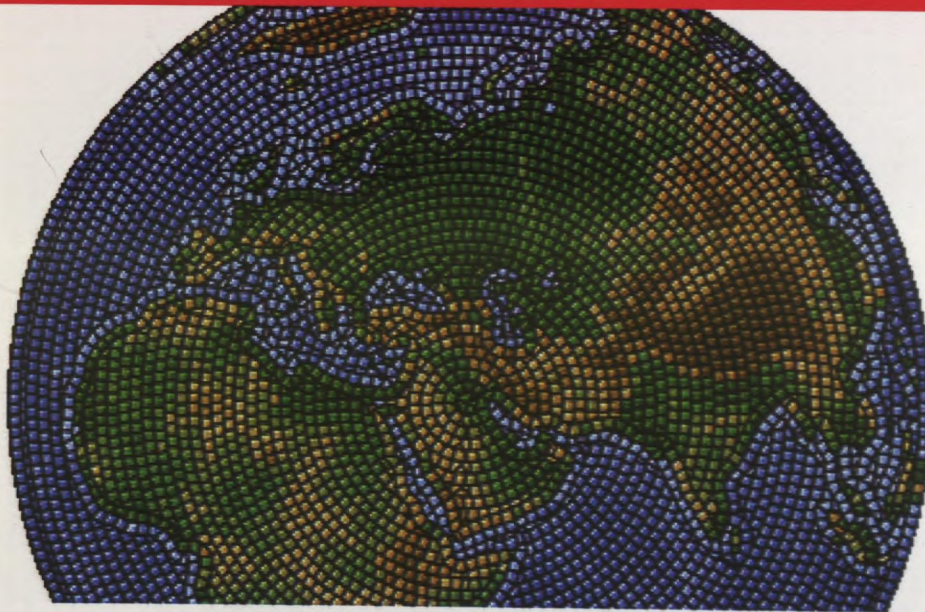ıb4145926(E)

**Canadian International
Development Agency**

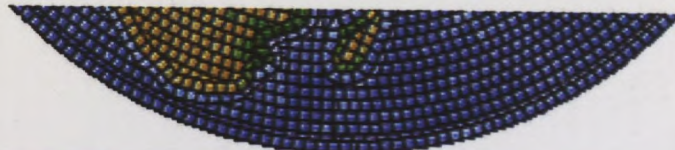**Agence canadienne de
développement international**

Introduction to Canadian Response to Natural Disasters Abroad
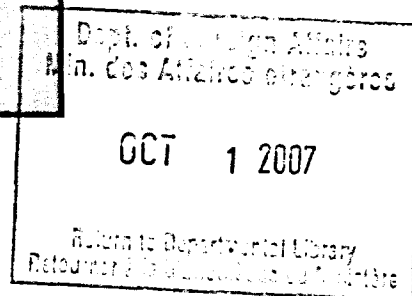
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and International Trade**

**Ministère des Affaires étrangères
et du Commerce International**

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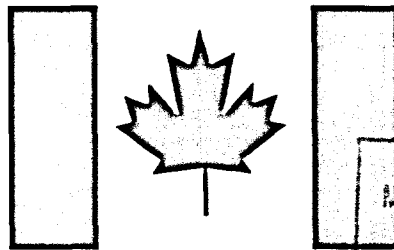
Introduction to Canadian Response to Natural Disasters Abroad

Ottawa, 2005

Ministère des Affaires étrangères et du Commerce International
Department of Foreign Affairs and International Trade

Agence canadienne de développement international
Canadian International Development Agency

Table of Contents

Agenda

Session and Time		Topic
1.	0830 – 0900	**Welcome, Introductions, Statement of Objectives**
2.	0900 – 1030	**Disasters, Needs, and Standards**
	1030 – 1100	Break
3.	1100 – 1230	**The International Disaster Response System**
	1230 - 1330	Lunch
4.	1330 – 1430	**Canadian Government Disaster Assistance**
	1430 - 1500	Break
5.	1500 – 1700	**Canadian Embassy Disaster Response:** *Earthquake in Iran*
	1700	Close

WORKSHOP EVALUATION FORM

Introduction to Canadian Response to Natural Disasters Abroad

Ottawa, 2005

Surname: _____ First Name: _____

Title: _____ Organisation: _____

I. Workshop Facilitation & Content

Please note the extent to which you agree with the following statements:

		Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1.	Subject matter was adequately covered	5	4	3	2	1
2.	Content was suitable for my background and experience	5	4	3	2	1
3.	Programme was well-paced	5	4	3	2	1
4.	Readings & handouts were relevant	5	4	3	2	1
5.	Participants were encouraged to take an active part	5	4	3	2	1
6.	The programme met my individual objectives	5	4	3	2	1
7.	Programme was relevant to my job	5	4	3	2	1
8.	I would recommend this programme to my colleagues	5	4	3	2	1

Please rate each workshop session. Use the following ranking scale:

5 = Excellent   4=Good   3 = Average   2= Poor   1 = Unacceptable   0 = Does not apply

Session	Content	Presentation	Readings	Exercise or Small Group Discussion
1. Welcome, Introductions, Objectives	5 4 3 2 1 0	5 4 3 2 1 0	5 4 3 2 1 0	5 4 3 2 1 0
2: Disasters, Needs, and Standards	5 4 3 2 1 0	5 4 3 2 1 0	5 4 3 2 1 0	5 4 3 2 1 0
3. The International Disaster Response System	5 4 3 2 1 0	5 4 3 2 1 0	5 4 3 2 1 0	5 4 3 2 1 0
4: Canadian Government Disaster Assistance	5 4 3 2 1 0	5 4 3 2 1 0	5 4 3 2 1 0	5 4 3 2 1 0
5. Canadian Embassy Disaster Response – *Earthquake in Iran*	5 4 3 2 1 0	5 4 3 2 1 0	5 4 3 2 1 0	5 4 3 2 1 0

II. Administration / Organisation Issues

Please rate the following administrative concerns. Use the following ranking scale:

5 = Excellent   4=Good   3 = Average   2= Poor   1 = Unacceptable   0 = Does not apply

1.	Meeting space	5	4	3	2	1	0
2.	Meals/refreshments	5	4	3	2	1	0
3.	Time Management	5	4	3	2	1	0
4.	Overall organisation	5	4	3	2	1	0

Was the seminar length: correct? ☐   too short? ☐   too long ? ☐

Were there: just enough participants? ☐   too few? ☐   too many ? ☐

III. General Observations

Which topic received too much or too little time?

_____

_____

_____

_____

_____

Do you have any suggestions that you feel could improve this course?

_____

_____

_____

_____

_____

Any other comments?

_____

_____

_____

_____

_____

What is your overall rating of this course? Please check the appropriate box:

Excellent (5) ☐   Good (4) ☐   Average (3) ☐   Poor (2) ☐   Unacceptable (1) ☐

Please return this form to the Workshop Coordinator at the end of the workshop.

Thank you.

Session 1. Welcome, Introductions, Statement of Objectives

Session Overview

Aim

The purpose of this session is to introduce the various participants, facilitators and other resource persons who will take part in the workshop.

Objectives

By the end of this session, participants will be able to:

- Identify the general objectives of the workshop
- Explain their individual aims for the day.

Exercise 1. Participant Introduction & Workshop Objective

Write down your chief objective(s) for this workshop on the cards provided and, for your own records, in the space below:

Session 2. Disasters, Needs, and Standards

Session Overview

Aim

The purpose of this session is to acquaint participants with the basic terminology and concepts of disaster management – particularly with regard to natural disasters – and with the use of minimum standards and indicators by the international disaster response community.

Objectives

By the end of this session, participants will be able to:

- Explain a number of key disaster management terms commonly used by disaster and emergency managers
- Describe the chief human impacts of various natural disasters
- Explain the importance, value and application of minimum standards and key indicators in disaster planning and response.

Exercise 2. Assessing Key Emergency Indicators: El Salvador Flood

Last month a major flood and mudslide disaster struck a mountainous area of El Salvador. Many residents died and are as yet unaccounted for; many of the survivors remain in critical condition and still require immediate emergency assistance. This was the second time in as many years that a major disaster hit the area.

Representatives from several Salvadoran NGOs accompanied by a visiting CIDA representative decide to travel to the area to assess conditions in the temporary flood-displaced camps established by local authorities. One such camp has been set to shelter several thousand flood displace in a schoolyard and field at the top of a hill about 20 kms. north of the town of Santo Jacinto. Their villages – a number of which were participating in a CIDA-supported agricultural rehabilitation project - were apparently wiped out by the mudslides.

Task: Analyze the assessment information on the following page to determine whether or not the circumstances constitute emergency conditions – and, therefore, warrant an immediate, extraordinary response.

- Which particular findings clearly determine whether or not there is an emergency?

- Which findings indicate difficult conditions but clearly require additional data collection?

- Would your assessment team recommend that additional needy people be sheltered at this site?
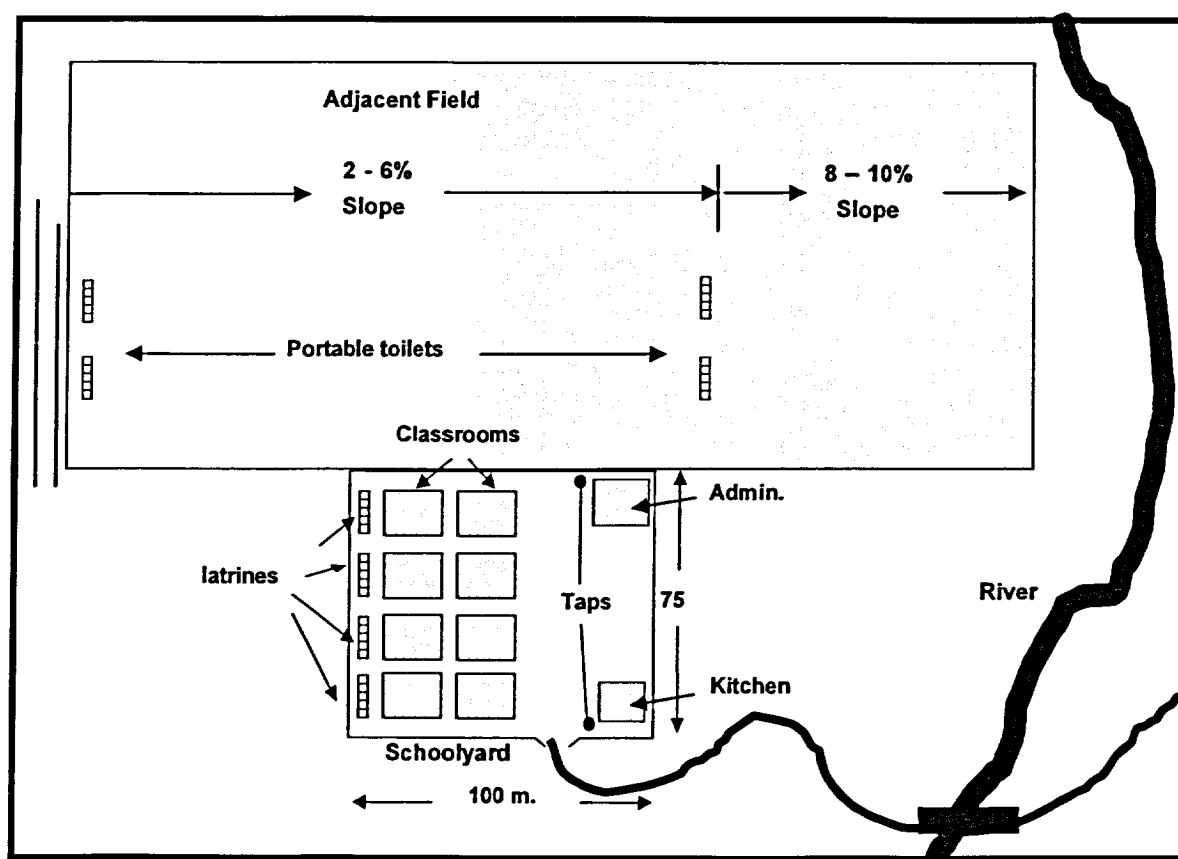
Assessment Findings

Demographics
- Leaders of the flood-displaced claim there are about 2,500 displaced in the schoolyard and field due to recent arrivals.
- From your brief tour around the schoolyard, the displaced appear physically healthy although emotionally distraught. The displaced leadership seems well-organized and capable. *normally 12-15% in 3rd world*
- Children under five years old seem to represent only about 4-5% of the flood displaced population.
- Six deaths have been reported among the displaced population in the last week.

→ Water/Sanitation — *Key sector, so much deaths clusters to fault in this sector.*
- Water sources are the two schoolyard taps and a local river.
- Long lines of displaced are waiting to use the schoolyard taps where water is running clean although water pressure is very low.
- The IDPs tell you that it takes about a minute at a tap to fill a 10 liter container. However, the taps have water pressure only in the evening from sundown to around midnight.
- A water engineer tells you the river has a flow of at least 500 cu. m. of water per hour.
- The site looks clean, although foul odors are emanating from the school latrines.
- The 20 school latrines are supplemented by 20 portable toilets recently placed in the adjacent field. The portable toilets are just beginning to smell foul as well.

Health
→ 1 case of measles is an emergency - it spreads so quickly thru a population.
- Several cases of <u>measles</u> have been reported in the past few days.
- A report provided by a local nurse indicates the following:
  - ➤ 50% of all medical complaints at a nearby clinic used by the displaced relate to diarrhea.
  - ➤ 30% relate to acute respiratory infection
  - ➤ 20% relate to broken bones, snake bites and other miscellaneous health needs *These are not facts → they are only indicators.*

Site & Shelter
- The site is quite bare, and there are large areas of standing water in and around the schoolyard near the water taps, at the west end of the field, and near the washing areas.
- The eastern third of the field made available to the displaced has an 8-10% slope.
- The eight school classrooms - each measuring 20 m. X 15 m. - are being used to shelter the displaced.
- During a quick tour of the adjacent field, the team counts about 75 tents each of which measures 4 m. X 4 m.

Food & Nutrition
- People in the schoolyard and in the field look thin, but relatively healthy.
- The amount people are eating from the food aid provided by a local Salvadoran NGO over the past week totals about 600 - 800 kilocalories/person/day.
- Warehouse records obtained from the local NGO providing food assistance indicate a general ration of approximately 2000 kcal/person has been distributed daily for the past two weeks.

Be prepared to explain your findings and analyses to the plenary.

↳ hoarding?
↳ bartering?
↳ theft? (corruption?)
↳ problem of record keeping?

- snake bites - people sleeping in soil
- people using river as latrine.
- what causing people to keep coming into camp?
* (Social / political factors at play beyond disaster).*

Reading 2.1. Disaster-Related Concepts [1]

A **natural hazard** comprises weather-related phenomena such as cyclones and other tropical storms, tornadoes, floods, wildfires and drought; as well as geology-related events such as earthquakes, volcanic activity and landslides. Human-made hazards include technological problems and conflict/violence.

A **natural disaster** is the result of the impact of a natural hazard on a socioeconomic system with a given level of vulnerability. A disaster tends to cause widespread human, material or environmental losses which exceed the ability of the affected society to cope using only its own resources. Natural hazards themselves do not necessarily lead to disasters, and disasters are not really "natural".

Vulnerability to disasters describes the degree to which a society is threatened by the impact of natural hazards. The degree of vulnerability depends on factors such as the condition of human settlements and their infrastructure, public policy and administration on disaster management, and the level of information and education about hazards and how to deal with them.

Risk is the expected loss (in terms of lives, injury, property damage, livelihoods disrupted, environmental destruction) resulting from interactions between natural or human hazards and vulnerable conditions. Risk = Hazard x Vulnerability.

Disaster prevention means avoiding the adverse impact of natural hazards, e.g. land-use planning to avoid building houses in a vulnerable area, or education to create a "culture of prevention".

Disaster mitigation involves measures to limit the adverse impact of natural hazards, e.g. retrofitting buildings, installing flood-control dams, or creating early warning systems.

Disaster preparedness refers to measures taken in advance to ensure effective response to the impact of disasters, e.g. doing community-based training, or establishing good evacuation infrastructure.

Disaster risk management encompasses activities to avoid disasters (prevention) and to reduce the adverse impact of natural hazards (mitigation and preparedness).[2]

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[1] Definitions are from the UN/ISDR's *Background Document for the World Summit on Sustainable Development*, April 2002, pp. 14-15.
[2] For example, the World Bank and Inter-American Development Bank tend to refer to "risk management"; CGCED uses "natural hazard risk management"; and the UN/ISDR prefers "disaster risk reduction".

Reading 2.2. Selected Key Emergency Indicators – Sphere Project

Water	
Quantity	15 liters per person per day collected
System/Delivery	Taps provide flow rate of at least 0.125 litters per second At least one water point per 250 people
Quality	No more than 10 faecal coliforms per 100ml at point of delivery For piped systems - residual free chlorine at tap is 0.2-0.5 mg per liter and turbidity is less than 5 NTU. Dissolved solids no more than 1,000 mg per liter

Hygiene – Sanitation	
Soap	250g soap per person per month
Laundry	1 washing basin per 100 people
Toilets/latrines	Maximum 20 people per toilet
Refuse bins	100 l container per 10 families
Refuse pits	No shelter farther than 15m from container or 100m from communal refuse pit

Camp Site Planning	
Gross area	45 m^2 per person (inclusive of all uses except agriculture or garden)
Dimensions, distances	Maximum distance between shelter and toilets is 50 meters
Firebreaks	2m between shelters, 6m between clusters of shelters, 15 m between blocks of clusters
Distance between wells/springs and latrines	Latrines farther than 30m from ground water sources and 1.5 m above water table
	Maximum distance from any shelter to water point is 500 meters
Elevation, drainage	3 m above high water table
	2-4% gradient (ideal) and not more than 7% without extensive site engineering

Shelter	
Shelter Area	3.5-4.5 m^2 covered area per person
Plastic sheeting for temporary shelter	4m x6m sheet per household of 5 people. (to meet UNHCR material spec.)

