LEGAL FRAMEWORK AND ORGANIZATION STRUCTURE OF DISASTER MANAGEMENT IN SRI LANKA

DISASTER MANAGEMENT CENTRE
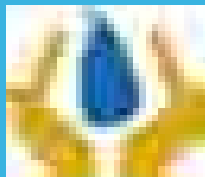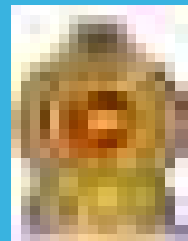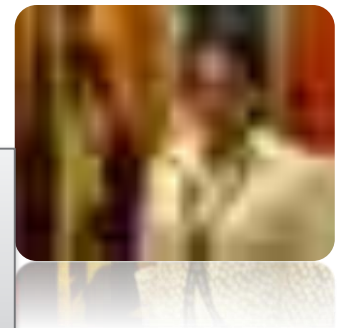
University of Sri Jayewardenepura (2012-2017) PhD Geography (Reading)

University of Peradeniya (2007 to 2009) M.Phil in Earth Sciences

University of Peradeniya   (2004 to 2007) Postgraduate Diploma in GIS & RS

Sabaragamuwa University of Sri Lanka (B.A.(Special) Geography

| Institution	Programme	country	period
University of Kashmir	SAARC Training Programme on Children Safety Including Children with Special Needs	Kashmiri/India	06th - 12th November 2013
Asia Pacific Centre for Security Studies	Compréhensive Crisis Management Programme.	Hawaii-USA	8th May-01st July 2014
Asian Disaster Preparedness Center	Workshop 2 of Regional Training on Disaster Resilience Leadership	Bangkok, Thailand	7th- 11th July 2014
SARRC Disaster Management Centre	South Asia Policy Dialogue on Children	Kathmandu- Nepal	17th -18th September 2015
JICA	Young Leaders Training Programme	Hiroshima, Japan	29th January -17th February 2017
BIMSTEC	1st Annual Exercise	Deldhi, India	10th 13th , October 2017

CONTENT

- INTRODUCTION

- BACKGROUND

- DISASTER MANAGEMENT ACT

- DISASTER MANAGEMENT CENTRE

- MINISTRY OF DISASTER MANAGEMENT
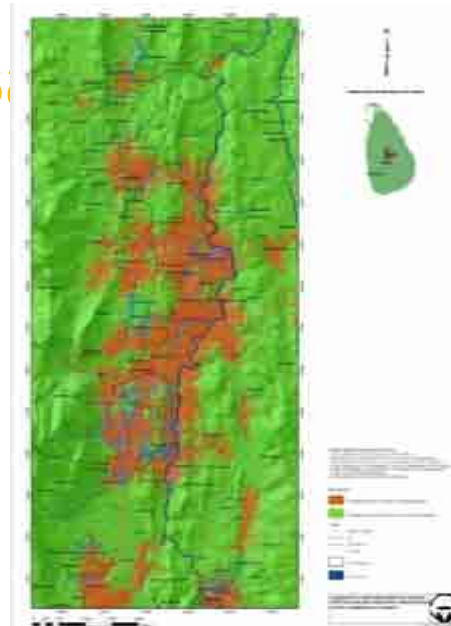
- POLICY OF DISASTER MANAGEMENT

INTERNATIONAL FRAMEWORKS

INTRODUCTION

Landslide Prone areas
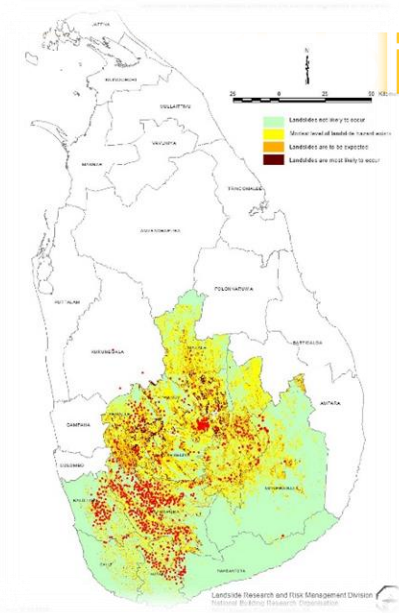
Land subsidence areas

Flood Prone areas during South west Monsoon (May – Sep)
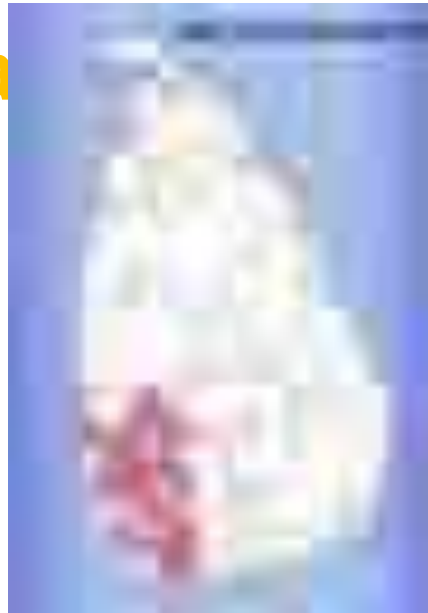
Flood Prone areas during North East Monsoon (Dec – Feb)

Problematic Soils -

Drought Prone areas

Tropical Cyclones

Tsunami Affected Coastal Areas
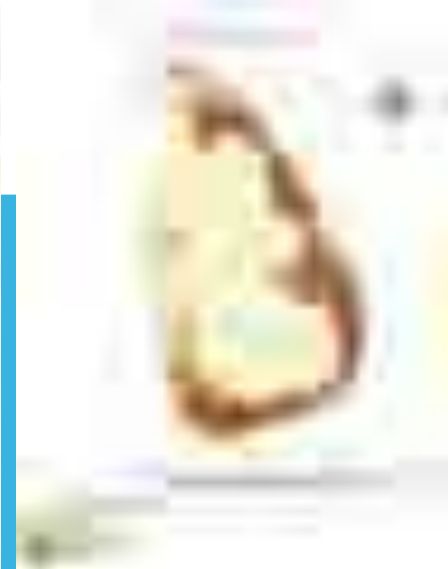
INTRODUCTION
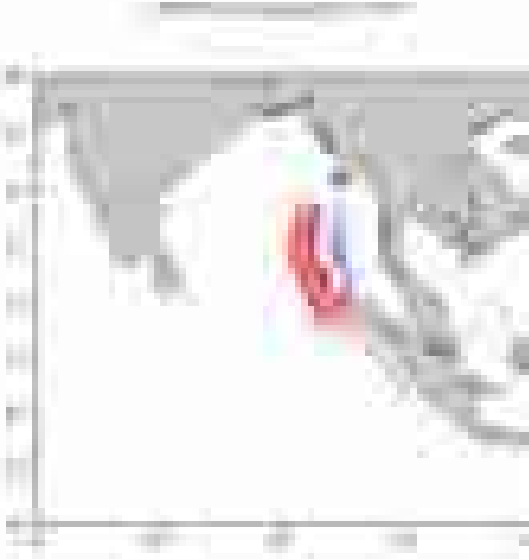
❖ Southern, Western, Eastern and Northern coastal belt is prone to Tsunami

❖ The unprecedented havoc caused by Tsunami had devastated two thirds of the coastal belt of Sri Lanka.

