FEEDBACK TUTORIAL LETTER

2nd SEMESER 2019

ASSIGNMENT 1

ENVIRONMENTAL AND HUMANITARIAN LOGISTICS
EHL612S
ENVIRONMENTAL AND HUMANITARIAN LOGISTICS (EHL 621S)

Dear Student,

This tutorial letter provides a framework on how your assignment should have been answered or dealt with. Nevertheless, I must emphasize on the importance of the application of the theoretical information contained in the prescribed books, study guide and the materials on e-Learning. You should always remember that in order to obtain outstanding marks, it is important that you corroborate the theories with practical applications, (See the suggested answers contained in this Feedback Letter).

To those of you that did well- CONGRATULATIONS! It is a pleasure to mark assignments that have obviously been completed with care. To those of you that fared poorly- remember that your marks are often a reflection of your attitude; if you try to complete an assignment in the shortest time possible you cannot expect to do well.

It is apparent that many students still do not know how to study on distance mode. The study guide contains a detailed introduction with recommendations about how to use the guide. You do not learn anything by simply scratching around to find the page in the study guide that appears to have the answer to a question in the assignment. You need to work systematically from the beginning of the semester; otherwise you will be unable to master the subject.

Please feel free to contact me for assistance while you are studying. I prefer e-mail as method of communication and will try my best to respond as soon as possible. Very few students approached me on the due date of the assignment for assistance while they were completing their assignment. Always consult earlier to your due dates.

The purpose of this letter is to make certain observation regarding your answers to the questions as contained in the aforesaid assignment to guide you to find the most appropriate answers and/or solutions.

Environmental and Humanitarian Logistics is an extensive course, it requires you do a lot of on time reading.
REMEMBER THAT TUTORIAL LETTERS FORM PART OF YOUR STUDY MATERIAL FOR EXAMINATION PURPOSES

General comments:

1. Some students tend not to read a question to establish exactly what is asked and, as a result, you have lost marks.

2. Read your answer! Carelessness costs marks!

3. Make sure that you have answered all the questions. In an assignment there is no excuse to omit questions.

4. Keep your answers concise and to the point and always give examples when expected to.

5. Please do not copy the questions into your assignment book; the tutors have a copy of the assignment and it wastes time to have to figure out where the question ends, and the answer starts.

6. Always read the instructions in each question carefully.

Regards

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ENVIRONMENTAL AND HUMANITARIAN LOGISTICS (EHL 621S)

ASSIGNMENT 1 (50 MARKS)

EXPECTED POSSIBLE ANSWERS:

QUESTION 1

The marking structure of this assignment is based on the effort and creativity used by students to analyze the case study, as well as keeping to the instructions as per requirement. Students were expected provide their understanding by analyzing the Namibian Post-Disaster Needs Assessment report (http://siteresources.worldbank.org/INTAFRICA/Resources/WorldBankNamibiaReportFAlr.pdf?_sm_byp=%20iVVMGJlMGNL5Ts07P) in a form of an assignment of not more than 3000 words. You were expected to have a brief Introduction to your assignment, that will guide the reader into our research. Your assignment was expected to contain a detailed Body, answering question 1.1, 1.2, 1.3, of course with proper headings. Finally, you had to provide a conclusion, which is a summary of your assignment, Recommendations if possible and lastly a Reference list.

QUESTION 1.1

Students were expected to analyze the case study by looking at the priorities in terms of preventing potential disaster?

The following ideas could have been covered but not limited:

Disasters and emergencies are fundamental reflections of normal life. Disasters have massive human and economic costs. They may cause many deaths, severe injuries, and food shortages. Most incidents of severe injuries and deaths occur during the time of impact, whereas disease outbreaks and food shortages often arise much later, depending on the nature and duration of the disaster. Anticipating the potential consequences of disasters can help determine the actions that need to be started before the disaster strikes to minimize its effects.

Several definitions are frequently given to disaster. The World Health Organization (WHO) defines a disaster as “a sudden ecological phenomenon of sufficient magnitude to require external assistance”. It is also defined as any event, typically occurring suddenly, that causes damage, ecological disruption, loss of human life, deterioration of health and health services, and which exceeds the capacity of the affected community on a scale sufficient to require outside assistance (Landsman, 2001). It is an emergency of such severity and magnitude that the resultant
combination of deaths, injuries, illness, and property damage cannot be effectively managed with routine procedures or resources.

