LESSONS LEARNT ON TYPHOONS IN THE PHILIPPINES
(METRO MANILA, CAGAYAN DE ORO AND ILÍGAN)

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Hazard Map of the Philippines
CHAPTER 1

KEY LESSONS LEARNT FROM EVALUATIONS AFTER TYPHOONS IN THE PHILIPPINES

A number of key lessons emerged from the Real-time Evaluation of the response to the disasters that affected Northern Mindanao in 2011. Further lessons were drawn from a review of the impact of the floods that hit Manila in 2009 and the aid mobilization that followed. This made it possible to combine two levels of analysis, covering the following situations which could potentially affect the Filipino Archipelago:

- Floods in very large cities, particularly long-lasting floods which affect urban planning and the emergency response capacity;
- Floods in smaller urban contexts, where small- to medium-scale funding is required, but where speed is important.

Philippines: a high risk country

With its double exposure to seismic events and hydro-climatic hazards (located on the Pacific Ring of Fire and the Typhoon belt), the Philippines is one of the areas on earth which is exposed the most to natural and man-made disasters. As an archipelago, with rapid urbanization in most of its coastal areas, it is also exposed to the consequences of climate change.

Tropical Cyclones, monsoon rains, and fires cause a great deal of damage every year. Earthquakes, while less frequent, have also caused damage and loss of life over the past 50 years. The magnitude 7.8 earthquake which hit Luzon on July 16, 1990, devastated the north of the island. Though it fortunately only caused minor damage to buildings, it induced changes in altitude (subsidence) in reclaimed areas in Metro Manila. There are also regular volcanic eruptions.

Between 15 and 25 tropical cyclones or storms enter the Philippine Area of Responsibility in a typical year and of these usually 6 to 9 make landfall. The Northern part of the archipelago is by far the most exposed. The magnitude of the disasters induced by typhoons Ketsana in 2009 and Washi in 2011 (respectively known locally as Ondoi and Sendong) is attributed to:

a) above normal volume of rainfall;
b) the degradation of the environment due to logging and plantation activities in upstream areas (Luzon province for Ondoi, upland areas for Sendong);
c) the urban expansion in wetland areas and along river courses, and the lack of preparedness among the people and local government units.

In most situations, local government units, national government agencies, private organizations, local and international NGOs and UN agencies mobilize in response to disasters. When the scale of the disaster is too large for local capacity the Philippine government appeals for international assistance.
Involvement of the whole society

Faced with such diversity and frequency of disasters, the Philippines have developed a sophisticated mechanism to deal with them and strong involvement of civil society in disaster preparedness and response.

The disaster response system in the Philippines is incorporated into the legal system. Republic Act 101211 of 27 July, 2009 is the latest version of the law which allocates roles and responsibilities to all levels of the response pyramid. It promotes a holistic approach to disaster risk reduction and management which is comprehensive and proactive, rather than a reactive approach which only focuses on the response. The Republic Act 101211 also articulates the respective roles of the central, regional, municipal/city levels.

Disaster management responsibilities at all levels always include:

- **Disaster Preparedness** through Public Awareness, Education, Planning, and Drills and Demonstrations

- **Emergency Response Capacity-Building** through the organization and training of disaster control groups, response planning and rehearsals, the institutionalization of an emergency response network, and the development of protocols and standards

- **Disaster Control** through the provision of essential services to affected communities, mobilization of emergency resources and the coordination of evacuation, search, rescue, recovery, and relief operations.

- **Disaster Prevention and Mitigation** through studies, research and the dissemination of information about hazards and disasters; early warning; the evacuation of people from at-risk areas, the formulation of policies, standards, rules and regulations; the inspection of the structural integrity of buildings and when necessary their retrofitting

- **Rehabilitation and Recovery Assistance** through financial support and technical assistance.

In terms of alert and early warning systems, tropical cyclones entering the Philippines are given a local name by the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), which is in charge of dispatching public storm signal warnings through the media and to Local Government Units (LGU) (particularly municipal authorities) as deemed necessary.

**Public Storm Warning Signals**

<table>
<thead>
<tr>
<th>Signal #1</th>
<th>winds of 30–60 km/h (20–35 mph) are expected to occur within 36 hours</th>
</tr>
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<tbody>
<tr>
<td>Signal #2</td>
<td>winds of 60–100 km/h (40–65 mph) are expected to occur within 24 hours</td>
</tr>
<tr>
<td>Signal #3</td>
<td>winds of 100–185 km/h, (65-115 mph) are expected to occur within 18 hours.</td>
</tr>
<tr>
<td>Signal #4</td>
<td>winds of at least 185 km/h, (115 mph) are expected to occur within 12 hours.</td>
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In addition to PAGASA, weather-related risks are also monitored by other mechanisms:

The devolution of disaster management responsibilities to Local Government Units (LGU) is one area where the politicization of resource allocation can become an obstacle to balanced and locally-centred disaster prevention and response operations.
The critical role of the municipal authority should be underlined. Though Iligan’s disaster management team was mobilized at the alert stage even before the Washi/ Sendong typhoon made its landfall, this was not at all the case in the Center for Disaster Preparedness (CDP), leading to delays and inconsistency in the response. Each city or municipal entity is made up of several “barangays”, the lowest level of political organization in the Philippines, which are primarily responsible for addressing management concerns within their geographical jurisdiction as stipulated in the national strategy.

In cases where the scale of a disaster is too big for community resources to cope, the LGU takes over or provides the necessary support. Politics is never very far in the Philippines. Being with the right party makes all the difference in terms of resource allocation and political support. It can also affect aid distribution at the sub-area level. There is still need for training of Mayors and municipal councils on humanitarian principles. When a disaster triggered by an extreme natural event, or even a relatively less extreme event, takes place in an area where conflict is either just below the surface or veritably happening in nearby areas, care needs to be taken to make sure humanitarian aid does not fuel the conflict, but rather contributes to alleviating it.

Civil society groups such as the Citizen Disaster Response Centre (CDRC) and many national or local NGOs are also very involved in disaster prevention (for instance through the “stop illegal logging” campaign) and in disaster response through very dynamic networks of volunteers.