❖ More than 33,000 lives were lost and 100,000 houses were completely damaged in thirteen districts along the coastal belt. Approximately 5,000 people were missing.

TSUNAMI IMPACTS

- Humanitarian

- Economic

- Environmental

- Spiritual/Psychological

TSUNAMI IMPACTS CONTD..

Humanitarian

- Since many people hurt or die in there. also, the sea water made the infrastructure fell down, and shortages of food and drink water.

TSUNAMI IMPACTS CONTD..

Economic

The impact on coastal fishing communities and fisher folk , has been devastating with high losses.

TSUNAMI IMPACTS CONTD..

Environmental

　　　　The environment also get severely effected and that will last for years

TSUNAMI IMPACTS CONTD..

Spiritual/Psychological

Many health professionals and aid workers are reporting widespread psychological trauma associated with the tsunami

3-4

5

5-8

JAFFNA

TRINCOMALEE

ANURADHAPURA

SIGIRIYA

POLONNARUWA 6-10

DAMBULLA

5-15

KANDY

NEGOMBO

2 AIRPORT

COLOMBO NUWARA ELIYA

7-12

KALUTARA

11

BERUWELA

AHUNGALLA

BENTOTA

7-9

KATARAGAMA

4-10

GALLE

HAMBANTOTA

7-9

4-9
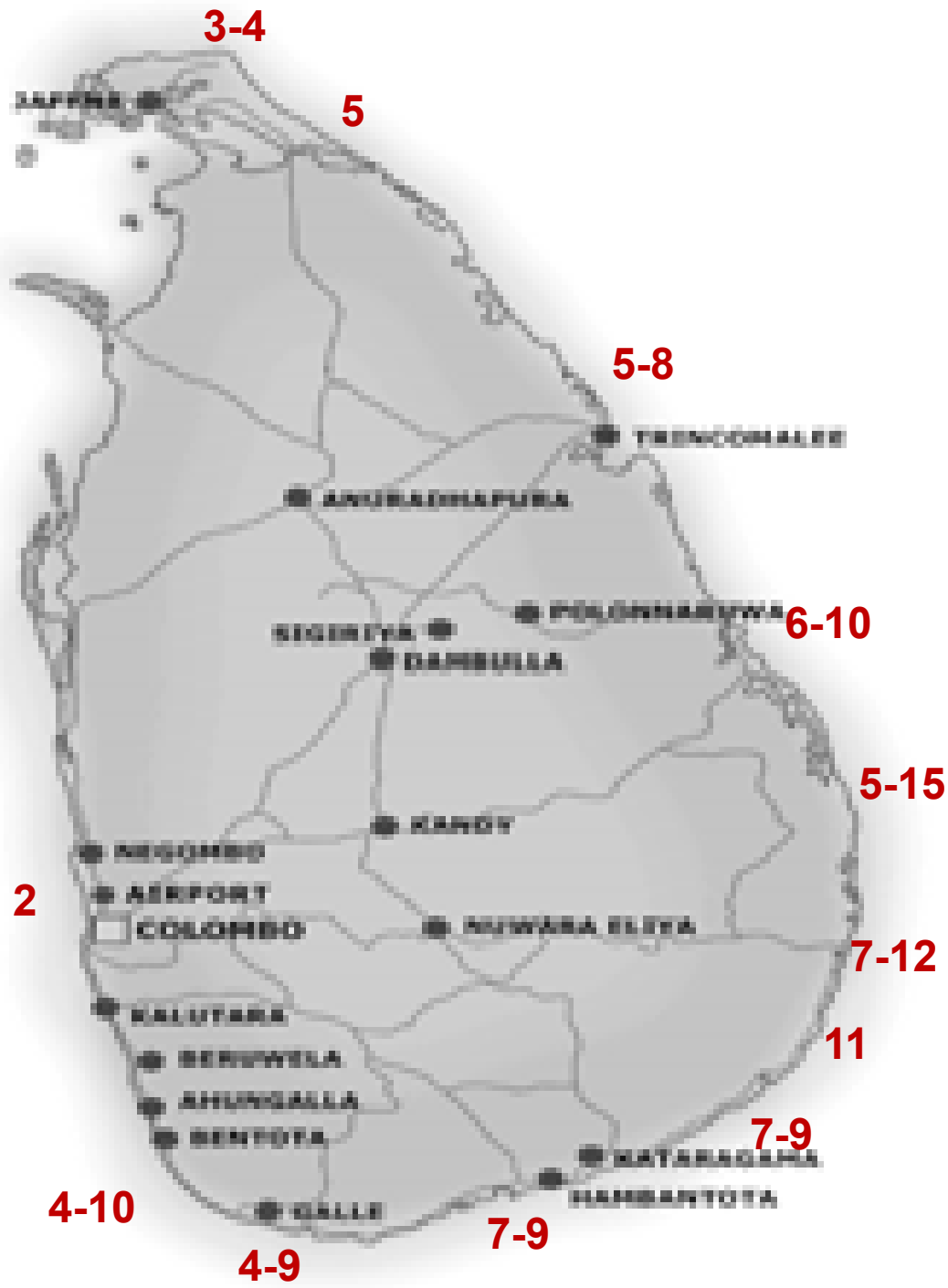
TSUNAMI IMPACTS CONTD..

