



# **ECONOMIC COMMISSION FOR LATIN AMERICA AND THE CARIBBEAN**

**Subregional Headquarters for the Caribbean**

## **Applying the Methodology: The Social Sector**



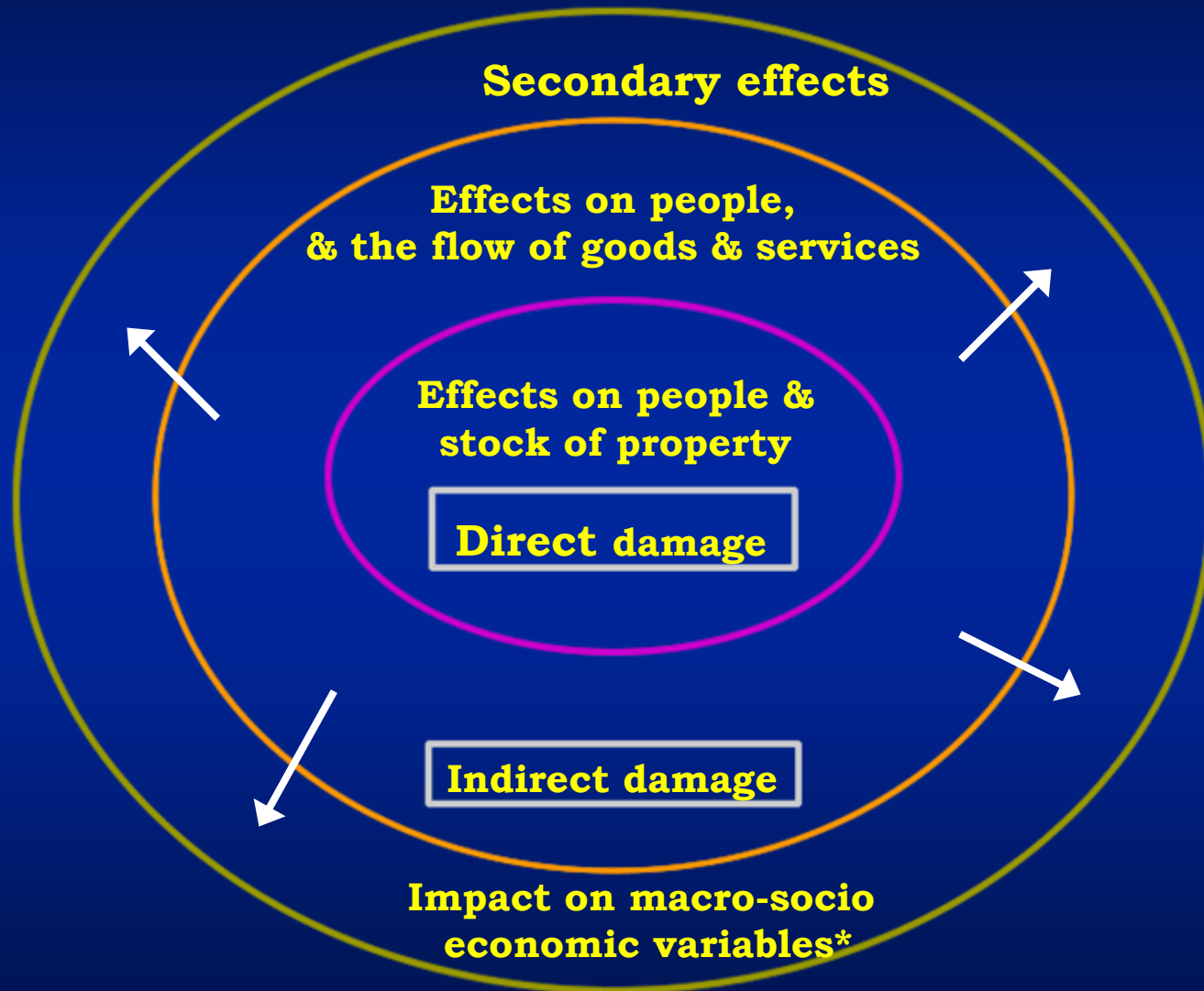
# ***The objectives of this session are to:***