Prevention activities conceived to ensure a permanent protection against a disaster. These include engineering, physical protection measures, legislative measures for the control of land use and codes of construction. These activities reduce the physical vulnerability and/or exposure to risks through infrastructures (e.g. dams, flood barriers, building of refuges) and through improving existing infrastructures (e.g. restoring original flood patterns of rivers in order to avoid excessive floods downstream) and sustainable development practices.

**Important issues regarding sustainable flood prevention, protection and mitigation are:**

- **Flood events** are a part of nature. They have existed and will continue to exist. As far as feasible, human interference into the processes of nature should be reversed, compensated and, in the future, prevented.
- **Human uses of floodplains** should be adapted to the existing hazards. Appropriate instruments and measures should be developed for all flooding related problems: flooding, rising groundwater tables, sewage network disruption, erosion, mass deposition, landslides, ice flows, pollution, etc.
- **Flood strategy** should cover the entire river basin area and promote the coordinated development and management of actions regarding water, land and related resources.
- **Mitigation and non-structural measures** tend to be potentially more efficient and long term more sustainable solutions to water-related problems and should be enhanced, in particular to reduce the vulnerability of human beings and goods exposed to flood risk.
- **Considering the evolution and trends**, the approach to natural hazards requires a change of paradigm. One must shift from defensive action against hazards to management of the risk and living with floods, bearing in mind that flood prevention should not be limited to flood events which occur often. It should also include rare events.
- **Transnational efforts** should be intensified to restore rivers’ natural flood zones in order to reactivate the ability of natural wetlands and floodplains to retain water and alleviate flood impacts.
- **Structural measures** (defense structures) will remain important elements and should primarily focus on the protection of human health and safety, and valuable
goods and property. We will have to keep in mind that flood protection is never absolute and may generate a false sense of security. The concept of residual risk, including potential failure or breach, should therefore be taken into consideration.

Best practices on flood prevention, protection and mitigation.

- **Flood forecasting and warning is a prerequisite for successful mitigation of flood damage.** Its effectiveness depends on the level of preparedness and correct response. Therefore, the responsible authorities should provide timely and reliable flood warning, flood forecasting and information.

- **A specific preparedness to alert, rescue and safety measures should be planned and implemented at all levels,** including the public, by maintaining regular basic information and continuous ongoing training actions. With appropriate and timely information, preparedness, everyone who may suffer from the consequences of flood events should be able to take -if possible, his/her own precautions and thus seriously limit flood damages.

- **Solidarity is essential, one should not pass on water management problems in one region to another.** The appropriate strategy consists of three steps: retaining, storing and draining (first make every effort to retain rainfall at the spot, store excess water locally, only then let the water be discharged to the watercourse). Flood prevention has also to be based on the precautionary principle.

- **A compensation system should support the victims of flood disasters to restore their economic basis and their living conditions in due time.** Insurance solutions at the private or public level or subsidence by state, which reinforce solidarity, should be furthered.

- **In flood-prone areas, preventive measures should be taken to reduce possible adverse effects of floods on aquatic and terrestrial ecosystems,** such as water and soil pollution. It is necessary to distinguish between different kinds of flooding and the environmental conditions that contribute to the problem. For instance, there are significant differences between on the one hand sudden flooding in upstream or headwater areas where mitigating risk involves a wide range of innovative small-scale solutions and on the other hand lowland flooding where warning periods and the duration of flood events are longer and large-scale measure have to be taken.
Namibia should lay a foundations for long-term recovery, being an arid country, Namibia is predominantly prone to weather-induced hazards, mainly drought, wildfire, windstorms. Flood, although relatively more infrequent than these other hazards, often result in population displacement, economic disruption as transport, communication, livestock, crops and other physical and environmental assets are destroyed, resulting in significant economic costs. In these circumstances, developing a resilient Namibia is a progressive development undertaking which requires reconstructing the natural and built environment, livelihoods and socioeconomic systems of affected communities to standards higher than those predicate levels to reduce exposure to and impact of prospective hazards. Transitions from disaster to development create windows of opportunity for such transformation in which the role of early recovery is fundamental. Early recovery is transformational because it involves early protection, stabilization and rehabilitation measures to generate quick stabilization of household and community welfare in the aftermath of disasters while building capacity to up-scale pilot ER interventions and to strengthen longer-term development programmes and reforms. To be effective, early recovery should aim to support national, regional and local capacities, strategies and policies required to promote sustainable solutions in long-term recovery and reconstruction by providing guidance for utilizing long-term development plans and priorities in the affected regions as the take-off point for building back differently.