Deaths	30,959
Injured	19,611
Missing	1,908
Houses Destroyed	57,085
Houses Damaged	48,208
Affected	1,076,240
No. Families Affected	249,717
No . Of camps	309

Extracted from DMC records

WHY SO MANY PEOPLE DIED IN TSUNAMI

- Lack of knowledge of the public about the serious effects of tsunami
- very low **people awareness**
- Poor Early Warning system
- No proper system for receive Early Warning in night and holidays
- No proper Mechanism for dissemination
- Lack of preparedness
- No proper mechanism for Disaster Management
- Poor economic development
- The buildings structure is not unfluctuating

BACKGROUND OF DISASTER MANAGEMENT IN SRI LANKA

EARLY

- ❑ Ecosystem Management Approaches in early Agrarian Civilization in kings period for Flood and Drought Management
- ❑ Land use Management in Colonial cultivation era
- ❑ Flood Ordinance 1955
- ❑ 1977-1995 Department of Social Service
- ❑ 1996 National Disaster Management Centre

Contour planting
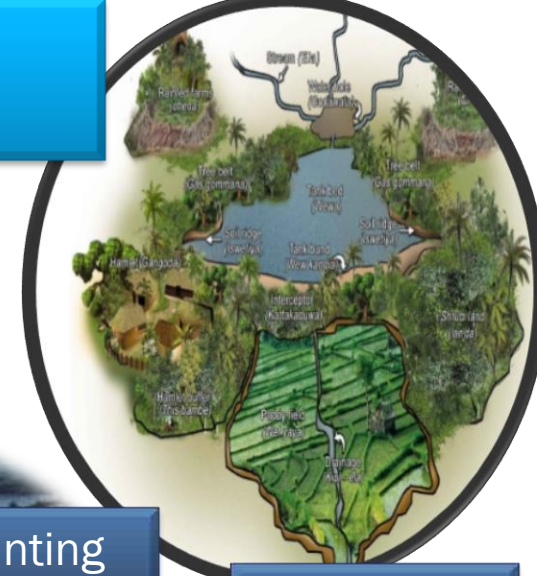
Cascade System

PRESENT

Indian Ocean tsunami of December2004 and "Parliamentary Select Committee on Natural Disasters"

Disaster Management Act 13 of May 2005

National Council for Disaster Management (NCDM) Chaired by H.E. the President

Ministry of Disaster Management and the Disaster Management Centre (DMC)
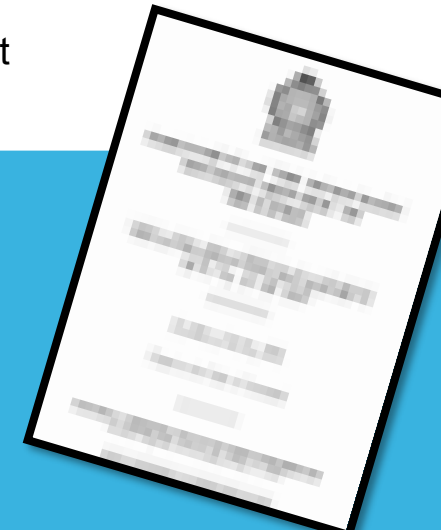
DISASTER MANAGEMENT MECHANISUM – BEFORE TSUNAMI

Before 1977   -   Department of Social Service

1977- 1988   -   Department of Social Service under Ministry of Social Services

1989-1994   -   Ministry of Rehabilitation , Reconstruction and Social Welfare

1994-1995   -   Ministry of Health and Social Service

1995   - Department of Social Service

1996   -   National Disaster Management Centre - Activities of Preparedness, Mitigation , Response and Recover y Department of Social Service - Relief

DISASTER MANAGEMENT MECHANISUM – AFTER TSUNAMI

2005   - Disaster Management Act / Disaster Management Centre

2005   -   Ministry of Disaster Management

2006   -   Ministry of Disaster Management and Human Rights

2010   -   Ministry of Disaster Management

2015   -   Ministry of Disaster Management , peace and Order and Christian Affairs

2015   -   Ministry of Disaster Management

2018   -   Ministry of Irrigation, Water Resource Management and Disaster Management

Legal Background – Disaster Management

❖ A Parliamentary Select Committee was appointed to review the disaster risk management in 2005

❖ An Interim Committee on Early Warning System was set up

❖ In May 2005, **Disaster Management Act No 13 of 2005** passed in the Parliament .

❖ The **National Council for Disaster Management** (NCDM) was established, as per the act in 2005

❖ The **Disaster Management Centre** (DMC) was established in 2005

❖ In December 2005, the **Ministry for Disaster Management** was established. In January 2006,

PARLIAMENT OF THE DEMOCRATIC
SOCIALIST REPUBLIC OF
SRI LANKA

SRI LANKA DISASTER MANAGEMENT
ACT, No. 13 OF 2005

[Certified on 13th May, 2005]

Printed on the Order of Government

Published as a Supplement to Part II of the Gazette of the Democratic
Socialist Republic of Sri Lanka of May 13, 2005

PRINTED AT THE DEPARTMENT OF GOVERNMENT PRINTING, SRI LANKA

DISASTER MANAGEMENT ACT

An Act To Provide For The Establishment Of The

NATIONAL COUNCILFOR DISASTER MANAGEMENT;

THE DISASTER MANAGEMENT CENTRE;

THE APPOINTMENT OF TECHNICAL ADVISORY COMMITTEES;

THE PREPARATION OF DISASTER MANAGEMENT PLANS;

THE DECLARATION OF A STATE OF DISASTER;

THE AWARD OF COMPENSATION

AND FOR MATTERS CONNECTED THERE WITH OR INCIDENTAL THERETO.

PREPARATION OF DISASTER MANAGEMENT PLANS

Hazards list Under Sri Lanka Disaster Management Act No. 13 - 2005

- ❖ Floods
- ❖ Droughts
- ❖ Landslides
- ❖ Industrial Hazards
- ❖ Tsunami (Seismic Wave)
- ❖ Earthquakes
- ❖ Air Hazards
- ❖ Fire
- ❖ Epidemics
- ❖ Explosions

- ❖ Air Raids
- ❖ Civil or Internal Strife
- ❖ Chemical Accidents
- ❖ Radiological Emergency
- ❖ Oil Spills
- ❖ Nuclear Disaster
- ❖ Urban and Forest Fire
- ❖ Coastal Erosion
- ❖ Tornadoes, Lightening strikes and Severe Thunder Storms

LEGAL FRAMEWORK AND COORDINATION MECHANISUM OF DISASTER MANAGEMENT IN SRI LAKA

National Council for Disaster Management
Chair Person: H.E. President
Vice Chairman:
Hon. Prime Minister

Chief Ministers (09)

Opposition Leader & MPs (5)

Minister DM

Ministry of Disaster Management

- Social Services
- Rehabilitation & Reconstruction
- Home Affairs
- Health
- Science & Technology
- Housing
- Coast Conservation
- Irrigation
- Power
- Defense

- Police
- Finance
- Land
- Fisheries & Aquatic Resources
- Foreign Affairs
- Water Supply
- Highways
- Urban Development
- Education
- Environment