Food / Nutrition	

Calories	2,100 kcals per day (initial planning figure to be modified based on thorough demographic analysis of population
Composition	10-12% total energy from protein
	17% total energy from fat

Health	
Crude Mortality Rate	Objective: Achieve Crude Mortality Rate (CMR) of 1 / 10,000 / day as soon as possible
Under Fives Mortality Rate	Objective: Achieve Under-Fives Mortality Rate (U-5MR) of <2 / 10,000 / day as soon as possible
Measles vaccination coverage	95% of all children 6 months - 12 years
Measles vaccine needs	140% of target group (15% waste, 25% stockpile)
Medical Staff	1 home visitor for each 500-1,000 population
	1 TBA for each 2,000
	1 supervisor for each 10 home visitors
	1 senior supervisor
	1 peripheral health facility per 10,000 population
	1 central health facility for each 10,000 population

Non-Food Items (Domestic Needs)	
Water containers	2 vessels 10-20 l for collecting plus 1 20 l vessel for water storage, narrow necks and covers
Eating Utensils	I cooking pot with lid
	1 basin
	1 kitchen knife
	2 wooden spoons
	1 plate per person
	1 spoon per person,
	1 mug per person

Protection and Security	
Location	50 k from threat (border?)

Reading 2.3. Natural Disasters and Factors increasing Vulnerability [3]

Natural Disasters Overview

Natural disasters killed an annual average of 75,250 people worldwide, and affected about 211 million people per year from 1991 to 2000. Natural disasters cause an average of US$78 billion per year in damage.[4] Developing countries have an estimated 97% of natural disaster-related deaths, and suffer a much higher relative economic loss from disasters than developed nations. 24 of the 49 least developed countries face high disaster risk; 6 of them have been hit by 2-8 major disasters per year in the last 15 years. These figures would likely be doubled if they included the many smaller, unrecorded disasters that cause significant losses at the community level.[5]

Asia has been the hardest hit region. Over the last decade, Asia was affected by 43% of all natural disasters and accounted for almost 70% of lives lost due to natural hazards. During the 1991-92 and 1997-98 El Niño periods, over 200 million people were affected each year by floods in China alone.[6]

There has been an exponential increase in human and material losses from natural disasters over the past few decades. Natural hazards are expected to cost 100,000 lives per year and an annual economic loss of over US$300 billion by 2050, unless disaster reduction measures are implemented.[7]

Natural disasters can wipe out years or even decades of economic and social development. The escalation of severe natural disasters poses an increasing threat to sustainable development and poverty reduction initiatives. Development projects can exacerbate or mitigate the impact of natural disasters. The significant loss of lives and livelihoods, as well as destruction of infrastructure and productive assets, have put disaster reduction on the policy agenda of affected governments as well as bilateral and multilateral agencies.

Vulnerability Factors

The increasing frequency, severity and adverse impact of natural disasters is related to the growing vulnerability of people living in affected areas. Rapid urbanization, widespread poverty and environmental degradation are some of the development patterns that increase vulnerability and disaster impact.

Rapid and uncontrolled urban growth, compounded by **increasing poverty** and **demographic growth**, are major factors. Least developed countries are the most vulnerable to natural disasters and have the highest growth rate of population, which is projected to double in less than 30 years. In the past three decades, the urban population of developing countries has tripled to 1.3 billion people, many of whom now live in megacities.[8] Poor migrants settle on cheap land that tends to be in disaster-prone areas such as steep deforested hillsides or flood plains. Informal settlements have cheap, poor quality housing that is not built using disaster-resistant techniques, and they lack community mitigation measures such as retention walls or drainage systems. Given their high level of vulnerability, these settlements often suffer severe damage in even relatively small disasters. Repeatedly losing their homes and productive assets can send the poor into a downward spiral of chronic poverty.

Environmental degradation, accelerated by poverty and inappropriate development policies, is another major factor that increases the intensity of natural hazards. Rural residents often resort to over-exploitation of natural resources for subsistence. Deforestation, overgrazing, inappropriate hillside agriculture, and the destruction of natural protection have led to soil erosion and increased vulnerability to

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[3] This reading adapted from Gander, Catherine, Miller, Gary and McMillin, Christa: EVALUATION OF IHA'S DISASTER PREPAREDNESS STRATEGY: TOWARDS A NEW DISASTER RISK MANAGEMENT APPROACH FOR CIDA, CIDA, 2002.

[4] 2001 IFRC World Disaster Report, Chapter 8.

[5] Disaster Reduction and Sustainable Development: understanding the links between vulnerability and risk related to development and environment, pp. 4-5. ISDR, May 2002.

[6] ibid p. 5 for the geographical distribution figures and Table 2.

[7] *ibid* p. 4 for the economic impact figures and Table 3.

[8] *ibid*, p. 8, ISDR.

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landslides and floods. For example, over the past few decades nearly 85% of the forest cover in China's Yangtze River basin was destroyed by logging, damming or draining wetlands. That deforestation exacerbated the impact of the 1998 Yangtze floods, which killed over 3,000 people, displaced 230 million people, and caused US$45 billion in losses.[9]

Climate change is expected to result in more water-related disasters[10]. It will likely accelerate desertification and cause higher temperatures, less rainfall, more frequent drought and thus more hunger in water-stressed areas such as southern Africa. The number of people living in water-stressed countries is expected to rise from 1.5 billion currently to 5 billion by 2025.[11] At the same time, climate change will cause more frequent and intense rainfall in other regions such as southeast Asia, which will worsen flooding there. The rising sea level from climate change will cause more coastal flooding and erosion, damage to natural protective elements such as mangroves or reefs, and the intrusion of salt water into fresh water sources. Sea-level rise will particularly affect small islands and low-lying coastal areas. Given that more than one third of the world's population lives within 100 kilometers of the coast, millions of people are under threat.[12]

Poor development policies and planning also worsen vulnerability. Many disaster-prone countries lack adequate land-use planning and building codes, or the ability to enforce regulations. Rather than ensuring better building standards, some municipal governments have excluded the poor from legal land markets or failed to provide the necessary infrastructure or services needed to improve neighbourhood safety.[13]

Lack of political interest in prevention. Many government officials still consider prevention a "cost" rather than an "investment", and assume that donors or international financial institutions would cover disaster losses. Communities often focus on immediate needs such as health or education, so they do not pressure their local and national leaders to reduce their vulnerability to disasters.[14]

Weak governance systems that limit cooperation between different sectors and the participation of civil society in disaster prevention also increase vulnerability. Many communities currently lack the organizational structure, capacity, or decision-making power to play an active role in disaster preparedness and mitigation.

Gender inequality is considered a root cause of social vulnerability to disasters. Gender relations affect people's ability to prepare for, survive, and recover from disasters. Women often head poor families living in vulnerable shantytowns. They must tend to children and elderly relatives during and after natural disasters, and have limited resources to rebuild or relocate. In many communities, women are largely excluded from planning and decision-making related to disaster management.

Traditional cultural beliefs or practices can worsen vulnerability. Some cultures consider that a disaster is "an act of God" in punishment for some sin, therefore disaster will not strike if they have been virtuous. In many traditional societies, families refuse to move from hazard-prone areas where they have "always" lived and where their ancestors are buried. Fatalism, combined with a sense of impotence and limited education, make it difficult to create a "culture of prevention".

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[9] *ibid*, p. 7, ISDR.

[10] While climate change is generally expected to increase the intensity and frequency of hydro- meteorological (water and weather-related) disasters, it will not affect geological phenomena such as earthquakes or volcanic activity. Increasing losses from the latter are attributable to rising vulnerability due to poverty, inappropriate development policies etc.

[11] *ibid*, p. 8, ISDR.

[12] *ibid*, p. 8, ISDR.

[13] *Facing the Challenge of Natural Disasters in Latin America and the Caribbean. An IDB Action Plan*, p. 6. IDB, March 2000.

[14] *ibid*, p. 6. IDB, March 2000.

Reading 2.4. Lessons Learned about Disaster Risk Management [15]

To help identify appropriate policies and activities for disaster risk management, "lessons learned" and "good practices" were selected from six CIDA-funded projects visited by the evaluation team.[16] Good practices generally demonstrated measurable results, and were appropriate, sustainable and replicable. The following section summarizes those key practices, complemented by some of the lessons highlighted by other international agencies such as the UN and the World Bank.

1. Policy Lessons

Disasters result from the interaction between socioeconomic and ecological vulnerability and the occurrence of hazards (natural or man-made). Factors contributing to vulnerability include poverty, environmental degradation, and weak governance systems. Risk management addresses the causes of disasters, rather than the effects.

The frequency, severity and impact of natural disasters are increasing, due to growing vulnerability, environmental degradation and the effects of climate change. Sustainable natural resource management (e.g. reforestation, proper land use, good watershed and coastal management) will reduce community vulnerability to disasters by reversing trends of environmental degradation. Disaster risk management must therefore be linked to climate change and environmental sustainability.

Poverty is one of the main factors determining vulnerability to natural disasters. Poor families are more vulnerable to the impact of disasters, and less capable of rebuilding afterwards. The loss of lives, assets and livelihoods further impoverishes disadvantaged families. The compound impact of successive disasters can send the poor into a downward spiral of chronic poverty. Disaster risk management must therefore be an integral component of poverty reduction strategies.

Donors tend to design and implement risk management projects separately from development projects. The two should be integrated, so that risk management is mainstreamed in all development policies and projects.

Sustainable and effective disaster risk management tends to take at least four or five years. Disaster risk management requires a long-term development approach, rather than short-term humanitarian assistance. Risk management should be situated on the "development" side of the continuum between emergency assistance and development.

2. Programming Lessons

2.1. Global Level

A vital link should be developed between risk management at the local, national, regional and global levels. Effective community initiatives should be shared and replicated at the other levels, while access to global knowledge should strengthen local planning and activities.

International NGOs such as Oxfam, CARE and IFRC could play an important role in sharing their disaster management experiences, methodologies and materials with regional and global partners. The International Council for Local Environmental Initiatives (ICLEI) seeks to share disaster management policies, tools and approaches worldwide to help build sustainable communities. The Centre for Research on the Epidemiology of Disasters (CRED) has an international disaster database.

There is a need to develop new mechanisms, approaches and partnerships to systematize and share knowledge from the local to the global level. In addition, existing regional and global networks on disaster management should be reinforced. These networks should be demand-driven, i.e. they should fulfill needs identified by local/national/regional/global users.

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[15] This reading adapted from Gander, Catherine, Miller, Gary and McMillin, Christa: EVALUATION OF IHA'S DISASTER PREPAREDNESS STRATEGY: TOWARDS A NEW DISASTER RISK MANAGEMENT APPROACH FOR CIDA, CIDA, 2002.

[16] A detailed report on each of the six projects can be found in Section 2, Volume II.

Global networks play an important role in sharing knowledge, information, and expertise in disaster management. Links should be made between global networks and their regional and national counterparts.

2.2. Regional Level

Some natural hazards (e.g. river flooding, seismic faults, hurricanes) cross national borders and impact neighbouring countries. Transboundary hazards require regional and subregional approaches to disaster prevention and mitigation.

Regional and subregional cooperation should be promoted among a range of actors, such as governments, NGOs, international organizations, research centres, and private sector associations.

Regional cooperation has several potential benefits, which include pooling technical and material resources; sharing knowledge and experience on disaster policies and practices; increasing cost effectiveness; facilitating risk assessment and monitoring; strengthening early warning systems; improving preparedness and response capacities in border areas; strengthening national systems, policies and regulations; and multiplying the impact and effectiveness of disaster management beyond the local or national level.

Strategies, structures, mechanisms and agreements for regional and subregional cooperation should be supported or developed where possible. These mechanisms could include establishing regional institutions or centres of expertise with the mandate and funding to provide technical assistance in areas such as hazard mapping; vulnerability assessment; building code implementation and enforcement; developing model legislation; harmonizing legislation; and facilitating the adoption of appropriate risk management practices by member countries.[17]

2.3. National Level

In a disaster-prone country, the national government should have a "neutral" technical agency comprised of disaster management professionals who work closely with other related departments. The government should be "in the driver's seat", and define national priorities, policies and plans for disaster management. All projects implemented should complement the national plan and policies.

While the national disaster office can serve as the "champion" of disaster risk management, most programs must be implemented by key sectoral ministries (e.g. forestry, fishing, housing, agriculture). These ministries must understand and implement risk management measures because they control investments that directly affect vulnerability. For example, inappropriate initiatives in sectors such as agriculture, forestry or housing can increase vulnerability by accelerating environmental degradation. Public housing built in a disaster-prone area, using non-resistant techniques and poor quality materials, and lacking adequate drainage, roads or other infrastructure, would increase the vulnerability of residents.

To strengthen disaster management in many countries, the national disaster system and other government departments would need capacity building at all levels from executives to lower officials. Relevant government departments should be better integrated in the national disaster management system, have a specialized DRM unit, and participate in sectoral commissions (e.g. health, infrastructure) for disaster-related policy-making. There is a need to increase the technical capacity of all government departments at each level (national, provincial, local) in disaster management.

Risk management should be incorporated into all government structures, procedures and legislation as an automatic part of the planning process. Many national governments need to develop or improve areas such as natural resources management, land-use policies, building codes, mitigation in social infrastructure (e.g. schools, hospitals), and communications in order to strengthen risk management. The government's disaster management policy should be closely linked to its sustainable development and

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[17] *Natural Risk Management in the Caribbean: Revisiting the Challenge* (Discussion Draft), pp. 4,12. CGCED, June 2002.

environmental policies.

Even though the government plays a leadership role, it should not necessarily be involved in implementing all disaster management initiatives. Effective disaster management requires the participation of all sectors: national disaster agencies, sector ministries, business organizations, scientific institutions, media, NGOs and community groups. The national government should guide and coordinate all actors involved in disaster management, to avoid duplication and ensure the most cost-effective use of limited resources.

This role would include donor coordination, which is one of the biggest challenges in risk management. Governments and donors should have a common risk management framework and consistent standards when designing national or local development projects. Bilateral and multilateral organizations need to assess what other governmental agencies and NGOs are doing, then develop an integrated, coordinated, holistic approach to DRM. Failure to do this could result in projects that duplicate or undermine the efforts of other donors.

Disaster reduction requires an interdisciplinary approach, which combines the sciences of the physical (hazard) environment (e.g. hydrology, geology, meteorology); the built (man-made) environment (e.g. engineering, architecture); and the policy environment (e.g. politics, public administration).[18]

It is important to create a national "culture of disaster prevention", which enables people to transcend traditional fatalistic beliefs and play an active role in reducing risk. Disaster management should be integrated in the education system from primary school through university, through new curriculum and teacher training. The local and national media should receive training to develop their role in creating a "culture of prevention". Business associations, NGOs, and community organizations such as service groups and sports clubs should also participate in joint campaigns to raise public awareness and lobby for disaster prevention.

2.4. Local Level: Programming (Operational)

i) project planning and implementation

Risk management should begin and focus at the local level, where the majority of disasters hit. Communities are the first to experience and respond to a natural disaster. Key decisions on issues such as land-use planning, building codes, and infrastructure construction are usually made and enforced at the local or municipal level.

Disaster management projects have to be part of an integrated community development strategy, and reflect the local socioeconomic context. Disaster management should be incorporated into all local projects, rather than being isolated in separate preparedness or prevention projects. Community organizations and municipal planners need to develop a longer-term, strategic approach to local development.

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[18] This point is further developed in ISDR *op cit,* p. 1 of article on *The Role of Science and Technology in Disaster Reduction.*

Session 3. The International Disaster Response System

Session Overview

Aim

The purpose of this session is to acquaint participants with the critical issues and international players involved in disaster response, and examine several of the more important challenges that confront members of the International Disaster Response System.

Objectives

By the end of this session, participants will be able to:

- Identify the various actors involved in disaster response and the different mandates of those actors

- Describe the various mechanisms for coordinating international humanitarian response to disaster.

- Explain several of the key challenges and "hot" issues facing humanitarian actors.

Exercise 3. Donor Coordination – A Number of Views

Read the quotation assigned to your group. Then discuss:

- What is the real issue here?
- What, if anything, should your organization try to do about it?

1. "Coordination based on donors rather than on needs is counter productive...Coordination based on a single donor is artificial. As a principle, coordination of international aid efforts can be useful. But coordination is a means, not a goal in itself. The real issue should be the quality of the aid...Not the source of the funds should determine the way in which aid programmes are coordinated, but the functional requirements for efficacy."

ECHO Coordination of NGO Work, an APRODEV Discussion Paper

2. "Improved coordination may involve significant opportunity costs, impede quick action, centralized functions that are better left decentralised, and, particularly in civil war situations, politicise aid. Moreover, there is no guarantee that improved coordination will result in greater effectiveness or cost-effectiveness."

Minear, Larry, "The International Relief System: A Critical Review", Parallel Intelligence Estimate on Global Humanitarian Emergencies, 1994.

3. "Another tangible result of the recommendations of member states and various UN agencies is the Consolidated Appeals Process (CAPs)...This instrument is used both as a strategic tool and as the single most important channel for Norwegian contributions to emergency humanitarian assistance. Between a fourth and a third of total funding available for emergency assistance is spend [sic] through the CAPs...Still, we are faced with a paradox. While more work and inter-agency coordination is undertaken in order to improve the CAPs and make them more user-friendly, the less funds they have managed to mobilize over the last few years. My delegation is deeply concerned by the fact that only 55 per cent of the CAP for 2000 has been funded as of mid-November. We are convinced that governments could use the Consolidated Appeals more actively when they allocate funds for emergency assistance.