The Philippine Red Cross is also a key actor both because of its strong decentralized capacity but also thanks to the international support it can receive rapidly from the International Red Cross and Red Crescent Movement.

**Improved coordination**

Two institutions play a vital role in coordinating the response.

**DSWD-DROMIC**

- The DSWD’s Disaster Response Operations Monitoring and Information Center (DROMIC) monitors the affected areas, populations and displacement in flood-affected municipalities.

**NDRRMC**

- The National Disaster Risk Reduction and Management Council (NDRRMC) monitors the impact of flooding as a result of the heavy rains brought about by climatic events (see: www.ndcc.gov.ph)

There has been considerable progress in the way the international and Filipino systems collaborate to respond to the frequent disasters in the Philippines. From the relatively chaotic Ondoi response to the more orderly Sendong one, some key features have emerged. In most parts of Metro Manila, there are now alert systems, which have 3 phases (alert, early warning and evacuation warning). Part of the coastal area is becoming more protected. There is a clear understanding at the highest level of the authorities that an insufficiently efficient and badly coordinated response is always paid for on the political front. There are still opportunities to improve it during the early days of the operations, when the request from the government for international help is still being prepared. In 2012, several inefficient mechanisms were still in place, such as the food and livelihoods clusters, which had not yet been merged.

Civil society support for national and local disaster management institutions is essential and regularly proves absolutely critical during the first month.
Key recommendations

At the international level:

Pre disaster warning is essential. In Metro Manila, the residents were caught unaware by Typhoon Ondoi. The alert system did not function much for Sendong, even though rescue teams were in position by late afternoon in Iligan.

➔ Early warning and Alert systems should be in place and evacuation exercises should be practiced regularly

Evacuees in evacuation centres are not IDPs. They are often living a few hundred meters from their former houses and all their networks are still there. Their urban culture makes them specific. Treating them and calling them IDPs triggers an “assistance reflex” which can be quite detrimental to their own resilience and capacities.

Managing evacuation centres in urban settings is not the same as managing camps. The whole Camp Coordination and Camp Management system, including the Displaced Tracking Matrice (DTM) is largely irrelevant due to the fluidity of situations, people’s mobility and the temporary nature of these evacuation centres.

➔ The use of the classical IDP category in urban settings produces inaccurate situation analysis and inappropriate response mechanisms. Evacuees should be treated as urban residents who have temporarily sought a safe haven.

The ECHO supported REACH-ACTED study underlined the potential of reconstruction and rehabilitation. This should be given priority rather than concentrating energy and resources on relocation with temporary sites and transitional shelters.

Legal issues linked to forensic medicine and the management of dead bodies, but also people’s registration and reproduction of identity papers and land, property and housing documents are crucial issues to manage properly. The initiative of the Protection cluster to field a person to look into this issue should be commended.

Relocation of affected people outside of their areas of origin should be the last option, when all the others have been explored. When it is deemed necessary, enough space inside and outside the houses should be ensured. Specific attention should be given to livelihood opportunities. Otherwise, as proved in many other contexts and as is already taking place in post Ondoi relocation sites in Laguna and Antipolo areas, the relocation process will not be sustainable and people will move back to the city system.

➔ All the measures that could limit the need to relocate people far from their homes and their livelihoods should be given top priority.

DRR measures are necessary, as long as proper risk analysis is carried out. In Cagayan de Oro and Iligan, it was not the typhoon, nor the rain which killed most people; it was the high speed wave of water carrying heavy logs. It was more a man-made rather than a natural disaster and the root causes should be treated by DRR measures, not only the symptoms.

A no-build zone (NBZ) should only be imposed if it does not complicate the situation further. In fact, in both Cagayan de Oro and Iligan, the size of the NBZ could have been reduced to a minimum if proper river course management and embankment protection work was done. This would be much more efficient and socially accepted than a full size no build zone which is not likely to function well, but rather will create many social and livelihood problems.
Proper DRR measures are always the result of in-depth situation and risk analysis. These analyses should be given enough weight in the decision-making process.

The future

In order to look ahead to future disaster management in the Philippines, the “worst case scenario” was discussed in Manila with the head of the Office of Civil Defense (OCD): a large-scale earthquake hits Metro Manila, inducing a tsunami in the middle of the Typhoon season. It was clear in the discussions that this scenario had been discussed at length within the relevant circles among Filipino stakeholders. However, neither the Command Center of the OCD, nor even the offices or houses where OCD staff work and live are able to withstand a magnitude 7 earthquake. The only structure which has been built to do so is the Military Headquarters Operations Centre. This should be a source of concern.

In many areas, the initial response (search and rescue, distribution of basic survival goods for the first few days) seems to have improved with the development of preparedness and alert systems. However this is dependent on clear involvement by national and local institutions. When this is missing, as seen in Cagayan de Oro after Sendong, the situation remains chaotic for a longer period as problems tend to become bigger and more complex in urban contexts.
Metropolitan Manila and the Ondoi/Ketsana Typhoon

Metropolitan Manila is a Special Administrative Region in the Philippines. It is situated in the Island of Luzon and has a land area of 636 square kilometres. Its population was approximately 10 million at the end of 2011. Population density is very high (around 15,000 persons/km²) and growing by the day.

Metro Manila, the seat of the country’s political and economic activities, is an area under a unique government agency, created by virtue of Republic Act No. 7924, and attached to the office of the President of the Republic of the Philippines. Twelve cities and five municipalities or towns are included in Metro Manila. Their respective Local Government Units (LGUs), headed by an elected Mayor, administer the affairs of these cities and municipalities. The Metropolitan Manila Development Authority (MMDA), on the other hand, formulates, coordinates, and implements programs that have region-wide application and significance. For instance, Metro Manila has invested in huge infrastructures like the Skyway and Metro Rail Transit projects. With the rapidly growing population, intense economic activity and uncontrolled development, environmental concerns have become major priorities, and particularly solid waste management and air pollution control. However, there is a lot of diversity between the different cities of Metro Manila. While investments are concentrated in the Makati and Ortigas financial centers, other parts of the metropolitan region suffer from poverty, joblessness, inadequate housing (including slums) and are at risk due to the presence of low-lying areas along river courses.