- **Define the concepts of social sector**
  - ❖ **What are the components of social sector**
    - ❖ **Housing**
    - ❖ **Health**
    - ❖ **Education**
- **Discuss the direct and indirect costs of each part of the social sector**
- **Discuss the enumeration process**
- **Discuss the estimation process**
- **Discuss the Secondary effects**

## *Objectives ... cont'd*

- **Discuss the characteristics of each sector**
- **Discuss the the differential vulnerabilities based on quality of stock of housing, school or health facilities and geographic location.**
- **Provide a focus for discussion among the group of trainees on sources and methods for deriving the best quality information possible**

# ***Estimating the socio-economic effects of natural disasters***



\* A quantitative and qualitative assessment of the impact of the disaster (direct & indirect assessment of damages) on diverse indicators of the economic and social conditions in the country affected.

# ***Social Assessment of Natural Disasters***

- **Assessing the direct effects of the disaster on people (men and women, girls and boys)**
- **Assessing the indirect effects of the natural disaster on people and the goods and services which they use**
- **Arriving at total cost of the direct and indirect effects of the damages**

# ***Social Assessment of Natural Disasters ...cont'd***

- **Analyzing the impact of that cost on the macro socio-economic variables (secondary effects)**
- **Making recommendations in the form of projects for mitigation, recovery and reconstruction**

# ***What comprises the Social Sector and why?***

**For the purposes of assessing the extent of damage from a natural disaster, the social sector is divided into three main areas:**

- (a) Housing**
- (b) Health**
- (c) Education**

# *Main Characteristics*

## *- Housing Sector*

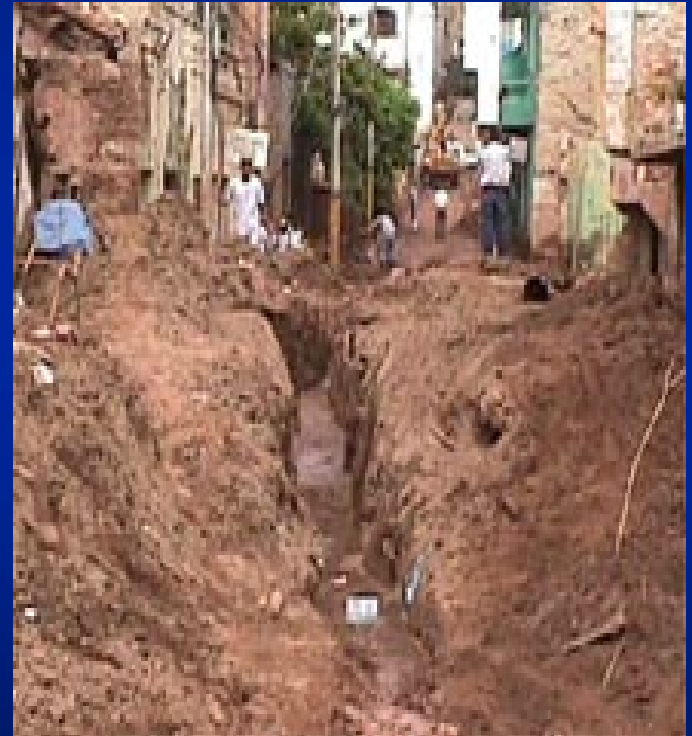
- **Housing** dwelling or housing units that were affected by the natural disaster. These units are defined as every building destined to shelter persons or families for purposes of habitation.