Natural disasters cannot be prevented but can be reduced/minimize its effects by taking necessary precautions and managing it by integrating some steps through which the impact of a disaster can be reduced such as Preparedness, Mitigation, Emergency Response and Relief and Recovery.

No matter what type of disaster occurs, community leaders should be prepared to oversee and lead the recovery process. Having a comprehensive and up-to-date disaster plan is crucial for community resiliency and sustainability. The key components of every community’s natural disaster preparedness plan should include:

- Advance planning
- Resident communication and education
- Emergency management team preparation
- Response plans
- Recovery and Restoration activity
QUESTION 1.2

Students were expected to provide their personal thoughts on what needs to be addressed and planned as a priority to be more prepared in the case of any unexpected disasters?

Disaster preparedness is defined as a state of readiness to respond to a disaster, crisis, or any other type of emergency. More broadly it is stated as the leadership, training, readiness and exercise support, and technical and financial assistance to strengthen citizens, communities, state, local and tribal governments professional emergency workers as they prepare for disaster, mitigate the effects of disaster, respond to community needs after a disaster, and launch effective recovery efforts (www.fema.gov).

All measures and policies taken before an event occurs that allow for prevention, mitigation, and readiness constitutes disaster preparedness. Preparedness includes designing warning systems, planning for evacuation, and reallocation, storing food and water, building temporary shelters, devising management strategies, and holding disaster drills and exercises.

Contingency planning is also included in preparedness as well as planning for post-impact response and recovery. The aim of disaster preparation is to be able to reduce the immediate mortality and morbidity with a better prepared, well equipped service. The preparation includes early warning systems for seasonal changes in climate, and risk of flood or drought, such as electronic information systems and satellites that can provide information over large regions and continents.

Separate systems are needed to cater for the agricultural sector, cities and people in rural or remote communities. The public health infrastructure is particularly important for the immediate measures needed and for public information on reducing the health risks. The most important challenge is to change from concentrating solely on post-disaster relief and to focus on pre-disaster preparedness. Thanks to disaster-preparedness schemes,
particularly to an increasingly sophisticated early warning system, the comparative losses of life due to weather-related disasters are declining. All the evidence shows that, for every dollar spent on prevention and preparedness, about $100 or more is needed for relief efforts after the disaster has taken place.

Where such forecasting and warning systems are installed as part of disaster-management programs, evidence shows that more lives can be saved and damage is drastically reduced. Being prepared also means having thorough disaster contingency plans comprising of:

- Covering emergency housing, repairs, replacement of essential equipment and protection of the most vulnerable people in the community: the sick, the very young and the old.
- Improvement of water supply and sanitation systems

Logistics of the predicted need for health and social services need to be laid down in advance, including early warning systems to detect health effects.

Planning for climate change, such as global warming and its effects on water will increase the frequency of water related disasters. Public information and education to ensure early warnings to communities at risk; and give information about how to conserve water and keep it safe from contamination.

Preparedness consists of three basic steps: preparing a plan, training to the plan, and exercising the plan. Preparedness deals with the functional aspects of emergency management such as the response to and recovery from a disaster, whereas mitigation attempts to lessen these effects through pre-disaster actions as simple as striving to create “disaster-resistant” communities.

Planning for various disasters, strategies for disaster planning include the agent-specific and the all-hazards approaches. In agent-specific planning, communities only plan for threats most likely to occur in their region. Since many disasters pose similar problems and similar tasks, an all-hazards approach involves planning for the common problems and tasks that arise in most disasters.
The following are some of the means to plan for disastrous situations:

- Escape Routes: Identify and prepare escape routes such as alternative doors, windows, and path ways.
- Communications: It is important to contact police departments, Red-Cross, radio/Television (media) stations to find family members.
- Utility Shut-off and Safety: In the event of a disaster, you may be instructed to shut off the utility service at your home.
- Developing a written preparedness, response and recovery plan. Keep the plan up-to-date and test it.
- Keep together supplies and equipment required in a disaster and maintain them. Establish and train an in-house disaster response team.
- Training in: - disaster response techniques, - identification and marking on floor-plans and enclosures of irreplaceable and important material for priority salvage
- Arrangements for funding emergency needs.