The MMDA is mandated to coordinate disaster management activities in Metro Manila. It is the lead agency of The Metropolitan Manila Disaster Coordinating Council (MMDCC). This is embodied in Presidential Decree 1566 that was promulgated on June 11, 1978, which defines the Philippines disaster management strategy. The MMDCC, which is composed of representatives from various National Government Agencies and some of the private organizations operating in NCR, serves as the conduit between the National Disaster Coordinating Council (NDCC) and Metro Manila LGUs insofar as management is concerned. This is in line with the principles of: (1) self-reliance, (2) mutual assistance, (3) resource complementation, and (4) multi-disciplinary approach. (source: http://www.adrc.asia/management/PHL/Metro_Manila.html?Frame=yes)

Metro Manila is situated in the most at-risk area of the Philippines. It is situated on the most frequent trajectory of typhoons and tropical storms. With the nearby internal lake (Laguna) and its river network, it frequently plays the role of drainage plain for neighboring Luzon province. As a very flat and low-lying area, it is subject to typhoon surge and tsunami. In addition, it is located directly above a potentially active fault-line of the Filipino plaque on the Arc of Fire.
The Mines and Geosciences Bureau (MGB) is in charge of mapping risk. It has produced a map locating the flood prone areas in Metro Manila (see map below). Areas shaded in blue are affected by a 50-100 year flood cycle while those in yellow are affected by a 2-5 year flood cycle.

In 2009, the Philippines were hit by an unprecedented series of typhoons. One of them, tropical Storm Ketsana, locally known as "Ondoi," swept across Metro Manila and parts of Central Luzon on Saturday 26 September. Water coming from Luzon reached Manila rapidly and in the low lying areas close to the main river courses in the eastern part of the city, where slums were erected on the riverbanks, the waters rose so fast that large part of the slums were washed away.

In other parts of the main affected districts, the water rapidly invaded most of the streets and made evacuation very difficult and many people had to stay on the roofs of their houses to avoid being swept away by the floods. About 80% of Manila was left underwater by the storm.

According to the Philippine National Disaster Coordinating Council (NDCC), as of 1 October, 277 people were reported killed, and over two and a half million were affected by Ketsana (1/6 of the overall population of Metro Manila). It was interesting to see how dynamic and uncertain the situation can be in this type of post-disaster context. For many weeks, the number of people affected, and of people displaced, continued to rise as information came in from previously inaccessible areas.
Cagayan de Oro, Iligan and the Washi/ Sendong typhoon

The City's history dates back many centuries before the Spaniards came to Cagayan when the territory was called Kalambagohan. Its main town, Himologan, was a hill-top fortress situated some eight kilometers south of the present Poblacion. When the first Spanish missionaries came in 1622, the people of Cagayan had traditional relations to the Muslim Sultan of Maguindanao Empire of Cotabato. However, the people had not embraced Islam and instead, many became Christians. Religious issues remain extremely sensitive in the area. When the Misamis area gained the status of a province in 1818, one of its four districts was the Partidos de Cagayan, which became a town in 1871 and was made the permanent capital of Misamis. In 1883, the town became the seat of the Spanish government in Mindanao for the provinces of Misamis Oriental, Misamis Occidental, Bukidnon and Lanao del Norte. As a result Cagayan was transformed from a purely farming-fishing area into a booming commerce and trade center. The war years in Cagayan were prompted by the presence of the Americans in 1898. The Americans were initially pushed back by the local forces led by Major Apolinar Velez at the battle of Macahambus on June 4, 1900. After the years of trouble, economic activities returned to normal under the guidance of the Americans. St. Augustine School, the forerunner of the present Xavier University and of Lourdes College, was inaugurated in 1928. On June 15, 1950, President Elpidio Quirino signed Republic Act No. 521, which granted the status of a chartered city to the municipality of Cagayan de Oro. The socio-economic situation consequently underwent some far-reaching changes so that it became the administrative centre for the entire Northern Mindanao (Region X and XIII). Today, Cagayan de Oro is one of the fastest growing cities in the country and was declared a “Highly Urbanized City” by the Ministry of Local Government on November 22, 1983.

For a long time the Southern part of the Philippines was believed to be immune from typhoons and large scale disasters. Tropical Storm “Washi”, named “Sendong” by PAGASA, entered the Philippine Area of Responsibility on December 15, 2011 and struck Mindanao's southeast coast (passing through Regions VI, VII, VIII, IX, X, XI and CARAGA) with winds of 90 kilometres (55 miles) an hour. At least 20 provinces were placed under Typhoon Signal No. 2 and 16 areas under Signal No. 1. The worst hit areas were Regions IX (Zamboanga del Norte) and X (Cagayan de Oro City & Iligan City), where massive flooding occurred affecting several barangays located along major river systems.

TS Sendong was the 20th typhoon to hit the Philippines in 2011 and was one of the most damaging of the year. In a period of 10 hours, about one month’s worth of rainfall poured down, resulting in overflowing rivers and flash floods in communities. The aftermath left 957 casualties and over 50,000 displaced at the height of the disaster in six regions. The worst hit areas were Cagayan De Oro City and Iligan City, which had an estimated 471,000 affected persons.
It is important to analyse the causes of the disaster. The typhoon was not that strong, but a lot of rain fell in an area that was largely deforested due to both illegal and legal logging. The logging sector transports logs via rivers, and these were full of trunks and logs when the rain arrived. The logs created dams, which resulted in the river level rising until the breaking point was reached.

When the dams broke, the water was transformed into a high kinetic wave full of heavy logs which were transported at high speed downstream. When crossing inhabited areas, this phenomenon had an effect similar to that of a tsunami.