DMC | **DOM** | **NBRO** | **NDRC**

District Secretariats

Provincial Council

Divisional Secretariats

Local Authority

GN Officials

DDMCU (25) | **OCDS** | **Media**

- NGO's
- Civil Societies
- Business Community
- Privates Sector

ORGANIZATION STRUCTURE

MINISTRY OF DISASTER MANAGEMENT

DMC

DIRECTOR GENERAL

ADDITIONAL DIRECTOR GENERAL

MITIGATION RESEARCH AND DEVELOPMENT

PREPAREDNESS AND PLANNING

AWARENESS AND TRAINING

EARLY WARNING AND 24 x7EMERGENCY OPERATION 117 Call Center

Internal Audit

HR/ Finance

Media Unit

- Hazard Mitigation Development Projects
- Mainstreaming DRR
- Risk Profile and Risk Analyses

- National/District /Divisional/ GN DM Plan Preparation
- Drill/TTEx
- Institutional DM Plans

- National/District/Divisional DM committee Meeting
- Public Awareness Through Media/Exhibition
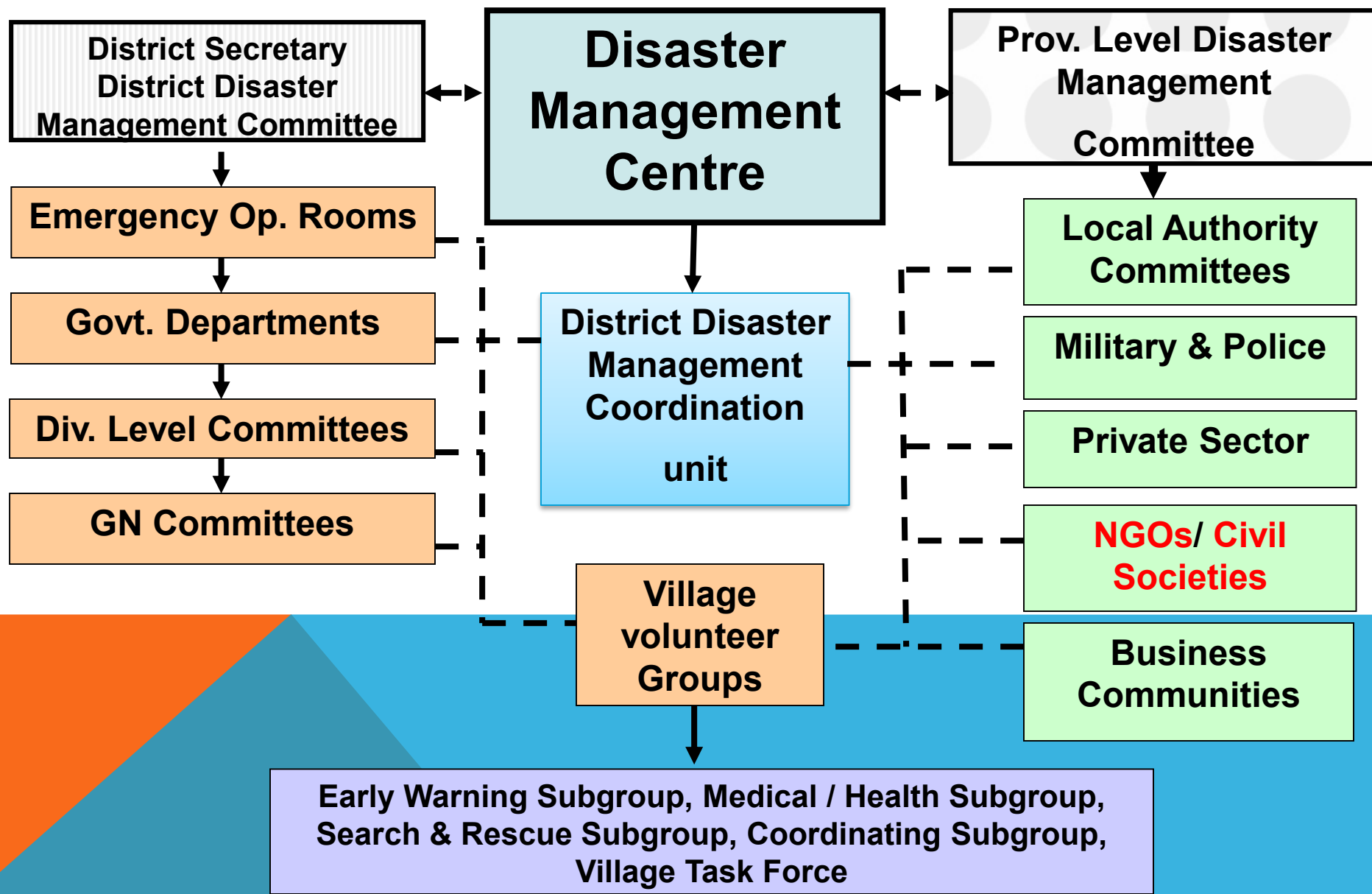- DM Training for Military /Youth and Professional bodies

- **Receiving Early Warnings**
- **Dissemination of Warning**
- **Maintain ing Radio Communication**
- **Tsunami Towers**
- **Coordinating Emergency Response**

DDMCU

General Public

Disaster Risk Management Mechanism at Sub-national Level

District Secretary District Disaster Management Committee

Disaster Management Centre

Prov. Level Disaster Management Committee

Emergency Op. Rooms

Govt. Departments

Div. Level Committees

GN Committees

District Disaster Management Coordination unit

Local Authority Committees

Military & Police

Private Sector

NGOs/ Civil Societies

Business Communities

Village volunteer Groups

Early Warning Subgroup, Medical / Health Subgroup, Search & Rescue Subgroup, Coordinating Subgroup, Village Task Force

DISATER MANAGEMENT POLICY

Objectives of the Policy

The main objective of the National Disaster Management Policy is to establish, strengthen and maintain the following in collaboration with all relevant stakeholders:

Introduce sustainable mechanisms, structures, programmes to enhance capabilities for disaster risk management

Ensure the establishment of national, regional and local level coordinating mechanisms for disaster risk management

Guarantee the availability of resources for DRM activities through a special fund

- Minimize disruption of economic activity and damage to environment

- Mainstream and integrate disaster risk reduction into sectoral development programmes including resource allocation in order to achieve sustainable development

- Ensure use of appropriate procedures and guidelines for and responding to disasters and threats of disasters in Sri Lanka in order to save lives and property

- Adhere to higher standards than before in medium and long-term reconstruction and rehabilitation initiatives

- Ensure introduction of planning guidelines and building codes for construction in disaster prone areas

- Promote community based disaster management and micro insurance to improve the resilience of the vulnerable communities

INTERNATIONAL DECADE FOR NATURAL DISASTER REDUCTION (IDNDR)

In 1987 UN General Assembly declared 1990 as the "International Decade for Natural Disaster Reduction" (IDNDR)

Establish special UN office in Geneva to coordinate IDNDR

To promote internationally coordinated to reduce disaster impacts in developing countries.

