

# **Section C1**

## **The affected population**



## Objectives

The objectives of this session are:

- To define the concepts of
  - ❖ Affected population;
  - ❖ Gender differentials; and
  - ❖ Social Vulnerability
- To discuss the direct and indirect effects on people
- To discuss the enumeration process
- To discuss the data requirements
- To discuss the differential vulnerabilities based on gender, income, and geographic location. Provide a focus for discussion among the group of trainees on sources and methods for deriving the best quality information possible.



## Who form the affected population?

The affected population refers to those persons suffering as a result of the natural disaster. Affected persons may be divided into three categories: (a) the primary; (b) secondary; and (c) tertiary population.



**Photo 10: Uprooted tree on Placencia Beach, Belize**  
Source: [www.paho.org/Images/PED/Iris24.jpg](http://www.paho.org/Images/PED/Iris24.jpg)

The **primary** population suffers the **direct effects** of the disaster and can be found in the direct path of the natural disaster. The impact on this group includes death, homelessness, injury, and trauma.

The **secondary** population suffers the **indirect effects** of the disaster and can be found in or near the path of the disaster. These persons may include, care givers who were not directly affected and family members who take in relatives as a result of the disaster.

The **tertiary** population can be found outside of the disaster zone but may be affected. These persons may suffer injury or other damages due to panic, loss of social services, or any other severe disruption or inconvenience due to the disaster.



**Photo 11: Seine Bight Village, Belize**  
Source: [www.paho.org/Images/PED/Iris24.jpg](http://www.paho.org/Images/PED/Iris24.jpg)



## What are the characteristics of the affected population?

It is essential in addressing the affected population that care and precision be taken **to enumerate** or count the entire affected population. This count should always make clear the age, sex, and ethnicity of the individual being enumerated.

### Essential data requirements are:

Baseline population data;

The number who have died (Mortality data);

The number who have fallen ill (Morbidity data);

The number who have been injured;

The number who have been made homeless;

The number who are being kept or have been kept in shelters (and for what length);

The number who have been affected due to loss of essential services e.g. water, sanitation, electricity, use of roads, and for what period);

### Additional data requirements:

Number of households and size;

Number of children under five;

Household heads by age and sex;

Elderly (60-70, 70-80, 81 + (widowed, living in single person households);

Number of pregnant and lactating women;

Number of mentally and physically disabled;