The Geoscience division of the Mine and Geology Bureau had a map of the areas at risk of flooding in the Cagayan de Oro area and the whole Misamis Oriental region. Areas at risk were clearly delineated on this map.
CHAPTER 2

DETAILED ANALYSIS OF THE RESPONSES

1. Response to Ketsana/Ondoi

1.1. Immediate response

a) Local population and National Authorities

The fact that typhoon Ketsana/Ondoi impacted Metro Manila meant that the highest level of the State and the National system were both respondents and victims. Government agencies responded swiftly to the storm, launching extensive search and rescue operations and releasing emergency relief stocks. However, the extensive damage caused by the floods meant that the capacities of many local and national agencies were exhausted. Rapidly, solidarity between neighbours became a lifeline. Rescuers came with boats and ropes to evacuate people stranded on roofs to take them to evacuation centres (schools, gymnasiums, covered public and private squares). Nearly 700,000 people were sheltered in 726 evacuation centres, with another 350,000 people receiving Government assistance outside them. The strong involvement of volunteers of all kinds (the Philippine Red Cross and civil society networks) and of the private sector resulted in the mobilization and distribution of essential relief goods: bottled water, food and blankets. Relief operations were slowed down by the size of the area and the logistical difficulties involved in getting goods to many areas which remained under water for a number of weeks. Assessment of the damage and needs was made difficult due to the destruction of the archives of many local institutions whose offices were under water.

b) United Nations system

Immediately after the request for international aid from the National Authorities was received by the UN Resident Coordinator, a UNDAC team was deployed to assist with the first phase of the assessments (Primary Scenario Definition), support the launch of the flash appeal (which was quite well funded) and support the initial coordination. At the time of the event, there was no OCHA office in country and the operations were initially managed by the regional office for Asia and the Pacific in Bangkok. Although funding was received promptly, OCHA was only able to establish an office two and a half months after the disaster. It was understaffed and therefore not very effective in managing the cluster system and the development of the revised flash appeal (far less supported).

c) NGOs

A lot of development NGOs were present in the Philippines, working in agricultural projects in the provinces or on child issues, especially in Manila. The few humanitarian agencies that were present were involved in dealing with the consequences of the armed conflict in Mindanao, but this had become increasingly difficult. The humanitarian agencies who deployed teams after the disaster functioned in a largely disconnected way from the local authorities.
d) The Red Cross and Red Crescent Movement

The Philippine Red Cross Society has a lot of experience in responding to disasters and has received a lot of support over the years from the International Committee of the Red Cross (ICRC) for the conflict area in the South and from the International Federation of the Red Cross and Red Crescent Societies (IFRC) for disaster response. Its volunteers were on the frontline in almost all areas of Manila, in the establishment of the Evacuations centres (EC) and in the initial distribution of relief items.

1.2. Post emergency: the difficulties linked to relocation and no build zones

While, against all the odds, the initial response was carried out relatively well, the most complex issue is the post-disaster phase. The government decided that people should not go back to at-risk areas near rivers. The only option given to thousands of people was to settle in relocation sites hours from Manila and their jobs: Barangay San Jose and Gawad Calina in nearby Antipolo and Laguna provinces.

Though it was to some extent legitimate not to send people back to at risk areas, this decision had social and economic consequences. The people living in these relocation sites were either completely dependent on aid, or had to find their own solution to go back to their jobs (by renting a room or a house).

Some of the sites were supported by the International Federation of the Red Cross, others by NGOs such as Handicap International. The conditions in all of them were largely inadequate. They were set up without much initial planning for services, drainage or management of waste water. Latrines had to be made with septic tanks at the request of the government. These sites were set up as high density temporary camps but at the same time, they were seen as perhaps being a way to contribute to the decongestion of Metro Manila in the longer term. In the HI supported camp, the houses are designed as split-level apartments, which raises issues of privacy. The low quality of the wood and damage caused by termites have raised questions about the durability of the houses.

The reality of these sites is that they either play the role of a “fall back position”, for people who try to re-establish themselves in Manila and fail, or become weekend estates for poor inhabitants of Manila. These sites are neither connected to any job market, nor able to produce their own income generating activities.

A few health issues have to be discussed here. The urban way of life induces a lot of chronic diseases: diabetes, heart problems, etc. After a large-scale disaster, when the urban population has been displaced or dispersed, it is very difficult for patients to regain access to treatment. Handicap International tried to develop local solidarity networks to provide some assistance to sick people.
1.3. **Coordination**

In Manila, as frequently observed in capital cities, pre-disaster anticipation of response coordination between international organizations was virtually non-existent. Before the disaster, the main urban issue at stake was urban development and humanitarian coordination was largely devoted to the Mindanao situation. There was no OCHA office in country and the UN country team was reluctant to set one up, preferring instead to leave humanitarian coordination in a remote regional OCHA office. The cluster system was not rolled out. It took some time to get the OCHA office fully operational. In the relocation sites, negotiation, if not coordination, with the Local Government Units (LGU) is a prerequisite.
2. Response to Washi/Sendong

2.1. The stakeholders in the response

The post-disaster situation in Cagayan De Oro and Iligan cities was such that immediate and targeted humanitarian assistance was necessary to respond to the needs of the 471,000 people affected by the typhoon.

National and local Authorities

The first response was the alert and prepositioning of teams. It worked relatively well in Iligan, where rescue teams were positioned in different parts of the cities early in the evening as a response to the typhoon alert from PAGASA. It worked far less effectively in Cagayan de Oro where the alerts and warnings from PAGASA were not followed by effective actions.

During the night and in the early hours of Sunday, people were rescued and sent to evacuation centres, mainly schools, colleges and covered gymnasiums, where people could be registered and catered for. As of 18 December, 37 evacuation centres were established, housing 44,311 individuals most of whom had completely lost their houses from the massive flooding. Displaced families remained in these congested evacuation centres for up to 6 weeks.

The central Civil Defense force immediately sent very strong teams (including several UNDAC-trained high-ranking staff) to support local Civil Defense teams and the DSWSD, the national and local institution in charge of the delivery of relief and the coordination of humanitarian assistance. DSWD kept receiving and dispatching relief goods to the Evacuation Centres and had an office in all of them.