"Strengthening coordination of humanitarian and disaster relief assistance of the UN"", statement by Arne B. Hønningstad, Norwegian Ambassador, to the GA, 27 Nov 2000

4. "The [UN] Inter-Agency Standing Committee has become so bloated by admission of marginal players in disaster response that it is unable to be operational within the tight time frames demanded by emergencies. Donor impatience has prompted at least one proposal for radical reform in covering the needs of internally displaced persons. Bilateralism reflects and contributes to the weakness of the agency most called upon to lead in the field. The European Union's unilateralism further complicates prospects for systematic co-ordination...The only segment of the community in which collaboration actually is improving is among the major NGO disaster response consortia."

Bishop, James K, "NGOs: Growing Pains Ahead", Humanitarian Action in the 21st Century, UN-IASC.

5. Consistent standards can be built into the design process of humanitarian projects but will only occur if the agency involved stays true to the organization's identity and has not been significantly deflected by funding factors. As for accountability, it is seldom demanded unless the media kicks up a fuss, or those calling for it are donors. Those expecting accountability also tend to be concerned with the allocation of money and the proportion reaching the beneficiaries. Rarely is the quality of assistance given in emergencies challenged by donors, beneficiaries or indeed the humanitarian community."

Tousignant, Guy, Secretary-General of CARE International; from an address entitled 'CARE AND THE SPHERE PROJECT' 3 December 1998.

Reading 3.1. Key Humanitarian Actors [19]

United Nations System

UN Secretariat

The main actors within the *UN Secretariat* that play important humanitarian roles are the following

Under-Secretary-General USG/Emergency Response Coordinator (USG/ERC: The position of *(USG/ERC)* role was formed in 1992 and specifically mandated to serve as a "central focal point with governments, intergovernmental and non-governmental organizations concerning UN emergency relief operations, and when appropriate and necessary, mobilizing their emergency relief capacities." The ERC serves as the chair of the Inter-Agency Standing Committee or "IASC" and the head of the *Office for the Coordination of Humanitarian Affairs* (OCHA).

Inter-Agency Standing Committee (IASC) In 1992, the UN General Assembly also established the IASC that would serve as the main forum for consultation and decision-making between the UN humanitarian agencies. The IASC is composed of the executive directors of the various UN specialized agencies mandated to respond to humanitarian emergencies

The Office for the Coordination of Humanitarian Affairs (OCHA), formed as a support body for the USG/ERC, has the mandate to coordinate the provision of humanitarian assistance (particularly that of the UN system) in complex emergencies and natural disasters. Where a humanitarian crisis goes beyond the mandate or capacity of a single agency, OCHA works to ensure a rapid and effective response by all parties involved – including governments, non-governmental organizations (NGOs) and UN agencies. Due to its strong links with the political, peacekeeping and human rights components of the UN, OCHA is well-placed to promote an integrated approach to complex crises, peace-building, and reconstruction.

OCHA has offices in New York and Geneva. The New York Office supports the Secretary General and deals with policy coordination, policy planning, and early warning. The Geneva office acts as the focal point for emergency operational support and disaster response coordination and is collocated with the implementing UN agencies. A critical role which OCHA plays is in the drafting and launching of the Consolidated Inter-Agency Appeal Process (CAP).

OCHA's response to a disaster depends on the type and size of the emergency. The response can range from issuing Information and Situation Reports to full-scale field involvement through the deployment of assessment and coordinating teams to the affected area, coordinating relief, and launching joint UN appeals.

Department of Peacekeeping Operations: Peacekeeping is a means of dealing with conflicts between states and, increasingly, internal conflicts by deploying military personnel from a number of countries under UN command, to help control and resolve armed conflict. Under the classic definition, peacekeeping forces are deployed once peace has been achieved. Lately, however, peacekeeping forces have been increasingly inserted into active conflicts. DPKO assists and advises the Secretary-General on policies, procedures and recommendations on the establishment of new missions and on the functioning of ongoing ones.

Peacekeeping operations required Security Council authorization, so peacekeepers often arrive on the scene after humanitarian actors. In some cases, however, UN peacekeeping forces may already on be the ground when a new emergency occurs. UN peacekeeping forces can play a critical role in humanitarian assistance by providing major logistics support, protection and security for relief convoys. Though armed escorts may threaten the perceived impartiality, neutrality and independence of humanitarian operations, it is often impossible to operate without such protection.

UN Security Coordinator (UNSECOORD): UNSECOORD acts on behalf of he Secretary-General to ensure a coherent response by the UN to any emergency situation and is responsible for all policy/procedural matters related to the security of UN operations, personnel in the field and at headquarters. Based on the advice of "Designated Officials" (DOs) in the field, UNSECOORD is

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[19] Adapted from: *OCHA Orientation Handbook*, United Nations, New York. 2002.

responsible for formulating security policy and recommendations, responding to emergency situations, coordinating inter-agency safety programmes and making decisions on the relocation/evacuation of staff. UNSECOORD coordinates security measures for 150 duty stations covering more than 70,000 UN staff and dependents. UNSECOORD maintains strong links with UN peacekeeping and observer missions and wherever possible, the UN security management system works closely with non-UN bodies such as the ICRC, international NGOs and diplomatic missions to ensure information sharing and joint planning on security issues.

UNSECOORD's role is of critical importance in crises and conflict scenarios. OCHA works closely with UNSECOORD's field representatives (the designated official, the field security officer and the security management team) to help coordinate and manage security matters. In addition, those outside UN protection, such as NGOs, increasingly rely on OCHA to represent their interest and concerns to UN security officials on the ground.

In the General Assembly's 56th session in 2001, member states endorsed several new initiatives in the area of staff security. For the first time, UN SECOORD will be led by a full time security coordinator at the Assistant-Secretary General level. The General Assembly also agreed to provide funding for the recruitment of 100 professional FSOs and a total of 18 professional security officer posts were approved for UNSECOORD headquarters. Recognising the need for all organizations participating in the UN security management system to assume collective responsibility for the safety and security of their personnel, agencies agreed to a more streamlined cost sharing formula to fund FSOs in the field.

UN Funds, Programmes and Specialised Agencies

A variety of UN funds and programmes and specialized agencies execute UN relief efforts. These include:

Food and Agriculture Organisation of the UN (FAO): FAO is mandated to raise levels of nutrition and standards of living, increase agricultural productivity and improve the condition of rural populations.

In addition to its development programmes, FAO also plays a major role in dealing with food and agricultural emergencies. In relief operations, it focuses on the provision of agricultural inputs, such as seeds, farming tools, and emergency veterinary services. This involves working closely with relevant NGOs, and in some countries with UNICEF. Furthermore, the organization operates an early warning system for famine that assesses shortfalls in food production. It also conducts joint assessments with WFP in countries of concern to assess food security and food assistance needs.

United Nations Development Programme (UNDP): UNDP plays a role in humanitarian emergencies in the context of its broader goal of promoting sustainable social and economic development, by eradicating poverty and empowering the world's poor.

UNDP is present before, during, and after the outbreak of a crisis and facilitates the transition from relief to development by emphasizing capacity-building and long-term recovery. In particular, UNDP's Bureau for Crisis Prevention and Recovery (BCPR – formerly the Emergency Response Division) helps country offices support the transition between the relief and recovery phase in the areas of conflict, security, recovery and disaster reduction. Within the Bureau, UNDP has also established a network of transitional recovery teams to help strengthen country office capacities, support strategic and operational coordination, enhance advocacy and public information programmes and establish and implement resource mobilization strategies.

UNDP also manages the UN's resident coordinator system which provides the overall framework for the coordination of operational activities. UNDP is a pivotal partner for OCHA in the area of disaster response preparedness. Because preparedness falls under both mandates, UNDP and OCHA support each other's work in this area as a joint venture.

United Nations High Commissioner for Human Rights (UNCHR): UNCHR is mandated by the GA to promote and protect the enjoyment of civil, cultural, economic, political and social rights, as well as to coordinate activities throughout the UN system in promoting and protecting human rights. UNCHR operates with the support of the Office of the High Commissioner for Human Rights, (OHCHCR).

OHCHR plays an important role in all activities of the UN system including peace and security, economic and social development, humanitarian affairs, and international law. OHCHCR engages in active collaboration, both at field and headquarters level, with governments, all UN agencies and programmes as well as with non-governmental organizations. OHCHCR also supports the work of the UN's human rights treaty bodies, the Commission on Human Rights and its special mechanisms.

United Nations High Commissioner for Refugees (UNHCR): UNHCR, the United Nations refugee organization, is mandated to lead and coordinate international action for the worldwide assistance and protection of refugees, or people who have fled their country due to a well-founded fear of persecution. UNHCR is also authorized to become involved in the protection of other groups, such as people who are stateless and whose nationality is under dispute and, in certain circumstances, those displaced internally in their countries.

The role of UNHCR in emergency operations is primarily to protect refugees. UNHCR assists and complements the work of the government by acting as a channel for assistance from the international community, and by coordinating the implementation of assistance. UNHCR is responsible for ensuring that the protection and immediate material needs of the refugees are met.

United Nations Children's Fund (UNICEF): UNICEF is mandated to advocate and work for the protection of children's rights, to help the young meet their basic needs and to expand their opportunities to reach their full potential.

UNICEF integrates approaches to emergency interventions and policies throughout all its divisions, but focuses on coordination within the Office of Emergency Programmes (EMOPS). EMOPS is the focal point for emergency assistance, humanitarian policies, staff security and support to humanitarian partners both within and outside the UN system, including OCHA. In emergencies, UNICEF also often takes the operational lead in coordinating a number of key sectors including water and sanitation, education and nutrition.

In addition, UNICEF operates a New York-based emergency operations centre that provides 24-hour emergency communications used by UN agencies when there are concerns for staff security in the field.

World Food Programme (WFP): WFP provides food to sustain victims of emergencies and disasters to improve the nutrition of the most vulnerable people and to promote the self-reliance of poor people and communities.

WFP's dual relief and development mandate allows it to play a key role in the continuum from emergency relief to rehabilitation and development where priority is given to disaster prevention, preparedness and mitigation, as well as post-conflict rehabilitation activities.

In humanitarian emergencies, WFP plays an important role in establishing and managing the logistical framework for humanitarian operations including the coordination of food aid and logistics, through the collection and dissemination of information on global food aid deliveries and requirements. WFP also has a high level of expertise in the area of emergency telecommunications, in particular "deep field" connectivity, and may in certain situations, be a position to address the telecommunications needs of other UN agencies in-country.

WFP has established a team called "Augmented Logistics Intervention Team for Emergencies (ALITE) within its logistics service that is responsible for improving logistics, preparedness and response capacities. Its goal is to provide a range of emergency services to support WFP field operations through resource availability, stand-by capacities, dissemination and training.

World Health Organisation (WHO): In collaboration with and for use by its partners at the global level, WHO develops, consolidates, publishes and disseminates best practices, strategies and guiding principles for emergency health management. WHO is responsible for supporting the ministries of health within governments on all health-related matters.

With offices in more than 200 countries WHO is often in place for an emergency arises and will stay past the crisis phase. This long-term presence means WHO is well placed to respond to the health aspects of emergencies where it routinely works to improve country capacities for disaster mitigation, preparedness and response to limit the negative impact of disasters on health and health systems.

During emergencies, WHO takes the lead in rapid health assessments and surveillance, epidemic preparedness and control of tuberculosis and HIV/AIDS, water and sanitation, drug management, provision of medical supplies, and reproductive and mental health.

Non-Governmental Organizations (NGOs)

In most emergency situations OCHA will liaise closely with both international and local NGOs in the field.

International NGOs are private, non-profit organizations that operate in more than one country. Most are headquartered in western countries, although an increasing number are based in developing countries. Some NGOs only provide humanitarian relief (for example, Médecins sans Frontières – MSF), while others manage development-oriented programmes but become involved in humanitarian relief operations when a crisis occurs (for example, Care International, Oxfam, and Save the Children Fund). The humanitarian relief component of major international NGOs is in part funded by private sources, and donor governments may channel large amounts of humanitarian assistance through them.

Some international NGOs also receive funding through UN agencies and function as their implementing partners. NGO participation in the CAP is crucial because it allows collaborative programming within the broad humanitarian community.

Local NGOs operate only in their country of origin, and may have a wide range of programmes, often with a development perspective. These organizations may act as implementing partners with international NGOs, and may be funded and supported by them. OCHA often plays a key role in collaborating with non-UN partners in an emergency by coaching and mentoring national NGOs.

NGOs may decide to organize themselves into NGO coordination bodies to streamline their activities and operate more efficiently. NGO umbrella organizations such as the International Council of Voluntary Agencies (ICVA), an association of European NGOs, and InterAction, a group of North American NGOs lead these efforts. OCHA integrates the activities of these coordinating bodies into it own coordination effort. IN recognition of the significant contribution that NGOs bring to humanitarian community, these NGO umbrella organizations have a standing invitation to take part in the work of the IASC.

International Organisations IOs)

International organizations exist outside the UN system and have executive boards composed of national governments. One such IO is the International Organisation for Migration (IOM), which assists with the resettlement and repatriation of refugees and migrants.

Another humanitarian IO is the European Community Humanitarian Office (ECHO). It administers humanitarian aid to victims of both human-made and natural emergencies on behalf of the European Union (the largest donor of humanitarian aid in the world) to non-European Union countries. In carrying out this task, ECHO works in collaboration with more than 170 organizations worldwide – including OCHA, UNHCR, UNICEF, WFP, the Red Cross Movement and NGOs dedicated to humanitarian causes.

The Red Cross and Red Crescent Movements

The International Committee of the Red Cross (ICRC), based in Switzerland, is the founding institution of the International Red Cross and Red Crescent Movements, which includes the National Red Cross and Red Crescent Societies (National Societies), and the International Federation of Red Cross and Red Crescent Societies (IFRC). All three organizations have distinct tasks:

International Committee of the Red Cross (ICRC): the ICRC is an impartial, neutral and independent organization whose exclusively humanitarian mission is to protect the lives and dignity of victims of war and internal violence and to provide with assistance. It directs and coordinates the international relief activities conducted by the Red Cross Movement in situations of conflict. It also endeavours to prevent suffering by promoting and strengthening humanitarian law and universal humanitarian principles.

ICRC's mandate enables it to take up issues with states and parties to conflict by opening delegations and dispatching delegates. The dialogue that the ICRC maintains with authoritie3s exercising control

over war victims in no way affects the status of those authorities and cannot be interpreted as a form of recognition.

Through the many tasks assigned to it by the Geneva Conventions and the Additional Protocols, ICRC maintains an international stature and unique legal status. Based on agreements with more than 50 states, ICRCC is recognized as an international legal entity and granted the privileges and immunities normally enjoyed by intergovernmental organisations. These include immunity from legal process, which protects ICRC from administrative and judicial proceedings, and the inviolability of its premises, archives and other documents. ICRC delegates enjoy a status similar to that of officials of intergovernmental organizations.

Such privileges and immunities are indispensable for the organization because they guarantee two conditions essential to its action, namely neutrality and independence. Being non-governmental by nature and membership, it stands apart from both the United Nations system and other NGOs.

In the field, ICRC is a special partner to OCHA. OCHA offices maintain close professional relations with the ICRC delegations in the field. Although ICRC is not a formal participant in NGO/UN meetings, they normally attend as observers and provide information on their activities. In some situations, ICRC delegations can act as conduits for information because of their regular bilateral meetings with the parties to the conflict.

National Red Cross and Red Crescent Societies: The national societies of the Red Cross operate in more than 160 countries (using the Red Crescent symbol in Islamic countries). Acting as auxiliaries to the public authorities in their own countries and in support of ICRC activities, they provide a range of services from disaster relief, health and social assistance to first aid courses. During wartime, national societies may support the army medical services.

International Federation of the Red Cross and Red Crescent Societies: IFRC supports the actions of the various national societies. It assists with coordination of international assistance to victims of natural disasters, and to victims of man-made disasters outside of conflict areas. IFRC has established the Federation Assessment and Coordination Team (FACT) for rapid deployment to assess and assist in coordination of their activities.

Affected Governments and Local Authorities

In most emergencies, the main UN counterpart in-country is the government of the affected country. In most countries, the UN – often through OCHA - will work with a ministry tasked with the coordination of government humanitarian assistance and relations with international aid agencies plus the ministries governing foreign affairs, the interior (including police and security forces, and sometimes the military) and defence. Other UN agencies will work closely with the ministries that deal with their own sector.

At the field level, it is not unusual for local authorities, such as regional governors or local military commanders, to have considerable authority and some degree of independence from the capital. It is important that OCHA field staff ensure that such authorities are informed about the objectives, principles and implementation of humanitarian assistance, both of the UN and the international community as w whole.

In cases where no government exists or where the government or its leader is no longer credible and there is a deliberate policy to undermine or circumvent it, UN agencies may need to work with non-state actors or coordinate assistance outside government-controlled areas, such as those held by opposition or militia groups.

Dealing appropriately with the political realities on the ground is not so easy in practice. Rebel movement often put UN humanitarian agencies under pressure to "recognize" them. Their aim is to gain international legitimacy through humanitarian negotiations with a part of the UN.

Civil Society

During humanitarian emergencies, domestic civil society represents one of the most critical sources of humanitarian assistance and civilian protection.

In this context, civil society refers not only to local non-governmental organizations and human rights groups, but also to religious congregations, charities, universities, trade unions, legal associations, independent activities and human rights defenders, families, clans and others.

Throughout a crisis, but particularly in its initial stages, it is the local population and government that cope and provide the bulk of the assistance. Only after they have exhausted their own resources does substantial international response begin. An ongoing dialogue with the affected population is therefore crucial for a number of reasons:

- To help with forward planning and early warning of major changes in future humanitarian needs. (Such as new flows of displaced persons). The affected population is usually the most well-informed and astute about the impact if military and political factors;

- To best plan and implement ongoing assistance. The affected population is well placed to be involved in all aspects of humanitarian assistance including identifying needs, and distributing and using the aid provided. Local emergency personnel who cope with crises in the early stages are often absorbed by the UN and NGOs as national staff;

- To ensure that the affected population maintains a sense of empowerment and control. This avoids forcing them into a state of dependency. A process of information-sharing form the grass roots level up is therefore important.

