solid waste handling through UNDP's debris management project

Local governments in Compostela Valley and Davao Oriental, provinces badly hit by Typhoon Pablo (Bopha) last December 2012, are moving towards revitalized ecological solid waste management policies with the implementation of the debris management project of the United Nations Development Programme (UNDP).

The debris management concept involved not just cleaning and clearing of all types of disaster debris but also integrated strategies that will enable the early recovery and development of the affected communities such as conduct of carpentry trainings and the establishment and rehabilitation of dumpsites and material recovery facilities.

"The project has given us the opportunity to plan for things that are better than before," said Dolores Valdes, Provincial Environment and Natural Resources Officer of Davao Oriental, citing that debris management is a critical component in the province's Building Back Better movement.

"(Typhoon) Pablo challenged us to properly manage our wastes. Debris management paved way for us to enforce RA 9003 or the Ecological Solid Waste Management Act," she added.

Raul Villocino, Compostela Valley Provincial Disaster Risk Reduction and Management Officer said that the project has changed their perspective in managing solid waste.

"The concept of debris management as practiced is just clearing, but now it should be utilized into something useful, something new," he said.

In Monkayo, Compostela Valley, the debris management team has initiated the timber-to-lumber project, which aims to produce lumber from a target 2,000 heels of coconut trees in the short term, and expected to produce about 150,000 board feet of coconut lumber.

The debris management team has planned to make use of the fallen coconut trees for shelter and other construction purposes as part of the project's sustainability. They also plan to sell some of the lumber and use the profit to fund debris management activities.

In the town of Laak, among those damaged was the municipal dumpsite, which is critical in the debris clearing activities particularly in the

disposal of the wastes.

Gregcarl Delator, Municipal Environment and Natural Resources said that the debris management project, while assisting the rehabilitation of their dumpsite said that they gained knowledge particularly in characterizing debris, which he said is useful in determining what can still be of use.

The project also assisted in the installation of their materials recovery facility where wastes that can still be recycled and re-used are temporarily stored.

In the towns of Boston and Baganga in Davao Oriental, the LGUs' debris management teams have converted their dumpsites into eco-parks to stress the need to keep the dumpsites clean.

"Debris management is a step towards building back our communities and transforming our lives," Ms. Valdes said.



Cash-for-work beneficiaries in Barangay Naboc in Monkayo, Compostela Valley convert the fallen coconut trees into lumber products which is critical in the building of additional shelters. Some of the products will be sold to the market where the income is planned to fund debris management activities.

RESULTS

- **10** Material Recovery Facilities rehabilitated/constructed
- **Seven** dumpsites developed



Planning workshops with the local governments enable the linking of early recovery efforts to long-term development strategies outlined in the recovery and rehabilitation plans of the provinces to better respond to challenges in disaster risk reduction and climate change adaptation.



UNDP assists LGUs to better respond to recovery and rehab efforts

As part of the comprehensive efforts of the debris management project, the United Nations Development Programme (UNDP) assisted the provinces of Compostela Valley and Davao Oriental in the formulation of their integrated recovery and rehabilitation plans.

Strategies and mechanisms were outlined in the plans to better respond to recovery and rehabilitation efforts in disaster situations. The plans also take into account long-term goals that address specific development needs of the two provinces such as investment planning and enhancing capacities in disaster response.

The debris management component has been integrated as part of the recovery and rehabilitation initiatives of both provinces.

The plans were developed by the planning officers and different concerned agencies of both local governments.

“With this experience, we can really learn so much in our preparation especially in debris management. It is one of the critical issues to address to be able to properly respond and assist communities in their recovery,” said Romeo

Celeste, Provincial Planning and Development Officer of Compostela Valley.

The Mindanao Development Authority (MinDA) assisted the provinces in the drafting of the plans through the conduct of planning workshops.

“I appreciate the process that we have gone through in the planning. We realized there is so much more to do, but the framework of the process will guide us in implementing the Building Back Better initiatives,” said Noel Pregon, planning officer of the municipality of Baganga, Davao Oriental.

Since the project focused only on targeted municipalities severely affected by Typhoon Pablo, the plans also detail the replication of the debris management orientation to other municipalities strengthening the local solid waste management policies.

“ The concept of debris management as practiced is just clearing, but the perspective should be that debris is utilized into something useful, something new.”

Raul Villocino,
Provincial DRRMO,
Compostela Valley



Ways Forward

- Strengthen disaster recovery and rehabilitation response by incorporating debris management strategies and activities, and also as a way to strengthen national and local policies on ecological solid waste management
- Provincial LGUs to replicate debris management strategies in all local government units.
- Ensure convergence mechanism to solicit full participation from agencies and sectors concerned as demonstrated through the creation of debris management teams
- Build up capacities of LGUs in all levels including relevant stakeholders and agencies on disaster risk reduction and management and climate change adaptation
- Through the “lessons learned” and planning workshops, LGUs to establish and strengthen data management and coordination for better decision-making and response to disaster recovery and rehabilitation efforts
- Intensify education and awareness campaign on social responsibility toward environmental conservation and ecological preservation
- At the program implementation level, craft a standardized disaster debris management tool or guide detailing the various components of debris management including the sustainability mechanisms
- The Programme to develop and/or enhance systems, policies and guidelines that will suit humanitarian response and strengthen its role in early recovery efforts
- Experts to provide a more robust and responsive strategic directions attuned to existing needs particularly in establishing mechanisms for effective program implementation and sustainability



Clockwise: Beneficiaries of the cash-for-work program in Barangay San Miguel in Cateel, Davao Oriental; UNDP Country Director Toshihiro Tanaka joins the multi-stakeholder tree planting activity in Boston, Davao Oriental; cash-for-work beneficiaries of Barangay Naboc in Monkayo, Compostela Valley take a break from their timber-to-lumber activities; trainee-graduates of the carpentry training in New Bataan, Compostela Valley show their certificate of completion; and two indigenous women show their finished products during the culmination of their handicraft training in New Bataan.

Compostela Valley ●
Davao Oriental ●

Children in Brgy. Cabasagan in Boston, Davao Oriental enjoy an afternoon basketball game in a makeshift court built with lumber from uprooted coconut trees. The effort is part of the local government's approach to managing debris brought about by Typhoon Pablo.



“Typhoon Pablo is never stronger than us... It can never put us down. We might be a little bended but soon we will rise from the rubble of its cruelty.”

Virgilio Castellones, Sangguniang Bayan Board Member, Boston, Davao Oriental



Time Critical Debris Management Project for Typhoon Pablo
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