An update from the National Disaster Risk Reduction and Management Council (NDRRMC) dated 19/12/2011 states that the Defence Secretary/Chairman of the NDRRMC has “accepted the offer of assistance from the international humanitarian community thru the United Nations Resident Coordinator and Humanitarian Coordination in the Philippines to the Philippine government for the victims of Tropical Storm Sendong.”

The President of the Philippines rapidly visited the affected area to display national solidarity with the victims. It is important to remember that politics is never far from the surface in the Philippines. Northern Mindanao is particularly sensitive due to its proximity to the area affected by the separatist/Muslim insurgency.
United Nations system

No UNDAC team was deployed for two reasons. First of all, it took some time for the government to officially request international assistance (day 3). OCHA and NDMA were on site very rapidly (one day for the team working in Mindanao, and a day and half after the drama, for the Manila team, before even they had secured the request for international aid. In addition, since Ketsana, there is a relatively strong in-country cluster system within the government and a rapidly-activated aid cluster within the aid system. It was initially perceived as a relatively small event in a country where there is a strong Disaster Management institution, a UNCT and an HCT which are very used to responding to typhoons and include several UNDAC-trained staff both within OCHA and within the NDMA. Although they did not deploy an OSOCC, the agencies present were able to work through the coordination system of the cities’ Disaster Operational Centres. No V-OSOCC was set up and no international civil protection team was dispatched. OCHA and the agencies present after Sendong managed to carry out a meaningful Preliminary Scenario Definition (PSD) and launched a flash appeal in a short time.

This early OCHA/NDRRMC Joint Assessment Mission reported that the humanitarian needs of people in the evacuation centres and still in the affected areas concerned the NFI, Shelter, WASH and Food sectors. The international response to the flash appeal itself was lukewarm (28 % funded at the time of the mission) although a lot of donations of all kinds were channelled directly through national and international NGOs as well as through bilateral channels with the government.

A Multi sector Rapid Initial Assessment (MIRA) was carried out in order to feed into a revised flash appeal. The Flash Appeal was launched to be finalized 6 weeks after the disaster. This assessment underlined the fact that apart from the cities themselves, there were significant needs in surrounding rural barangays. This MIRA was complemented by a thorough assessment of damaged buildings carried out by the REACH project/ IMPACT Initiative supported by DG ECHO. This assessment provided a relatively comprehensive understanding of the challenges in reconstruction and shelter. It confirmed earlier reports of villages that were completely washed away by the flash floods while in other areas the majority of houses had been partially damaged.

NGOs

The presence of International NGOs in the response was much less visible a circus than in other disasters. Local NGOs were extremely active and present in the field. There was significant mobilization of Filipino NGOs and civil society networks. For instance, the Community Response and Development Centre, together with its local partners and networks of Volunteers from other parts of Mindanao, was very active in ensuring distribution of Non Food...
Items in many parts of the affected areas in both Cagayan de Oro and Iligan.

A consortium bringing together Accion Contra El Hambre, Spain (Lead), Save the Children (SC), Plan International (PLAN) and CARE Netherlands received a large grant from DG ECHO as well as contributions from donors such as Spanish Cooperation. OXFAM was part of the HRC Consortium with a handful of local NGOs. Representatives of the Caritas family, in particular CRS and other faith-based organizations (ADRA, World Vision) were also present.

The Red Cross and Red Crescent Movement

The operations centre of the Philippines Red Cross (PRC) society had been monitoring the situation since Typhoon Washi/Sendong entered the Philippine territory, and issued advisories and regular updates to its chapters in the projected typhoon path. At the onset of the disaster, PRC swiftly deployed emergency response units and Red Cross 143 volunteers in Cagayan de Oro and nearby chapters. At the time, there were more than 600 Red Cross staff and volunteers on the ground assessing the situation and providing relief assistance.

Alongside rescue operations, the Cagayan de Oro, Dumaguete and Iligan chapters provided hot meals to 2,333 persons and food items to 828 persons. PRC also set up first aid and welfare desks at the evacuation centres to provide necessary services to those affected.

IFRC initially dispatched 2,000 pre-positioned stocks of non-food items from Manila. More items were to be dispatched for distribution in the following days.

In addition, ICRC dispatched 3,000 hygiene kits, food items and non-food items from its warehouse in Davao. There were plans to distribute food packages and relief supplies such as blankets and sleeping mats. The national headquarters was coordinating response efforts while continuing to monitor the situation.

The mobilization of Open Street Map producers

Immediately after the 17 December, several mapping portals based on crowd-sourcing were immediately initiated on various fronts by a government agency, academic institutions and local bloggers in Iligan city. In the first few days after the disaster, the demand for updated OSM data and maps was somewhat limited because the primary focus was on relief and donations (and rightly so). However, rapidly, it became indispensable for both
coordination and urban planning.

Data sets and maps which were already comprehensive prior to the disaster were shared with several humanitarian groups involved in the disaster areas. The UN-OCHA Philippine division responded and took interest in using Open Street Map data in their situational maps. It became an indispensable tool for road data and a good resource for geo-referencing the location of evacuation centres as provided by responders on the ground.

More and more humanitarian groups (MapAction, UN OCHA, International Organization for Migration) were using the data created both by OSM and by satellite imagery as well as all the basic geographic data provided by local networks of mappers, bloggers and other specialized individuals who want to help organizations involved in the response on the ground.

Worth noting is the very promising work done by the REACH project in identifying and mapping all the destroyed houses for the Shelter Cluster. Deployed rapidly after the disaster, REACH managed to provide data and maps on destructions in a very effective way in less than a month.

### 2.2. Managing evacuation centres

The first priority was to ensure that proper conditions could be established in the evacuation centres. The crowded conditions inside many camps posed a risk to the health, safety and security of residents. For example, there were up to 30 families in one single room in Linuab evacuation centre in Iligan. Many of the evacuation centres were overcrowded, with limited facilities for sleeping, cooking and eating, and poor sanitation. For instance, an Evacuation centre in Santa Filomina in Cagayan De Oro accommodated about 9,500 people at its busiest period. The facilities that were used as evacuation centres were not equipped to handle the amount of people that sought refuge in these areas. There was a need to carry out repairs and upgrade facilities to promote safe and humane living conditions within the sites. These repairs would contribute to the efficient decommissioning of the sites as evacuation centres and would facilitate a fluid transition to their former functions after all the evacuees had left.