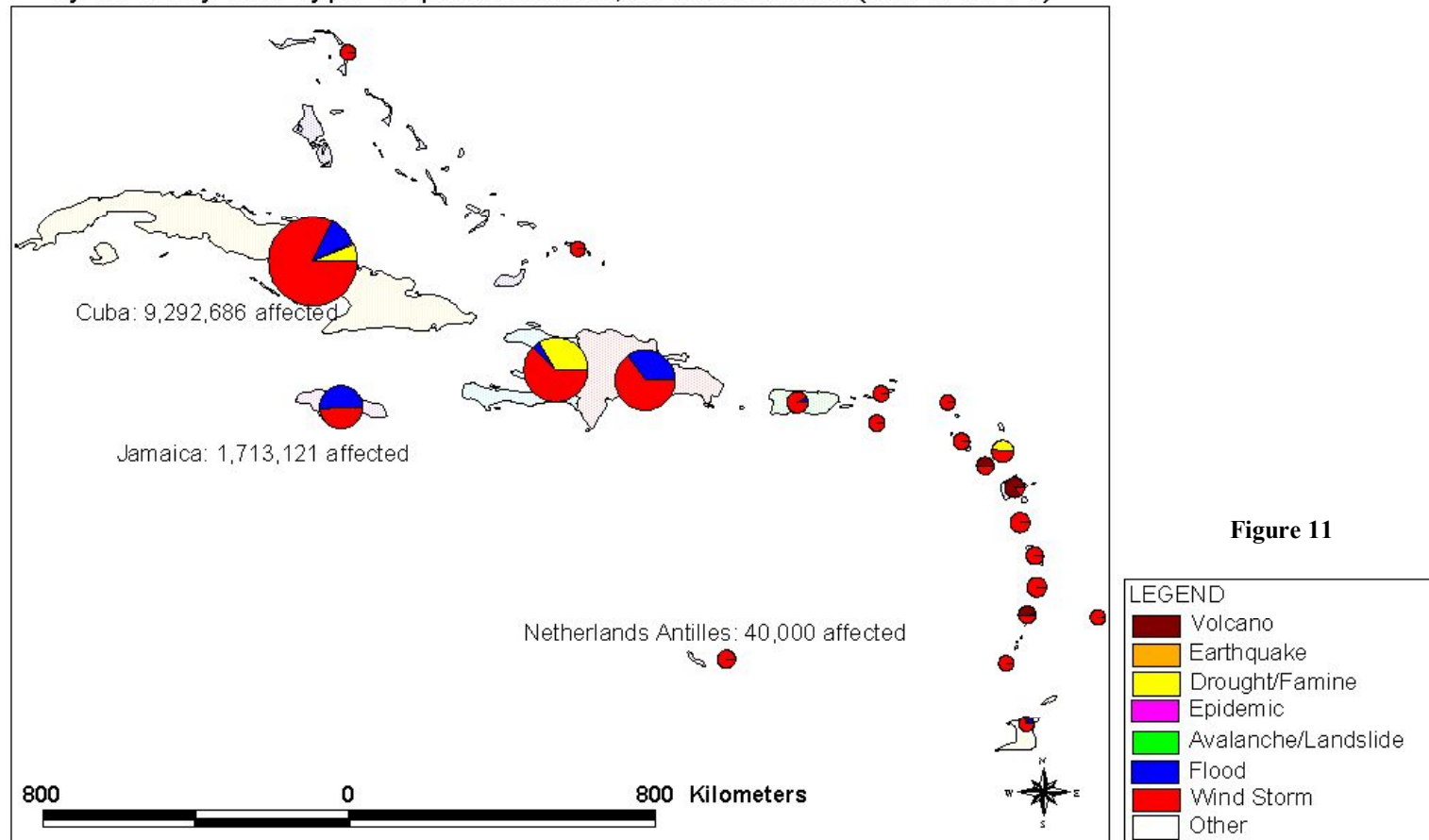
Dependency ratios of households of the affected population (youth and aged);

Migration of affected population – displacement, internal and external;