It is also important to sample views from a cross-section of the community and to be aware of the agendas and perspectives at work.

Often, those claiming leadership may be self-appointed or designated by a particular group, and may have a heavily political or personal agenda. Even more seriously, as in Eastern Zaire and Rwanda in 1994, mass murderers or other criminals may hide among the affected population in refugee and IDP camps.

International relief workers often get a high percentage of their information from local staff. However, such staff tend to be young, educated and able to speak the expatriate language, and thus not necessarily representative of the wider population. These limitations can be balanced to some extent by consulting with traditional leaders.

In many ways, women and teenage girls in conflict zones are most affected by conflict, though rape and torture and because they are often the sole providers and protectors for their families once their husbands, brothers, sons and fathers are exiled, killed or sent away to fight. In order to better address the needs of women in war, the UN and other humanitarian and development actors aim to reach out to local women's organizations that support peace and reconciliation, consult local women's NGOs during the strategy-setting process and consider them as implementing partners for UN projects listed in the CAP. In support of this, the IASC Sub-Working Group on Gender developed an electronic resource package to help staff integrate gender issues into their consolidated appeals. The package is available in the Humanitarian Library section on ReliefWeb (www.reliefweb.int).

Reading 3.2. Challenges to the Humanitarian Community [20]

In some respects the subject of providing effective disaster relief assistance is a relatively new subject. In the days prior to the humanitarian disaster in Somalia (1992) - and even more so Rwanda (1994) - discussions of humanitarian response effectiveness were usually couched in terms of technical issues like logistics and administration. To a large extent effectiveness of relief was measured by tons of food delivered, the number of beneficiaries served and dollars spent. Much has changed in a fairly short period of time.

To begin with, the political climate has fundamentally changed with the advent of post cold war intrastate conflicts and the fact that there is an increasing number of failed and failing states. Affecting civilian populations is now often the point of war. The increasing use of children as warriors has contributed to new challenges in providing humanitarian assistance. It also is the case that the rapid increase in the number of humanitarian players has created the need for new and more complex systems of coordination and cooperation.

Challenges are also more imposing for reasons other than the change in the nature of the world and of warfare. Since the early 1980s, the meaning of 'humanitarian assistance' has broadened. The human rights of all individuals have become an integral aspect of humanitarian assistance and the 'rights approach' is increasingly being integrated into humanitarian assistance programmes. The literature on 'do no harm' has shown that there are cases where the delivery of humanitarian assistance prolongs conflicts and increases suffering. Finally, there has been a significant move toward qualitative delivery in addition to quantitative delivery of aid.

Consider the following examples:

Resources channeled into Somalia by UN agencies and NGOs became part of a complex political economy of warfare between rival militias and rival clans. Raw theft of those resources was part of the equation, but equally significant was the ability of various militias to use force and the threat of force to compel NGOs into a series of arrangements which forced the NGOs to hire - for purposes of guarding relief supplies - some of the same forces who were the source of humanitarian crisis in the first place.

UN and NGO resources in eastern Zaire were subject to political control and taxation by the forces that orchestrated the Rwandan genocide of 1994. By controlling the distribution of relief supplies and the flow of information, the Interhamwe militias turned UN-managed and NGO-operated refugee camps into a political base and resource mine for continued and renewed fighting, both within Zaire and in western Rwanda.

In Sierra Leone and Liberia, conflict analysts and medical NGOs learned that they could anticipate flare-ups by following food deliveries. When food was distributed to a village or displaced persons camp, the militias would quickly attack to steal the relief supplies, killing dozens of villagers in the process.

When the post-genocide Rwandan regime sought to break Interhamwe control of the Zairian camps, civilian refugees became moving shields between two armies. NGOs were manipulated into helping these armies enact their warring strategies. Relief supplies and NGO presence were used to lure starving refugees out of hiding in the forests of Zaire, and into traps where they were massacred. NGOs were transformed from sources of protection into resources for destruction.[4]

One of the most intensive studies of the quality of humanitarian assistance was the *Joint Evaluation of Emergency Assistance in Rwanda*, published in 1996. There are many lessons to be learned from this study in terms of the challenges faced by humanitarian actors and the *Joint Evaluation* can be used as a vehicle to summarize many of these challenges.[5]

Lack of Policy Coherence

A core finding of the *Joint Evaluation* is the lack of coherence in policy and strategy formulation, principally within the political/diplomatic/military domains. The *Joint Evaluation* termed this a "policy

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20 Prepared by the Pearson Peacekeeping Centre, Ottawa, June 2001.

vacuum". This lack of coherence was the result of numerous and often interacting factors, the principal ones being:

Conflicting interests between members of the Security Council and lack of resolve to overcome these differences, probably stemming from little interest in an African country of marginal strategic importance to the main powers: and a lack of understanding of Rwanda's complex situation and misread signals prior to and immediately after the shooting down of the President's aircraft in April 1994.

Donor Funding and Preparedness Measures

Despite the generally impressive achievements of the humanitarian agencies and the massive resources contributed by donor organizations and the general public during 1994, the study found that there was frequently an imbalance in resource provision between preparedness and capacity increasing measures, on the one hand, and response measures in the face of a pressing humanitarian need on the other, particularly where such needs were well covered by the media.

Humanitarian Early Warning and Contingency Planning

Detailed study of the information flows and decisions leading up to the Goma influx reveal that an integrated mechanism for gathering and analyzing information that could have provided advance warning of large population displacements did not exist.

Coordination: Filling the "Hollow Core"

The overall response involved an unprecedented number of agencies and organizations operating in Rwanda and the four neighbouring countries. With so many agencies and organizations involved in the response, there was a critical need for a strong capacity at the centre to provide leadership and overall coordination. With regard to refugee operations, UNHCR came close to fulfilling such a role by virtue of its clear mandate, support from host governments (particularly that of Tanzania), highly competent technical coordination personnel, and control over a significant proportion of the funds available for agencies and NGOs – in large part due to a bold decision by ECHO to channel all its funds for refugees through UNHCR. However, coordination arrangements in relation to other areas and levels of the system were less satisfactory.

The Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development (OECD) has put a high priority on attempting to conduct analysis and generate guidelines to improve agency coordination. Their findings suggest that, in practical terms, aid coordination is based on five elements:

1. a common strategic framework for assistance

2. timely access to resources allowing for flexible implementation

3. leadership among international actors

4. mechanisms for field-level consultation and sharing of information

5. the availability of resources specifically earmarked for coordination purposes[6]

It may be too soon to provide a definitive answer, but thus far the experience of OCHA, as the coordinator of operations on behalf of the United Nations, has resulted in a great improvement in coordination. For UN agencies, the above five elements appear to be quite well coordinated. In addition, the evolution of a more sophisticated UN Consolidated Appeal Process (CAP), with one of its aim being better coordination of operations as well as funding, has also contributed to greater cooperation between all UN agencies.

To a large extent, NGOs are the odd group out of the coordination process, both between them and UN agencies and among themselves. As autonomous agents, they are not formally integrated into either the OCHA system or the CAP. As well, there are inherent factors that mitigate against NGOs cooperating and

coordinating among themselves. The paramount factor is competition for funding. However, that being said, at the field level there is a greater degree of coordination among NGOs and between NGOs and other humanitarian actors than is usually understood.

Stand-by Capacity and the Role of Military Forces in Humanitarian Operations

Military contingents from OECD countries had a significant involvement in humanitarian operations inside Rwanda and in eastern Zaire in the provision of relief assistance and by supporting relief agencies. Unfortunately, the study was unable to obtain sufficiently precise and comparable data on costs and performance to allow definitive conclusions about the value and appropriateness of military contingents in humanitarian operations. The Rwanda experience with military contingents does raise questions about their predictability, effectiveness, high cost and ability to participate collaboratively in operations involving several official agencies and numerous NGOs.

Improving NGO Performance

NGOs played a vital role in the response, undertaking most of the delivery of assistance to beneficiaries. While many NGOs performed impressively, providing a high quality of care and services, a number performed in an unprofessional and irresponsible manner that resulted not only in duplication and wasted resources but may also have contributed to an unnecessary loss of life. The need for NGOs to improve their performance is now widely recognized and in recent years significant advances have been made.

Improving Accountability

The availability and quality of performance data and reporting by official agencies and NGOs involved in emergency relief operations were highly variable. In some locations, such as in Goma, the situation was more satisfactory but in others, such as within much of Rwanda, availability of data was patchy and frequently not comparable between agencies due to a lack of standardized survey methods and inadequate technical coordination. In such areas the information available did not provide a sufficient basis for assessing impact or performance, or -- just as important -- for adjusting programme activities to improve performance. A tendency by some official agencies and NGOs to emphasize or inflate positive accomplishments and play down or ignore problems resulted in distorted reporting. Even basic data on staff, finances and activities were difficult or impossible to obtain from a number of NGOs.

Improving Security

Physical protection of refugees and displaced person in camps can be problematic even in 'normal' circumstances. In the Rwanda crisis, this issue quickly became of paramount importance. The continued dominance of the former leadership, some of whom were key perpetrators of the genocide, and the presence of armed elements in refugee camps, particularly those in eastern Zaire, inflicted more trauma, insecurity and diversion of resources destined for *bona fide* refugees.

Food Issues and Registration

That widespread starvation did not occur during 1994 reflects in part the satisfactory and often impressive performance of the systems for the supply of food aid. However, substantial difficulties stemmed from initial reliance on the former leadership in many camps as an expedient mechanism for food distribution. This served to reinforce the power of this group and resulted in rations being manipulated and diverted from refugee consumption. Agencies were soon aware that such 'indirect' distribution systems were resulting in high rates of malnutrition among certain groups, particularly the elderly and female-headed households, but had difficulty in introducing more 'direct' distribution mechanisms (such as to the cell or household level) to by-pass the leadership.

Other problems experienced concerned the appropriateness of the rations provided and the tendency for agencies to introduce supplementary feeding programmes rather than focus attention and resources on addressing problems encountered in the supply of general ration commodities.

The Role of the Media

It was apparent that the media played an important and, at times, influential role within the international humanitarian aid system. The advent of on-the-spot satellite broadcasting, and the powerful nature of the images of the influx into Goma, contributed to the massive response there. It may also have contributed to the lack of policy coherence resulting from the media's focus upon the humanitarian story, rather than the more complicated and difficult-to-comprehend story of the genocide and the conflict.

Mitigating the Impact on Host Communities

While certain groups and enterprises gained from hosting large refugee or displaced populations, others experienced substantial losses. Both gains and losses were distributed unevenly. There were clear environmental and other costs imposed by the larger refugee camps on local populations. Some of these costs resulted from flawed agency policies.

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1. On average, WFP's multilateral assistance accounts for approximately 25% of world emergency food aid.

2. Hereafter referred to as the Red Cross

3. From http://www.icrc.org/

4. Michael Bryans, Bruce D. Jones and Janice Gross Stein, *Mean Times: Humanitarian Action in Complex Political Emergencies – Stark choices, Cruel Dilemmas*, University of Toronto Program on conflict Management and Negotiation, 1999. p.11.

5. *Joint Evaluation of Emergency Assistance in Rwanda, Copenhagen:* Danish International Development Assistance – DANIDA, 1996. This section on challenges and difficulties in the delivery of humanitarian assistance is largely based on the material from the *Joint Evaluation.*

6. *Conflict, Peace and Development Cooperation on the Threshold of the 21ˢᵗ Century,* Organization for Economic Cooperation and Development, Brussels, 1998.

Reading 3.3. Fundamentals of International Coordination

"Bad experiences in the past and the sheer number of actors have brought forward the wish to coordinate the efforts. The high degree of visibility of humanitarian aid actions and the assumption that there is an inherent inefficiency as well as duplication in the work of NGOs brings donor governments to push for coordination schemes...

As a principle, coordination of international aid efforts can be useful. But coordination is a means, not a goal in itself. The real issue should be the quality of the aid...

Coordination based on donors rather than on needs is counter productive. Not the source of the funds should determine the way in which aid programmes are coordinated, but the functional requirements for efficacy.

ECHO Coordination of NGO Work, APRODEV Discussion Paper

"Improved coordination may involve significant opportunity costs, impede quick action, centralise functions that are better left decentralised, and, particularly in civil war situations, politicise aid. Moreover, there is no guarantee that improved coordination will result in greater effectiveness or cost-effectiveness."

Minear, Larry, "The International Relief System: A Critical Review", Parallel Intelligence Estimate on Global Humanitarian Emergencies, September 1994

As emergencies become more complex, and as humanitarian agencies become more interdependent, the need for effective interagency coordination increases. Coordination can serve many useful purposes that go beyond basic information sharing. At its best, coordination can eliminate gaps and duplication in services, determine an appropriate division of responsibility and establish a framework for joint planning and strategic decision-making on issues of common concern. This paper explores the various ways in which organizations engage for coordination, as well as the preconditions, facilitation techniques and barriers to successful interagency coordination.

The following definitions will be used throughout this paper:

- **Coordination** is a process through which actors involved in humanitarian assistance response, as a result of emergencies, work together in a logical and concerted effort towards an agreed common end (namely to protect the victims, save lives and help resume normal activities), and in order to ensure maximum efficiency with the resources available (from Inter-Agency Standing Committee Working Group Interim Report on Coordination, 27 September 1996).

- **Coordination agency** refers to those agencies and their staff which play leadership and facilitation roles aimed at improving, strengthening and/or supporting interagency coordination.

- **Coordination body** refers to the formal or informal organization of all of the participants in the coordination effort.

- **Participants, participating agencies, member agencies** refer to those agencies and their staff which participate in specific interagency coordination efforts or coordination bodies.

- **Lead agency** refers within the UN to a UN humanitarian agency which, in a particular emergency (or area within it), provides the great majority of UN assistance and is therefore delegated the UN humanitarian coordination functions for that emergency or area.

- In addition to the above definitions, it is useful to understand the various coordination typologies that may exist in an emergency. This relates to who the coordination agency is, who comprises the coordination body, and what the focus or objectives are of the coordination body.

Government-led coordination

In most emergency operations, the main counterpart in-country for international organizations is the government, with the exception of countries where a national government does not exist, such as

Somalia or Afghanistan. In most countries, the government will establish a special ministry or other entity charged with overall coordination of government humanitarian assistance and interacting with international assistance entities. When such a governmental coordination structure exists, it will be an important counterpart for international humanitarian coordination staff. Governments with a lot of experience in humanitarian emergencies may insist on coordinating all international assistance, other governments delegate this task to the international community.

United Nations-led coordination

The coordination mechanisms of UN agencies in-country depends largely on the variable conditions of the emergency. There are several components and options to the structures. The United Nations General Assembly has mandated that a standing *UN Disaster Management Team* (UN DMT) be formed in each disaster-prone country, convened and chaired by the UN Resident Coordinator. The composition of the UN DMT is determined by taking into account the types of disaster to which the country is prone and the organizations present, but should normally include a core group consisting of the country-level representatives of FAO, UNDP, UNICEF, WFP, WHO and, where present, UNHCR. The primary purpose of the UN DMT is to ensure a prompt, effective and concerted response by the UN system at country level in the event of a disaster or emergency.

In large scale complex emergencies a *Humanitarian Coordinator* is likely to be named by the Head of the Office for the Coordination of Humanitarian Assistance (OCHA) who will be responsible for chairing the body of UN agencies and managing the coordination activities within its domain. A *Field Coordination Unit* is likely to be established under the Humanitarian Coordinator that provides the logistical support and services to the coordination body.

In many natural disasters, and some complex emergencies, OCHA will field the *United Nations Disaster Assessment and Coordination team* (UNDAC). The role of UNDAC is to assist the government of the affected country and the UN Resident/Humanitarian Coordinator in identifying the needs for international disaster relief assistance and to facilitate the timely and appropriate response of the international community.

If the emergency is sector specific, such as a mass refugee influx or a health epidemic, then the UN agency whose mandate covers that sector will usually become the *lead agency* in coordinating other UN (and often NGO) participation.

NGO-led coordination

NGOs have often organized themselves through NGO coordination bodies to increase their effectiveness in emergencies. These bodies have taken the form of umbrella organizations, consortia, councils, federations, unions and networks. Their activities range from informal information exchange, to coordinating operational activities in the field. NGO coordinating bodies give the NGO community a higher political profile than they can achieve individually and often serve as focal points for communications and negotiations with host governments and the UN.

Coordination of the military

Given the differing cultures of humanitarian agencies and military forces and the tensions that may a times result from different objectives, responsibilities, and operating styles, an important coordination role is to build bridges and resolve misunderstandings between these two groups. This is often accomplished through the creation of a *Civil-Military Operations Center* (CMOC). The CMOC is staffed with military and civilian personnel and works in support of the UN Resident/Humanitarian Coordinator.

Sectoral working groups

Some of the most effective coordination in emergency operations is organized around sectors. Ad hoc coordinating bodies composed of government, UN agencies and NGOs that are engaged in programming in the same sector will meet to share information and coordinate their projects in other ways. Leadership varies considerably and usually emerges as a function of historical leadership, degree of organizational strength, or force of personality of a highly motivated individual.

Donor-led coordination

Donor governments can make a profound impact on the level and quality of coordination between and among humanitarian response agencies – most notably through the provision of funding for such activities. Donor-led or supported coordination activities often seek to ensure and rationalize activities such as:

- resource mobilization: donor-led coordination can help to ensure that activity gaps are filled and unnecessary duplication of efforts avoided.

- information and analysis: donor participation in coordination activities can ensure that agency plans and responses are based upon the most up-to-date and accurate information.

- leadership and advocacy/representation: donor-led coordination can serve to bring those actors critical to particular rights issues to the table.

- logistics: donor governments have often funded efforts to coordinate logistics responses

- security management: donor governments can ensure that security "umbrellas" are extended to cover the necessary actors working on the ground; and can at times coordinate the granting by various factions of access for humanitarian agencies to affected populations.