Although some evacuation centres had already been closed at the time of the RTE, some of them, especially the gymnasiums, were still being used. The key issues concerned the schools that were used as evacuation centres as there was conflict between the need for a roof for affected families and the need for children to go back to school.

Affected communities who did not move to evacuation centres or who remained in or close to their houses were also in need of humanitarian assistance.
2.3. Water, Sanitation and Hygiene (WASH)

During the first few days, the only available option was the distribution of bottled water. Local institutions (NGOs and the private sector), the Filipino army and local teams OCD and DSWD teams distributed these bottles in their thousands. The lack of sustained access to clean water for drinking and washing was more crucial in evacuation centres. Indeed, these evacuation centres were rapidly over-crowded; the number of toilets and showers was inadequate and the garbage disposal irregular. Sanitation therefore became a serious concern. All kinds of reservoirs and bladders were set up to be filled up via a rapidly set up water trucking system and when feasible connection with the city’s water network. At the individual and family level water was often stored in jerry cans and water treatment tablets were distributed to facilitate home-based water treatment. However, it is interesting to note that the “urban culture” in this context meant that people were happier to drink bottled water. People did not have confidence in the water from the bladders as they did not like the strong smell and taste of chlorine.

The water supply in some barangays in the city was cut off at the time of the RTE, with local authorities estimating that repair work would take about a month. In Iligan, a third of water sources were reported to be damaged and water had to be rationed in affected barangays. Many people were forced to wash in the street using the municipal water supply.

As the evacuation centres were initially designed to be schools, markets or gymnasiums, their sanitation and drainage systems were not adapted to cater for hundreds of people. Used water was not draining away and was flooding parts of the EC. While garbage collection throughout the city was regular, the evacuation centres had no garbage collection system in place and thus garbage was overflowing from the on-site bins. Consequently, there were a lot of flies in the area, a potential source of disease. Broken bottles and pieces of glass could also be seen around the centres. Some evacuees had brought their dogs, pigs and other animals and there was no system in place for animal defecation. Many of the affected barangays had piles of debris including carcasses, submerged vehicles and household items. The areas needed to be cleared of debris that was starting to smell.

2.4. Shelter

In Cagayan de Oro, most of the houses and community facilities along the riverbank were destroyed or damaged. In Iligan, displaced families had set up temporary roadside shelters. With almost 30,000 houses damaged or destroyed, housing repair and reconstruction was a priority, both to allow affected families to rebuild their lives but also to relieve overcrowding at the evacuation centres. Not all affected individuals had sought shelter in the evacuation centres. Other families had started to return to their homes. Many reported that their homes had been washed away or were so damaged that they had been rendered uninhabitable. Similarly, school structures had also been damaged and flooded and equipment, furniture and books had been washed away.

In most instances, the affected population did not have the tools or materials to clean up or
repair their homes.

In these areas, there was an urgent need to provide IDPs with materials to repair their damaged homes and promote safe and voluntary return to their places of origin or movement to alternative transitional sites.

The provision of emergency shelter materials had already started to allow affected people to:

- either build temporary shelters on specific sites in the city (like the ones in the photo opposite which were built out of bamboo near the San Xavier University)

 - or to return to their places of origin and build shelters to promote a sense of normality and return to their way of life before the disaster struck. In several areas, return had been made possible as streets had already been cleaned up using heavy equipment belonging to the City or to private owners and via Cash and Food for Work programmes. Others were cleaned up by the population, using their own resources. As time was needed to negotiate land allocation and the construction of relocation sites, a temporary solution involved tented sites with ad-hoc WASH infrastructures

### 2.5. Health

Floods damaged health facilities in riverside areas. The large reference hospitals in both Gagayan de Oro and Iligan had not been affected by the floods and had been able to care for the wounded people brought by either family members or Red Cross ambulances. Local authorities, International agencies (especially MSF) and Civil Society Organisations in most of the evacuation centres provided health services. A number of evacuation centres had no dedicated health facilities. Initial reports indicated that the primary health concerns were diarrheal and respiratory diseases, with the potential for outbreaks. These health issues were all typical of temporary displacement in congested conditions in ill-equipped centres. However, the culture of hygiene and cleanliness of the Philippines was strong enough to keep a relatively high level of hygiene in the centres

A Leptospirosis epidemic, a potentially lethal disease, caused most concern. Displaced populations were also in need of psychosocial support because of the massive destruction and unexpected number of lives lost. Adults who had lost children, in particular, needed to be under surveillance.
2.6. **Nutrition, Food and Livelihoods**

The Philippines is a middle-income country located in humid Asia where food is plentiful. If malnutrition becomes a problem in the Philippines, it is due to “bad urban consumption habits” rather than due to the lack of food. However, as people had been evacuated at night without any resources and many of them had lost their source of income, many of those in evacuation centres were dependent on food assistance as they did not have the funds to buy food themselves. In earlier Needs Assessments carried out by aid agencies, affected people cited food as one of their major concerns, referring both to supply and distribution. Food was initially distributed on the basis of “supply” rather than based on a full strategic plan. In evacuation centres, sustained food distribution lasted at least one month. As there is a strong campaign in favour of breastfeeding in the Philippines, breastfeeding tents were set up in different evacuation centres.

The affected population identified the restoration of livelihoods as an urgent concern. At least 25% of families who lived along the river banks were informal settlers, generally engaged in irregular street vending, pedicab services or some other similar livelihood activities. The majority had lost their livelihoods in the floods and no longer had any source of income.