Life expectancy of affected population



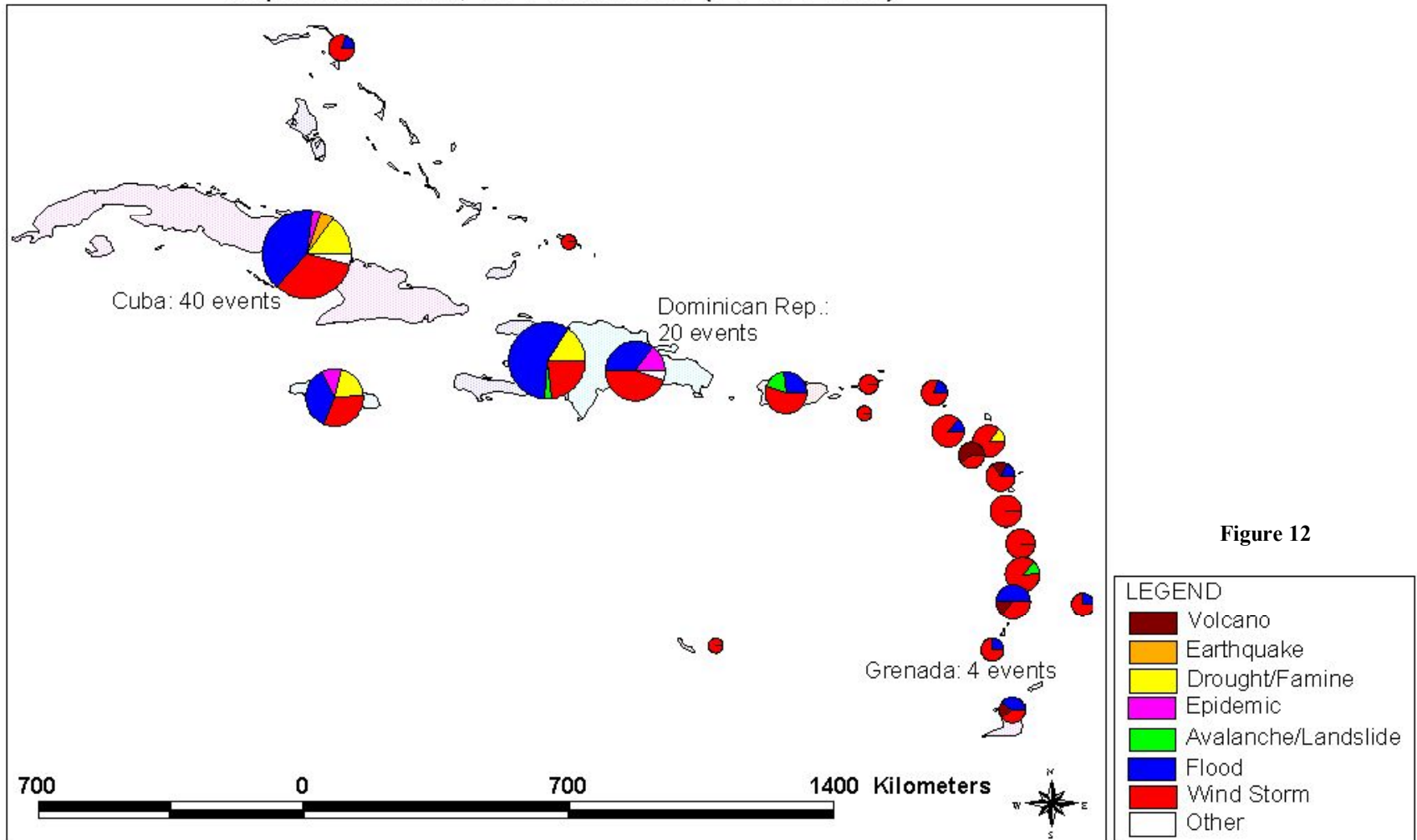
Distribution of people affected by natural disasters,  
by country and type of phenomena, in Caribbean (1975-2001)



EM-DAT: The OFDA/CRED International Disaster Database  
(<http://www.cred.be> ; email: [cred@epid.ucl.ac.be](mailto:cred@epid.ucl.ac.be))