In some emergencies, donors have formed coordination bodies for their mutual benefit. These bodies are more likely to be created in the height of an emergency when there is the greatest need for quick access to information and when individual donors do not have the resources to get it on their own. In one case, the Somalia Aid Coordination Body, was created during the crisis in 1994 but it continued to operate well past the emergency because its members were committed to its continuation and it had the benefit of a secretariat housed within UNDP.

Integrated operations center

The final mechanism for coordination is one that is intended to "bring it all together." Where government, international organizations and NGOs share a common view of the value of coordination, there exists the possibility to establish an *Integrated Operations Center* (IOC). The IOC model is the meeting ground for the heads of coordination bodies that would include the government lead agency, UN DMT or Coordinating Unit, NGO consortia, the donors' body and, where present, the military force.

The value of coordination

The value of coordination must be clear and desirable to the participants in the overall operation. Humanitarian organizations will engage in and support coordination mechanisms when they perceive that this mechanism is meeting their needs and providing services which add value to or enhance their own activities. Coordinating agencies should continually monitor the emergency and identify the service needs of member agencies. Periodic member agency needs assessments can help uncover changing needs and new opportunities for coordination activities and services.

The following is a checklist of general preconditions that, when met, will enhance the chances of achieving effective and successful coordination.

Government policy—When the host government of an emergency operation has established a clear and assertive policy mandating coordination or managing a coordination process, then the likelihood of success is far greater (von Bernuth, 1996).

Perceived need and desirability for coordination—Humanitarian organizations will be more pre-disposed to engage in coordination when they perceive that there is a need for it and that this coordination will add "value" to their own activities. Participating agencies must believe that they are interdependent with their fellow organizations and must view coordination as the most efficient and effective means of responding to the emergency situation. Organizations will commit to coordination when the coordination goals, objectives and activities help promote their individual organizational interests and missions. An organization's perceptions will also be positively influenced if it has a mandate to support coordination. By incorporating coordination mandates into their organizational mission statements and policies, agencies empower their representatives to seek a coordination role.

For coordination to work, attitudes of cooperation, peer support and self-discipline must prevail over attitudes of competition, autonomy and control. Even with these positive attitudes, conflicts over

procedures, roles or actions will invariably arise. Coordinators must be skilled in effective negotiation, mediation and/or conflict resolution techniques if they are to turn a conflict into constructive and mutually acceptable action.

Understanding—All organizations need to understand each other's mandates as well as the organizational culture that each brings to an operation. Stereotypes and misconceptions need to be removed before a cooperative spirit can work. Understanding also depends on agencies making a long-term commitment, sharing a vision and possessing similar levels of training, experience and skills.

Staff, resources, and leadership—Each organization participating in the coordination effort must commit staff, time and often money to help manage the process as well as provide their overall services to the other participating organizations. When a coordination agency exists, it must have staff dedicated to coordination, an office, and equipment in order to provide real service to other participating organizations. Agencies should have stand-by arrangements for staffing and equipment to help mobilize coordinating bodies.

Organizational authority in decision making—Organizations must decentralize decision making to the field to the greatest extent feasible. Especially for coordination purposes, organization representatives must have the authority to decide and make commitments on behalf of their respective agencies. Organizations need to participate in coordination activities ready to share information, decide action and commit resources with minimal delays from headquarters.

Trust and credibility—In the end, effective coordination can happen when the participating organizations trust each other and the coordinating agency leadership. Each agency needs to develop its own credibility and engage in coordination activities with a positive attitude and expectations that it can and will work.

Techniques which facilitate coordination—Achieving successful coordination requires concerted effort, an attitude which values coordination, and an appreciation of its benefits. There are also general management techniques which facilitate successful coordination, including:

- facilitation skills
- identifying common needs
- creating consensus
- using memoranda of understanding
- identifying each organization's comparative strengths in order to establish a division of labor
- maintaining the "communications loop"
- taking difficult decisions in plenary meetings
- knowing who to include in the process
- avoiding delays, especially during the emergency phase
- follow-up and follow-through on coordination decisions
- personnel incentives to coordination
- managing the media
- capacity building in coordination

Clarify and formalize coordination mechanisms and agreements in writing and at a policy level that carries authority within and between organizations.

Achieving consensus among organizations on policy, program, and resource issues is a form of coordination. Organizations must meet, discuss and negotiate mutually acceptable agreements on each of the organization's:

- geographical area of operation

- individual services or contribution to a consortium of services
- population or set of clients with which each will work
- standards of assistance and methods of delivery

The results of the consensus, which might also include the preparedness plan and plan of operation should be documented as memoranda of understanding (MOUs) or letters of agreement (LOAs) among the organizations. These memoranda can mitigate potential conflict by clarifying interagency objectives, expectations, roles, responsibilities and commitments.

In agreeing to a memorandum of understanding, the process is as important as the product. During the process, organizations develop relationships and become more knowledgeable about each other. When the document is finished and signed, it can serve as a point of reference for solving disputes and orienting participating member staff in case of turnover. Memoranda of understanding may need to be periodically reviewed and/or updated when the players and/or the context has changed.

Prototype memoranda of understanding, which can be adapted to new situations, should be developed to avoid having to identify and negotiate details during an emergency crisis—when organizations' efforts should be focused on life-saving measures (Minear et al, 1992).

Establish a division of labor based on each organization's comparative strength, which may not necessarily match their historical or official mandate.

Coordination is more effective when it establishes a division of labor among organizations based on the comparative strength of each organization in meeting the needs of the emergency. The comparative strength of an organization depends on an organization's actual expertise, capacities and resources on the ground. (*Comparative strength* should not be confused with an organization's *mandate*, which is their internal policy that identifies their mission and guides their action. Mandates, however, do not govern an organization's overall capability or the adequacy of its resources.)

An inter-organizational needs and resources assessment is essential to identify the resources, capacities and comparative strengths of the organizations involved in an emergency. For example, a small NGO may lack staff, funding and status, but may be the only agency with experience in a certain region or with a certain population.

UNHCR has often had the comparative advantage in negotiating with host governments to gain access to refugee populations in need. During emergencies, however, UNHCR may not be able to play this role when host governments and/or warring parties perceive them as politically biased or motivated. This occurred in Ethiopia in the mid-1980s when NGOs had to form their own coordinating body to negotiate access with the government in Addis Ababa and the Tigrayan People's Liberation Front (Minear and Weiss, 1993, p. 59).

The coordination agency needs to have adequate staff and commitment to follow-up and follow-through on decisions taken by the body. Coordination will flounder and dissipate without determined follow-up, weakening the response. A secretariat is essential—one with standing assignments to document decisions, communicate them and monitor their implementation.

Reading 3.4. Code of Conduct for the International Red Cross and Red Crescent Movement and NGOs in Disaster Relief [21]

Principles of Conduct for The International Red Cross and Red Crescent Movement and NGOs in Disaster Response Programmes

1 The Humanitarian imperative comes first

The right to receive humanitarian assistance, and to offer it, is a fundamental humanitarian principle which should be enjoyed by all citizens of all countries. As members of the international community, we recognise our obligation to provide humanitarian assistance wherever it is needed. Hence the need for unimpeded access to affected populations is of fundamental importance in exercising that responsibility. The prime motivation of our response to disaster is to alleviate human suffering amongst those least able to withstand the stress caused by disaster. When we give humanitarian aid it is not a partisan or political act and should not be viewed as such.

2 Aid is given regardless of the race, creed or nationality of the recipients and without adverse distinction of any kind. Aid priorities are calculated on the basis of need alone

Wherever possible, we will base the provision of relief aid upon a thorough assessment of the needs of the disaster victims and the local capacities already in place to meet those needs. Within the entirety of our programmes, we will reflect considerations of proportionality. Human suffering must be alleviated whenever it is found; life is as precious in one part of a country as another. Thus, our provision of aid will reflect the degree of suffering it seeks to alleviate. In implementing this approach, we recognise the crucial role played by women in disaster-prone communities and will ensure that this role is supported, not diminished, by our aid programmes. The implementation of such a universal, impartial and independent policy, can only be effective if we and our partners have access to the necessary resources to provide for such equitable relief, and have equal access to all disaster victims.

3 Aid will not be used to further a particular political or religious standpoint

Humanitarian aid will be given according to the need of individuals, families and communities. Not withstanding the right of NGHAs [22] to espouse particular political or religious opinions, we affirm that assistance will not be dependent on the adherence of the recipients to those opinions. We will not tie the promise, delivery or distribution of assistance to the embracing or acceptance of a particular political or religious creed.

4 We shall endeavour not to act as instruments of government foreign policy

NGHAs are agencies which act independently from governments. We therefore formulate our own policies and implementation strategies and do not seek to implement the policy of any government, except in so far as it coincides with our own independent policy. We will never knowingly - or through negligence - allow ourselves, or our employees, to be used to gather information of a political, military or economically sensitive nature for governments or other bodies that may serve purposes other than those which are strictly humanitarian, nor will we act as instruments of foreign policy of donor governments. We will use the assistance we receive to respond to needs and this assistance should not be driven by the need to dispose of donor commodity surpluses, nor by the political interest of any particular donor. We value and promote the voluntary giving of labour and finances by concerned individuals to support our work and recognise the independence of action promoted by such voluntary motivation. In order to protect our independence we will seek to avoid dependence upon a single funding source.

5 We shall respect culture and custom

We will endeavour to respect the culture, structures and customs of the communities and countries we are working in.

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[21] as summarized in the SPHERE project: http://www.sphereproject.org/handbook/annexes.htm#5

[22] The SPHERE Project uses the term "Non-Governmental Humanitarian Agencies" (NGHAs) to encompass the components of the International Red Cross and Red Crescent Movement - The International Committee of the Red Cross, The International Federation of Red Cross and Red Crescent Societies and its member National Societies - and NGOs. This code refers specifically to those NGHAs who are involved in disaster response.

6 We shall attempt to build disaster response on local capacities

All people and communities - even in disaster - possess capacities as well as vulnerabilities. Where possible, we will strengthen these capacities by employing local staff, purchasing local materials and trading with local companies. Where possible, we will work through local NGHAs as partners in planning and implementation, and co-operate with local government structures where appropriate. We will place a high priority on the proper co-ordination of our emergency responses. This is best done within the countries concerned by those most directly involved in the relief operations, and should include representatives of the relevant UN bodies.

7 Ways shall be found to involve programme beneficiaries in the management of relief aid

Disaster response assistance should never be imposed upon the beneficiaries. Effective relief and lasting rehabilitation can best be achieved where the intended beneficiaries are involved in the design, management and implementation of the assistance programme. We will strive to achieve full community participation in our relief and rehabilitation programmes.

8 Relief aid must strive to reduce future vulnerabilities to disaster as well as meeting basic needs

All relief actions affect the prospects for long-term development, either in a positive or a negative fashion. Recognising this, we will strive to implement relief programmes which actively reduce the beneficiaries' vulnerability to future disasters and help create sustainable lifestyles. We will pay particular attention to environmental concerns in the design and management of relief programmes. We will also endeavour to minimise the negative impact of humanitarian assistance, seeking to avoid long-term beneficiary dependence upon external aid.

9 We hold ourselves accountable to both those we seek to assist and those from whom we accept resources

We often act as an institutional link in the partnership between those who wish to assist and those who need assistance during disasters. We therefore hold ourselves accountable to both constituencies. All our dealings with donors and beneficiaries shall reflect an attitude of openness and transparency. We recognise the need to report on our activities, both from a financial perspective and the perspective of effectiveness. We recognise the obligation to ensure appropriate monitoring of aid distributions and to carry out regular assessments of the impact of disaster assistance. We will also seek to report, in an open fashion, upon the impact of our work, and the factors limiting or enhancing that impact. Our programmes will be based upon high standards of professionalism and expertise in order to minimise the wasting of valuable resources.

10 In our information, publicity and advertising activities, we shall recognise disaster victims as dignified humans, not hopeless objects

Respect for the disaster victim as an equal partner in action should never be lost. In our public information we shall portray an objective image of the disaster situation where the capacities and aspirations of disaster victims are highlighted, and not just their vulnerabilities and fears. While we will cooperate with the media in order to enhance public response, we will not allow external or internal demands for publicity to take precedence over the principle of maximising overall relief assistance. We will avoid competing with other disaster response agencies for media coverage in situations where such coverage may be to the detriment of the service provided to the beneficiaries or to the security of our staff or the beneficiaries.

The Working Environment

Having agreed unilaterally to strive to abide by the Code laid out above, we present below some indicative guidelines which describe the working environment we would like to see created by donor governments, host governments and the inter-governmental organisations - principally the agencies of the United Nations - in order to facilitate the effective participation of NGHAs in disaster response.

These guidelines are presented for guidance. They are not legally binding, nor do we expect governments and IGOs to indicate their acceptance of the guidelines through the signature of any document, although this may be a goal to work to in the future. They are presented in a spirit of openness and cooperation so that our partners will become aware of the ideal relationship we would seek with them.

Annex I : Recommendations to the governments of disaster affected countries

1 Governments should recognise and respect the independent, humanitarian and impartial actions of NGHAs

NGHAs are independent bodies. This independence and impartiality should be respected by host governments.

2 Host governments should facilitate rapid access to disaster victims for NGHAs

If NGHAs are to act in full compliance with their humanitarian principles, they should be granted rapid and impartial access to disaster victims, for the purpose of delivering humanitarian assistance. It is the duty of the host government, as part of the exercising of sovereign responsibility, not to block such assistance, and to accept the impartial and apolitical action of NGHAs. Host governments should facilitate the rapid entry of relief staff, particularly by waiving requirements for transit, entry and exit visas, or arranging that these are rapidly granted. Governments should grant over-flight permission and landing rights for aircraft transporting international relief supplies and personnel, for the duration of the emergency relief phase.

3 Governments should facilitate the timely flow of relief goods and information during disasters

Relief supplies and equipment are brought into a country solely for the purpose of alleviating human suffering, not for commercial benefit or gain. Such supplies should normally be allowed free and unrestricted passage and should not be subject to requirements for consular certificates of origin or invoices, import and/or export licences or other restrictions, or to importation taxation, landing fees or port charges.

The temporary importation of necessary relief equipment, including vehicles, light aircraft and telecommunications equipment, should be facilitated by the receiving host government through the temporary waving of licence or registration restrictions. Equally, governments should not restrict the re-exportation of relief equipment at the end of a relief operation.

To facilitate disaster communications, host governments are encouraged to designate certain radio frequencies, which relief organisations may use in-country and for international communications for the purpose of disaster communications, and to make such frequencies known to the disaster response community prior to the disaster. They should authorise relief personnel to utilise all means of communication required for their relief operations.

4 Governments should seek to provide a coordinated disaster information and planning service

The overall planning and coordination of relief efforts is ultimately the responsibility of the host government. Planning and coordination can be greatly enhanced if NGHAs are provided with information on relief needs and government systems for planning and implementing relief efforts as well as information on potential security risks they may encounter. Governments are urged to provide such information to NGHAs.

To facilitate effective coordination and the efficient utilisation of relief efforts, host governments are urged to designate, prior to disaster, a single point-of-contact for incoming NGHAs to liaise with the national authorities.

5 Disaster relief in the event of armed conflict

In the event of armed conflict, relief actions are governed by the relevant provisions of international humanitarian law.

Annex II : Recommendations to donor governments

1 Donor governments should recognise and respect the independent, humanitarian and impartial actions of NGHAs

NGHAs are independent bodies whose independence and impartiality should be respected by donor governments. Donor governments should not use NGHAs to further any political or ideological aim.

2 Donor governments should provide funding with a guarantee of operational independence

NGHAs accept funding and material assistance from donor governments in the same spirit as they render it to disaster victims; one of humanity and independence of action. The implementation of relief actions is ultimately the responsibility of the NGHA and will be carried out according to the policies of that NGHA.

3 Donor governments should use their good offices to assist NGHAs in obtaining access to disaster victims

Donor governments should recognise the importance of accepting a level of responsibility for the security and freedom of access of NGHA staff to disaster sites. They should be prepared to exercise diplomacy with host governments on such issues if necessary.

Annex III : Recommendations to inter-governmental organisations

1 IGOs should recognise NGHAs, local and foreign, as valuable partners

NGHAs are willing to work with UN and other inter-governmental agencies to effect better disaster response. They do so in a spirit of partnership which respects the integrity and independence of all partners. Inter-governmental agencies must respect the independence and impartiality of the NGHAs. NGHAs should be consulted by UN agencies in the preparation of relief plans.

2 IGOs should assist host governments in providing an overall coordinating framework for international and local disaster relief

NGHAs do not usually have the mandate to provide the overall coordinating framework for disasters which require an international response. This responsibility falls to the host government and the relevant United Nations authorities. They are urged to provide this service in a timely and effective manner to serve the affected state and the national and international disaster response community. In any case, NGHAs should make all efforts to ensure the effective co-ordination of their own services.

In the event of armed conflict, relief actions are governed by the relevant provisions of international humanitarian law.

3 IGOs should extend security protection provided for UN organisations, to NGHAs

Where security services are provided for inter-governmental organisations, this service should be extended to their operational NGHA partners where it is so requested.

4 IGOs should provide NGHAs with the same access to relevant information as is granted to UN organisations

IGOs are urged to share all information, pertinent to the implementation of effective disaster response, with their operational NGHA partners.

Session 4. Canadian Government Disaster Assistance

Session Overview

Aim

The purpose of this session is to acquaint participants with the policies and procedures of the Canadian Government in receiving, assessing and approving requests for assistance.

Objectives

By the end of this session, participants will be able to:

- Identify the chief roles and responsibilities of the Canadian Government with regard to international disaster response

- Explain the major mechanisms by which the Canadian Government channels assistance to those affected by disasters abroad.