1994 – World conference for NDR in Yokohama & developed Yokohama strategy.

2005-2015- HYGO FRAMEWORK IN ACTION- HFA

2015-2030 – SENDAI FRAMEWORK FOR DRR
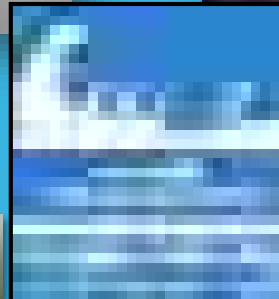
Devolved Disaster Management Framework

National
- **National Disaster Management Coordinating Committee**
- **Emergency Response Committee**

District
- **District Disaster Management Committees**

Divisional
- **Divisional Disaster Management Committees**

GN
- **Community Disaster Management Committee**
- **Sub Committees at GN Level**

DISASTER MANAGEMENT CYCLE

PRE DISASTER

PREPADNESS
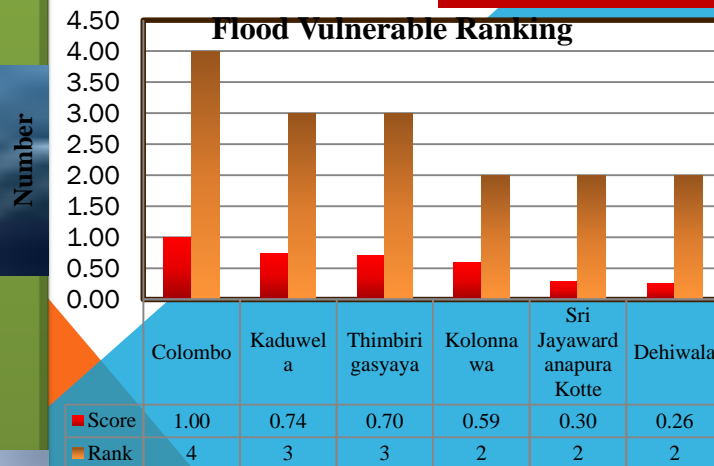
FIRST AID / BOAT HANDELING

EXERCISE / DRILLS

PRE DISASTER
RISK ASSESSMENT

URBAN FLOOD COLOMBO

Flood Vulnerable Ranking

	Colombo	Kaduwela	Thimbirigasyaya	Kolonnawa	Sri Jayawardanapura Kotte	Dehiwala
Score	1.00	0.74	0.70	0.59	0.30	0.26
Rank	4	3	3	2	2	2

Flood Risk for 2010 and 1989

	Colombo	Kolonnawa	Thimbirigasyaya	Kaduwela	Sri Jayawarenapura Kotte	Dehiwala
Rank 2010	16	6	6	3	2	2
Rank 1989	0	1.5	0	4	0	0
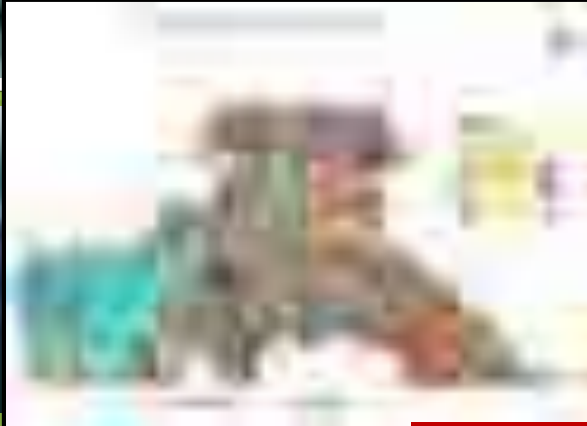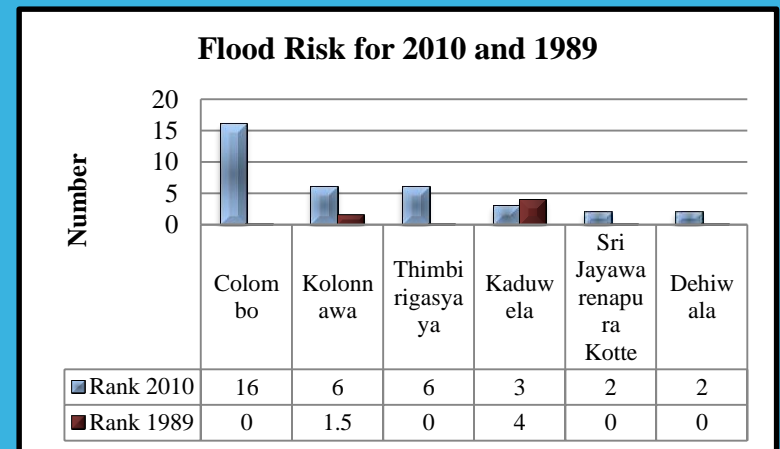
PREPAREDNESS PLANNING

❖ **Preparation of National Disaster Management Plan.**

❖ **Preparation of guidelines, tools, and other guidance**

  for preparedness planning works

❖ **District, Divisional and GN level DM plan**

Community hazard mapping

Identifying vulnerable areas, local level early waning capabilities, evacuation paths, and safe places

RISK MITIGATION, RESEARCH AND DEVELOPMENT

❖ **Development of maps on vulnerability, exposure and risk for all kind of disasters**

❖ **Long-term disaster risk minimizing project**

❖ **Data and information system**

❖ **Post disaster assessment**
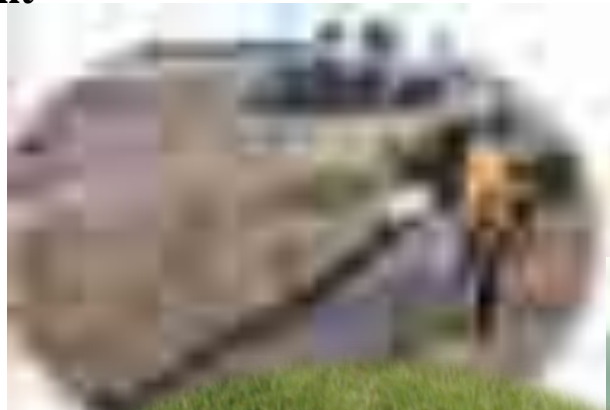
TRAINING AND AWARENESS

