

## E. DISASTER ASSESSMENT

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## E.1. Introduction

### ***Purpose of UNDAC Assessment***

The overall purpose of an UNDAC assessment is to assist the government of an affected country and the UN Resident/Humanitarian Coordinator/UN-DMT in identifying needs for international disaster relief assistance and to facilitate a timely, appropriate response by the international community. In particular, the UNDAC team assists in an on-site assessment of:

- The nature of the disaster;
- Damage, including secondary threats;
- Effects on the population;
- Ongoing relief activities and local response capacity;
- Needs for international assistance;
- Means of delivering international assistance;
- Expected developments.

### **E.1.1. Scope of UNDAC Assessment**

In order to delineate the scope of an UNDAC assessment, it is useful to distinguish between the following different types of assessment, as defined in the context of this handbook:

#### ***a. Initial or Rapid Assessment***

Initial assessment comprises both situation and needs assessment in the early, critical stage of a disaster to determine the type of relief needed for immediate response. Initial assessments aim to:

- Identify the impact a disaster has had on a society and its infrastructure, and the ability of that society to cope;
- Identify the most vulnerable segments of the population that need to be targeted for assistance;
- Identify the level of response by the affected country and its internal capacity to cope with the situation;
- Identify the level of response from the international community;
- Identify the most urgent relief needs and potential methods of providing them most effectively;
- Make recommendations which define and set priorities on the actions and resources needed for immediate response;
- Highlight special concerns regarding the development of the situation;
- Draw attention to geographical areas / substantive sectors needing in-depth assessment.

#### ***b. Situation/Disaster Assessment***

Situation/disaster assessment refers to the process of collecting information on the magnitude of the disaster and the extent of its impact on both the population and infrastructure of the society. This type of information is usually first available to an assessment team.

#### ***c. Needs Assessment***

Needs assessment aims to define the level and type of assistance required for the affected population. The initial needs assessment identifies resources and services for immediate emergency measures to save and sustain the lives of the affected population. It is conducted at the site of a disaster or at the location of a displaced population. It may also identify the need for continued monitoring and reassessment of the unfolding disaster.

#### ***d. In-Depth or Sectoral Assessment***

In-depth assessment may refer to both situation and needs assessment. An in-depth assessment usually starts after the initial surveys and will cover critical sectors that have to be addressed for medium- and longer-term relief as well as rehabilitation and reconstruction assistance. In-depth assessments are carried out by specialists in the sectors concerned. An UNDAC team does not replace a traditional inter-agency mission for an in-depth analysis of medium- and long-term rehabilitation/reconstruction needs emanating from an emergency.

The UNDAC team focuses on initial rapid assessment as soon as possible after the impact of a sudden-onset disaster. An UNDAC assessment should help determine the extent of a disaster and its impact on the population as well as needs for international assistance during the immediate relief or survival phase. During this phase, exceptional measures have to be taken to meet the basic needs of survivors with regard to search and rescue, medical assistance, water supply, immediate food needs, shelter and sanitation.

### **E.1.2. Assessment Recommendations and their Impact on Recovery**

It is important that the recommendations of the UNDAC team do not have a counter-productive effect on the long-term recovery efforts of an affected country. Relief programs can set the stage for rapid recovery or prolong the length of the recovery period. Every action in an emergency response will have a direct effect on the manner and cost of reconstruction.

Many common relief programs can create dependencies and severely reduce the survivors' ability to cope with the next disaster. For example, food commodities brought into a disaster area without consideration for the local agricultural system can destroy the local market and cause future food shortages where self-sufficiency had been the norm. Another example is when relief supplies, equipment or technology are sent in that cannot be sustained by the survivors. When this assistance wears out or is used up, the survivors may be left in the same condition as immediately following the disaster.

Recommendations should be simple, support the use of local materials and systems and be sustainable by the affected country.

## **E.2. Methodology and Planning**

### **E.2.1. Keys to Successful Assessment**

Several factors contribute to the design of a successful and accurate assessment:

#### ***Identify Information That is Vital for the Users***

The users of an UNDAC assessment are normally the government of an affected country, the UN Resident/Humanitarian Coordinator, the UN-DMT, OCHA-Geneva, the United Nations Emergency Relief Coordinator and decision-makers and emergency practitioners or providers of international relief assistance. The UNDAC assessment checklist serves as a general guide, however the team should determine what information is vital in the particular circumstances, what method is best to obtain this information, and how much detail is necessary for the information to be useful. Mistakes that are easily made are to collect information that is anecdotal rather than substantive; or to waste valuable time collecting detailed information when representative data would be just as useful. Thus, triangulating information is vital.

#### ***Apply Standards/Indicators***

By applying indicators and standards to the presentation of data, key relationships can be quickly noted. For example, daily death rates in a displaced persons camp should be calculated and compared to the international standard of 1.0 deaths per 10,000 per day. Reference material of Minimum Standards in Disaster Response in various sectors is given in Section I.

#### ***Timing of the Assessment***

Timing may affect the accuracy of an assessment. Remember situations and needs can change dramatically from day to day. Relief needs are always relative but, as a general rule, initial rapid assessments should be broad in scope and should determine overall patterns and trends. More detailed information can wait until emergency operations are well established.

#### ***Determine the Best Places to Obtain Accurate Information***

If the information must be obtained from check lists, it is important that the areas being assessed provide an accurate picture of needs and priorities.

#### ***Distinguish Between Emergency and Chronic Needs***

Virtually all developing countries have long-standing chronic needs in most, if not all, sectors. It is important to design an assessment that will distinguish between chronic and emergency needs. The surveyors must differentiate between what is normal for the location and what is occurring as a result of the disaster, so that emergency food aid, health care and other assistance can be provided at the appropriate level. Thus baseline information i.e. what was the situation prior to the disaster, is vital to be able to compare vulnerability before and after the disaster and to differentiate between chronic and emergency needs.

### ***Use Recognized Terminology, Standards and Procedures***

To provide a basis for evaluating the information, the UNDAC team should be careful to follow recognized survey and data collection methods as indicated in Chapter E.2.2. and use the terminology indicated in the glossary and standards provided in the reference materials by sector.

### ***Consider Country-Specific Sensitivities***

The assessment team must be sensitive to the situation in the affected country. The team needs to structure its assessment questions so that expectations are not created. It should be clear to the authorities at all levels what the role of UNDAC is. The assessment team must also be aware of the pressures it will feel from the affected country and others to "identify needs." A recommendation of "no additional assistance is required," may be a valid response, if an on-site visit reveals that the disaster is not so severe as indicated in third-hand reports and media coverage.

## **E.2.2. Assessment Process**

The following information defines the elements of any assessment process. Assessments are generally comprised of five basic elements or activities:

### **1. Planning**

An accurate assessment depends on thorough planning, design and preparation. Most information needs can be identified in advance. A plan of action should be established as a result of the planning phase. Objectives it is intended to achieve must be enumerated.

In the planning stage, the following points have to be taken into consideration:

- Specific task of the team (adaptation of the terms of reference in discussion with the UN Resident/Humanitarian Coordinator)
- Initial size and composition of UNDAC team and therefore a consideration of its abilities and limitations
- Disaster situation
  - type/occurrence
  - timing of mission
  - possible future developments of the disaster
- Data and information available (reliability)
- Stricken area (size, topography, accessibility, population density, urban/rural, etc.)
- Weather / climatic conditions / season
- In-country logistics (means of transport, communication, mission support - food, medical, etc.). Access and Security levels to be checked with appropriate UN authorities.
- Time available
- Possible information sources in the area
- Local cultural and other social factors
- Political situation (security, freedom of movement, other restrictions)
- In country UN presence in the affected area (many UN Agencies have programmes with national staff who may be in the affected area. Consider using their help)
- Presence of any other international relief teams e.g. DART or military

Based on consideration of the above factors, a plan of action should be developed with the following elements:

- Precise definition of the field survey
  - area(s) to survey
  - itinerary
  - time frame
- Team composition
  - at least two team members should stay together in carrying out an assessment. Every attempt should be made to have a representative from the UNDP office or a UN Agency with a programme in the area and from the local/regional government accompany the team. Remember to take a translator.
- Distribution of tasks
  - the special expertise of individual team members should be taken into account when determining the distribution of responsibilities. If possible, a female UNDAC member should be a part of the team as it may ease access to women in some areas.
  - main tasks to be fulfilled:

- keeping a logbook of team activities
- recording assessment data
- photographic documentation (with record keeping) - preferably digital camera
- communications
- reporting
- logistics and mission support (water supply and food, fuel, keeping of receipts, medical kits, maps, etc.).
- Methods of data collection
  - taking into account the different methods of data collection, a choice of appropriate methods and information sources has to be made: the participative tools and methods most frequently need are:
    - Focus Groups
    - Semi structured interviews
    - Open questions
    - Walk through a village
    - Wealth ranking
    - Gender activity profiles
    - Time-line needs
  - use of rapid assessment checklist (see Chapter E.5.1) is usually the best way to ensure that all information is reported in a uniform way
  - UNDAC members may also study assessments conducted by others, try to inform themselves of the approach used and then use this material, as appropriate, in their reporting. In this case, the source should always be indicated. IFRC in most countries is an extremely useful source because of the presence of local chapters in country.
- Equipment for the field trip
  - personal
  - team
- Announcement of itinerary and contact points
  - regional/local authorities
  - central government (letter of reference)
  - other UN agencies/missions in the area/NGO's, other international teams e.g. DART teams.

In an initial assessment, the gathering of information must proceed rapidly. Assessors should look for patterns and indicators of potential problems. Sources of all information should be identified. Examples include whether it was observed, reported by a key informant in a discussion, collected through a checklist, etc. The information will be more meaningful to those interpreting it (especially with conflicting reports) if a source is indicated.

The following list outlines some of the most common ways of collecting data in emergencies. As the UNDAC team carries out an initial assessment, it will not normally have an opportunity to use all of these methods in a truly scientific manner. The knowledge of these methods may, however, help to apply a more objective approach and may also be useful in judging the reliability and validity of assessments carried out by others.

1. Automatic, initial self-assessment and local assessment e.g. staff of "lifeline" systems. This can involve pre-planned damage reporting by emergency management authorities or authorities involved in the emergency response.
2. Visual inspection semi structured interviews and Focus groups by specialists. Methods can include overflight and checklists. Do remember to interview women to get a gender balanced review of the situation to achieve rapid appraisal of area damage.
3. You should take the following action while conducting a rapid assessment in the field:
  - a) Meet with the local authority, state who you are.
  - b) Walk through areas as much as you can.
  - c) Visit markets, schools, community centres.
  - d) Listen to people.
  - e) Ask questions.
  - f) Triangulate information with a different group of people.
4. "Sentinel" surveillance. This is a method widely used in emergency health monitoring, where professional staff establish a reporting system which detects early signs of particular problems at specific sites. The

method can be applied to a variety of other problems where early warning is particularly important.

## **2. Monitoring**

An UNDAC assessment should not be seen as an end in itself, but rather as one part of a continuing process of re assessing the needs and appropriateness of responses to the disaster situation. In general, monitoring following an UNDAC assessment should be carried out by the UN-DMT.

## **E.3. Principles for Assessment**

### **E.3.1. General Principles by Sector**

#### ***Health***

- In sudden-onset disasters such as earthquakes, or during civil strife disasters, there can initially be a significant need for curative care, particularly trauma care within the population.
- Health services for displaced people should be based on the concept of primary health care. Priority should be given to preventive measures such as proper nutrition and public health services, rather than curative measures.
- Any detailed listing of medicaments that might be submitted to the UNDAC Team will have to be referred to WHO for guidance unless it is part of the Emergency Health kit.

#### ***Shelter and Personal Household Needs***

- Only the necessary minimum of time, effort and resources should be committed to temporary emergency shelter. Permanent reconstruction should be promoted as soon as possible. See recommended SPHERE project standards for household items, clothing and housing in the tables.
- Cash contributions for local/regional purchase of traditional housing material for temporary shelter are often preferable to contributions in kind, purchase of tents, prefabricated housing material or other solutions not adapted to the local context. If possible, materials should be provided which can be reused later in permanent reconstruction. Maximum use should also be made of material which can be salvaged from damaged buildings. Highest priority should be given to roofing.
- Individual family initiatives should be encouraged to the greatest possible degree in meeting shelter needs, e.g. through the provision of basic materials, guidance for self-help programmes, food-for-work programmes, etc. Shelter, including communal buildings, should be built by the victims themselves, provided material support is given. This will help ensure that the housing will meet their particular needs. It will also help reduce their sense of dependency and can cut costs considerably.
- "Temporary housing" (usually prefabricated) is to be avoided. In fact, it is rarely replaced. The units are often very expensive, absorbing resources which might be better directed towards permanent reconstruction. Such units and/or the sites chosen for them have often been found unsuitable for local patterns of family life and cultural traditions.

#### ***Water and Sanitation***

- People can survive longer without food than without water: providing water demands immediate attention.
- An adequate quantity of reasonably safe water is preferable to a smaller quantity of pure water. Treatment should be avoided, if possible. Minimum quantities of reasonably safe water should be provided as close to homes as possible. Safe storage of water should be provided at the community and household levels.
- Availability will generally be the determining factor in organizing a supply of safe water. An assessment of available sources of water must be made by specialists. If these sources are inadequate, new sources have to be developed or water has to be delivered.
- In an emergency situation, act first and improve later. Temporary systems to meet immediate needs can be improved or replaced later. The swift provision of a basic human waste disposal system is better than the delayed provision of an improved system. The simplest technologies should be applied.

#### ***Food and Nutrition***

- Foods prepared locally with local ingredients are preferable to imported foods. In case unfamiliar foods or new methods of cooking and preparation have to be introduced to the population, simple nutrition education is important.
- If possible, organize dried food distribution to allow families to prepare their own meals.
- Infants, children, pregnant and lactating women, the sick and elderly are often most vulnerable to malnutrition and have special needs.

- Cereals should only be provided at the onset of an emergency.
- Do not include dried/skimmed milk into a general food distribution.
- MUAC (middle upper arm circumference) is used to give a rough idea of the malnutrition rate. However, weight for height indicators are used in an anthropometric nutritional survey.
- Prevalence of micronutrients deficiencies for population age less than 5 years.

#### ***Displaced Persons Camps: Site Selection, Planning and Shelter***

- A suitable site and adequate shelter are critical during the early stages of emergencies involving displaced people. A lack of both can adversely affect the well-being of displaced people and, in some cases, their protection as well as the delivery of assistance to them.
- Avoid high-density camps. Plan for the long term, since so-called temporary arrangements often last much longer than expected.
- Camp planning should reflect a decentralized, small community approach, preserving past social arrangements. Involve the displaced people (for whom the camp will be home) in planning and implementation.
- Expertise may be required in the fields of geology, settlement, planning, engineering and public health. A familiarity with local conditions in both the displaced population's area of origin and at their present location is important, as is previous experience with similar emergency situations.

#### ***Urban Search and Rescue (SAR)***

- International assistance with urban search and rescue might be required when:
  - a large urban area is affected
  - hospitals and other buildings of more than two stories have collapsed
  - when these buildings are constructed of reinforced concrete or other materials which will leave spaces where trapped victims could survive for several hours.
- The chance of survival of trapped victims declines rapidly after 24 to 36 hours. An UNDAC recommendation regarding the mobilization of international SAR teams should reach OCHA-Geneva as soon as possible after an earthquake has occurred.
- Spontaneous search and rescue is usually provided by the survivors and local relief teams and succeeds in rescuing those not requiring major resources of equipment and manpower. International assistance is therefore focused on intensive efforts to locate and extract trapped victims by using cutting and lifting equipment as well as sophisticated, intensive "heavy rescue" techniques.
- Expertise in disaster medicine is required to supervise and aid in victim extraction and provide immediate care.
- In earthquakes, the potential for damaging aftershocks is a continuing threat. When establishing a base for the UNDAC operation and for international relief teams, security and safety considerations are important factors.