Mitigation is defined as a sustained action to reduce or eliminate risk to people and property from hazards (disasters) and their effects. The function of mitigation differs from other emergency management disciplines since it looks at long-term solutions to reduce risk as opposed to preparedness for hazards, the immediate response to hazards, or the short-term recovery from a hazard event. Disaster mitigation includes those activities designed to prevent or reduce losses from disaster. It is usually considered the initial phase of...
emergency management, although it may be a component in the other phases. Examples include land-use planning, to limit or prevent development in floodplains, building codes to reduce losses from earthquakes and fires, dam and levees to prevent flooding.

The mitigation efforts must include, Emergency housing, especially after floods, but also if drought has caused mass population movement to find better water and food supplies. • Provision of emergency supplies of safe drinking water. • Emergency repairs to homes, drains and water supply and sanitation infrastructure.

- The goal of mitigation is to create economically secure, socially stable, better built, and more environmentally sound communities that are out of harm’s ways
- To reduce the threat of droughts and to lessen their impact should they occur, several measures can be taken.
- The first step in disaster mitigation is to identify areas that are at risk to drought. Once the priority zones have been identified, comprehensive and integrated rural development programs should be initiated.

Among the usual activities are, Agricultural improvements including modifying cropping patterns and introduction of drought-resistant varieties of crops; Rangeland management including improvement of grazing lands, and grazing patterns, introduction of feedlots, and protection of shrubs and trees. Water resource development including improved irrigation, and water storage facilities, protection of surface water from evaporation, introduction of drip irrigation systems, and water containment methods such as retention dams and subsurface dams.

- There is a clear need to reinforce the importance of environmental concerns in the entire disaster management cycle of prevention, preparedness, assessment, mitigation and response and to integrate environmental concerns into planning for relief, rehabilitation, reconstruction and development. This will also require the enhancement of capacities to undertake short and medium-term activities in disaster management based on long-term environmental considerations.
- It is important that builders acquire permission before buildings are erected. This will ensure that waterways are not blocked. Also, drainage systems must be covered and kept free from objects that chock them. This way, water can quickly run through if it rains and minimize any chance of town flooding. Drainage systems should also be covered to prevent litter from getting into them.
- Trees, shrubs and grass help protect the land from erosion by moving water. People
in low-lying areas must be encouraged to use a lot of vegetation to help break the power of moving flood water and also help reduce erosion.

- In many developing countries, drainage systems are chocked with litter and people have little knowledge of the effects that can have during a rain. When it rains, waterways and culverts are blocked by massive chunks of litter and debris, and water finds its way into the streets and into people's homes. Education is therefore very important, to inform and caution people about the dangers of floods, what causes floods, and what can be done to minimize its impact.

- **Detention basin** are small reservoirs built and connected to waterways. They provide a temporary storage for floodwaters. This means in an event of flooding, water is drained into the basin first, giving people more time to evacuate. It can also reduce the magnitude of downstream flooding.

While Namibia adopted a Disaster Risk Reduction (DRR) Policy in February 2009, it needs a national act and regulations to clarify lines of command during emergencies. Currently, the President declares a state of emergency during disasters, triggering a meeting of the National Emergency Committee. This Cabinet-level committee, chaired by the Secretary to the Cabinet, will then assemble the Permanent Secretaries of the Ministries concerned by the disaster. The Directorate of Disaster Risk Management (DDRM) under the Office of the Prime Minister acts as the Secretariat to the Emergency Committee. DDRM then liaises with the Regional Disaster Risk Management Units of the regions affected by the disaster, which are chaired by the Governor. However, this structure presents weaknesses at three levels, which constrain its ability to act swiftly in the early days of an emergency and thus potentially save lives:

- First, many decision-makers at the regional level are not familiar with the 2008 DRR Policy. It is critical that the policy be disseminated widely amongst key stakeholders.

- Second, Namibia needs to adopt a DRR act and regulations specifying the chain of command during emergencies. From international experience, the chain of command needs to be clear, simple and undisputable, giving the emergency agency (in this case DDRM) full powers to mobilize the regional authorities, the military and international partners once the President declares a state of emergency.