Promote and increase public awareness on Disaster Management (DM) and Disaster Risk Reduction (DRR) among school children, academic institutes, government officials, general public, NGOs & INGOs

Coordinating and conducting community level training programmes on First Aid, Life Saving, Search and Rescue, Swimming, Leadership training, Outward Bound Training, Camp Management etc

TRAINING AND AWARENESS

❖ **Disaster Management Training program**

❖ **Curriculum development for school, universities and high education**

❖ **Awareness program for vulnerable community and other groups .**
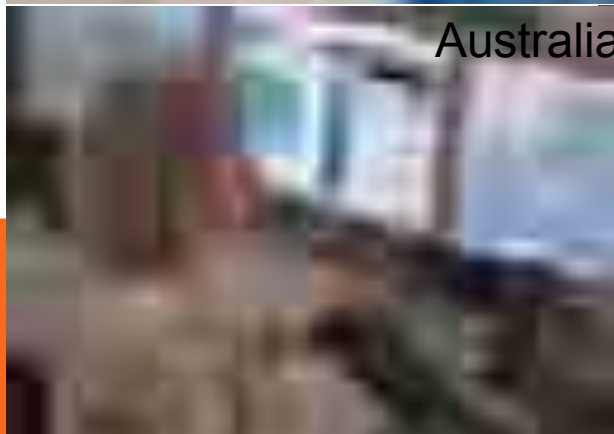
SCHOOL AWARENESS

Early Warning

Global community (Scientists, Warning Centre Operators, Disaster Managers, Policy Makers, Locals) linked by common goal, web technology to create tsunami-resistant communities with access to timely warnings
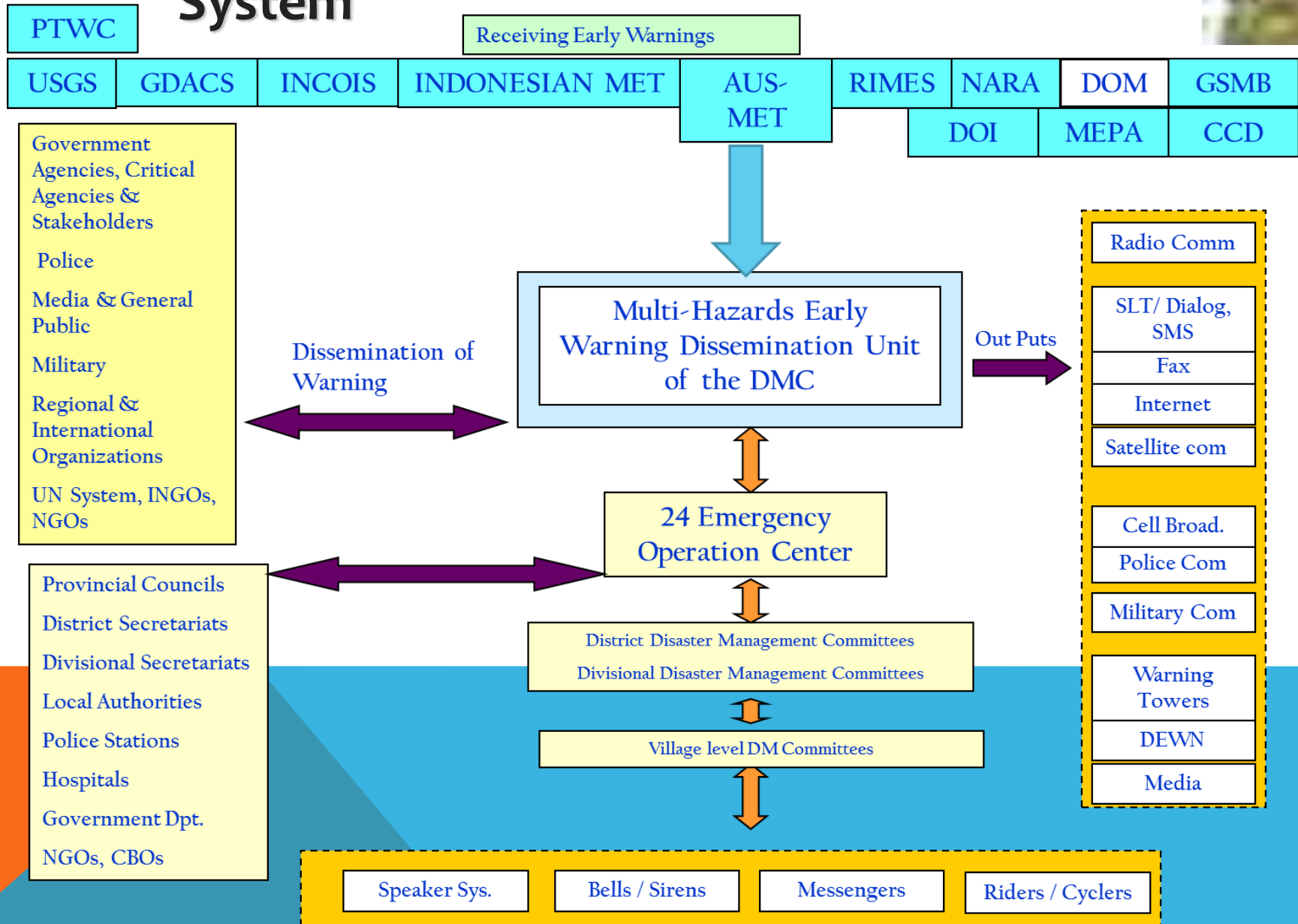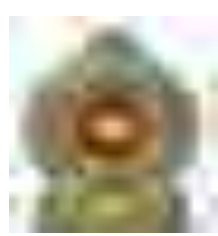
Australia   India,   Indonesia