## **E.4. Water and Sanitation**

### **E.4.1. Displaced Population Situation**

- Determine the amount of water available per person per day.
- Determine the source and quality of the water.
- Determine how long the daily amount has been available.
- Determine the evidence of water-related diseases.
- Determine the length of time users wait for water.
- Determine whether there is safe access to water for vulnerable groups.
- Determine the types of wells, transportation, and/or storage systems used.
- Determine if there are problems with well repair/rehabilitation.
- Determine if there is equipment/expertise onsite, on order, or available if needed.
- Determine the availability of additional sources of safe water if required.
- Determine the need for water engineers to assist with evaluating requirements.

### **E.4.2. Water System Disruption**

- Describe the types of systems and sources that existed prior to the disaster in the affected areas.
- Specify how many people have been deprived of a functional water supply.
- Determine who is in charge of the local water system(s) (community group, committee, national authority).

- Determine whether the system is still functional or what the requirements for repair are.
- Determine the need for an engineering specialist to assist with evaluating requirements.

#### **E.4.3. Sanitation - Displaced Population Situation**

- Determine the placement, number, and cleanliness of latrines.
- Determine if the design and placement of latrines are affecting their use because of cultural taboos.
- Determine if there is a sanitation plan if the population increases.
- Determine if there is safe access to latrines for women and girls.
- Determine the evidence of water-related diseases.
- Determine the proximity of latrines and refuse areas to water sources, storage areas, and distribution points.
- Determine the placement and plan for the disposal of corpses.
- Determine if there is a plan for the collection and disposal of garbage.
- Determine if there is an insect- and rodent-control plan.
- Determine the need for a specialist to assist with evaluating requirements.

#### **E.4.4. Non displaced Population Situation**

- If the disaster occurs in a rural area, waste disposal is usually not a problem unless sewage “ponds” in a public area. Determine if this is occurring.
- If you are on an island affected by a hurricane or in an area affected by flooding, determine if the sewage drainage system is still open. (See also “Infrastructure.”)
- Determine the adequacy of sewage disposal facilities in any public buildings or other areas being used to temporarily shelter homeless people.

### **E.5. Food Aid and Nutrition**

#### **E.5.1. Food**

##### **Baseline Data**

- Describe the normal consumption pattern (food basket) of the affected population, any taboos, and acceptable substitutes.
- Describe the normal food marketing system (including government involvement, imports, subsistence).
- Indicate what food aid programs, if any, exist and describe them.
- Outline the indigenous food processing capacity.

##### **Effect of the Event on Food**

- Ascertain the disaster’s effect on actual food stocks and standing crops (damaged/destroyed).
- Determine if access to food (for example, roads, milling facilities) has been disrupted and, if so, how long it is likely to remain disrupted.
- Check market indicators of food shortages, such as:
  - Absence or shortage of staple grains and other foods on the market.
  - Price differential.
  - Change in supplies on the market (for example, an increase in meat supplies may indicate that people are selling animals to get money).
  - Change in wholesale grain availability.
  - Unusual public assembly at a warehouse or dockside when grain is being unloaded.
  - Changes in warehouse stocks.
  - Black market price changes or increase in black market activities.
  - Commercial import changes or proposed changes.
  - Sale of land, tools, draft animals, etc.
- Check nutritional indicators of food shortages by sex, such as:
  - Signs of marasmus, kwashiorkor, or other signs of malnutrition.
  - Increased illness among children.
  - Change in diet (that is, quantity, quality, type).
- Check social indicators of food shortages, such as:

- Increased begging/fighting/prostitution.
- Migration from rural to urban areas.

### **Food Availability**

- Determine how much food can be expected from future and/or specially planted, quick-maturing crops. Where in the production cycle was the affected area when the disaster struck?
- Estimate the local government stocks on hand and those scheduled to arrive . Is borrowing of stocks on hand a possibility?
- Estimate the local commercial stocks on hand and scheduled to arrive.
- Estimate the local PVO/NGO/IO stocks on hand and scheduled to arrive. Is borrowing a possibility?
- Estimate local personal stocks on hand and those scheduled to arrive.
- Determine regional availabilities.
- Canvass other donors to find out what they expect to contribute.
- Estimate how much food aid would be required during specific time periods.

### **Distribution Systems**

- Describe existing food aid distribution systems (for example, government rationing, PVO/NGO/IOs).
- Describe the effectiveness of the distribution system.
- Describe the role of women in the distribution system.
- Describe government marketing mechanisms.
- Judge the capacity of the above to expand/begin emergency aid. What is their record of accountability?
- Describe potential alternatives.
- Explain the country's (agency's) previous experience with mass feeding.
- Determine the availability of facilities and materials, including fuel.
- Determine whether repackaging facilities exist.

### **Social and Market Impact of Food Aid**

- Analyze the likely price impact on normal food suppliers. Describe the suppliers.
- Decide whether food aid would free cash and labor for other aspects of relief, or divert labor and create a dependent attitude.

### **Other**

Research any legal impediments to importation of certain foods.

## **E.5.2. Agriculture**

### **Baseline Data**

- Describe crops grown in the affected area following the points listed below:
  - Crop name.
  - Average area planted (per data available).
  - Average production (per data available).
  - Planting season(s) (dates) and time to maturity.
  - Are crops climate -specific? If so, identify the climatic requirements.
  - Are hybrid seeds being used in the area? If so, identify them.
  - Are they cash or subsistence crops?
- Describe domestic animals present in each affected area following the points listed below:
  - Approximate number of animals in the area.
  - Value of individual animals.
  - Use of animals for food.
  - Use of animals for work.
  - Use of animals for cash production.
  - Are bred stocks used in the area?
- Describe the agricultural system, including the following:
  - Main agriculturist in family units (male/female).
  - Land-use systems.
  - Agricultural labor system/land tenure.
  - Crop preferences.
  - Inputs.
  - Seeds (reserved or purchases): Is treated seed used?

- Fertilizer.
- Machinery/tools.
- Pesticides.
- Storage (farm, government, private).
- Agrobusiness facilities, processing of local or imported commodities.
- Describe the local fishing industry.

### **Effect of the Event on Agriculture**

- Effect of the event on agriculture/livestock/fisheries.
- Ascertain the extent of damage to crop/livestock/fisheries by area, noting at what point in the production cycle the event occurred. State the source of the information.
- Estimate the loss in production (tonnage/head) by crop/ livestock/fisheries and by zone within the affected area.
- Analyze whether losses will increase over time and state why.
- Describe the damage to agricultural machinery.
- Describe the damage to irrigation systems.
- Describe the damage to seed, fertilizer, and pesticide stocks.
- Describe the damage to fishing gear.
- For a drought, compare the current rainfall to the normal or recent past precipitation.
- Identify any unusual or untimely grazing changes.
- Describe any threats from insects or disease that might follow the disaster.

### **Agricultural Production Capabilities**

- Availability of inputs by type (for example, seed, fertilizer, pesticides, tools, machinery, veterinary medicines, fishing boats, nets, breeding stock).
- Estimate the local government stocks on hand and when they are scheduled to arrive.
- Estimate the local commercial stocks on hand and when they are scheduled to arrive.
- Estimate the local personal stocks on hand and when they are scheduled to arrive.
- Ask the victims how they plan to cope with losses.
- Determine regional availabilities and elasticity of supplies.
- Ascertain what other donors plan to supply.
- Outline what further inputs would be required to restore minimum productivity.
- Find out if repackaging facilities for seed, fertilizer, and pesticides exist.
- Distribution systems/technical infrastructure.
- Outline host government (Ministry of Agriculture) operations in the affected area. Does it provide:
  - Extension service?
  - Crop storage/silos?
  - Veterinary services?
  - Irrigation services?
  - Research facilities?
  - Hybrid seed?
  - Fertilizer?
  - Other plants (fruit trees)?
  - Pesticides?

### **Other**

- Describe any agricultural projects and inputs provided by foreign organizations/governments.
- Describe the operations of rural or agricultural credit organizations, cooperatives, or credit-sharing organizations that exist in the affected area.
- Judge the capacity of the above to incorporate rehabilitation disaster assistance.