- Third, the state of emergency should be based, among other, on parametric triggers, i.e. a pre-agreed indicator of likelihood of flood or drought (e.g. number of consecutive days of heavy or low rainfall, river levels upstream, etc.), and in
compliance with the Disaster Risk Management Policy. By the time the disaster hits, it is often already too late to save lives and critical assets. Parametric triggers are now commonly recommended in catastrophe insurance schemes, such as the Caribbean Catastrophe Risk Insurance Facility (CCRIF).

In 2004, Namibia established a national disaster risk management system, involving multi-sectoral DRM Committees and refocusing their role from emergency response to disaster risk reduction. The 2004 Cabinet Action Letter specifies the roles and responsibilities of multi-sectoral DRM committees at the national, regional, constituency and settlement levels. Namibia has also established a National Climate Change Committee in 2001, under the Ministry of Environment and Tourism. However, with few exceptions—notably the Cuvelai Flood Emergency Management Coordination Committee—the committees remain largely ad-hoc, and need to be institutionalized, trained in DRM principles, and provided with minimum logistical and operational support. They need particular reinforcement at the national levels, as well as in Caprivi and Kavango Regions. Regional DRM Committees in other disasterprone regions such as the Fish River Canyon may need to be reinforced as well. Namibia has developed a National Risk Reduction Action Plan (2005-2015) and is finalizing a National Climate Change Adaptation and Mitigation Strategy under its Second National Communication. The National Disaster Risk Reduction Plan should now be revised to include updated information on hazards, climate change and variability, risk profiles, structures, and procedures. It should form the platform of linkages to the sectoral and regional Disaster Risk Management Plans specified in the 2009 National Policy, and to specific contingency plans (see 5.A). Given the recurrence of disasters in Namibia, disaster risk management should be mainstreamed into the National Development Plan. As is common with other countries, Namibia’s Vision 2030 and the Third National Development Plan (2007/08-2011/12) makes a relatively minor reference to extreme events and climate change, and they are classed under Environmental Sustainability issues. Given the current knowledge that these recurrent disasters affect core economic sectors such as transport, manufacture and agriculture, it is recommended that disaster risk reduction be mainstreamed into the next amendment of the National Development Plan and annual Ministerial Plans (and consequently, into the budget).

Participatory flood mapping can be a powerful tool for consensus decision-making and community consultation of reconstruction decisions in the affected areas. The first step would be to simulate the disaster impacts of different flood return periods (e.g. once in 100
years, 1: 50, 1:25). The consensus should be to move to stricter safety levels if there is a chance of future loss of lives or extreme economic hardship. The associated spatial delineation of areas “at risk” for the different return periods of flooding would then provide a basis for participatory decision making. In general, the map would indicate the location of:

- Floodway: the normal river channel or high-water area, prone to high velocities, high erosion and high levels of debris. Apart from critical infrastructure such as bridges, no structures should be allowed in a floodway.
- Floodplain: the residual flooding area, where flood-protected structures could be allowed. However, all new development should be compatible with a flood-prone area.

The National Disaster Risk Management Planning Framework is still incomplete. The national policy specifies the need to develop a National Disaster Risk Management Plan, Sectoral DRM Plans and Regional DRM Plans. To date, Namibia has developed a National Risk Reduction Action Plan and Sectoral Plans for education, health and transport, but not for agriculture, industry and commerce, environment, regional administration and other critical sectors. At the regional level, only Caprivi has developed the initial stages of a disaster contingency plan. It will be particularly critical to develop local contingency plans as part of civil protection mobilization and awareness campaigns in the affected regions immediately after the disaster.

**Emergency planning involves:**

- Process of preparing for future contingencies
- Plan shared between participants and stakeholders
- Specificity tasks and responsibilities adopted in response to emergencies.
- Blueprint for managing event and should be responsive to management needs
- Specifies course of action, collaboration, command and communication during a contingency.
- Framework for emergency response
- Goals: maintenance of public safety, limit of damages, protection of vulnerable, efficient use of life saving resources.

**Emergency management** is the organization and management of the resources and responsibilities for dealing with all humanitarian aspects of emergencies (preparedness, response, mitigation, and recovery).

- The aim is to reduce the harmful effects of all hazards, including disasters.
- The World Health Organization defines an emergency as the state in which normal procedures are interrupted, and immediate measures need to be taken to prevent
that state turning into a disaster.