PTWS and JMA provided Interim Advisory Service from 2005-2013, until IOTWS in full operational service from March 31, 2013
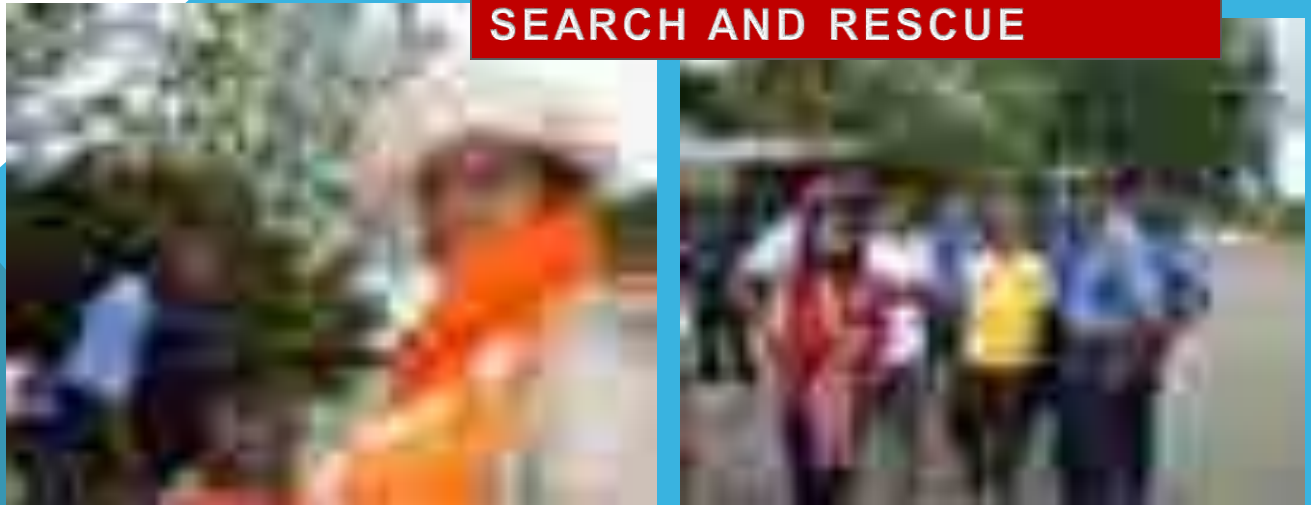
Multi-Hazard Early Warning Dissemination System

Receiving Early Warnings

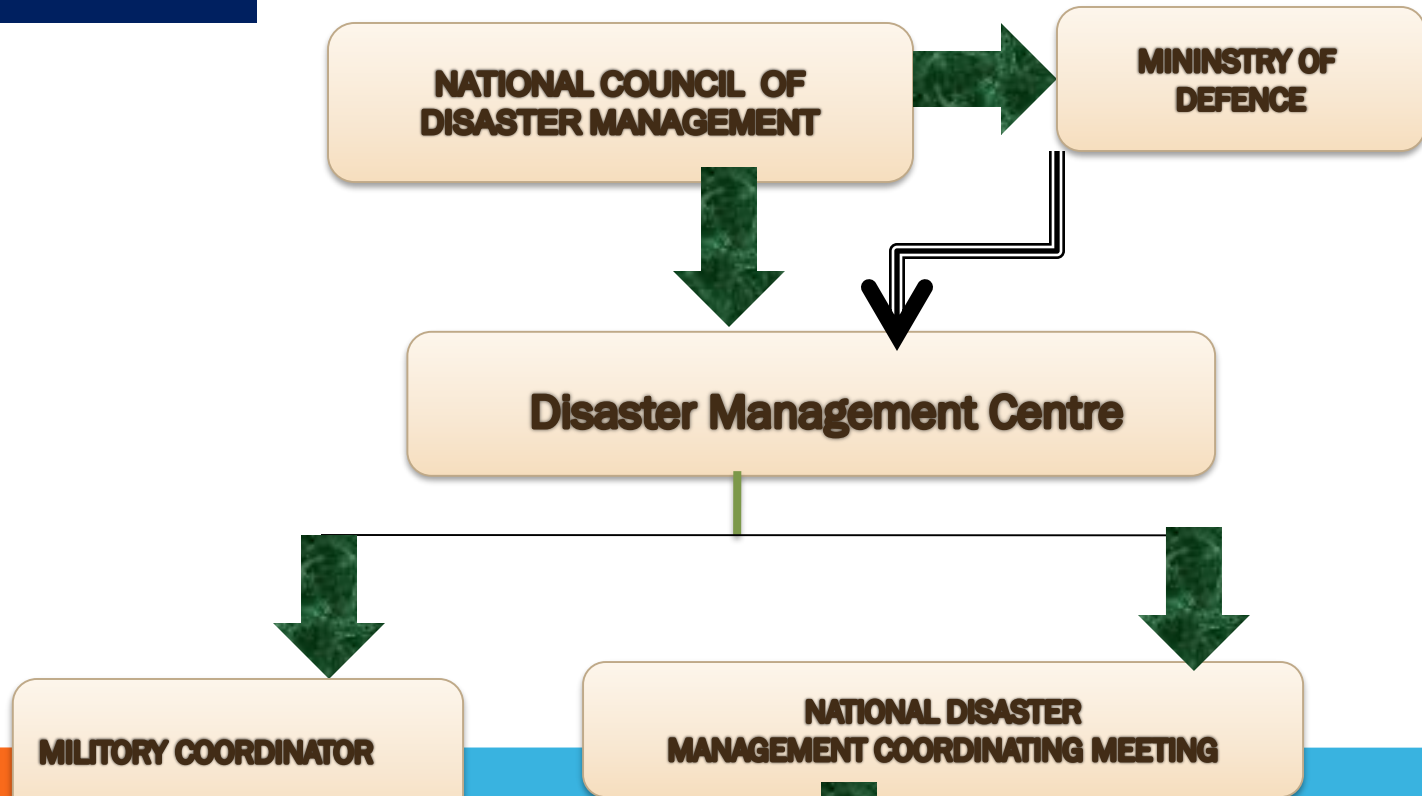| PTWC								
USGS	GDACS	INCOIS	INDONESIAN MET	AUS-MET	RIMES	NARA	DOM	GSMB
						DOI	MEPA	CCD

Government Agencies, Critical Agencies & Stakeholders

Police

Media & General Public

Military

Regional & International Organizations

UN System, INGOs, NGOs

Dissemination of Warning

Multi-Hazards Early Warning Dissemination Unit of the DMC

Out Puts

Radio Comm

SLT/ Dialog, SMS

Fax

Internet

Satellite com

24 Emergency Operation Center

Cell Broad.

Police Com

Military Com

Provincial Councils

District Secretariats

Divisional Secretariats

Local Authorities

Police Stations

Hospitals

Government Dpt.