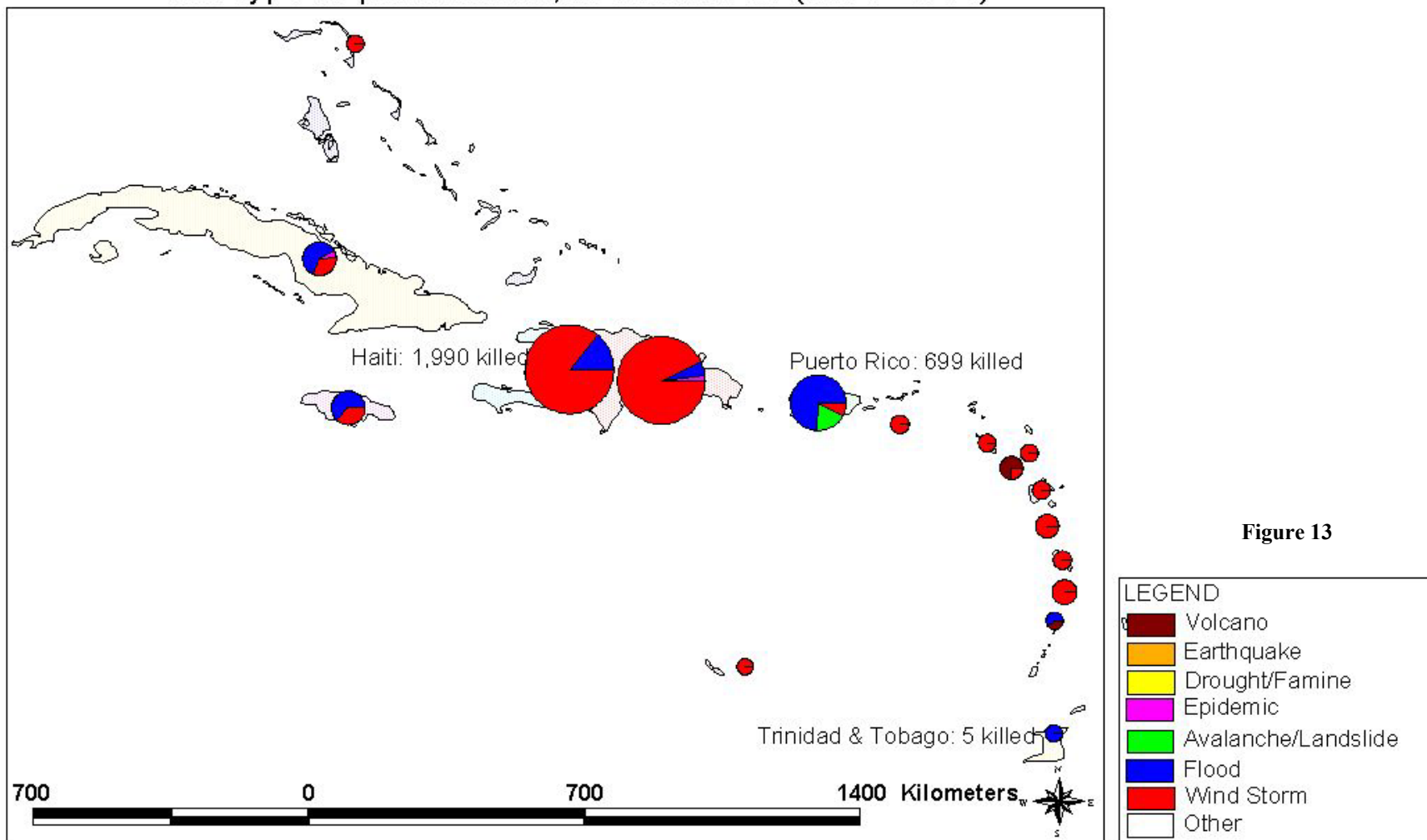
## Distribution of natural disasters, by country and type of phenomena, in Caribbean (1975-2001)



EM-DAT: The OFDA/CRED International Disaster Database  
 (<http://www.cred.be> ; email: [cred@epid.ucl.ac.be](mailto:cred@epid.ucl.ac.be))



## Distribution of natural disasters fatalities, by country and type of phenomena, in Caribbean (1975-2001)



EM-DAT: The OFDA/CRED International Disaster Database  
 (<http://www.cred.be> ; email: [cred@epid.ucl.ac.be](mailto:cred@epid.ucl.ac.be))



**Table 6**  
**Belize: Living Conditions of affected population**

Location	Living in flooded areas	Living in flooded houses /a	Living in shelters	Homeless	Displaced	Isolated	At high risk of health impairment
Total of affected districts	62,651	9,370	65	3,279	5,335	13,460	72,092
Belize District	24,029	4,863	-	3,279	3,279	4,555	35,314
Caye Caulker	-	-	-	279	279	-	1,300
San Pedro	-	-	-	3,000	3,000	-	1,300
Belize City	14,717	2,943	-	-	-	-	14,711
Rest of Belize District	9,303	1,920	0	0	0	4,555	9,303
Orange Walk District	13,673	2,732	65	-	2,056	7,509	15,536
Orange Walk Town	2,435	487	-	-	420	-	2,855
Rest of District	11,393	2,245	65	0	1,636	7,509	12,681
Corozal District	19,126	610	-	-	-	1,396	15,419
Cayo District	5,823	1,165	-	-	-	-	5,823

Source: Belize: Assessment of the damages caused by Hurricane Keith, 2000. LC/CAR/G.627

a/ Estimates based on number of houses flooded. Assuming an average of 5 inhabitants/ household based on census data.