The use of cash to deliver assistance in humanitarian emergencies was a relatively new approach in the Philippines and aid agencies were at the early stages of developing guidelines, policies and organizational capacity to implement cash projects. Project managers lacked support and guidance about the practicalities of how to deliver cash to people in the most efficient and effective way. Although most stakeholders increased their capacities in 2011, supported by the activities of the CaLP (training, sharing information, research, etc.), their experience was still limited and they still needed to increase both organizational and technical knowledge. Also, as cash transfers are used across a broad spectrum of sectors, it is necessary to coordinate between all actors involved in the response to a disaster. Indeed, the risks associated with cash transfer programs often stems from the lack of technical coordination on specific issues, such as setting the value of transfers, the development of different methods in the same areas and the use of different mechanisms. This gap in communication between sectors may also reduce the efficiency of the humanitarian response, with specific assessments (i.e. markets) not being coordinated and outputs not being shared. The main problem is that coordination structures, based on clusters and sectors of activity, do not yet include mechanisms which effectively gather information about Cash Transfer Programming and there is a lack of coordination.

At the time of the mission, the Nutrition cluster was sounding the alarm about SAM and GAM reaching emergency thresholds. Discussions with those who had provided the information, mainly ACF nutritionists, revealed that the information had been misinterpreted. This shows that badly managed information can lead to the rapid spread of rumours and the idea that there is an emergency though this may not be true.
2.7. Cross-cutting issues

Protection

In this type of disaster, when people mix and move, children can be at risk. There were some reported cases of unaccompanied children, but those identified by assessment teams were being cared for by relatives. While it is not common for children to be abandoned in the Philippines, there is a need to be vigilant with regard to the fate of young women both in evacuation centres and in devastated areas. One of the key protection issues that was identified was related to land and housing rights. UNHCR fielded a very experienced PROCAP adviser to look into this matter and support the protection cluster in this area.

Gender, children, the elderly and minority groups

The Philippines is a country where there is a very strong civil society movement. It is involved in children rights, the protection of minorities and women’s issues. It is interesting to note that this potential is largely unused by the international aid system to address some of its key challenges: ensuring that we understand the complexity and diversity of the situations we face and the populations we aim to assist. The aid community tends to respond to protection needs without looking at what is happening and how issues are addressed by local actors. This is even more critical in protection issues in an area where there has been conflict for centuries and where there is ethnic and religious tension.

2.7.1. The post-emergency phase: difficulties linked to relocation and no build zones

The real difficulties came with the post-emergency phase: What could be done for people who had lost everything? Where should rebuilding take place? How big should the No Build Zone be? How could complex land law and utilization-rights systems be approached to allow access to an acceptable shelter solution for everyone?

A fully-fledged Post-Disaster Needs Assessment (PDNA) and a Damage And Loss Assessment (DALA) were expected to be carried out at the time of the mission. The three possible options were:

Returning to areas of origin (if these are not in the No Build Zone).

The work done by REACH made it possible to identify people’s construction and rehabilitation needs. This represented more than 40 % of the population from the affected areas. Many people were already moving back, as these were areas where they were able to generate income, and where they invested in land and property (some had either land and houses, or houses built on rented land). Returning to the area of origin was often seen as a better option than being relocated to faraway places.
Finding a place with relatives or renting or buying flats or houses in other areas of the cities.

This was only possible for the richer segments of the affected population, especially the ones who had connections with the very large overseas Filipino community which supported their relatives with remittances.

Relocation to new sites: As areas close to rivers remained exposed to future flash floods, No Build Zones had been announced during the President’s visit to the area on January 25th. Therefore, permanent relocation of the families from the “NBZ” areas was necessary. The feasibility of this process raised some issues: The sites identified in Cagayan de Oro - Lumbia and Cahanan - were far from ideal. They were a long way from work places and schools and would therefore impose high daily transport costs. In addition, the permanent sites were far from being ready. This potentially meant that the concerned population would have to stay for an extended period of time in temporary or transitional shelters. The process of establishing the permanent sites would probably be lengthy (despite promises) and agencies had been asked to establish temporary sites with Transitional shelters. The sites visited in CDO underlined some difficulties to be expected (compared with similar situations after Hurricane Mitch in Central America and the earthquake of January 12, 2010 in Haiti).

Disaster risk reduction

After a large-scale disaster, it is often seen as an urgent matter to tackle Disaster Risk Reduction. However, if this is done in a hurry, there is a danger that this will be done without proper analysis of the root causes of the disaster and what really causes the destruction. In this part of Northern Mindanao, local government units and communities did not sufficiently understand the risks, and did not develop a proper DRR or risk management strategy. The general perception was that the area was a low risk area because they did not have any previous comparable experience. At the time of the disaster, some local government officials were reportedly not even aware of the Philippine Disaster Risk Reduction and Management Law.

The jump to a No Build Zone probably only solves one part of the risk equation and, in view of its reported size, it will cause a lot of housing and land rights difficulties. A mixture of a real NBZ, proper river course management and riverbank protection is probably necessary and will require additional study and courageous decisions.

Conflict prevention

The tensions of the conflict in Mindanao South are not far away, and in areas like Iligan, especially in the remote rural areas affected by the typhoon, this factor of risk had to be taken seriously into account.

The post-typhoon helicopter-borne relief operation carried out by UNHCR with the Philippines’ Armed Forces was an interesting attempt to demonstrate that even in a situation where there is a lot of tension, the principle of impartiality can still be applied, even though
military choppers had to be used.

2.8. **Coordination**

2.8.1. **Strengths and weaknesses of the national and local coordination systems**

In the Philippines, decentralization has been pushed so far that coordination necessarily passes through the different levels of the administrative pyramid:

- National;
- Provincial
- Municipal or city (these are different types of status)
- Barangay

The staff sent by the central OCD level to support local institutions proved a very important factor to improve coordination and LGU levels. These highly trained staff (often UNDAC trainees) were able to set up operation centres rapidly and impose coordination on LGUs who were sometimes not “up to the job”.

At all levels, the government institutionalized its own internal “cluster system”. This National system brings all the line departments under the authority of the Mayor, who is assisted by the DSWD and the local head of Civil Defense.