# ***Main Characteristics***

## ***- Health Sector***

- **Health includes the health system and sanitation infrastructure.**
  - **the hospitals, health centres, dispensaries, medical equipment or instruments, furnishings and medicine;**
- **sanitation infrastructure include:**
  - **the sources, collection work, transmission systems, distribution networks and energy plants which supply and regulate the drinking water supply systems, sewage, excreta, liquid and solid waste disposal systems; rural and urban public and private wells; connections to dwellings; latrines; cisterns; wind mills**



# ***Main Characteristics*** ***- Education Sector***

- **Education the physical infrastructure and equipment of the education sector. This includes:**
  - **buildings used for normal and adult education, sanitary facilities, general services and libraries**
- **Other installations linked to scientific and educational activities**
  - **museums, archives, public libraries and historical/archaeological sites and sporting facilities**



# *Direct damage*

- **Direct Damage is all damage sustained by assets and inventories.**
- **It essentially involves damage to property including total or partial destruction of:**
  - **physical infrastructure**
  - **buildings**
  - **installations**
  - **machinery and equipment.**
- **The estimated cost of demolishing and clearing areas**

# *Indirect damage*

- **Indirect Damage is damage to the flows of goods that cease to be produced or the services that cease to be provided**
- **Indirect damage includes:**
  - **the costs or increased costs of providing services as a result of the disaster**
  - **loss of income as a result of the impossibility or difficulty of providing such services.**

# *Examples of Direct/Indirect Costs*

<b>Sector</b>	<b>Direct Cost</b>	<b>Indirect Cost</b>
Housing	<ul style="list-style-type: none"> <li>Cost of houses damaged</li> <li>Cost of houses destroyed</li> <li>Cost of household furniture and appliances lost due to natural disaster</li> </ul>	<ul style="list-style-type: none"> <li>Loss of income from rent</li> <li>Cost for relocation</li> <li>Loss of income from backyard economy</li> <li>Loss of income from home-based small/micro businesses</li> </ul>
Health	<ul style="list-style-type: none"> <li>Cost of damage to hospitals and other health facilities</li> <li>Cost of damage to equipment</li> </ul>	<ul style="list-style-type: none"> <li>Cost of extra medicine</li> <li>Cost of vector control</li> <li>Loss of income due to services which were unable to be provided</li> </ul>
Education	<ul style="list-style-type: none"> <li>Cost of damage to schools and sporting facilities</li> <li>Cost of demolition and clearing of facilities</li> </ul>	<ul style="list-style-type: none"> <li>Cost of damage of education/sport facilities used as shelters and relief centres</li> <li>Additional transportation costs</li> <li>Loss of income to teachers</li> <li>Day care and other educational services disrupted</li> </ul>

# *Geographic location*

- **It is important to describe the geographic location of the affected infrastructure of the housing, health and education sectors:**
  - **Rural/Urban**
  - **Coastal**
  - **Slopes (either hills or mountain sides)**
  - **Valleys**
  - **Remoteness to centres of governance**

# *Patterns of Ownership*

- **It is important to describe the ownership of the property as private or public**
- **Gender analysis of the ownership pattern would be useful and may have policy implication**

# ***Data requirements - Housing***

- **Total number & value of houses affected by the disaster**
- **The districts in which they are located**
- **The number that are publicly owned or privately owned**
- **Total number requiring repair**
- **Total number of houses requiring reconstruction**
- **The total number and value of social safety net programmes (that address housing) that have been disrupted**

# ***Data requirements - Education***

- **Total number and condition of schools, sporting facilities, libraries, museums, archaeological or historical sites affected & their value**
- **Number of educational/sports facilities damaged as a result of being used as emergency facilities & the cost or repair**
- **The total number and value of social safety net programmes (that address education) that have been disrupted**

# ***Data requirements - Health***

- **Total number of water and sanitation facilities, including garbage disposal facilities, damaged as a result of the natural disaster & their cost**
- **The total number of social safety net programmes (that address health) that have been disrupted & their value**

# *Data Sources*

- **Ministry of Housing, Health, Education, Sports**
- **Ministry of Works**
- **Private Developers**
- **PAHO/WHO**
- **Local Emergency Offices**
- **Civil Society Organizations**
- **Furniture suppliers**
- **Town & Country planning**
- **PIOJ**
- **STATIN**

## HONDURAS: ESTIMATED DAMAGE IN THE HOUSING SECTOR

(Millions of lempiras)

Item	Total damage	Direct damage	Indirect damage
National total	4,645.7	2,983.8	1,661.9
Dwellings destroyed	830.0	830.0	-
Dwellings damaged	1,755.0	1,755.0	-
Furniture and household goods	398.8	398.8	-
Temporary shelters	302.4	-	302.4
Relocation of dwellings	496.8	-	496.8
Removal of debris	206.8	-	206.8
Reconnection of services	41.5	-	41.5
Loss of rent from dwellings	614.4	-	614.4

Source: ECLAC estimates, based on provisional information from FOVOSI, the Central Bank and other official sources.