## Geographic Location

It is important to describe the geographic location of the affected population.

- (a) Rural/Urban;
- (b) Coastal;
- (c) Riverbeds/Flood plains;
- (d) Valleys;
- (e) Mountain sides; and
- (f) Remoteness to centres of governance, healthcare, roads, food and shelter.

**Photo 12: Beach front in Placencia, Belize**



**Photo 13: Four Seasons Resort, Pinney's Beach, Nevis, after Hurricane Luis**

Source: [www.unesco.org/csi/act/cosalc/slide19.jpg](http://www.unesco.org/csi/act/cosalc/slide19.jpg)



## Economic Status

- (a) Extent of poverty (absolute and relative);
- (b) Employment status may provide a fair indication of the income status of the individuals in the absence of an income or expenditure survey. Therefore employment status is important to capture – employed and unemployed;
- (c) Sector employed (tourism, commerce, agriculture/fishing, manufacturing, energy, formal or informal); and
- (d) Category of employment (own account worker, micro-enterprise, worker at home or out of home).



## Sources of Data

- (a) National Statistical Office;
- (b) Population Census Reports;
- (c) Survey of Living Conditions;
- (d) Situational Analysis of Women and Children; and
- (e) PAHO/WHO Reports

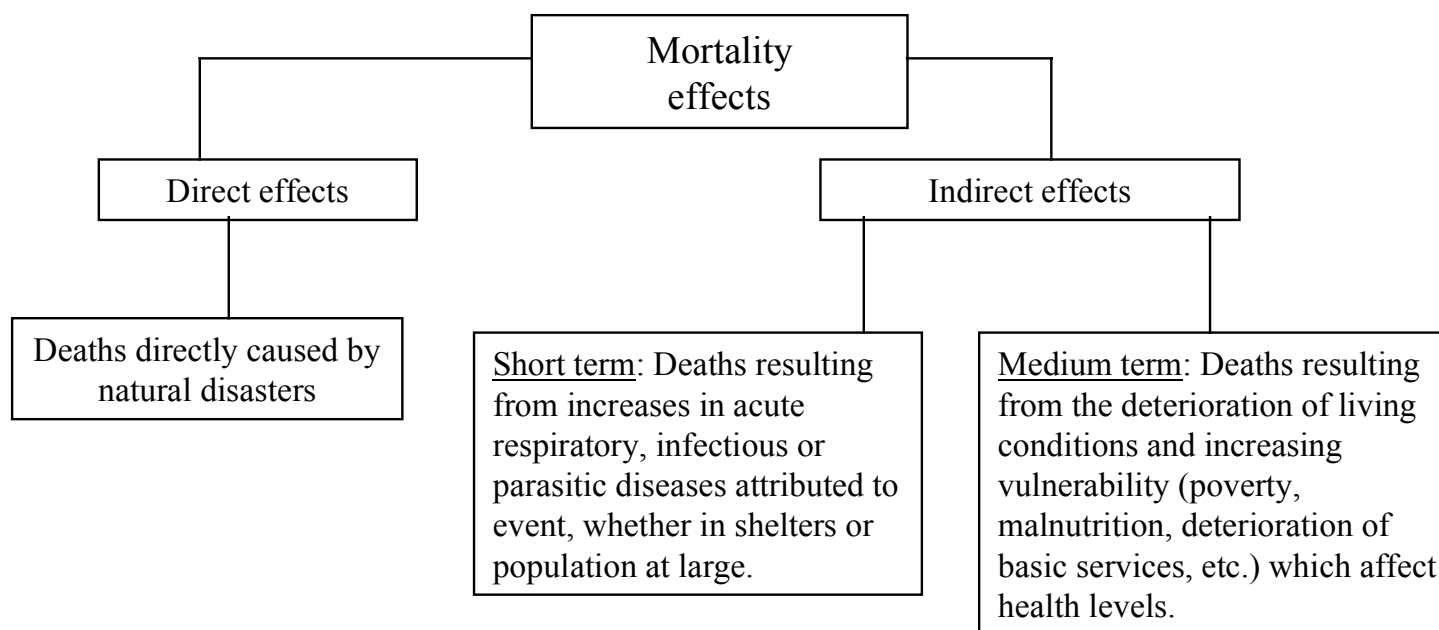
For purposes of analysis, it is possible to speak of the direct and indirect effects on the affected population.