- Thus, emergency management is crucial to avoid the disruption transforming into a disaster, which is even harder to recover from.
- Emergency management is a related term but should not be equated to disaster management

**Planning disaster recovery**

- A disaster recovery plan (DRP) is a documented, structured approach with instructions for responding to unplanned incidents.
- This step-by-step plan consists of the precautions to minimize the effects of a disaster so the organization can continue to operate or quickly resume mission-critical functions.
- Disaster recovery planning involves an analysis of business processes and continuity needs.
- Before generating a detailed plan, an organization often performs a business impact analysis (BIA) and risk analysis (RA), and it establishes the recovery time objective (RTO) and recovery point objective (RPO).
- Recovery strategies - plans for responding to an incident, while disaster recovery plans describe how the organization should respond.
- Recovery strategy, organizations should consider such issues: Budget, Resources -- people and physical facilities, Management's position on risks, Technology, Data and Suppliers

**Assessment Planning**

Planning an assessment involves:

- identifying end users of the assessment information (i.e. program staff, donors, etc.) and their respective needs (i.e. budgets, programming, planning, etc.)
- setting the objectives of the assessment;
- selecting team members;
- identifying and/or preparing the assessment tools and pilot testing them;
- mobilizing resources to facilitate the assessment - staff, vehicles, cameras;
- agreeing on reporting format; and
- identifying users of the assessment information, for budgeting purposes, for the programme staff, donors, and for internal logistics needs to facilitate planning.
QUESTION 1.3

Finally, you were expected to assess the specific relief aid you feel would make a substantial difference given this event as described in the report, and the main areas of need?

Humanitarian aid or aid relief is material and logistic assistance to people who need help during a certain disaster or famine. It is usually short-term help until the long-term help by government and other institutions replaces it. Among the people in need are the homeless, refugees, and victims of natural disasters, wars and famines.

There are three main types of food assistance for the most common situations:

- **Short-term assistance.** The need for short-term food relief, rapidly followed by rehabilitation and development activities, is typical of many “sudden” disasters, including floods, earthquakes, high winds, fires, pest attacks, short-term civil disturbances etc. Food stocks can be destroyed, normal food supply and marketing systems disrupted, and crops damaged or lost. The aid might be required for only a few days – which is the case with many earthquakes – or up to the next harvest, when subsistence farmers and agricultural labourers have totally lost food stocks and crops;

- **Long-term assistance.** Here, assistance is provided over a long period and combines both relief and self-reliance development activities. Over time, the balance shifts progressively away from relief. This type of assistance applies to emergencies due to successive crop failures and most situations involving refugees or displaced people.

Disaster Response is the immediate reaction to disaster. It may occur as the disaster is anticipated, as well as soon after it begins. Examples include mass evacuation, sandbagging buildings and other structures, securing emergency food and water, covering windows, providing emergency medical services, search and rescue, firefighting, and restoring public order to prevent looting.

Emergency response activities are those carried out during the actual emergency or immediately prior to it. This may involve evacuation of threatened communities, emergency assistance during the disaster, and actions taken in the immediate aftermath during the time when the community is rather disorganized and basic services and infrastructure are not fully functioning. Because the emergency period is both dramatic and traumatic, most attention by the press and international community is focused here.
The primary aim of recovery is to assist the affected community to regain a proper level of functioning following a disaster both initially and in the long term. It is “the coordinated process of supporting emergency-affected communities in reconstruction of the physical infrastructure and restoration of emotional, social, and physical wellbeing” (Emergency Management Australia, 2004). Recovery essentially concerns rehabilitation as well as developing the tools to mitigate against the future impact of a disaster and should return the community to an improved state of post-disaster. This includes those activities that continue beyond the emergency period to restore lifelines. Examples include providing temporary shelters, restoring power, critical stress debriefing for emergency responders and victims, job assistance, small business loans, and debris clearance.

Recovery involves decisions and actions relative to rebuilding homes, replacing property, resuming employment, restoring business, and permanently repairing and rebuilding infrastructures. Since the recovery function has such long-lasting effects and usually high costs, the participants in the process are numerous. They include all levels of government, the business community, political leadership, community activists and individuals. The recovery phase is frequently underemphasized in disaster plans, but it is crucial for the affected community.