Reading 4.1. Canada and the Red Cross Movement

As with all humanitarian emergencies, states have the primary responsibility for the prevention, mitigation and response to natural disasters in their own territories. National Red Cross and Red Crescent Societies act as auxiliaries to the public authorities of their own countries in the humanitarian field and provide a range of services including disaster relief and social programs. Taken together the National Societies have 97 million members and volunteers, 300,000 employees and assist some 230 million people annually. In most natural disasters, international aid is extended only when the affected government requests or welcomes it. In most cases, international relief actors play a supporting role to the affected government in responding to natural disasters.

Canada's main partner for rapid onset disaster response is the International Federation of the Red Cross. Canada regularly supports the IFRC and its efforts to reduce the impact of disasters, to enhance its preparedness and response mechanisms, and to build capacity of national societies.

Canada also provides assistance through Canadian NGOs, the United Nations and in the Americas, the Pan American Health Organization, and we are also members of the UN Disaster Assessment and Coordination system. In FY 02/03 through CIDA, Canada provided $14.3 M (or 13% of its total budget) for natural disasters and $2 million (2%) for Disaster Preparedness.

The Government of Canada has taken a number of important steps in the last three years to improve our response to natural disasters abroad. These efforts are grounded in an inter-departmental approach that draws on the value-added of OGDs and non-governmental partners. In an effort to ensure timely and effective Government of Canada responses to international natural disasters, efforts are coordinated by the Department of Foreign Affairs, based on the 2000 Standard Operating Procedures.

CIDA is the main channel for the provision of emergency assistance, and is currently reviewing how to move forward on the results of an evaluation of their Disaster Response Strategy. In certain circumstances, the Canadian Forces can also be called upon, through deployment of the 200 person Disaster Assistance Response Team (DART).

It is clear that investments in preparedness and mitigation can make a key difference in reducing the impact of natural hazards. Out of concern that insufficient attention is paid to reducing vulnerabilities to future disasters, Canada recently undertook an evaluation of the aid it provides for disaster risk management in developing countries. The main conclusion was that we must do more to incorporate disaster risk management in our long-term development programming.

Reading 4.2. IHA Funding Criteria

Organizations Eligible for IHA Funding

Organizations eligible to receive funding from the IHA program generally have an existing field structure together with local partners in the disaster effected area, as well as an established track record in achieving results in emergency relief. Below we have included the checklist that we use to establish NGO eligibility for program funds. We prefer to fund NGOs with direct involvement in emergency projects. Lower priority is given to NGOs acting as funding intermediaries.

NGO Eligibility - Institutional Criteria

- Must be a Canadian organization, legally incorporated in Canada, that has existed for at least three years.

- Must be registered as non-governmental and non-profit.

- Must have organizational by-laws that clearly state the conditions of   membership and the organization's relationship to the larger Canadian society; who receives remuneration for work with the organization; and what happens to the property (debts) of the organization in the event of dissolution.

- Must possess satisfactory systems and skills in results-based management, including financial accounting, monitoring, and reporting.

- Must demonstrate the ability to raise funds from the Canadian public for humanitarian assistance.

- q Must adhere to The Code of Conduct for the International Red Cross and Red Crescent Movement and NGOs in Disaster Relief:

- Must aspire to Sphere Minimum Standards in Disaster Response in implementation of activities (http://www.sphereproject.org).

NGO Eligibility - Program Criteria

- Must have experience and proven capacity to achieve results directly relevant to the Performance Framework of the IHA short-term responsive program.

- Must be able to submit credible reports showing a track record of achieving relevant results.

- Must have in-house skills in at least one of the priority activity sets of the IHA program.

- Must have three years of work experience in the delivery of humanitarian assistance in at least three different countries.

- Must be committed to networking, partnership, and coordination through strong existing relationships with local NGOs in developing countries, and experience of cooperation with UN organizations and local government.

Exceptions to the foregoing may be granted (e.g. to operations in at least three different countries) where an NGO can demonstrate that it has the requisite experience, skills and partnerships to deliver effective humanitarian assistance in a particular setting.

Criteria for Approving a Proposal

We assess appeals in consultation with the concerned Canadian mission overseas, with relevant programs in CIDA, and with the Department of Foreign Affairs and International Trade. Information is continually received and compiled from diverse sources including NGOs and information networks established by the UN and the Red Cross. We are not able to respond to all proposals that we receive.

Acceptance of a proposal depends on a convincing needs assessment, a credible results-based proposal, organizational capacity of the implementing partner to deliver results, and available funding. Contributions of other donors and relief agencies are taken into consideration. We do not provide funding to NGOs on a matching grant basis and the financial participation and commitment of the NGO is taken

into account as part of the appeal assessment. Note that the IHA program neither favors nor discriminates against recipient organizations on the basis of race, religion or creed.

Exclusions

With the exception of disaster preparedness activities, we do not fund multi-year projects.

Programs, projects or activities excluded from IHA funding are:

- long term development, except special rehabilitation projects associated with refugees and retumees and displaced persons;

- food aid, except for therapeutic feeding; and research activities, search and rescue operations, independent experts and transportation costs for unsolicited new or used goods.

Reading 4.3. Gender Equality and Humanitarian Assistance [23]

The Canadian government and CIDA have made commitments to both integrate a gender perspective in policies and programs and work towards equality for women and men.

The bottom line is that when implemented in an effective fashion, a gender perspective in humanitarian assistance can help save lives: it can assist in the profiling and understanding of vulnerabilities and capacities, it can assist agencies provide (and channel) resources to those most in need, and it can assist in the mobilization of a significant proportion of the population which is often under-estimated.

General Concerns:

The following table outlines a number of critical gender issues and questions to consider in a submission or report.

	Questions to ask	**Why ask these questions?**
Participation and consultation	How have women and men been involved in the design of this initiative? Have women's organizations been consulted? Have the results of that consultation influenced the initiative's focus or design?	Although time is often 'of the essence' when delivering humanitarian assistance there are situations where it is possible to involve communities, consult with target beneficiaries and use participatory planning tools. In these situations it is important to ensure that women's needs, priorities and voices are heard and listened to. This includes individual women as well as representatives of women's organizations.
Gender analysis	Does the project design indicate that there has been a consideration of the different needs, priorities, and interests of women and men?	All too often it is assumed that an entire population will benefit from new resources or a specific initiative. Experience clearly shows that unless there is an awareness of how gender inequalities and differences come into play, women may not benefit to the same extent as men from humanitarian assistance.
Women as only a 'vulnerable group'	Are women only perceived as a 'vulnerable group'? How does the initiative recognize and build on women's capacities as well as vulnerabilities?	In many discussions of gender issues in humanitarian assistance the focus is exclusively on women's vulnerability. Although it is important to understand how people's vulnerability is shaped by gender inequalities, it is essential not to overlook women's capacities. Women have important roles to play within families, communities and organizations. International organizations can either support women in these roles or they can ignore them.
Indicators	Are the proposed indicators to be disaggregated on the basis of sex (where possible)?	Although provided disaggregated indicators may be time consuming and expensive, general trends should be available. For example, the organization should have an approximate idea of who is receiving resources (what percentage women/men, for example).
Objectives or intended results	Is there a specific result that relates to: - Ensuring women's equitable	Not all projects need to have a specific result of this type. There will be occasions, however, when a

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[23] adapted from "Gender and Humanitarian Assistance Tool Kit", Prepared by Beth Woroniuk, IHA/CIDA, June 2001.

	Questions to ask	Why ask these questions?
	access and control over resources/benefits? - Ensuring women's equitable participation in decision-making?	specific result may be required or possible (given circumstances).
Differences among women	Does the project assume that all women have the same needs, priorities and interests? Does the project recognize that most 'groups' (such as displaced people, survivors of landmines, landless or child soldiers), are composed of women, men, boys and girls and that there will be gender differences within these groups?	It is important not think of 'women' as a single category. Women – just like men – are divided along racial, education, class, ethnic, religious and other lines. Lists of vulnerable groups often list women as a separate category and fail to acknowledge that there are women/men, boys/girls within all other categories as well. There are gender issues to be looked at within specific groups.
Capacity of the organizations involved to work on gender issues	Do the organizations involved have a solid track record on gender issues? Do they have a gender policy? Does staff have the capacity to work on these issues? Do they have links with women's organizations? Are they familiar with and use on a regular basis international guidelines and standards relating to key gender issues (reproductive health, sexual violence, etc.)	While good past practice does not guarantee good current practice, it is an indicator of organizational capacity.

Sector Specific Considerations:

This table outlines a number of gender issues with regard to projects that deliver humanitarian assistance in specific sectors.

Food and agriculture	❑ Have men *and* women been consulted in the design and distribution of food aid?
	❑ Has there been recognition of the roles of women in caring for families and dependents – in decisions regarding size of rations, appropriateness of rations, distribution channels, monitoring of distribution?
	❑ How are households registered? Is there consideration of the varying types of households and household structures (including women-headed households)?
	❑ Is there an assumption that all households will have fuel as well as cooking and food preparation utensils? (This may not be the case)
	❑ Have women's roles in agriculture been identified and supported?
	❑ Consider whether or not women's lack of access to agricultural land endangers food security for specific groups?

Health	❑ Is there recognition of women's and men's roles and needs relating to reproductive health care? Have international standards relating to reproductive health been met (such as the Minimum Initial Services Package)?
	❑ Are the resources allocated to meet agency guidelines on reproductive health (for example, as outlined in the inter-agency field manual)? Have staff received training in use of the manual?
	❑ Are the health priorities of women who are not mothers taken into consideration?
	❑ Have the menstrual needs of women been taken care of?
	❑ Has there been attention to the psychosocial well-being of women and men?
	❑ Do HIV/AIDs programmes recognize and respond to women's and men's needs and situations?
	❑ Is it appropriate to involve women's organizations in health monitoring and surveillance activities?
	❑ Has there been consultation with (and involvement of) traditional medical practitioners (women and men) as appropriate to promote helpful (and to eliminate harmful) health practices
	❑ Has there been a consideration of the health implications of gender-based crimes of violence?
	❑ Have women been consulted on the hours of opening of health facilities?
Water and sanitation	❑ Are water and sanitation programmes based on an understanding of the roles, responsibilities and needs of women and girls in ensuring domestic water supplies (these may vary from place to place)?
	❑ Women often hold the primary responsibility for water collection and use – have they been involved in setting priorities and making decisions about water supply programmes?
	❑ Are water supplies accessible to women (and safe for women) as well as men (this may favour dispersed water points, rather than centralized distribution)? This is includes access to containers for collection and storage of water.
	❑ One prerequisite for successful sanitation programmes in 'ordinary circumstances' is women's involvement. Has this 'lesson learned' been applied?
	❑ Do bathing, washing and laundry facilities ensure the privacy and security of women and girls?
Education	❑ Do education programmes reach girls as well as boys (issues include social attitudes, hours classes are offered, child care provision for younger siblings, safety, sex of teachers and location of 'schools')?
	❑ Has attention been paid to the different obstacles face by girls and boys in attending schools? There may be a need to target children of minorities, children with disabilities and children formerly recruited by the military – with attention to gender differences in all these groups.
	❑ Are both women and men mobilized as teachers?
	❑ Do adult education/vocational training programmes target both women and men?
	❑ Do education programmes recognize and build on existing skills of displaced women and women refugees?

Protection of human rights and rule of law	❑ Is there explicit recognition of women's rights has human rights? Do human rights programmes explicitly target women's rights?
	❑ Do human rights workers have experience in dealing with abuses of women's rights?
	❑ Does staff have the capacity to deal appropriately with gender-based violence?
	❑ Has the crisis produced a shifting in gender roles that has exacerbated women's vulnerability to sexual exploitation, domestic violence and rape?
	❑ Is there capacity building for both women's organizations and human rights organizations on women's rights?
	❑ In addition to addressing past violations, is there an analysis of possible strategies to minimize new violations?
	❑ Are initiatives consistent with UNHCR's 1995 *Guidelines against Sexual Violence*?
Economic recovery and reconstruction	❑ Has there been a consideration of changes in family roles and responsibilities? Is there an increase in women-headed households?
	❑ Do economic resources (seeds, tools, relief commodities, etc.) reach women as well as men? Are the packages provided relevant to the type of skills and work women do (as well as those of men)?
	❑ Will inequalities relating land access and ownership have an impact on who benefits from a specific initiative? Do mainstream economic reconstruction programmes provide opportunities for women as well as men? Are there strategies to minimize obstacles to their participation?
	❑ Are there opportunities for women to learn skills in non-traditional fields?
Children/Child protection	❑ Is there recognition of the different situations, needs and resources of girls and boys?

Session 5. Canadian Government Response - *Earthquake in Iran*

Session Overview

Aim

The purpose of this session is to provide participants with an understanding of:

- the natural disaster management responsibilities of the various Canadian Government agencies and staff, based at headquarters and overseas;

- their own natural disaster response role(s);

- the longer-term implications of Canadian disaster response, rehabilitation and recovery for development.

Exercise 5.a. Phase 1: Day One – Alert!

It is Thursday, 25 December 2003 around 9:00 pm in Ottawa[24]). A massive earthquake has just struck Bam, Iran. Initial reports indicate the death toll could rise into the thousands and that much of the infrastructure in this historic city may have been destroyed.

After reading the Phase One background information to be distributed by the workshop facilitator, discuss with your group the following concerns:

- Where are you when the earthquake strikes?

- How will you first learn of this disaster?

- What initial actions should you and/or your organization take in the first 24 hours? At headquarters? Overseas?

(Be sure to consider, among other issues, coordination and communications concerns, consular issues, local and international humanitarian interventions, related media concerns, etc.)

Notes:

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[24] i.e. 26 December 2003 06:00 am in Iran.

Exercise 5.b. Phase 2: Week One – Emergency Response

It is Friday, 26 December 2003 around 09:00 in Ottawa.

Your service has asked you to attend an inter-agency meeting at which a possible humanitarian response to the Bam earthquake must be discussed.

Your first task is to determine what Canada's response should be and what actions must be taken over the next week to support a Canadian deployment.

Notes:

Exercise 5.c. Phase 3: Bam Recovery

It is 5 January 2004. Your inter-agency group has been asked to meet once again and, given the Bam experience, explore the various dimensions of the recovery phase.

You should examine the challenges of addressing rehabilitation/reconstruction/disaster preparedness as a longer-term development issue.

- What, in general, are these challenges? What impact do these challenges have on long-term development concerns?

- How should the Canadian Government address these challenges?

Notes:

Annex A. Online Disaster Management Resources [25]

The Disaster Center www.disastercenter.com

Emergency Net www.emergency.com

ALERT, Alliance for Emergency response and Training www.members.aol.com/alertphil/

Building Collapse Rescue Guidelines www.emergency.com/bldgclps.htm

OCHA, Emergency relief and Relief Coordination: www.reliefweb.int/ocha_ol/programs/response/

Reliefweb : www.reliefweb.int

HCIC, Kosovo Humanitarian Community Information Center : www.reliefweb.int/hcic/

OCHA-Online, UN Office for the Coordination : www.reliefweb.int/ocha_ol/index.html

IRIN, Integrated Regional Information Network (UN-OCHA) : www.reliefweb.int/IRIN/

USAID-OFDA, Reports Index : www.usaid.gov/hum_response/ofda/

Disaster Finder, NASA : http://ltpwww.gsfc.nasa.gov/ndrd/disaster/links/

WHO, Division of Emergency and Humanitarian Action : www.who.int/eha/index.html

VITA, Volunteers in Technical Assistance : www.vita.org

UNDAC, UN Disaster Assessment Team : www.reliefweb.int/undac/

Disaster Info, Latin America, Caribbean : www.disaster.info.desastres.net/

OAS, Caribbean Disaster Mitigation Project : www.oas.org/en/cdmp/

PAHO, Pan American Health Organisation (WHO) : www.paho.org/

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[25] This listing from the website of the International Federation of the Red Cross and Red Crescent Socieities: http://www.ifrc.org/what/disasters/response/links.asp

CDERA, Caribbean Disaster Emergency Response Agency : www.cdera.org/

CRID, Regional Disaster Information Center (Latin Am. & Caribbean) : www.crid.or.cr/

CAT, Natural catastrophes and Developing Countries Project : www.iiasa.ac.at/Research/CAT/

PCOE-DMHA, Center of Excellence in Disaster Management and Humanitarian Assistance : http://coe-dmha.org/website/index.htm

Disaster Management Studies, Coventry University, UK : www.be.coventry.ac.uk/courses/disaster/

Disaster Studies, Univ. Of Wageningen : www.sls.wau.nl/crds/cent_ds.htm

Diploma in Disaster Management, Univ. of Wisconsin : http://epdwww.engr.wisc.edu/dmc/

INSARAG, International Search and Rescue : www.reliefweb.int/insarag/

Disasters and recovery: Risk, Modeling and Society (RMS) : www.iiasa.ac.at/Research/RMS

Disaster Relief, News Service of American RC and CNN : www.disasterrelief.org/

Journal of Humanitarian Assistance : www.jha.ac/

Library Handbook for Emergency Response, UCB :
www.lib.berkeley.edu/AboutLibrary/Security/respindex.html

IAEM, International Association of Emergency Managers : http://www.iaem.com

NDRD, Natural Disaster Reference Database : http://ltpwww.gsfc.nasa.gov/ndrd/

EQE, Disaster Reports Archive : www.eqe.com/publications/disaster.html

EM-DAT, The OFDA/CRED International Disaster Database : www.md.ucl.ac.be/cred/

Disaster Terminology (PDM) : http://pdm.medicine.wisc.edu/vocab.htm

APRI, International Relations and Security Network : www.isn.ethz.ch/

Annex B. Oxfam Checklists For Rapid Assessment In Emergencies

Introduction

This generic assessment tool has been developed to aid programme staff to undertake integrated Public Health assessments. It aims to reduce the time between initial assessment and response to emergencies by improving the quality of our assessments.

It incorporates SPHERE minimum standards and principles and adds to them where necessary. It is hoped that the tool can be used by programme officers as well as technical staff. Different members of an assessment team can use different sections allowing for distribution of the workload amongst team members. Information will need to be collected from as many sources as possible in order to allow verification of information.