To improve the coordination of relief goods, the DWSD established a system called the “One stop shop’ (OSS) (see below) which was to receive and re-dispatch relief goods to agencies. National, local and international NGOs did not seem to use this system optimally, though it would have been very useful to avoid problems with Customs and Importation procedures. This appears to have been because of “confidence issues” on the part of Filipino civil society and “visibility issues” on the part of the donor community who were afraid to see their bilateral donations disappearing into the warehouses of the DWSD.

The internal top-down system from the OCD onwards is supposed to be complemented by a bottom-up system for fund requests to support preparedness and response based on the responsibility of the mayors and regional governors. The politicization of the Filipino system is a serious hindrance for the proper functioning of the system. Lines of allegiance, party links and other political issues have a significant influence on resource allocation for risk management and therefore the credibility of the chain of command, control and coordination.

2.8.2. **The international mechanisms at stake**

Coordination in the Philippines has improved significantly since Typhoon Ondoi struck in Manila in 2009. The UN cluster system, with national and local institutions in charge, and cluster lead agencies in a support position, is now rapidly rolled out when there is an emergency. The mission noticed that many actors, including those from the UN system, were not really clear about the dual nature of the system and whether the government and the International coordination systems were still disconnected. Some interviewees did not even know that an internal cluster system existed within the government. It was interesting, for instance to see that project proposals by some aid actors using the DG ECHO Single Form only mentioned the local authorities in terms of information sharing.

The OCHA set up was strong in Cagayan de Oro, with dedicated staff and good interpersonal dynamics. The cluster system functioned relatively well, with some clusters better managed or more relevant than others.
The Shelter Cluster

In the Shelter sector, IFRC was asked to support the Shelter cluster in place of the IOM and UNHABITAT. The government was preparing its own shelter guidelines, but it was not clear how much the aid agencies were aware of this or were prepared to take it on board. In fact, shelter initiatives of all kinds were already moving ahead. It is important to underline the need to base coordination on needs and quality assessments as much as possible. As such, the information produced by the mission sent by the REACH initiative would be invaluable for the coordination of the Shelter response.

From Camp Management to area-based coordination

If Evacuation Centres (EC) have some common characteristics with camps (places where people come for safety), but certain characteristics make them radically different. This meant that a camp-like management system might rapidly prove inadequate. In both Cagayan de Oro and Iligan, there was fluid movement of people to and from the evacuation centres. The Displacement Tracking Matrix was very rapidly out of date and a lot of energy was required to keep it up to date, thus making the whole process questionable. People came and went, as the ECs were often just a few hundred meters from their areas of origin. Of course, EC management committees (rather than CCCM) were needed to monitor needs and gaps and coordinate the delivery of relief goods. Information on the numbers and profiles of displaced persons will continue to change by the day.

Coordination of Nutrition, Food Aid and Livelihoods

It was surprising to find a situation where there were separate Nutrition, Food Aid and Livelihoods clusters as the situation encountered in the Philippines (a rural and middle income country) would have required a high level of conceptual and operational integration between the three sectors. In addition, the humanitarian community’s coordination structures, based on clusters and sectors of activity, do not yet include a mechanism for effectively gathering information about Cash Transfer Programming (CTP). Formal communication and exchange on CTP, which was previously supported by the CaLP, no longer exists. Indeed, with the departure of the CaLP Focal Point at the end of 2011, all exchange and information-sharing had been significantly reduced.

Coordination with local institutions and civil society networks

Once again, local networks of NGOs and civil society organizations were largely working outside coordination mechanisms. One of the reasons for this was the lack of trust that they had in National and local political institutions and international agencies. On the other hand, these local institutions have enormous potential that would be very useful to use and support.
"ONE-STOP SHOP" (OSS) FLOWCHART FOR INTERNATIONAL DONATIONS re TS SENDONG (WASHI)

DONATIONS FROM THE INTERNATIONAL COMMUNITY

DFA

DFA, through its Embassies/Consular Offices, shall convey request for humanitarian and relief assistance to the International Community.

NATIONAL OPERATIONS CENTER

NDRRMC shall be the INFORMATION HUB of all transactions between and among donors, consignees and recipients/beneficiaries.

Food and Non-food Items, Rehabilitation Equipment, Pharmaceutical Products, Agricultural Products

DSWD

DSWD shall be the SOLE CONSIGNEE of all International Donations and as such, prepare the necessary documents for processing and clearances at the SUB-NATIONAL LEVEL.

ENTRY POINT:
LUMBIA AIRPORT, CAGAYAN DE ORO

CAGAYAN DE ORO (CDO) shall be the point of entry and venue of the OSS (Airport via BOEING 737 ONLY)

OSS TEAM:
REGIONAL DIRECTORS of BOC-DOF, DFA, DSWD, OCD, DOH and DepED

Processing of Customs Clearance by DOF-BOC shall also be in CDO

DISTRIBUTION

LGUs
Communication

Communication with affected people

It seems that communication with affected and non-affected people was far from optimal (something already identified after Ketsana). Communication with affected people was not seen as a strategic issue from the beginning of the response and the issue only came to the surface 6 weeks into operations. A working group on this matter was just being set up at the time of the mission. Here again, proper consultation with local civil society groups would go a long way towards facilitating dialogue and opening lines of communication between aid agencies and the affected population.

Managing the media

In a country with an active public media sector and in cities where everybody reads the newspapers, listens to the radio and watches TV, overlooking the role of the media can be a strategic error, or at least can lead to lost opportunities.

As aid organizations are attracted to certain areas, largely due to pressure from the media, other areas get missed out. This can cause difficulties in a sensitive area. UNHCR’s initiative to step out of the “media loop” and provide assistance in non-visible remote rural areas was exemplary. Military choppers were warmly welcomed by villagers in the insurgent areas and soldiers from the National Army worked side by side with the insurgents to unload and distribute relief goods.
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Disaster management "includes the development of disaster recovery plans, for minimizing the risk of disasters and for handling them when they do occur, and the implementation of such plans. Disaster management usually refers to the management of natural catastrophes such as fire, flooding, or earthquakes".

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