Recovery efforts should identify opportunities for community development, especially in terms of creating sustainable, safer, and more resilient communities. The four elements of recovery are, Community recovery (including psychological recovery), Infrastructure recovery (services and lifelines), Economy recovery (including financial and political considerations, and business continuity), Environment recovery.

The 2009 disaster has given local authorities a plethora of donated tents and blankets, while other essential emergency items (such as boats) continue to be scarce. Based on this experience, local authorities should compile an optimized list of logistical support facilities: the type of equipment and goods needed for the next emergency (considering that the next time it might be a drought, or a wildfire); their optimal location and storage needs; how to procure and distribute food; how to transport people and goods; whether to hold humanitarian assistance in warehouses for the season or procure it locally, etc. The budget for logistical support and the corresponding plan should be an integral part of the local disaster contingency plans.
The Damage and Loss Assessment (DaLA) forms the basis for a comprehensive recovery and reconstruction strategy that combine medium and long-term needs. The medium-term needs (2nd phase) look at the restoration of the essential economic activities as they were before the disaster. It focuses on reconstruction of damaged assets that are urgently needed to resume economic activities (housing, roads, water and sanitation) and on economic recovery in sectors whose production has been stopped during the flood (agriculture, manufacture and trade), as well as on livelihood recovery. For example, damaged roads and other transport lines are repaired on an emergency basis, power is restored, commercial activities assisted to resume, and factories brought back to production, agricultural productivity rehabilitated, and livelihood restored through income generation activities. From the infrastructure point of view, the function is rebuilt so that the vehicles can circulate, and the people can have access to electricity, clean water and have a roof. In that phase, there is no time to think and plan differently. The long-term needs (3rd phase) look at reconstructing infrastructure differently (or “better”) to make them less vulnerable to future disaster and at improving the resilience to disaster of important economic sector, such as for example agriculture in the north and central Regions of Namibia.

Reconstruction after a flood often sowed the seeds for destruction from disasters in the future, when vulnerabilities are reconstructed. Therefore, the aftermath of a flood provides opportunities to address historical vulnerabilities, such as opening drainage ditches, voluntary resettlement away from flood plains and the protection of existing structure. The location of houses, water points, sewerage ponds, schools, medical facilities can also be improved. In addition to reduce vulnerability, there is also a possibility to factor in changes in external conditions such as urbanization, climate change (the two main crops that are cultivated in the six affected Regions are resistant to drought not to flood) or the apparition of markets for agricultural product. This will help develop commercial agriculture.

Effective early recovery can require implementation of a wide range of activities. Information from the PDNA (Post-Disaster Needs Assessment) helped identify a range of immediate, quick impact early recovery activities that address time-critical needs, require limited implementation time-span while at the same time are foundational in
nature and provide the basis for the sustainable recovery of affected populations. In addition, for reasons of correspondence to national and local development priorities, resource constraints and capacity limitations, it was necessary to identify priority activities. These sector priorities are presented, along with their projected costs.

Building resilience and addressing vulnerability is the core underlying principles of the PDNA are recommendations to build the resilience of communities and address vulnerabilities wherever they might be. These principles are articulated in the assessment in terms of Protection, Gender Equality and Governance. Whilst these issues are cross-cutting, with key inter-connections with all sectors, there are also some specific recommendations that must be addressed separately, all of them targeting specific aspects of resilience and vulnerability.

The flooding has caused substantial disruption to livelihoods, especially for subsistence farmers. The recommendations for government in early recovery are to provide immediate employment opportunities, restore basic conditions for farmers and to promote diversification. Interventions are recommended in cash-for-work programmes, provision of agricultural inputs/technology, increased use of micro-finance and vocational training. At all times the most vulnerable will be prioritized for support. Access to basic services: Education The goal of education interventions should be to re-establish educational services in the flood-affected areas to a standard equal to or better than existed before the disaster. Guided by existing Namibian national policies and standards the response should be multipronged and articulated around the following priorities: urgent rebuilding and repair of damaged facilities and development of risk reduction strategies for affected schools to improve resilience to natural disasters, provision of special services to affected learners and teachers, as well as training and technical assistance in disaster preparedness, response and management.

Access to basic services and health, there are a number of core activities for the health sector in early recovery, with a focus on restoring access to essential health services and preparing for future disaster. These include urgent identification of nutrition needs, enhancing capacity for nutrition intervention, early detection and containment of disease outbreaks through strengthening the surveillance system and capacity in preparedness and response.
There is much-needed training of life-saving skills across communities as well as in disease surveillance, emergency preparedness and response training/planning across all regions affected.