Areas of Oxfam specific competence are highlighted, however the tool provides a comprehensive Public Health overview, which is required in order to determine priorities for response. It is possible to use the checklists independently depending on the particular sector you are assessing or together in order to gain an overview.

It should be noted that some aspects of assessments require technical support from Health, Food, Nutrition or Public Health Engineering professionals. These can be accessed regionally or in-country and centrally through the Emergencies Department of Oxfam GB. Central resources available include, Public Health Engineering Advisors, Health Advisors, Food and Nutrition Advisors, and Public Health Engineer, Health, Nutrition, Manager, Accountant, Office Manager, and Logistician Emergency Support Personnel. Advisors are assigned specific regions. Please contact the relevant advisors for any discussions/clarifications relating to their specialist areas.

Food & Nutrition

General

- How many people are affected (by what) and why? Where are they? Settled or mobile?
- What are the current and/or threatened shocks to food security and nutritional status?

Food Security

1. What are the **main foods** normally consumed in this area? Describe the typical dietary pattern(s) and frequency of consumption of main foods.

2. .Where do the different foods **normally** come from?

   a) Rural: how is food produced? Describe land ownership/user rights among the affected; the rainfall/irrigation/watering/pasturing pattern; who grows which food crops and cash crops, has livestock etc; peak planting and harvesting times for main crops. List common wild foods consumed

   b) Purchased/urban: describe main sources of staple foods, with indicative prices

3. What are the **normal seasonal fluctuations** in food availability? During a normal year, when is the hungry season, and when is the time of greatest food availability? What are the main usual factors affecting variations in household level food security?

4. How has normal **food availability** been affected **now** ?

   a) what has changed in the availability of the main foods? (quantity, quality, period, price)

   b) what has changed or is new in the factors affecting availability ?

5. What is the normal (food) **market system** in this area? Give locations, frequency, main commodities traded (specify local or imported), characterisation of traders, access, including by any marginalised groups, proximity of markets to the affected population, government policies affecting trade and markets, local/imported goods etc.

6. How do the factors in #5 differ in the **current market for food** ? List the current (note date and location) and "normal" **prices** of each major food source (in #1). Establish how to access market prices on a monthly basis.

7. What are the critical **terms of trade** for food for the affected population? (How do they measure how expensive their food is, i.e. price of their main staple food, e.g. grain, compared to sale-price of their main source of cash, e.g. livestock.)

   What is that exchange ratio normally? And what is it now?

   (e.g. 1 cow buys only 100kg wheat now compared to 300kg this time last year)

8. How has the **purchasing power of the affected groups** (i.e. their cash available for buying food)changed, and why? (include effects of e.g. unemployment, inflation).Which groups and individuals are more/most and less/least affected?

9. What are the main **livelihood groups** in the affected area?

   a) Identify groups/households by the most important means by which they access food, e.g. pastoralists, commercial/subsistence farmers, traders, petty traders, fishermen, casual and contract labourers, families relying on barter, on gifts, on loans, on remittances, etc.

   b) How did each livelihood group access food prior to the crisis?

   c) How does each livelihood group access food now: what adaptations in order to obtain food, to cope during the period with limited availability of food/restricted access to food?

10. Does the affected population have any **non-nutritional food needs**, e.g. food for social/economic purposes, such as for religious celebrations?

11. Are the strategies used by households to access food sustainable and can they have a detrimental effect on the environment.

Preparation and consumption

12. a)Has the typical **dietary pattern** changed? How?

b) How many **meals a day** did affected groups normally? And now? How is food normally prepared and cooked? How has this been affected by the current situation? Are **cooking** utensils available in households?

13. What type of **cooking fuel** is normally used for cooking and how has the supply been affected. Is fuel gathering having an adverse environmental effect?

14. What are the **infant feeding** practices amongst affected communities (include here details of breast-feeding, weaning practices, food taboos).

15. Are there household members with less access to food than others ? Why?

16. Which livelihood, ethnic, sex, or age group(s)are the most at risk of losing their access to food?

Nutrition

17. What information on the **current nutritional situation** exists? (e.g. recent nutritional surveys, nutritional surveillance data from MCH clinics/SFCs/TFCs, food security and early warning information.) Quote directly the summary data, and append or send the data.

18. What information exists on the nutritional situation in the area **prior to the current crisis**? Were there any existing nutritional problems, which may have worsened in the current situation?(such as endemic micronutrient deficiencies (and possible causes), stunting, seasonal fluctuations in acute nutritional status)

19. What formal and informal **local structures** are currently in place through which potential interventions could be channeled?

20. What is **already being done** to address the current situation? Who by, with what funding? How frequently? Where? Why? (i.e. any identifiable non-relief agendas)

21. What **nutrition interventions** were already in place organised by local communities, individuals, NGOs, government organisations, INGOs, UN, religious organisations etc. Include details of nutrition policy, past, ongoing and lapsed, and planned long-term nutrition interventions, and programmes which are being implemented/planned in response to the current situation.

Information Sources

- Observation
- Interviews & PRA with members and leaders of the affected population (especially women & children)
- Mortality and morbidity data from health facilities, nutrition centres/feeding programmes, community health workers, community – including cemetery staff, shroud distributors.
- Local government offices, Ministry of Health, Ministry of Agriculture
- FEAU, UN representatives, NGOs and other agencies
- Maps/aerial photographs.

Health

General

- How many people are affected (by what) and why? Where are they? Settled or mobile?
- What are the current or likely water and sanitation and vector borne diseases (Please refer to Water & Sanitation section)

Mortality

1. What is the overall mortality rate (crude mortality rate - CMR) - expressed as deaths per 10,000 population per day. (Any evidence of under- or over-reporting?)
2. What is the under 5 mortality rate (age specific mortality rate for children under five years old. (Deaths/10,000/population/day)
3. What are the cause- specific mortality rates
4. What is the main cause of death?
5. Which age group is most affected?
6. Is there a designated burial area?

Morbidity

1. What are the principle health problems in the disaster affected area?
2. What are the most frequent communicable diseases e.g. measles, malaria, skin diseases, diarrhea, acute respirator
3. disease etc and how are these likely to be affected by seasonal variations?
4. What are the principle health problems in the country of origin (if displaced involved)?
5. Determine age and sex specific incidence rates of major health problems and diseases that have public health importance.
6. Is there a standardised health information system for collecting data?
7. How is data collected and analysed?
8. Any evidence of acute malnutrition? How is this monitored? (Please refer to the Food and Nutrition Section)
9. Are there specific health problems for women (e.g. high birth rate, anemia, sexually transmitted diseases, sexual violence/rape, and abortion)?
10. What is the immunisation coverage? Which vaccines given, (measles, polio, etc) when, where, date last immunisation occurred.
11. Are there victims of trauma, injury, or shot wounds.

Public Health promotion

1. What health related behaviours are contributing to the public health risks faced by the affected population?
2. What are the common health related practices among the affected population and how have these been affected by the emergency? (washing hands after defecation, disposal of children's faeces, use of soap, storage and covering of water and cooked food, disposal of rubbish, protection against vectors)
3. Are there important practices or beliefs which affect people's health? Are there cultural sensitivities or taboo subjects?
4. What are the breast feeding practices?
5. Is there an understanding of the relationship between water/sanitation/shelter/vectors and disease?
6. Does the community have access to lidded water containers /cooking utensils/ mosquito nets/soap/sanitary protection /blankets/bathing facilities etc?
7. Are there any public health promotion activities taking place?
8. Who is involved in theses activities? (community health workers, voluntary groups, home visitors)
9. Are they linked with water and sanitation and/ or health services?
10. Are the latrines or toilets cleaned and maintained so that they are hygienic and safe for all users?
11. Are the users involved in the management and maintenance of water sources and latrines?

12. What health promotion media are available/accessible to the affected population? (radio, posters/leaflets, local folk media)

Health Care Provision

1. What health care provision is available to the population and who is providing it ?

2. What services are available (curative, MCH, private, immunisation etc)

3. Are the services accessible to and sufficient for the target population?

4. What is the situation in terms of health care personnel- level of training, ratio to health facility, outreach or volunteer workers?

5. Are the health structures adequately equipped - is there water available, refrigeration for vaccines, appropriate provision of drugs, sufficient capacity to cope with likely disease outbreaks?

6. What information is available about the number and type of patients seen - average numbers, types of diseases by sex and age?

Information Sources

- Observation.
- Interviews with women and community representatives.
- Mortality and morbidity data collected from health facilities, nutrition centres/feeding programmes community health workers community - including cemetery staff, shroud distributors.
- Local Government Offices, Ministry of Health, NGO's and other agencies.
- Maps/ aerial photographs.

Logistics

Communications

1. Assessment of local telecommunications capacity, with reference to telephone/fax/e-mail?
2. Is there a need for Satellite communications, if so why?
3. Assess need for H/F and VHF communications including mobile and base stations?
4. Computers types and numbers required for operations and reporting?
5. Road access, locally, regionally, nationally, including surfaces, traffic conditions, bridges, fords seasonal weather?
6. Road types: Tracks, Dirt, Sealed, tarmac. Road conditions: potholes, smooth, good/poor condition. Is 4x4 transportation required?
7. Is there truck access to site (hills gradients, max truck size at EDP bridge limitations?
8. Airstrip/port, how far is nearest strip and airport from site, including details of facilities?
9. Where is nearest port (sea/river) including port details?
10. Most effective transport options, in order of speed, cost, bulk, initial response, and further support, and timings?

Office, Warehouse, Accommodation

1. Are there local offices or buildings available to rent for use as office, warehouse, and housing?
2. Distance from operational site, cost of buildings rental, including availability of power (voltage/cycle), need for generators. Local plug type, water, Gas (mains/bottle size availability) sanitation facilities, and reliability?
3. What size of offices/warehouse/housing available, and physical security of sites?
4. Number of rooms, equipment included, weatherproofing, lockability, local security situation, and separation of accommodation from office/warehouse, costing?
5. Proposed location for UN, Red X, Ngo's and location of local and National authorities, Police and Military. Proposed Oxfam base?
6. What in-puts are required to become operational, including power, water, sanitation, and all equipment necessary (local or international purchase). Rented, canvas, build own site

Security

1. Describe local security situation, with reference to current difficulties?
2. Evacuation routes from office/house/warehouse/field sites for all local and international staff.
3. Security focal point for operation, and if plans, procedures and network developed

Procurement

1. What is available locally from markets, or local suppliers, generally, and are prices reasonable?
2. Procurement local, regionally, international, nearest local markets availability prices. Lead times for, regional, local, international, procurement by commercial sector?
3. Procurement of fresh food, grocery, butchery, fuel. Vehicle spares and workshops, hardware, pipes, stationary, photocopy, Courier, services, chemicals, furniture. Where are nearest sources and some relevant example costing?
4. Availability of local labour (numbers), skill levels, warehouses, domestic, drivers, logisticians, computer skills, language. Local training infra-structure (trade schools, specialist courses, etc)?

Local Transport Assessment

1. Public transport: bus, rail, taxi, truck, other, scheduled services, availability for use and hire?
2. Is hiring of any trucks, cars, or other transport possible, with numbers, types, reliability and costs?
3. Loan of vehicles from existing programs, or other agencies, availability for initial stages?

Agencies Resources Contacts

1. Is there a current Oxfam office in country or region ?

2. What support capacity can they provide to affected area in terms of staff, vehicles, customs communications, purchasing, immigration, equipment and other infrastructure?

3. What support, or information, will/can local business or commercial contacts provide, detail names, Tel/fax/e-mail?

4. Which persons/agencies have best local knowledge and contacts?

5. Which agencies can share or loan resources and equipment, and what equipment?

6. Any other relevant or special information not covered above?

Information Sources

- Observations of sites, and markets
- Interviews with local and national authorities, ministries, local and international NGOs, and agencies.
- Local and national business

Site Selection & Shelter

General

- How many people are affected (by what) and why? Where are they? Settled or mobile?
- Is the site under consideration for transit camp or long-term refugee/displaced people camp?
- Are land rights and the right to use other natural resources such as water, wood , stone and sand pre arranged with the responsible authorities in the host country?
- What are the current or likely shelter-related diseases? What is the distribution and expected evolution of the problems?

Site Selection

1. **Topography and location:** Is the location away from swamp, depressions, riverbanks and lakeshores? Does the topography of the site have a gentle slope (1-6 percent)?
2. **Soil type:** Is the soil type of the area sandy permeable, black cotton soil, fine clay or rocky? Is it suitable for digging and water infiltration,?
3. **Water source:** Is there a water source available in the area all year round. Is the supply of good quality water for drinking, cooking and hygiene and sanitation purposes for the refugee/displaced people within acceptable distance?
4. **Site Surface area:** Is there enough space in the site for all refugee/displaced camp purposes such as spaces for living, sanitation, education /social gatherings and burial purposes and for future expansion?
5. **Accessibility:** Is the site accessible throughout the year? Are there all weather roads to sources of food, fuel and shelter material?
6. **Environmental conditions:** Is the area free of major environmental health hazards, such as malaria, schistosomiasis or sleeping sickness etc. Is the area free from tidal waves, flooding, earthquake and risk of landslides or active volcano?
7. **Vegetation:** Is the site endowed with vegetation cover, which will protect soil erosion and provide a source of shade?
8. **Fuel wood:** How is the availability of fuel wood for cooking in the vicinity of the site?
9. **Construction materials:** Are construction materials such as wood, stone and sand available within the vicinity of the site?
10. **Environmental impact:** What is the long-term environmental effect of having the site to host the refugees/displaced people? What are possible means of mitigating such effect?
11. **Political and security issues:** Is the site secure enough for the refugees/displaced people to prevent attack by those who pursue them from their area of origin? Is the site at an acceptable distance from the boarder of the area of origin of the refugees/displaced people?
12. **Social legal and cultural issues:** Has the social cultural and legal issues as to why the site was not used before by local community been cleared. What is the indication of the host community's feeling towards the refugees/displaced people occupying the site?

Site Planning

1. Is the camp planning according to the layout preferred by the refugee/displaced community ?
2. Does the planning provide minimum standard space for each person which is 45m^2 ?
3. Is there empty land for possible future expansion?
4. Are social, health, sanitation and other essential facilities safely accessible and lit at night when necessary and possible? Is there equitable access for different groups?
5. Are social facilities like markets, worship places, graveyards, health facilities, solid waste disposal points etc. provided?
6. Is there provision in the planning for humanitarian agencies administration, warehousing and staff accommodation facilities?
7. Is there a provision for firebreaks at least every 300meters ?

8. Is there a graveyard appropriately located for each population group ?

9. Are there established quarantine camps in isolation from general residential areas?

10. In planning roads and drainage patterns, have natural contours been followed?

11. What measures have been taken to conserve vegetation cover and forestry in the area?

12. Is the gradient of the site between 2% and 6% to enable good surface water drainage?

Shelter

1. What is the normal climate and which is the current or oncoming season?

2. Are there particularly vulnerable groups among the population?

3. What shelter is currently available and to what proportion of the affected population?

4. Do all groups have equitable access to building sites and materials?

5. Do households without male labour suffer a disadvantage?

6. Have people had to flee from their normal homes? If not, what damage has been caused to these homes?

7. What shelter materials are locally available? Do people need to pay for these materials?

8. What construction methods are usually employed in the area? Do people build their own homes or are they built by construction specialists?

9. Are there beliefs or social practices which have a bearing on design and construction of shelters? Is there sufficient privacy and security for women?

10. How much space is available for building shelters?

11. Is the site or location suitable for conventional construction methods or are there particular problems or risks?

12. Are emergency shelter materials available in country and what are the costs?

13. Do people have access to blankets and clothing if necessary?

14. Is fuel available for heating/cooking if required? Who collects this, and do they need to pay for it?

Information Sources

- Observation, Interviews with women and community representatives.
- Local authorities, Ministries responsible for site planning and the environment.
- Local and International NGO's and agencies.
- Hospitals, clinics and health outposts

Water & Sanitation

General

- How many people are affected (by what) and why? Where are they? How are they distributed? Settled or mobile?
- What are the current or likely water and sanitation-related diseases?

Water

1. What is the current water source?
2. How much water is available per person per day, and do all groups (e.g. men, women, caste's, etc.) have equitable access to it? *(Minimum Standard 15L/p/d)*.
3. How much water available at the source. Is it enough for short term and longer term needs? *(Minimum Standard flow at each collection point 0.125 l/s & at least 1 water point per 250 people)*.
4. How far are water collection points from where people live? *(Minimum Standard , shelter to water point 500m)*.
5. Is the current water supply reliable? What may effect this? How long will it last?
6. What are people using to transport water? Do people have enough water containers of the right size and type? *(Minimum Standard –each household has 2 10-20 L collecting vessels plus a 20L storage vessel)*
7. Is the water source contaminated or at risk of contamination (microbiological and chemical/radiological)?
   If so, what is the contaminate? *(Minimum Standard not > 10 faecal coliforms per 100ml at collection point)*
8. Is treatment necessary? Is treatment possible? What treatment is necessary?
9. Is disinfection necessary, even if supply is not contaminated? If so, why? *(Minimum Standard for residual free chlorine 0.2-0.5 mg per litre and turbidity below 5 NTU, TDS no more than 1000 mg/l)*
10. What and where are possible alternative sources?
11. What are the legal obstacles, if any, to using available supplies?
12. Is it possible for the population to move if water sources are inadequate? Who makes this decision?
13. Is it possible to tanker water if water sources are inadequate? From where?
14. What are the key hygiene issues related to water supply?
15. What means do people have to use water hygienically in this situation?