The mortality effects, for example, can be divided into the direct effects which speak to the deaths directly caused by the natural disaster; the indirect effects which speak to the short term deaths resulting from increases in acute respiratory infectious or parasitic diseases attributed to the disaster. Medium term deaths result from the deterioration of living conditions and increasing vulnerability (poverty, malnutrition, deterioration of basic services, etc) which affects health levels. The Morbidity analysis will capture direct deaths and Indirect (short-term) deaths.



Chart 6

## *Analysis of the Data: Direct and Indirect effects on people*



## What are gender differentials?

Gender refers to the socially constructed roles of men and women (girls and boys) while sex refers to the biologically determined roles. Gender differentials may speak to the different types of jobs that men and women perform the different salaries they may receive for work of the same value, the differing family responsibility and the differing responsibilities derived from their different reproductive functions.

Gender differences may become apparent during times of disaster. Women may have greater responsibility for securing clean water and food. Men may receive jobs in the construction and rehabilitation projects. Incidence of familial and sexual violence against women and the girl child seems to decrease immediately after a disaster but increases steadily during the reconstruction phase. Men and women have differential responses to stress and different stress related behaviour and coping mechanisms.

**Figure 14: Source:**  
[www.eslarp.uiuc.edu/la/LA338-S01.groups/f/race&gender.jpg](http://www.eslarp.uiuc.edu/la/LA338-S01.groups/f/race&gender.jpg)



### ❖ Analysis of the data: Gender differentials

- Gender refers to the socially constructed roles of men and women (girls and boys)
- Sex refers to the biologically determined roles

### ❖ Examples of Gender differentials

#### Men and Women

Studies show certain trends in stress related behaviour:

- Alcoholism, gambling, criminal activity, violence, and family abandonment.
- Women suffer higher incidence of depression



### Violence against women:

- Incidences of familial and sexual violence seem to decrease immediately after the disaster and increases steadily during the reconstruction phase.

### **What is Vulnerability?**

Vulnerability refers to the probability that an individual, household, community, nation or eco-system will not be able to buffer against external threats or shocks.

Social Vulnerability speaks to the extent of an individual's entitlement, enfranchisement, empowerment and capabilities to withstand external shocks. This characteristic is often described as **resilience**.

### **Risks/ Threats**

- (a) Risk refers to potential hazard or danger, exposure to mischance or peril;
- (b) Threat refers to immediate events, activities or functioning that press, urge, force or induce behaviour change;
- (c) Risks or threats can be internal or external and may derive from nature or may be man-made; and
- (d) Risks/threats may be of an economic, social or environmental nature.



**Exercise:**

- (a) Pick a community using case study provided;
- (b) Gather the data on the affected population in the community (use worksheets available);
- (c) Describe in detail the characteristics, geographic location and the income status of the affected population;
- (d) Analyse the differential vulnerabilities of the population; and
- (e) Present your report in plenary.

**Self-assessment**

By now you should be conversant with the concept of the affected population and social vulnerability and gender differentials. Try to verbalise the concepts describing all that they entail. If you believe that you are not too clear on the different facets of the concepts, return to the relevant concept and read it again. If you are still unsure, seek help.

What risks, threats or deprivations make one group of persons more vulnerable than another?

What is the value of checking the statistical office for the most recent Population Census, Survey of Living Conditions or Labour Force Survey when estimating and defining the affected population?



## **WORKSHEETS**