Elements of infrastructure investment that are needed now to both support returning communities and prepare for next flooding, including transport, and communications.

Protecting the environment Although damage to the environment has been relatively minor there are three areas that the PDNA has highlighted that need addressing: (i) the additional management and protection of wildlife in protected areas, conservancies and natural habitats (oshanas and rivers); (ii) the environmentally-sound clean up of all relocation camps that have been used or are still in use; and (iii) conducting of an Environmental Impact Assessment (EIA) prior to undertaking major recovery and development projects in the six affected areas.

The most pressing need is the housing, shelter and settlement sector is the urgent support of construction of homes for those families affected. There is a need for rapid support to home construction, particularly for vulnerable groups. Beyond this the PDNA recommends social housing construction for the most vulnerable in affected communities, much needed research into affordable and sustainable constructions including those ones that are more resilient, the development and implementation of a stronger housing policy as well as strengthening the capacity within the housing sector.

Water, sanitation and hygiene Early recovery recommendations focus on rehabilitating the smaller and most critical infrastructure across the six affected regions, including water-supply points, open canals and drainage structures. There is also an urgent need to bring actors together to better understand disaster risk reduction measures within the sector and to plan for future emergencies.

Addressing HIV/AIDS Given that the six flood-affected Regions share characteristics that increase vulnerability and reduce resilience of people living with and affected by HIV, it is recommended that the Government develop specific early recovery interventions to greatly strengthen civil society activities in affected communities, to increase the capacity of the regional aid coordinators and thus deepen their impact, and finally to improve HIV/AIDS response in emergency settings.
Disaster Risk Reduction - the early recovery agenda makes an explicit and synergistic link between early recovery and disaster risk reduction in several ways. Both disaster risk reduction and ER aim to strengthen the resilience of communities at risk to natural hazard induced crises in a complementary manner: the disaster risk reduction programme will help reduce hazard exposure and vulnerability to disaster risks while the early recovery programme helps restore the capacity of communities and institutions to recover from those crises, to buildback livelihoods and assets better, and to prevent relapses. The early recovery framework recognizes that the success of the early recovery programme depends on the effectiveness of risk identification, forecasting and early warning systems and on strengthening links between early warning and response, all of which actions lie in the domain of disaster risk reduction. Also, emphasizing community-level involvement in disaster management will facilitate effective local-level recovery. Operationally, the early recovery activities programme will be established on the platform of the disaster risk reduction institutional structure at the local level – the regional administrative structure. Using this operational platform will, in turn, promote strengthened disaster risk reduction planning and implementation. There are definite early recovery needs for disaster risk reduction to ensure that authorities at national, regional and local levels, as well as communities, work together to reduce disaster risk now, and are better prepared for future events. There is a need to formalise disaster risk reduction legislation and to strengthen the basic disaster management institutions. There is an urgent need to better understand the present and future risks. Disaster response and preparedness needs to be strengthened now. Finally, there is a need to bring communities into disaster risk management, paying particular attention to the part of women. Early recovery planning and coordination The Government should embark on a detailed early recovery programme in response to the flooding and based on these sector recommendations given. This programme should function at national, regional and community levels with detailed inter-connected projects and dedicated staffing. Disaster risk reduction mainstreaming is a critical element of this programme.

On March 17, 2009, the President of the Republic of Namibia declared a state of emergency and immediately mobilized resources to assist the Regions affected by the flooding. The Government allocated N$109 million (US$13.37 million) for the response and established 110 relocation camps in the six Regions to host the displaced. Regional authorities set up and administered the camps, installing pit latrines, showers/bathing
facilities and establishing basic water supplies. The authorities also provided non-food items (tents, tarpaulins, blankets, water-purification tablets, mosquito nets) for displaced communities. Logistics, airlifting capacity, vehicles and motor boats, were provided by the Government, through line ministries. The private sector contributed in supporting Government’s response through new vehicle purchases. The Government provided food assistance to the displaced population in relocation camps and intends to extend the food assistance scheme until the displaced people return to their homes. In addition, the President called upon international partners to aid with the flood affected communities. Relief agencies and foreign governments pledged aid in the form of goods and financial allocations.

END OF TUTORIAL FEEDBACK