### **E.5.3. Nutrition**

- Determine the prevalence of protein energy malnutrition (PEM) in population less than 5 years of age.
- Ascertain the prior nutritional status.
- Determine the prevalence of micro nutrient deficiencies in the population less than 5 years of age (for example, scurvy, anemia, pellagra).
- Determine the percentage of children under 5 years of age with:
  - Either moderate or severe acute malnutrition.
  - Determine the average daily ration (food basket and calories/person/day) and method and intervals of distribution (for example, wet/dry on a daily/weekly/monthly basis).

- Determine the length of time the above ration level has been available.
- Determine the attendance and effectiveness of supplementary and therapeutic feeding programs.
- Determine the incidence of low birth weight.
- Determine rate of weight gain or loss of children registered in Mother-Child Health (MCH) clinics.
- Determine oral rehydration salt (ORS) needs and distribution system.

## **E.6. Shelter**

### **E.6.1. Affected Population Profile**

- Determine the number of people requiring shelter and whether the need for shelter is temporary (a few weeks), or if it is a displaced population requiring shelter for an indeterminate time.
- Determine the average number of people in an individual dwelling.
- Identify obstacles that prevent victims from meeting their own needs, both for temporary and permanent shelter.
- Determine the area affected (for example, portion of city, several villages, large area of a country).
- Approximate the number of private dwellings (single-family, attached, low-rise and high-rise multiple family) and public buildings (schools, churches, hospitals) damaged or destroyed by city, village, or region.
- Determine the number of damaged dwellings that are habitable without immediate repair, that are habitable only after repair, and that are not habitable and must be destroyed.
- Inventory existing structures and public facilities that can be used as temporary shelters, giving careful consideration to access to sanitation and water.

### **E.6.2. Materials**

- Identify the construction styles and materials normally used in the affected structures.
- Determine the availability and costs of indigenous materials to meet both cultural and disaster-resistance requirements.
- Identify any suitable material substitutes, locally or externally available, that would meet the cultural and disaster resistance requirements.
- Identify the type and quantity of building materials that the victims can provide for themselves for temporary or permanent shelter.
- Identify the type and quantity of building materials that the affected government can provide for the victims for temporary or permanent shelter.
- Determine the type and quantity of materials needed from external sources for temporary or permanent shelter.
- Assess the suitability (that is, infrastructure support) of available sites for both temporary and permanent shelters, including, where necessary, mass sheltering.
- Determine if relocation is necessary due to the nature of the disaster. Identify the problems this may cause with the local population.
- Assess the potential hazard and security vulnerabilities of available sites for both temporary and permanent shelters.
- Assess the environmental conditions that would impose constraints on temporary shelters or camps, such as all-season accessibility, proximity to sources of essential supplies (shelter materials, cooking fuel, water, etc.), soil, topography, drainage, and vegetation.
- Identify any problems related to land use, such as grazing, cultivating, sanitation, and land tenure issues.

### **E.6.3. Distribution**

- Determine the accessibility to the affected areas for both assessment and delivery.
- Determine the availability of a distribution mechanism (local, regional, national, international) to distribute shelter materials (temporary or permanent) to the victims.
- Identify committees, credit unions, government agencies, or co-ops that can mobilize forces to help implement a shelter program.
- Determine if an equitable means of allocation and an appropriate medium of exchange for the building materials can be implemented.

## E.7. Health

### Health

- Ascertain demographic information:
    - Total number affected.
    - Age-sex breakdown (under 5, 5–14, 15 and over).
    - Identification of at-risk population (that is, children under 5 years of age, pregnant and lactating women, disabled and wounded persons, and unaccompanied minors).
    - Average family or household size, and number of female-headed households.
    - Rate of new arrivals and departures.
  - Determine background health information:
    - Main health problems in home area.
    - Previous sources of health care (for example, traditional healers).
    - Important health beliefs and traditions (for example, food taboos during pregnancy).
    - Social structure (for example, whether the displaced are grouped in their traditional villages and what type of social or political organization exists).
    - Strength and coverage of public health programs in home area (immunization, reproductive health, etc.).
  - Mortality rate:
    - Determine the crude mortality rates.
  - Morbidity rate:
    - Determine the age- (under and over age 5) and sex specific incidence rates of diseases that have public health importance. Document the method of diagnosis (clinical judgment, laboratory test, or rumors).
  - Immunization programs:
    - Determine the need for immunization programs or the effectiveness and coverage (percent of children under age 5 and between ages 5–14) of those in place, especially measles vaccinations.
    - Dates of vaccinations.
    - Determine the capability of relief officials to begin or sustain a program (for example, logistics, infrastructure, and cold chain availability).
  - Determine or estimate the number of major injuries and the rate for each type of injury. Specify traumatic injuries requiring surgery or hospitalization (for example, fractures, head injuries, internal injuries).
  - Determine the number and locations of health facilities that existed prior to the disaster.
  - Determine the number of facilities that are still functioning and the total number of usable beds.
  - Determine the number of indigenous health personnel who are available.
  - Determine the amount and type of medical supplies and drugs that are available onsite or in-country.
  - Determine additional amounts and types of medical supplies and drugs needed immediately from sources outside the stricken area.
  - Determine what additional medical equipment is needed and can be readily obtained to deal with major injuries.
- Suggested data sources:
- National/provincial health officers.
  - Hospitals.
  - Clinics.
  - Traditional healers.
  - Local leaders.
  - Fly-over.
  - Walk-through surveys.
- Environmental conditions:
    - Determine climatic conditions.
    - Identify geographic features and influences.
    - Identify water sources.
    - Ascertain the local disease epidemiology.
    - Identify local disease vector.
    - Assess local availability of materials for shelter and fuel.
    - Assess existing shelters and sanitation arrangements.
  - Determine if a health information system is in place to monitor the affected population and provide surveillance and intermittent population-based sample surveys that should:
    - Follow trends in the health status of the population and establish health care priorities.
    - Detect and respond to epidemics.

- Evaluate program effectiveness and coverage.
- Ensure that resources go to the areas of greatest need.
- Evaluate the quality of care delivered.
- Determine if the affected country has in place or plans to begin programs in:
  - Health information systems.
  - Diarrhea disease control.
  - Expanded programs on immunization (EPIs).
  - Control of endemic diseases.
  - Reproductive health programs.
  - Nutrition programs.
  - Continuing education programs for health workers.
  - Vector control.

## **E.8. Infrastructure**

- Determine the predisaster condition of the infrastructure.
- Ascertain from the affected government the minimum needs for infrastructure recovery.

### **E.8.1. Communications**

- Describe where the system's facilities are located.
- Determine the broadcast/reception area or zone of influence (for example, towns serviced by the system).
- Identify the organization/firm that is responsible for operation and maintenance of the system. Is there a disaster response plan with identification of priority facilities, material supply, and priority screening of messages?
- Obtain technical information, such as:
  - Broadcast power.
  - Operating frequencies, call signs.
  - Relay/transmission points.
  - Hours of operation.
  - Standby power sources.
  - Mobile capability.
  - Repair/maintenance facilities, including capabilities of manufacturer's local agent.
  - Language of transmission.
- Identify key personnel (owners, management, operations, maintenance).
- Determine the degree of integration of military and civilian communications networks.
- Note the source(s) of the above information.
- Determine what communications facilities exist that are operable or easily repaired and could be used to pass on assessment information and assist in coordination of life-saving responses.
- Identify the type of system assessed:
  - Radio.
  - Private ownership.
  - Commercial.
  - Broadcast.
  - 2-way.
  - Amateur.
  - Citizens band.
  - Public systems.
  - Police.
  - Armed forces.
  - Government agencies (which ministries have communications facilities?).
  - Telephone.
  - Cable and wireless.
  - Television.
  - Newspaper.
  - Other.
- Describe specific reasons why a system is not operating.
  - Unavailability of:
    - Personnel.

- Power.
- Fuel.
- Access to facilities.
- Damage to system:
  - Broadcast/transmission equipment.
  - Antennae.
  - Buildings.
  - Transmission lines.
  - Relay facilities.
  - Power source.
  - Other.
- Note source(s) of the above information.
- Outline options for restoring minimum essential services.
- Identify local/regional suppliers of communications equipment and materials available for repair. Check cost and availability.
- Determine the local/regional availability of technical services available for repair.