Sanitation

Excreta disposal

1. What is the estimated population and how are people distributed across the area? *(Minimum Standard - Max 20 people per toilet)*.
2. What are the current beliefs and traditions concerning excreta disposal especially regarding women's habits and attitude towards child excreta? What material/water is used for anal cleansing. Is it available?
3. Are there any existing facilities? If so are they used, are they sufficient and are they operating successfully? can they be extended or adapted? Do all groups have equitable access to these facilities? *(Minimum Standard – toilets no more than 50m from dwellings or no more than 1 minutes work)*.
4. Are the current defecation practices a threat to health . If so, how? *(Minimum Standard – latrines > 30m from any ground water source)*.
5. What is the current level of awareness of public health risks? Are there hand washing facilities?
6. Are both men and women prepared to use defecation fields, communal latrines or family latrines?
7. Is there sufficient space for defecation fields, pit latrines etc?
8. How does the land slope and what are the drainage patterns?

9. What is the depth and permeability of the soil, and can it be dug easily by hand
10. What is the level of the groundwater table? *(Minimum Standard – bottom of any latrine pit is > 1.5m above water table)*.
11. What local materials are available for constructing toilets?
12. Are there any people familiar with the construction of latrines?
13. How do women deal with menstruation? Are there materials or facilities they need for this?
14. When does the seasonal rainfall occur?

Vector-borne disease

1. What are the vector bome disease risks and how serious are they?(i.e. Any obvious problem of flies, mosquitoes, rodents, cockroaches, fleas, lice or bedbugs?)
1. If vector bome risks high do people have access to individual protection?
2. Is the affected population used to dealing with these risks? Which vectors in particular?
3. Has the affected population traveled through an area infected with certain insect vectors?
4. Which groups of the population are most affected-children/men/women/new arrivals/old residents
5. Is there evidence of overcrowding. - Do people have previous experience of communal living?
6. Do people have any livestock – where are they/ types/ where do the livestock defecate etc?
7. Is there any evidence of vector breeding sites – stagnant water/ uncovered pit latrines/water containers etc.
8. What changes could be made to the local environment (by drainage/ scrub clearance/excreta disposal/refuse disposal) to discourage vector breeding?
9. Is it necessary to control vectors by chemical means? What programmes, regulations and resources for vector control and use of chemicals are there?
10. Is there a National Public Health/Vector Control Programme?

Solid waste disposal

1. Is solid waste a problem?
2. How do people dispose of their waste? *(Minimum Standard - refuse container 15m from dwelling or 100m from communal refuse pit)*.
3. What type and quantity of solid waste is produced?
4. Can solid waste be disposed of on site, or does it need to be collected and disposed of off site? *(Minimum Standard - 1 100L refuse container is available per 10 families where 5m from dwelling where refuse must be taken off-site)*.
5. Are there medical facilities and activities producing waste? How is this being disposed of? Who is responsible?

Drainage

1. Is there a drainage problem? (flooding shelters and latrines, vector breeding sites, polluted water contaminating living areas or water supplies)
2. Do people have the means to protect their shelters and latrines from local flooding?

Information Sources

- Observation
- Interviews with women and community representatives. Local authorities.

Ministries responsible for sanitation, water and the environment Local and International NGO's and agencies. Hospitals, clinics and health outposts.

Annex C. Introduction to Hazards [26]

Earthquakes

Causal phenomena	Slippage of crustal rock along a fault or area of strain and rebound to new alignment.
General characteristics and effects	Shaking of earth caused by waves on and below the earth's surface causing: Surface faulting Tremors, vibrations Aftershocks Liquefaction Tsunamis Landslides
Predictability	Probability of occurrence can be determined but not exact timing. Forecasting is based on monitoring of seismic activity, historical incidence, and observations.
Factors contributing to vulnerability	Poverty, location of settlements on marginal lands Location of settlements in seismic areas; flaws in planning, siting, design, construction and use of buildings, dams, transportation links and other infrastructure Quality of buildings; structures which are not resistant to ground motion. Dense collections of buildings with high occupancy. Lack of access to information about earthquake risks.
Typical adverse effects	*Physical damage*—Damage or loss of structures or infrastructure. Fires, dam failures, landslides, flooding may occur. *Casualties*—Often high, particularly near epicenter or in highly populated areas or where buildings not resistant. *Public health*—Fracture injuries most widespread problem. Secondary threats due to flooding, contaminated water supply, or breakdown in sanitary conditions. *Water supply*—Severe problems likely due to damage of water systems, pollution of open wells and changes in water table.
Possible risk reduction measures	Hazard mapping Public awareness programs and training Assessing and reducing structural vulnerability Land use control or zoning, building codes Insurance
Specific preparedness measures	Earthquake warning and preparedness programs
Typical post-disaster needs	Search and rescue Emergency medical assistance Damage needs and assessment survey Relief assistance Repair and reconstruction Economic recovery
Impact assessment tools	Earthquake scales (Modified Mercalli), earthquake damage and usability forms.

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[26] adapted from "Overview of Disaster Management", prepared by the University of Wisconsin Disaster Management Center for the UN Disaster Management Training Programme, 1992. Available at: http://www.undmtp.org/english/Overview/overview.pdf

Volcanoes

Causal phenomena	Magma pushed upward through volcanic vent by pressure and effervescence of dissolved gases.
General characteristics	Types of volcanoes are cinder cones, shield volcanoes, composite volcanoes and lava domes. Magma flowing out onto surface is lava and all solid particles ejected are tephra. Damage results from type of material ejected such as ash, pyroclastic flows (blasts of gas containing ash and fragments), mud, debris, and lava flows.
Predictability	Study of the geological history of volcanoes mainly located in a clearly defined volcanic belt, along with seismic activity and other observations, may indicate an impending volcano. No reliable indicator has been discovered and precursory signs do not always occur.
Factors contributing to vulnerability	Poverty, location of settlements on marginal lands; settlements on flanks of volcanoes Settlements in the historical paths of mud or lava lows Structures with roof designs not resistant to ash accumulation Presence of combustible materials Lack of evacuation plan or warning systems
Typical Adverse effects	*Casualties and health*–Death from pyroclastic flows, mud flows and possibly lava flows and toxic gases. Injuries from falling rock, burns; respiratory difficulties from gas and ash. *Settlements, infrastructure and agriculture*–Complete destruction of everything in the path of pyroclastic, mud or lava flows; collapse of structures under weight of wet ash, flooding, blockage of roads or communication systems *Crops and food supplies*–Destruction of crops in path of flows, ash may break tree branches, livestock may inhale toxic gas or ash; grazing lands may be contaminated.
Possible Risk reduction measures	Land use planning for settlements around volcanoes Protective structural measures
Specific Preparedness Measures	National volcanic emergency plans Volcano monitoring and warning system Training for government officials and community participation in search and rescue, fire fighting
Typical post-disaster needs	Warning and evacuation; medical assistance, search and rescue; provide food, water and shelter; relocate victims; provide financial assistance
Impact Assessment tools	Aerial and ground surveys to assess damage; evaluation of evacuation plan and emergency response

Landslides

Causal phenomena	Downslope transport of soil and rock resulting from naturally occurring vibrations, changes in direct water content, removal of lateral support, loading with weight, and weathering, or human manipulation of water courses and slope composition.
General characteristics and effects	Landslides vary in types of movement (falls, slides, topples, lateral spread, flows), and may be secondary effects of heavy storms, earthquakes, and volcanic eruptions. Landslides are more widespread than any other geological event.
Predictability	Frequency of occurrence, extent and consequences of landslides may be estimated and areas of high risk determined by use of information on area geology, geomorphology, hydrology and climatology and vegetation.
Factors contributing to vulnerability	Poverty, location of settlements on marginal lands; settlements built on steep slopes, softer soils, cliff tops Settlements built at the base of steep slopes, on mouths of streams from mountain valleys Roads, communication lines in mountain areas Buildings with weak foundations Buried pipelines, brittle pipes Lack of understanding of landslide hazard
Typical adverse effects	*Physical damage*—Anything on top of or in path of landslide will suffer damage. Rubble may block roads, lines of communication or waterways. Indirect effects may include loss of productivity of agricultural or forest lands, flooding, reduced property values. *Casualties*—Fatalities have occurred due to slope failure. Catastrophic debris slides or mudflows have killed many thousands.
Possible risk reduction measures	Hazard mapping Legislation and land use regulation Insurance
Specific preparedness measures	Community education Monitoring, warning and evacuation systems
Typical post-disaster needs	Search and rescue (use of earth removal equipment); medical assistance; emergency shelter for homeless
Impact assessment tools	Damage assessment forms

Tropical cyclones

Causal phenomena	Mixture of heat and ,moisture forms a low pressure center over oceans in tropical latitudes where water temperatures are over 26 degrees C.
	Wind currents spin and organize around deepening low pressure over accelerating toward the center and moving along track pushed by trade winds.
	Depression becomes a tropical cyclone when winds reach gale force or 117 km per hour
General characteristics and effects	When the cyclone strikes land, high winds, exceptional rainfall and storm surges cause damage with secondary flooding and landslides.
Predictability	Tropical cyclones can be tracked from their development but accurate landfall forecasts are usually possible only a few hours before as unpredictable changes in course can occur.
Factors contributing to vulnerability	Poverty, location of settlements on marginal lands; settlements located in low lying coastal areas (direct impact)
	Settlements in adjacent areas (heavy rains, floods)
	Poor communications or warning systems
	Lightweight structures, older construction, poor quality masonry
	Infrastructural elements, fishing boats and maritime industries
Typical adverse effects	*Physical damage*–Structures lost and damaged by wing force, flooding, storm surge and landslides.
	Casualties and public health–May be caused by flying debris, or flooding.
	Contamination of water supplies may lead to viral outbreaks and malaria.
	Water supplies–Ground water may be contaminated by flood waters.
	Crops and food supplies–High winds and rains can ruin standing crops, tree plantations and food stocks.
	Communications and logistics–Severe disruption is possible as wind brings down telephone lines, antennas and satellite disks. Transport may be curtailed.
Possible risk reduction measures	Risk assessment and hazard mapping
	Land use control and flood plain management
	Reduction of structural vulnerability
	Improvement of vegetation cover
Specific preparedness measures	Public warning systems
	Evacuation plans
	Training and community participation
Typical post-disaster needs	Evacuation and emergency shelter; search and rescue; medical assistance; water purification; reestablish logistical and communication networks; disaster assessment; provision of seeds for planting.
Impact assessment tools	Damage assessment forms, aerial surveys

Floods

Causal phenomena	Naturally occurring flash, river and coastal flooding from intense rainfall or inundation associated with seasonal weather patterns
	Human manipulation of watersheds, drainage basins and floodplains
General characteristics and effects	*Flash floods*–Accelerated runoff, dam failure, breakup of ice jam
	River floods–Slow buildup, usually seasonal in river systems
	Coastal floods–Associated with tropical cyclones, tsunami waves, storm surges
	Factors affecting degree of danger: depth of water, duration, velocity, rate of rise, frequency of occurrence, seasonality
Predictability	Flood forecasting depends on seasonal patterns, capacity of drainage basin, flood plain mapping, surveys by air and land.
	Warning possible well in advance for seasonal floods, but only minutes before in case of storm surge, flash flood, or tsunami.
Factors contributing to vulnerability	Poverty, location of settlements on marginal lands; settlements on floodplains
	Lack of awareness of flooding hazard
	Reduction of absorptive capacity of land (erosion, concrete)
	Non-resistant buildings and foundations
	High risk infrastructural elements
	Unprotected food stocks and standing crops, livestock
	Fishing boats and maritime industries
Typical adverse effects	*Physical damage*–Structures damaged by washing a way, becoming inundated, collapsing, impact of floating debris. Landslides from saturated soils. Damage greater in valleys than open areas.
	Casualties and public health–Deaths from drowning but few serious injuries. Possible outbreaks of malaria, diarrhea and viral infections.
	Water supplies–Contamination of wells and groundwater possible. Clean water may be unavailable.
	Crops and food supplies–Harvests and food stocks may be lost to inundation.
	Animals, farm tools and seeds might be lost. Floodplain mapping, Land use control
Possible risk reduction measures	Flood control (channels, dikes, dams, flood-proofing, erosion control)
Specific preparedness measures	Flood detection and warning systems
	Community participation and education
	Development of master plan for floodplain management
Typical post-disaster needs	Search and rescue; medical assistance; disaster assessment; short term food and water supplies; water purification; epidemiological surveillance; temporary shelter
Impact assessment tools	Damage survey forms; aerial surveys

Droughts

Causal phenomena	*Immediate cause*-Rainfall deficit
	Possible underlying causes-El Niño (incursion of warm surface waters into the normally colder waters of South American Pacific); human induced changes in ground surface and soil; higher sea surface temperatures; increase of atmospheric carbon dioxide and greenhouse gases.
General characteristics and effects	The reduction of water or moisture availability is temporary and significant in relation to the norm.
	Meteorological drought is the reduction in rainfall and hydrological drought is the reduction in water resources.
	Agricultural drought is the impact of drought on human activity influenced by various factors: the presence of irrigation systems, moisture retention capacity of the soil, the timing of the rainfall and adaptive behavior of the farmers.
Predictability	Periods of unusual dryness are normal in all weather systems.
	Rainfall and hydrology data must be carefully analyzed with influencing factors in predicting drought, however, advance warning is usually possible.
Factors contributing to vulnerability	Poverty; location in an arid area where dry conditions are increased by drought. Farming on marginal lands, subsistence farming
	Lack of agricultural inputs to improve yields
	Lack of seed reserves
	Areas dependent on other weather systems for water resources
	Areas of low soil moisture retention
	Lack of recognition and allocation of resources to drought hazard
Typical adverse effects	Reduced income for farmers; reduction of spending from agricultural sector; increase in price of staple foods, increased inflation rates, deterioration of nutritional status, famine, illness, death, reduction of drinking water sources, migration, breakup of communities, loss of livestock.
Possible risk reduction measures	Drought and famine early warning systems
	Development of inter-institutional response plan
Specific preparedness measures	Development of inter-institutional response plan ·
Typical post-disaster needs	Measures to maintain food security: price stabilization, food subsidies, employment creation programs, general food distribution, supplementary feeding programs, special programs for livestock and pastoralists, complementary water and health programs; rehabilitation
	Measures to maintain food security: price stabilization, food subsidies, employment creation programs, general food distribution, supplementary feeding programs, special programs for livestock and pastoralists, complementary water and health programs; rehabilitation ·
Impact assessment tools	Nutritional surveys, socioeconomic surveys, monitoring of rainfall and hydrological data, satellite imagery.

Annex D. Measuring Earthquakes: Using Richter and Mercalli Scales

Richter Scale: Seismologists have developed various ways to measure the strength of earthquakes. The first and most well-known is the Richter magnitude scale, developed earlier this century by California seismologist Charles Richter. The calculation of Richter magnitude is based on the maximum strength of the vibrations (measured by a seismograph) and the distance of the instrument from the epicenter of the earthquake. The Richter scale is logarithmic, which means that each increase in magnitude indicates a tenfold increase in the strength of the quake. A magnitude-6.0 earthquake, for instance, is ten times stronger than a magnitude-5.0. In terms of the energy released, the differences are even greater. A magnitude-6.0 earthquake releases 32 times the seismic energy as a magnitude-5.0.

Richter	Comments
1.0	Only ascertainable with use of instruments
2.0	Smallest quake people can normally feel
3.0	Only those near epicenter feel the quake. Nearly 100,000 occur every year of size 2.5 - 3.0
4.0	A small fission atomic bomb. Quakes > 4.5 can cause local damage. Generally noticeable in the range of 30 kilometres.
5.0	Standard fission bomb, similar to first bomb tested in New Mexico.
6.0	Equivalent to a hydrogen bomb. Can cause casualties and much damage in heavily populated areas. About 100 shallow quakes of size 6.0 every year
7.0	Major earthquake - about 14 every year. Enough energy to heat New York City for 1 year. Can be detected all over globe.
8.0	Largest known: 8.9 in Japan and in Chile/Ecuador. San Francisco destroyed by 8.25 in 1906
9.0	Roughly the world's energy usage in a year

"Modified Mercalli Intensity" (MMI) Scale: Measures observable results or effects of earthquake: damage caused, sensations described by people, etc. (Mercalli numbers do not correspond directly to Richter numbers; for example, V on the MMI Scale is not equivalent to 5 on the Richter Scale).

Mercalli	Observable Results and Effects
I	Not felt. Most people do not notice. Animals may be uneasy, can be detected by seismograph
II	Felt by persons at rest, on upper floors, or favorably placed. Hanging objects may sway back and forth
III	Felt indoors. Vibration like passing of light trucks. Parked cars may rock
IV	Doors, windows, and shelves may rattle, people indoors can feel movement. Vibration like passing of heavy truck or jolt like a heavy ball striking the walls.
V	Felt outdoors, sleepers wakened. Light furniture moves, pictures move, objects may fall from shelves
VI	Felt by all. Persons walk unsteadily. Windows dishes and glasses broken. Pictures off walls. Furniture moved or overturned. Weak plaster and masonry cracked.
VII	Difficult to stand. Noticed by car drivers. Furniture broken. Damage to weak masonry, some cracks in ordinary masonry. Weak chimneys broken at roof line. Fall of plaster, loose bricks, stones, tiles and unbraced parapets.
VIII	Steering of cars affected. Damage to ordinary masonry, partial collapse. Twisting, fall of chimneys, factory stacks, monuments, towers, elevated tanks. Frame houses moved on foundations if not bolted down; loose panel walls thrown out. Cracks in wet ground and on steep slopes.

IX	General Panic. Poor masonry destroyed, ordinary masonry heavily damaged, sometimes with complete collapse, reinforced masonry damaged, general damage to foundations. Frame structures, if not bolted, shifted off foundations. Frames racked. Underground pipes broken. Conspicuous cracks in ground. Liquefaction in areas of sand and mud.
X	Most masonry and frame structures destroyed. Some well-built wooden structures and bridges destroyed. Serious damage to dams, dikes, embankments. Large landslides. Rails bent slightly. Roads crack.
XI	Rails bent greatly. Underground pipelines completely out of service. Bridges collapse, buried pipes break, most buildings collapse
XII	Damage nearly total. Large rock masses displaced. All manmade structures are destroyed