**HONDURAS: ESTIMATED REPAIR AND RECONSTRUCTION COSTS IN THE  
HOUSING SECTOR**  
**(Millions of lempiras)**

Item	Total	Cost of repair cost	Cost of reconstruction	Effect on foreign sector
<b>National total</b>	<b>6,545.2</b>	<b>3,591.4</b>	<b>2,953.8</b>	<b>1,027.1</b>
Reconstruction of housing	2,457.0	-	2,457.0	491.4
Repair of housing	2,376.0	2,376.0	-	237.6
Furniture and household goods	664.7	664.7	-	212.7
Temporary shelters	302.4	302.4	-	15.0
Relocation of dwellings	496.8	-	496.8	49.7
Removal of debris	206.8	206.8	-	20.7
Reconnection of services	41.5	41.5	-	-

Source: ECLAC estimates.

### Belize: Summary of damages to the Health Sector

	Damage			Reconstructi on Costs	Imported Compone nts
	Total	Direct	Indirect		
Total	3,888.0	2,558.0	1,330.0	2,855.0	1,600.0
Partial or total destruction of health infrastructure	1,130.0	1,120.0	10.0	2,200.0 a/	-
Loss of equipment and furnishings	640.0	640.0	-	-	1,500.0
Health community educational material	70.0	-	70.0	-	-
Extra spending on drugs and medication	524.0	104.0	420.0	5.0	100.0
Vector control-environmental sanitation activities	674.0	-	674.0	-	-
Increase cost of inpatient, outpatient and medical care	123.0	-	123.0	-	-
Epidemiological surveillance	30.0	-	30.0	-	-
Damages in rural water supply systems (well, rain water vats)	157.0	157.0	-	250.0 a/	-
Damage in rural sanitation systems (latrines)	537.0	537.0	-	400.0	-
Psycho-social rehabilitation (consultancy and training materials)	3.0	-	3.0	-	-

Source: ECLAC, on the basis of official data.

a/ Includes computers lost during the disaster.

**HONDURAS: DAMAGE IN THE EDUCATION SECTOR**  
**(Millions of lempiras)**

Item	Total damage	Direct damage	Indirect damage	Cost of reconstruction	Effect on balance of payments
National total	446.4	362.4	84.0	551.8	207.6
Pre-school to secondary education	200.0	200.0	-	287.0	100.5
Higher education	23.8	23.8	-	32.0	11.2
Equipment, furnishings and educational material	40.0	40.0	-	56.0	39.2
Sports and cultural facilities	13.6	13.6	-	42.8	18.3
Ministry of Education	85.0	85.0	-	100.0	35.0
Use of schools as shelters	50.0	-	50.0	-	-
Relocation of schools to safe places	34.0	-	34.0	34.0	3.4

Source: ECLAC estimates based on official information

# *Secondary effects*

- **The outright destruction or damage of facilities and equipment in the social sector produces secondary effects on the macro economic variables in a country.**
- **Those effects should not be added to the direct and indirect effects.**

# ***Secondary effects ...cont'd***

- **Several particularly relevant secondary effects may be:**
  - **Lost contribution to the national economy or production generated by either the housing, health or the educational sector**
  - **Variations in employment rates**
  - **Impact on the balance of payments**
  - **Impact on the public sector**
  - **Impact on inflation**

# ***Secondary effects ...cont'd***

- **Secondary social effects may be:**
  - **Delay in country meeting its development goals i.e.:**
    - **universal access to primary education**
    - **full access to primary health care**
    - **adequate water supply**