### **E.8.2. Electric Power**

- Describe the power system, including:
  - Baseload facility.
  - Peaking facility.
  - Number of units.
  - Fuel source.
  - Plant controls.
  - Output capability (specify voltage and cycle).
  - Mobile plants.
  - Other standby capability.
  - Switching facilities.
  - Transmission facilities.
  - Distribution facilities (number of substations).
  - Interconnections.
- Inventory auxiliary equipment that may be available locally (for example, from construction companies).
- Determine why power is not available (that is, at what point the system has been damaged).
- Ascertain the condition of generating units.
- Check the integrity of the fuel system.
- Determine whether towers, lines, and/or grounding lines are down.
- Assess the condition of substations.
- Outline the impact of power loss on key facilities, such as hospitals and water pumping stations.
- Describe the options for restoring minimum essential services.
- Ascertain whether load shedding and/or switching to another grid can restore minimal services.
- Identify local/regional suppliers of equipment and materials. Check the cost and availability.
- Determine the local/regional availability of technical services available for repair.

### **E.8.3. Water/Sewage**

- Describe the preexisting systems: that is, for water, the source, treatment facilities, mains, pump stations, and distribution network; for sewage, the treatment facilities and pump stations.
- Estimate the number of people who depend on the water sources by type (for example, river, city water system).
- Determine why water (especially potable water) is not available (that is, at what point the system has been damaged).
- Check the integrity of the water source.
- Assess the condition of water and sewage treatment facilities and of the distribution network. Are pump stations operational?
- Determine whether water mains are broken. Are leaks in the sewage system contaminating the water supply?
- Outline the impact of water loss on key facilities and on individual users. How quickly can the responsible

ministries

be expected to restore services?

- Describe options for restoring minimum essential services.
- Evaluate the possible alternative water sources.
- Identify local/regional suppliers of equipment and materials. Check cost and availability.
- Determine the local/regional availability of technical services available for repair.

#### **E.8.4. Hydro Facilities (Hydroelectric, Irrigation)**

- Describe the function of the facilities, their proximity to the stricken area, and their relationship to the disaster itself.
- Identify the host country organization that controls and operates the facilities.
- Identify the suppliers, contractors, and/or donors that built the facilities (that is, what were the equipment and technical sources?).
- Describe any damage to systems.
- Check the soundness of the structures and outlet works. Are the reservoirs watertight?
- Identify any immediate or near-term safety risks (generating and control machinery, structural defects, power to operate gates, etc.).
- Assess the condition of canals or downstream channels.
- Identify any changes in watershed conditions (for example, saturation, ground cover, streambed loading, new impoundments).
- Determine whether water is being contaminated.
- Evaluate the management of the facilities.
- Determine whether storage and outflow quantities are being managed in accordance with prescribed curves.
- Identify preparations for follow-on storm conditions (for example, emergency drawdown of reservoirs).
- Describe the probable impact of discharging on downstream damage and/or relief efforts (for example, depth at river crossings, releases into damaged canals). Is there a need to impound water until downstream works can be repaired?
- Outline the options for restoring minimum essential services.
- Outline the repair plans of the responsible host country officials.
- Check on any proposed assistance from the original donors of the facilities.
- Identify local/regional sources of equipment and technical expertise.

#### **E.8.5. Roads and Bridges**

- Describe the road networks in the affected area by type. What is the load capacity of the bridges?
- Identify the responsible ministries and district offices and constraints on their operations.
- Describe any damage to the network.
- Determine which segments are undamaged, which can be traveled on with delays, and which are impassable.
- Describe any damage by type:
  - Blockage by landslides, fallen trees, etc.
  - Embankments.
  - Drainage structures.
  - Bridges/tunnels.
  - Road surfaces.
- Identify alternate crossings and/or routes.
- Evaluate the importance of the road network to the relief effort and rehabilitation.
- Outline the options for restoring minimum essential service.
- Determine which elements must be restored first.
- Describe the need for traffic control (police, military, other) on damaged or one-way segments.
- Determine how long the emergency repairs can accommodate relief traffic (size, weight, volume?). Will emergency maintenance and fuel points be needed in remote areas?
- Identify the host country agencies, military, and/or civilian forces that are available to make repairs. Do they have equipment, spare parts, and maintenance support?
- Check whether local or expatriate construction companies can loan equipment and/or expertise.
- Check regional sources of equipment and/or expertise that are available for repair.

- Ascertain that arrangements can be made for standby forces at damaged sections to keep roads open.

## E.9. Assessment Checklists

The following assessment checklists are intended to assist the Assessment Team in planning, formatting, and conducting a complete initial assessment. The answers to the checklist questions will provide the information needed to complete the disaster cable formats outlined in the previous section on cable formats. These assessment checklists are divided into major sectorial areas. They are meant to be as inclusive as possible of the types of questions that need to be answered in initial assessments of various disasters. To be answered completely, some of the questions would require extensive assessment work to gather primary or secondary data, work, which the team may or may not have the capacity to perform. However, the information may already exist i.e. secondary data and the task of the team may be only to gather assessment information assembled by others and evaluate the information for accuracy, timeliness, and completeness. An Assessment Team may also find it necessary to develop new or expanded questions to gather the required information for specific disasters.

### E.9.1. Victims/Displaced Population Profile

#### General Characteristics

- Determine the approximate number of displaced people.
- Determine their locations. Are they moving? To where? How many?
- Determine how many are arriving per week. How many more could come?
- Determine how they are arriving. Are they scattered individuals or families, or clans, tribal, ethnic, or village groups? By what means are they traveling? How did those already there arrive? What is the average family size?
- Determine the approximate numbers and ages of men, women, and children (ages 0–5, 6–14, 15 and over).
- Identify ethnic/geographic origin (urban or rural).
  - Sedentary or nomadic background?
  - What is the average family/household size?
  - How many households are headed by females?
  - What are their customary skills?
  - What is the language(s) used?
  - What is the customary basic diet?
  - What is the customary shelter?
  - What are the customary sanitation practices?
  - What is the general distribution of socio-economic statuses—(poor, middle class, wealthy)—within the population?

### E.9.2. General Assessment Checklist

#### *Nature of Disaster*

1. Main event
  - ? date
  - ? local time of onset
  - ? GMT time of onset
  - ? duration
  - ? strength
2. Subsequent events
  - ? aftershocks
  - ? weather conditions
  - ? other
3. Current conditions

- 4. Expected development
  - ? weather forecast
  - ? water level rising/falling
  - ? flooding expected to spread/recede
  - ? other

**Affected Area**

A. Name of affected provinces/districts

(indicate names found on international maps, reference points)

B. Major cities/urban centres/villages affected

C. Approximate size of affected area in sq. km.

D. Estimated **total** population in affected area (i.e. the estimated no. of people living in the disaster-affected area, including those who do not belong to the **primary** affected population - specify source)

- 5. Topography
  - ? mountainous
  - ? flat
  - ? low-lying coastal
  - ? other

F. Type of area affected and socio-economic characteristics (sources of livelihood) of population

- ? urban
- ? rural
- ? low-income
- ? agricultural
- ? industrial
- ? nomadic
- ? other

G. Worst affected areas (identify by geographical names)

H. Possibility of access to a affected area(s)

I. Any affected areas on which no data presently available

J. Special considerations that may affect the disaster situation or relief operations

- ? political considerations
- ? civil strife or conflict
- ? problems of ethnic, religious or cultural minorities
- ? population movements (to/from affected area(s))
- ? special security problems
- ? other

**National Authorities**

A. National authority in charge of coordinating domestic response to emergency. List:

- ? name of authority
- ? name of official in charge
- ? his/her title
- ? office telephone, facsimile, telex nos.
- ? office hours
- ? emergency 24-hour telephone no.
- ? street address

B. National authority (if separate from above) in charge of coordinating/focal point for international response.

List:

- ? name of authority
- ? name of official in charge

- ? his/her title
- ? office telephone, facsimile, telex nos.
- ? office hours
- ? emergency 24-hour telephone no.
- ? street address

