



Comparative Study On Recovery & Reconstruction

CHALLENGES AND WAY FORWARD

A presentation by:

Anil Kkumar Sinha

Senior Technical Advisor, Asian Disaster Reduction Center, Kobe,
Japan

Vice Chairman (Corporate Affairs), Hindustan Construction Company, Mumbai, India

Former Executive Director, National Center for Disaster Management, India



Recovery¹

implies

- ◆ **Decisions and actions after a disaster**
 - ✚ **Restore the living conditions of the affected community**
 - ✚ **Encouraging and facilitating necessary adjustments to reduce disaster risk.**

provides

- ◆ **An opportunity to develop and apply disaster risk reduction measures.**

¹ *Annex 1 Living with Risk: A global review of disaster reduction initiatives: Terminology*





ORISSA SUPERCYCLONE



GUJARAT EARTHQUAKE



MARMARA EARTHQUAKE



HURRICANE MITCH





VENEZUELA FLASH FLOODS



PINATUBO VOLCANIC ERUPTION



EL SALVADOR EARTHQUAKES



Seven case studies under review

☩ Pinatubo Volcanic Eruption, June 1991

Death Toll	:	657
Total Population Affected	:	2.1 million
Infrastructure Damaged	:	US \$ 6.76 million
Houses Damaged	:	81,654
Economic loss	:	US \$ 222.4 million

☩ Hurricane Mitch, October 1998

Death Toll	:	10,000 (Approx)
Total Population Affected	:	3.5 million (approx)
Infrastructure Damaged	:	US\$ 5 billion (approx)
Houses Damaged	:	3,86,000
Economic loss	:	US\$ 6 billion (approx); slowed the expected annual growth rate for 1999 from 5.3 to 2.9%

☩ Venezuela Flash floods and landslides, December 1999

Death Toll	:	15,000-20,000
Total Population Affected	:	-NA-
Infrastructure Damaged	:	US\$ 1,961 million
Houses Damaged	:	8,000
Economic loss	:	US\$3,237 million; losses amounted to 3.3 % of Venezuela's GNP.



☉ El Salvador earthquakes, Jan. – Feb. 2001

Death Toll	:	1,259
Total Population Affected	:	1.5 million
Infrastructure Damaged	:	-N.A-
Houses Damaged	:	3,34,866
Economic loss	:	US\$1,255 billion

☉ Orissa Super Cyclone, October 1999

Death Toll	:	9,893
Total Population Affected	:	11 million (Approx.)
Infrastructure Damaged	:	US\$ 390 million (Approx.)
Houses Damaged	:	1.649 million
Economic loss	:	US\$ 540 million (Approx.)

☉ Gujarat earthquake, January, 2001

Death Toll	:	20,000 (Approx.)
Total Population Affected	:	15.9 million
Infrastructure Damaged	:	US \$4.5 billion
Houses Damaged	:	4,24,510
Economic loss	:	US \$2.1 billion

☉ Marmara Earthquake, August, 1999

Death Toll	:	17,000
Total Population Affected	:	93,000
Infrastructure Damaged	:	US\$ 500 million
Houses Damaged	:	US\$ 1.1 to 3 billion
Economic loss	:	US\$ 3.1 to US\$ 6.5 billion



RECONSTRUCTION

OBJECTIVES

Of the case studies under review



RECONSTRUCTION OBJECTIVES

- Largely framed in consultation with the international aid and donor agencies
- Broadly were the same but varied in some specifics from countries to countries
- Aim of the recovery and reconstruction efforts focussed on
 - ✚ Restoration of infrastructure
 - ✚ Building of roads, hospitals and homes
 - ✚ Restoration of economic activity
 - ✚ Reduction of vulnerability

by the adoption of disaster reduction measures.





RECONSTRUCTION

ASSESSMENT



CRITERIA FOR ASSESSMENT OF REHABILITATION AND RECONSTRUCTION WORKS

- ✦ **Appropriate institutional and operational frameworks**
- ✦ **Assessment of the existing protocols for cooperation & coordination**
- ✦ **The presence of systems to assist swift and efficient recovery**
- ✦ **Legal, institutional and financial mechanisms/ structures**
- ✦ **The presence of an advisory group**
- ✦ **Training of personnel in charge of recovery on a regular basis**
- ✦ **Incorporation of risk reduction concerns and practices to reduce overall vulnerability of the affected communities**
- ✦ **Ability to provide an impetus to socio-economic recovery**
- ✦ **Ability to initiate structural reform in the socio-political & economic environment**



RECONSTRUCTION CHALLENGES



OBSERVATIONS

- ◆ **Quantitative and qualitative improvement in International emergency aid over time**
- ◆ **Reconstruction and recovery processes have also shown corresponding upswing**
- ◆ **Recovery and reconstruction require greater attention by the international agencies**
- ◆ **International efforts at reconstruction were able to achieve a considerable success**



Some of the identified challenges are:

- **The support of the local government and a favourable political climate**
- **Legal and institutional frameworks to assist recovery**
- **Financial mechanisms to support the rehabilitation works**
- **Lack of any well formulated reconstruction plan incorporating mitigation and structural changes**
- **Involvement and participation of the local communities**



- **Incorporation of risk reduction measures and promote sustainable development**
- **Managing recovery efforts requires understanding socio-cultural, economic and political structure of the affected country**
- **Rehabilitation effort to closely cooperate with the local community**
- **Minimise cost over-runs and adhere to the time schedule**
- **Need for socio-economic reconstruction**



WAY FORWARD



Recognize the need for an international system/framework

- to address gaps and constraints
- to engage in global advocacy
- to streamline, coordinate and unify fragmented responses
- to help take total and long-term view of disaster risk reduction



- ◆ **Enlisting support of local authorities imperative**
 - ▶ **Understand political, socio-economic and cultural structures**
 - ▶ **An international forum could facilitate collection and assimilation of global data, easily accessible for consultation**
 - ▶ **This data could be rapidly and efficiently accessed when required**

- ◆ **Providing impetus to the development of legal and organisational structures to implement reconstruction**



◆ The international framework could

- ▶ Network and document skills, knowledge and best practices
- ▶ Draw from their experience for the benefit of affected countries
- ▶ Provide training to personnel engaged in recovery and reconstruction
- ▶ Coordinate the activities of agencies engaged in the implementation
- ▶ Help in the development of international protocols
- ▶ **During peace time**, provide training to disaster managers and build an extensive database for ready usage anywhere in the world



- ◆ Broad framework to fund the reconstruction projects
- ◆ In wake of trans-national disasters (recent Tsunamis), an international body imperative to coordinate and unify massive recovery efforts.
- ◆ The **‘window of opportunity’** to be utilised to usher in long-term changes

It is therefore **vital to have a body,**
which could **set benchmarks** based on
comprehensive reviews of the work done by the
international agencies.



- **Recovery and reconstruction complex processes requiring expertise often beyond the capacity of individual nations and organisations**

To further streamline international recovery and reconstruction,

urgent need for an international framework

- ❖ **to take a total and overall view of the situation**
- ❖ **to help evolve appropriate frameworks and mechanisms**
- ❖ **to coordinate international responses and efforts**



Thank you
for your patient hearing!!