### **Damage**

#### **A. Buildings**

2. Predominant building type and construction material
  - ? type of structure
    - ? wattle-and-daub buildings
    - ? masonry buildings (adobe, brick, concrete blocks, stone masonry)
    - ? reinforced concrete structures (r.c. frames with brick infill, r.c. frames with load-bearing masonry walls, r.c. bearing walls, prefabricated structures)
    - ? steel structures (multi-story steel structures, steel frames filled in with reinforced concrete)
    - ? timber structures
    - ? other
  - ? type of roof (reinforced concrete, steel, wood, grass, etc.)
  - ? roof covering (tiles, lightweight asbestos cement, metal sheets, etc.)
1. Indicate percentage (and, if possible, number) of buildings damaged or destroyed, by affected area, according to the following categories:
  - ? no significant damage
  - ? minor damage (repairs required, but structure is habitable)
  - ? major damage (structure is not habitable, major repairs required)
3. destruction (structure is not habitable and irreparable)
  1. Describe extent of damage to the following types of building
    - ? public buildings (religious facilities, schools, community centres, etc.)
    - ? multi-family tenement housing - any buildings with more than two stories destroyed
    - ? low-income traditional housing (adobe, wattle-and-daub, stone, etc.)
    - ? residential houses
    - ? industrial buildings
    - ? other

#### **B. Lifelines and critical facilities (LCF) (Primarily roads and means of communications to affected area)**

Use the following categories to assess the status of lcf listed below:

- ? intact
- ? level of operations adequate for relief activities
- ? use limited or operations totally disrupted

If operations totally disrupted or use limited:

- ? describe damage and negative consequences per area, as applicable, e.g. key areas or installations that cannot be reached by road
  - ? specify current level of operations, e.g. indicate capacity a damaged bridge/airport can still handle; functions that can still be performed by a hospital
1. Road network and related facilities (urban roads, main inter-city roads, access roads, bridges, tunnels, etc.) - describe how affected areas can be reached:
    - ? type of road
    - ? road capacity
  2. Secondary transportation facilities (airports, harbours/ports, railways)- see Logistics Chapter for checklist on airport capacities
  3. Telecommunications network (telephone, telex, radio: public - police, armed forces, government - and private - commercial (broadcasting), amateur)

1. Medical facilities (hospitals, clinics, health posts, laboratories) - relate damage to number of facilities normally operational in affected area
5. Electric power generation and distribution (transmission lines, pylons, generators, power stations, etc.)
6. Nuclear power plants
7. Gas/oil/fuel distribution and availability
8. Water supply systems
  - ? specify systems normally available:
    - ? water pipes to house
    - ? water pipes to village/street
    - ? communal wells
    - ? individual wells
    - ? towers/storage tanks, pumping stations, etc.
    - ? water treatment facilities
    - ? other
      - ? describe type of damage/problems:
        - ? salination
        - ? broken water pipes
        - ? contamination with sewage
        - ? damaged pumping stations
        - ? other
9. Sanitary sewer systems (treatment facilities, pumps, sewage pipes)
10. Police stations/fire fighting facilities
11. Government buildings
  - ? emergency operation centres
  - ? government administrative buildings

#### C. Agriculture and fisheries

1. If there has been damage to crops, specify:
  - ? types of crops cultivated and stage in the crop cycle
    - ? recently sown crops
    - ? standing crops
    - ? due for harvest in xx (month)
    - ? crops ready to be harvested
  - ? whether crops serve mainly as subsistence crop or for export from disaster area (cash crop)
2. Describe the extent of damage to crops by type and affected area, indicating percentage of crop (in relation to crop production area):
  - ? destroyed (unsalvageable)
  - ? damaged (salvageable)
  - ? undamaged
3. What is the estimated loss of stored food (produced and imported)? (indicate percentage or absolute numbers in tonnes), explain
  - ? type of food lost
  - ? why it is lost
  - ? whether part is salvageable
4. Assess extent of damage to agricultural infrastructure, only if relevant for the relief phase, e.g. destruction of equipment or loss of agricultural tools required to harvest mature crops, damage to storage facilities leading to the loss of stocks required in the short term

5. Indicate livestock losses, only if livestock is a main source of subsistence for the primary affected population:
  - ? livestock type
  - ? percentage (and, if possible, number) of dead or missing
  
6. Assess extent of damage to fisheries, only if fisheries are a main source of subsistence for the primary affected population:
  - ? percentage of fishing boats (where possible, \_\_\_\_\_ give number) damaged/destroyed
  - type and percentage of fishing equipment \_\_\_\_\_ damaged/destroyed
  - ? estimated loss of fishing catch (in percent)

### **Secondary Threats**

A. Identify potentially hazardous sites (dams, installations with toxic/hazardous/nuclear substances), indicating those which have been damaged and pose a potential threat. Indicate also if there is any known presence of landmines in the area.

B. Indicate existence of secondary threats:

- ? landslides
- ? floods
- ? fire
- ? release of toxic/hazardous substances:
  - ? explosives
  - ? gases
  - ? inflammable liquids
  - ? inflammable solids
  - ? oxidizing substances
  - ? poisonous (toxic) and infectious (containing viable micro-organisms) substances
  - ? radioactive material, corrosive substances
  - ? miscellaneous dangerous substances)
  - ? others

C. Specify population and key points at risk, indicating location(s)

D. Specify areas where landmines are known to be present or suspected.

### **Effects on Population**

A. Primary affected population

1. Estimated no. of primary affected persons (breakdown by population categories and identify groups at risk)
  
2. Reported no. of casualties (indicate source and area(s) covered):
  - ? dead
  - ? missing
  - ? injured (including sick)
  
3. Re-estimated no. of homeless (including \_\_\_\_\_ evacuated), indicate, if possible
  - ? estimated no. of persons/families whose homes are permanently not habitable
  - ? estimated no. of persons/families whose homes are temporarily not habitable
4. Average size of family
5. Have any vulnerable segments of the population been specifically affected, e.g.
  - ? population already displaced before the disaster
  - ? refugees
  - ? children, pregnant and lactating mothers
  - ? other
  
6. If yes, describe in which way

## B. Health

1. Can the surviving facilities in the disaster area cope with the caseload of injured patients, or is there an overload of patients?
2. Has there been any damage to specific medical equipment or installation of key importance for treating disaster victims (e.g. x-ray facilities following an earthquake)?
3. Is any action being taken to evacuate injured patients to emergency medical centres outside the disaster area? If yes, provide details.
4. Have arrangements been made, or are they required, to bring specific types of equipment/services/medicaments to the disaster area from other medical centres?
5. Are any problems being encountered due to an inadequate power or water supply to medical facilities?
6. Was a system of epidemiological surveillance in place prior to the disaster and, if so, is it still operational after the disaster?

**Do Not**

- ? try to identify specific types and numbers of injuries
- ? compile a list of urgently needed medicaments
- ? focus on chronic medical problems that existed prior to the disaster

## C. Shelter and personal/household utensils

1. Estimate no. of homeless or evacuated accommodated in public shelters or evacuation centres
2. Specify locations and conditions of shelters/evacuation centres
  - type of shelter (tents, tarpaulins, makeshift shelters, public buildings)
  - ? concentration of population in shelters
  - ? services provided (distribution of food, water supply, sanitation, etc.)
  - services urgently required but not currently provided
  - ? safety of location
  - ? other
3. Describe actions people are taking to provide shelter for themselves
4. Is survival threatened by a lack of adequate shelter (exposure to rough climatic conditions)? if yes, estimate no. of persons concerned
5. Is survival threatened by a lack of blankets, clothing, etc.? if yes, estimate no. of persons concerned if applicable, indicate appropriate type of clothing and age/sex groups
6. Which essential household (cooking, cleaning, storage, etc.) utensils are in critical shortage? Is there enough storage capacity for food aid?

## D. Water and sanitation

1. Are at least minimum quantities of drinking water available to all communities? Also refer to SPHERE standards tables in annex
2. If not, estimate how many people have been deprived of drinking water supply

12. Describe any evidence of sanitation problems
  - ? stagnant water
  - ? poor hygienic conditions
  - ? sewage disposal problems
  - ? overcrowding in shelters
  - ? reports of pollution/contamination
  - ? areas with escaping/overflowing sewage
  - ? water pipes running in the same conduits as sewer lines
  - ? other

#### E. Food

1. Describe the normal food consumption pattern of the affected population, specify unacceptable food (maize, rice, beef, pork)
2. Indicate whether food is available
  - with people (stocks, purchasing power and food on the market)
  - with government or agencies for free distribution
  - ? on the market for bulk purchases
3. If immediate food shortages have been observed/are likely to occur during the relief phase, indicate:
  - nature of shortages (which basic items affected groups are unable to obtain/provide for themselves)
  - ? seriousness
  - ? time frame
  - ? estimated no. of affected people
  - ? reasons for food shortages:
    - loss of stocks seeds or crops ready to be harvested
    - ? loss of storage or processing capacity
    - ? lack of purchasing power
    - ? breakdown of transport facilities, roads, tractors
    - ? other
4. Are households able to prepare food for family meals and for small children? if not, specify reasons
  - What are the sharing habits in households? Do women/girls eat last?
  - Who controls food within the family?
  - ? no cooking utensils
  - ? no energy supply
  - ? other
5. Describe local coping mechanisms to deal with problems encountered in the food sector

#### ***On-site level international response***

##### **A. International resources arrived on-site/mobilized**

1. has specific expertise/technical assistance been made available by
  - ? UN agencies
  - ? international non-governmental organizations
  - ? inter-governmental organizations, such as EC
  - ? bilateral donors
  - ? other international actors?
2. if yes, specify and indicate whether this expertise is used for any detailed sectoral assessment of relief needs in certain areas/sectors
3. indicate communication/transport/logistics support provided by international actors

4. describe main items of relief goods distributed in the disaster area
5. list any contributions/pledges of relief goods or cash as announced to the UNDAC team in the field by NGOs, bilateral donors, etc.
  - ? source of information
  - ? type and value of assistance
  - ? time frame for implementation
  - ? no. of beneficiaries / target group(s)
6. have any international teams arrived in disaster area? -if yes, indicate:
  - ? name of team
  - ? approximate number of members
  - ? dispatching country/organization
  - ? brief description of functions:
    - ? medical assistance
    - ? logistics support
    - ? assessment
    - ? other

#### **B. Coordination**

describe mechanisms for coordination of international assistance at local level:

- ? relevant meetings
- ? decisions on distribution of tasks
- ? coordination of operational teams / establishment of an OSOCC
- ? communication flow: central - local level

#### **C. Constraints**

have any problems been encountered with international assistance provided so far, e.g.

- ? coordination
- ? provision of relief goods that are not required
- ? provision of non-sorted unlabelled relief goods
- ? congestion at certain logistical points
- 1. logistical problems created by international elements (transport, control, etc.)
  - ? inadequate storage
  - ? inadequate distribution
  - ? other

#### **Assistance requirements**

4. priority relief needs
1. describe immediate corrective action required to mitigate effects on population as indicated in section 3.2 (in addition to relief measures already under way)
2. list the priority needs that have been identified as a result of the initial assessment of the affected area under sub-headings as follows:
  - ? search and rescue
  - ? medical teams and supplies
  - shelter, blankets and clothing, household utensils
  - ? water and sanitation
  - ? food items
  - ? logistics (in-country transport, storage and handling of relief supplies)
  - ? communications
  - ? repairs to infrastructure
  - ? expertise for detailed sectoral assessment and/or restoration of critical facilities, coordination
  - ? other

3. in each case describe as far as possible:
  - whether contributions in kind or in cash are recommended
  - ? whether items of acceptable quality can be obtained locally, and estimated purchase and delivery costs
  - ? the precise type, specifications and quantities of supplies, equipment and services needed
  - numbers and expertise of any personnel required
4. when applicable, specify whether relevant data have been checked with personnel of specialized UN agency concerned (WHO, UNICEF, WFP, FAO)
5. where possible, indicate relative priorities of the various items
6. if items are quantified, specify whether this is:
  - ? the total requirement
  - ? the requirement after deduction of pledges/contributions. In this case, indicate which pledges/contributions have been taken into account
7. are there any assistance items which donors may intend to provide, but which are **not needed**? if yes, explain why.
8. do you recommend any specific assistance measures to be provided by/through DHA

#### ***Means of delivery of international assistance***

##### **E. Logistics and distribution system**

1. describe logistics system for receipt and transportation of international relief goods arriving in disaster area:
  - ? recommended airport(s) or other points of entry - if required, indicate characteristics (see logistics chapter for checklist of airports)
  - 1. transport facilities from airport/points of entry to disaster area/distribution points
  - availability of storage space, handling equipment, manpower
  - ? availability of fuel
  - ? major logistics bottlenecks or problems

##### **F. Possible channels for contributions**

list service(s)/organization(s) operational on-site with capacity to receive and manage international donations

#### ***Other information***

1. describe trends in the development of the situation, e.g.
  - ? are there signs that life is returning to normal?
  - ? are there any particular events or actions which might either accelerate or retard the re-establishment of selfreliance?
2. did early warning / disaster preparedness measures in the affected area help to reduce the impact of the disaster ?

##### **E.9.3. Health Status**

- Determine how many deaths occurred in the past week.
- Determine how many children under 5 died in the same period, desegregated by sex.
- Determine the main cause of death for each group.
- Determine the crude mortality rate.
- Determine whether measles vaccinations have been or will be provided. If provided, give dates of vaccinations.
- Determine the percentage of children vaccinated.
- Determine the incidence of diarrhea among adults and children.

- Determine the most common diseases among children and adults.

#### **E.9.4. Capacities and Assets**

##### **Capacities**

- What percentage of male and female population is literate?
- What emergency-related skills (for example, health workers, individuals with logistics/organizational relief skills) are represented within the population that could be drawn upon by relief organizations?

##### **Assets**

- Determine what the displaced population has as personal property and what was lost as a result of the disaster.
- Estimate the number and types of blankets needed (according to climatic conditions).
- Identify what blankets are available within the country from personal, commercial, UN/PVO/NGO/IO, or government stocks.
- Determine what is needed from external sources for blankets.
- Describe the clothing traditionally worn, by season and area.
- If clothing is needed, estimate the amount by age group and sex. Determine if used clothing is acceptable, and if so, for which groups.
- Describe normal heating/cooking practices.
- Determine whether heating equipment and/or fuel is required.
- Estimate the types and quantities of heating equipment and fuel needed over a specific time period.
- Determine appropriate fuel storage and distribution mechanisms.
- Identify what fuel is available locally.
- Identify what is needed from external sources.
- Determine if other personal effects, such as cooking utensils, soap, and small storage containers, are needed.
- Determine if the DPs brought any financial assets. Would those assets be convertible to local currency?
- Determine if livestock was brought along.
- Determine if shelter materials were brought along.
- Determine if other possessions, such as cars, bicycles, or boats, were brought along.

### E.9.5. UNDAC Standard Survey Form

UNDAC Team Member: ..... Date: .....  
 Itinerary: ..... Time: .....

<b>Name of Location</b>	
Administrative Unit and Division	
Local Authority(ies) Interviewed (name, title)	
Estimated Total Population	
Worst-Affected Area(s)	
Area(s) Currently Inaccessible	
<b>Buildings:</b> Major Damage/Destruction	
Minor Damage	
<b>LCF:</b> Roads Damaged / Destroyed (km)	
Bridges	
Communications Network	
Health Facilities	
Electricity Network	
Water Supply Systems	
<b>Agriculture/ Fisheries</b>	
Crops Damaged: Type/ha/%	
Livestock Losses	
<b>Effects on Population</b>	
Primary Affected Population	
- Dead / - Missing / - Injured	
Homeless	
Evacuated /In Public Shelters	
<b>Secondary Threats</b>	
Potentially Hazardous Sites	

<b>Name of Location</b>	
<b>Local/National/International Response</b>	
Type of Assistance Provided By National/Local Services	
List Non-Governmental /International Organizations Operational and Type of Assistance	
Logistics and Distribution System (availability of storage facilities, means of transport and fuel; distribution criteria)	
<b>Priority Relief Needs: Item / Quantities / Specifications</b>	

**Information Sources:**

- (a) .....
- (b) .....
- (c) .....
- (d) .....

**Remarks:**

**E.9.6. Contact Points**

<b>Name of Authority/ Organization</b>	
<b>Name of Official-in-Charge</b>	
<b>His/Her Title</b>	
<b>Office Telephone No.</b>	
<b>Office Facsimile No.</b>	
<b>Office Telex No.</b>	
<b>Emergency 24-hr. Tel. No.</b>	
<b>Street Address</b>	

<b>Responsibility</b>	<p>? Coordinating domestic response at national level.</p> <p>? Focal point for international response.</p> <p>? Coordinating arrival of relief goods/distribution.</p> <p>? Coordinating response at local level.</p> <p>? Relief/response action.</p> <p>? Scientific monitoring.</p> <p>? Other.</p>

## E.10. Tables

### E.10.1. Emergency Indicators and Minimum Standards Malnutrition Emergency Indicators

>10% of <5 age group moderately malnourished with nutritional diseases

#### Severe malnutrition for <5 age group

MUAC <11.0 cm

#### Moderate malnutrition for <5 age group

MUAC >11.0 and <13.5cm Z-Score >-3 and <-2

### Mortality Rate Emergency Indicators

**Crude Mortality Rate (CMR):** Single most important indicator of serious stress in DPs

**CMR= deaths/10,000/day: emergency phase**

<1 = Under control

>1 = Serious condition

>2 = Out of control

>4 = Major catastrophe

#### Mortality rate for <5 age group

1 = Normal in a developing country

<2 = Emergency phase: under control

>2 = Emergency phase: in serious trouble

>4 = Emergency Phase: out of control

### Minimum Water Requirements

Minimum maintenance = 15-20 litres/person/day

Feeding centre = 20-30 litres/person/day

Health centre = 40-60 litres/person/day

1 tap stand/200 people not > 100m from users

A large quantity of reasonably safe water is preferable to small amount of pure water

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**Minimum Food Requirements**

Minimum maintenance = 2,100 Kcal/person/day

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**Minimum Shelter/Space Requirements**

Minimum shelter space = 3.5 m<sup>2</sup>/person

Minimum total site area = 30 m<sup>2</sup>/person

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**Minimum Sanitation Requirements**

At least 1 toilet for every 20 persons

Maximum of 1-min. walk from dwelling to toilet(>5m and <51m)

**E.10.2. Water Needs for Displaced Persons**

**E.10.3. Weight-for-Height Expressed as a Percentage of Median Weight**

Height (cm)	Median Wt. (kg)	80%	75%	70%	60%
85	12	9.5	9	8.4	7.2
86	12.2	9.8	9.1	8.5	7.32
87	12.4	9.9	9.3	8.7	7.44
88	12.6	10.1	9.5	8.8	7.56
89	12.9	10.3	9.7	9	7.74
90	13.1	10.5	9.8	9.2	7.86
91	13.3	10.7	10	9.3	7.98
92	13.6	10.8	10.2	9.5	8.16
93	13.8	11	10.3	9.7	8.28
94	14	11.2	10.5	9.8	8.4
95	14.3	11.4	10.7	10	8.58
96	14.5	11.6	10.9	10.2	8.7
97	14.8	11.8	11.1	10.3	8.88

<b>Height Median</b>					
<b>(cm)</b>	<b>Wt. (kg)</b>	<b>80%</b>	<b>75%</b>	<b>70%</b>	<b>60%</b>
98	15	12	11.3	10.5	9
99	15.3	12.2	11.5	10.7	9.18
100	15.6	12.4	11.7	10.9	9.36
101	15.8	12.7	11.9	11.1	9.48
102	16.1	12.9	12.1	11.3	9.66
103	16.4	13.1	12.3	11.5	9.84
104	16.7	13.3	12.5	11.7	10.02
105	16.9	13.6	12.7	11.9	10.14
106	17.2	13.8	12.9	12.1	10.32
107	17.5	14	13.1	12.3	10.5
108	17.8	14.3	13.4	12.5	10.68
109	18.1	14.5	13.6	12.7	11.86
110	18.4	14.8	13.8	12.9	11.04

#### E.10.4. Examples of survival Food Rations

<b>Commodities</b>	<b>Ration Option 1</b>	<b>Ration Option 2</b>	<b>Ration Option 3</b>
Rice/wheat flour/ cornmeal	430	430	430
Pulses (beans/peas)	45	0	0
Pulses (lentils)	0	30	0

<b>Commodities</b>	<b>Ration Option 1</b>	<b>Ration Option 2</b>	<b>Ration Option 3</b>
Vegetable oil	25	25	25
Corn-soya blend	35	0	35
Wheat-soya blend	0	35	0
Canned fish	0	0	30
Sugar	0	15	15
Salt (iodized)	5	5	5
<b>Total grams:</b>	<b>540</b>	<b>540</b>	<b>540</b>
<b>Approximate food value</b>			
Energy (kcal)	2100	2100	2100
Protein (g)	50	60	50
Fat (g)	30	30	30

1. Note: Fresh fruits and vegetables, cereals and legumes, and condiments or spices should be made available whenever possible. Fortified cereal blends, such as wheat-soya blend and corn-soya blend, are good sources of micro nutrients. The addition of quantities of various micro nutrients, through the inclusion of such fortified cereals and local fresh foods, is highly desirable.

### **E.10.5. Example of Planning figures to Determine Food Needs**

**E.10.6. Approximate Nutritional Values of Commodities**

<b>Commodity</b>	<b>Energy (Kcal)</b>	<b>Protein (g)</b>	<b>Fat (g)</b>
<b>Cereals</b>			
Wheat	330	12.3	1.5
Wheat flour	350	11.5	1.5
Bulgur wheat	350	11	1.5
Maize	350	10	4
Maize meal	360	9	3.5
Sorghum	335	11	3
Rice	360	7	0.5
Rolled oats	380	13	7
<b>Blended Foods</b>			
Instant corn-soya blend	365	12.2	4
Corn-soya blend	380	18	6
Wheat-soya blend	370	20	6
Soya-fortified bulgur wheat	350	17	1.5
Soya-fortified corn meal	360	13	1.5
Soya-fortified rolled oats	375	21	6
Soya-fortified	360	16	1.3

<b>Commodity</b>	<b>Energy (Kcal)</b>	<b>Protein (g)</b>	<b>Fat (g)</b>
wheat flour			
<b>Pulses</b>			
Dried peas and beans	335	22	1.5
Ground nuts	330	15	25
<b>Milk, Cheese, and Eggs</b>			
Dried skim milk	360	36	1
Dried whole milk	500	26	27
Cheese	355	22.5	28
Dried eggs	575	45.5	43.5

**Approximate Nutritional Values of Commodities (contd.)**

<b>Commodity</b>	<b>Energy (Kcal)</b>	<b>Protein (g)</b>	<b>Fat (g)</b>
<b>Meat and Fish</b>			
Canned meat	220	21	15
Dried salted fish	270	47	7.5
Canned fish in ..	305	22	24

<b>Commodity</b>	<b>Energy (Kcal)</b>	<b>Protein (g)</b>	<b>Fat (g)</b>
oil			
Fish protein concentrate	390	75	10
<b>Oils and Fats</b>			
Vegetable oil	885	0	100
Butter oil	860	0	98
Margarine	735	0	82
Edible fat	900	0	100
<b>Fruits and Beverages</b>			
Dried fruit	270	4	0.5
Dates	245	2	0.5
Jam	265	0	0
Tea	0	0	0
Coffee	0	0	0
<b>Miscellaneous</b>			
Sugar	400	0	0
Iodized salt	0	0	0
Pasta	365	12.5	1.2
Freeze-dried meat	480	65	25
Minestrone	500	22.5	27
Protein-	450	16.7	15.5

<b>Commodity</b>	<b>Energy (Kcal)</b>	<b>Protein (g)</b>	<b>Fat (g)</b>
enriched ration			
Milk biscuits (whole milk)	470	23.4	10.4
Milk biscuits (skim mil)	375	24	1.5
High-energy protei n biscuit	450	15	20