NGOs, CBOs

District Disaster Management Committees

Divisional Disaster Management Committees

Warning Towers

DEWN

Media

Village level DM Committees

Speaker Sys.	Bells / Sirens	Messengers	Riders / Cyclers

DURING DISASTER

RESERVIORS PROTECTION

SEARCH AND RESCUE

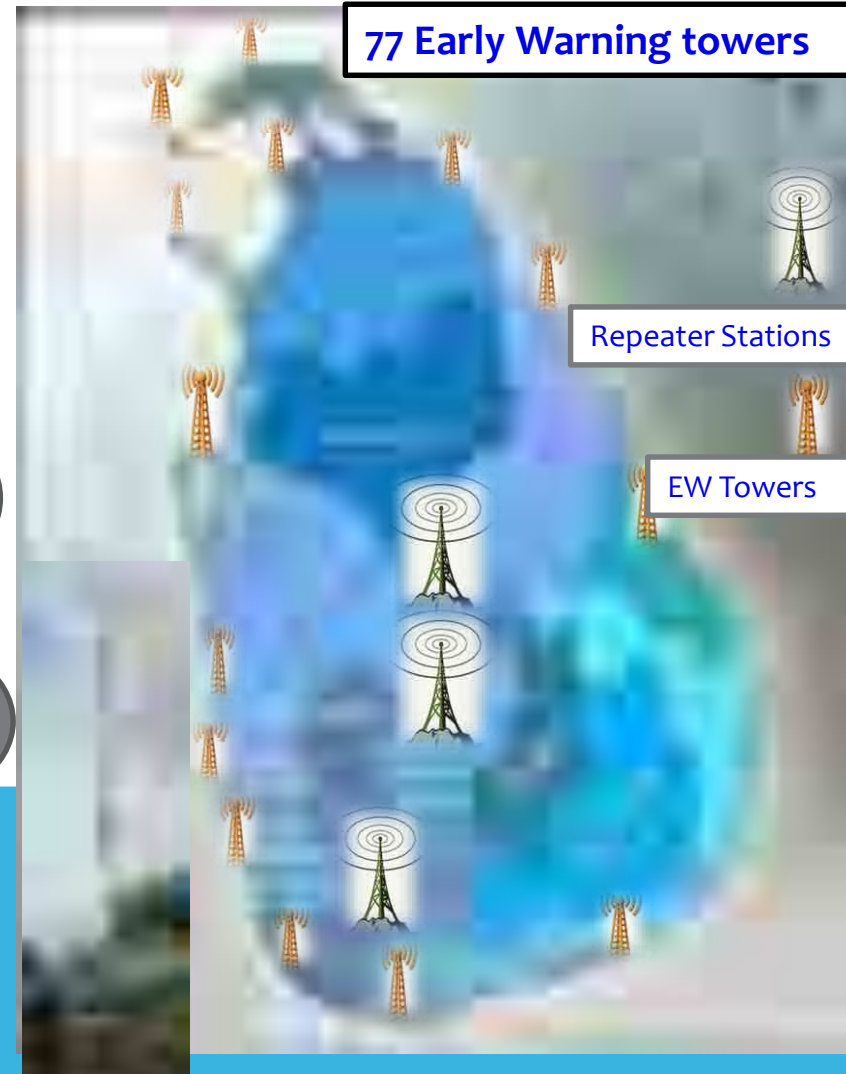# The Military and Disaster Management: SRI LANKA

NATIONAL LEVEL

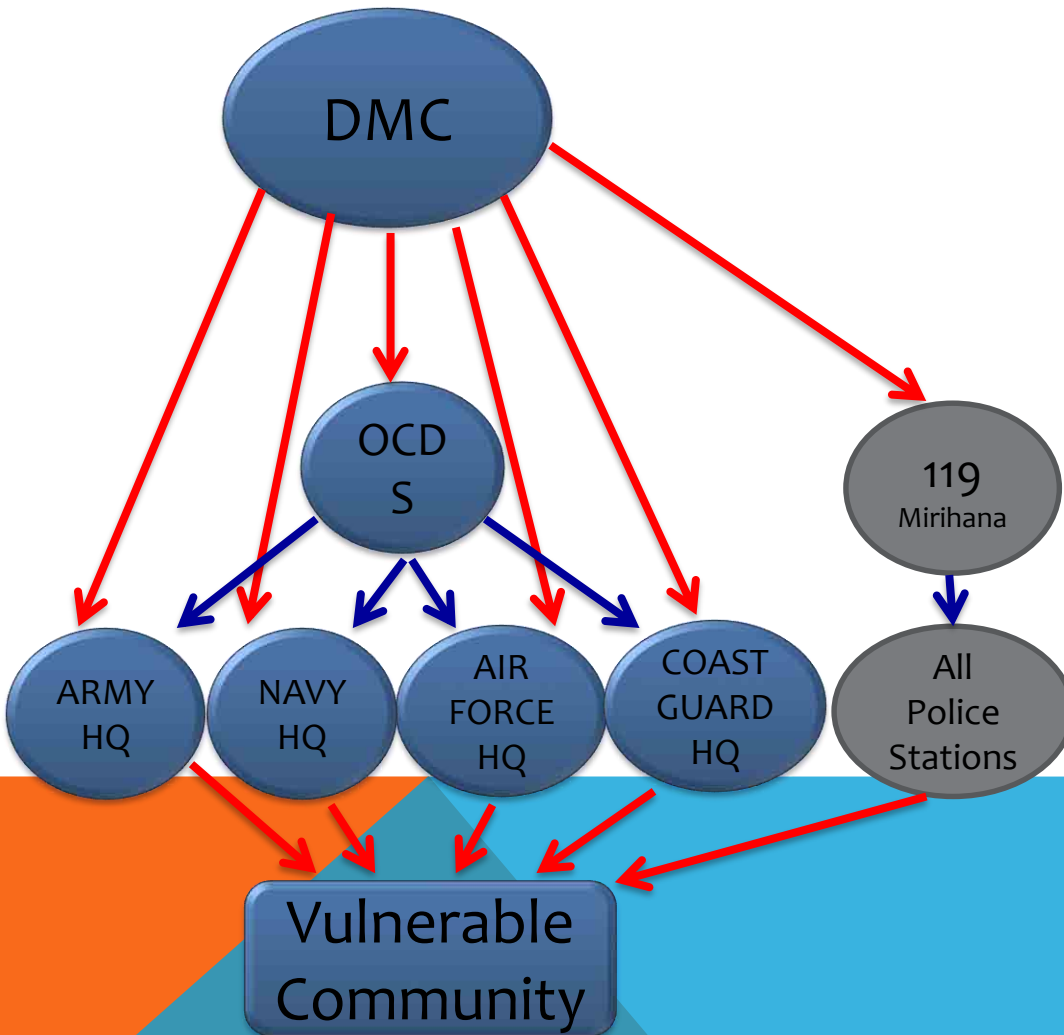NATIONAL COUNCIL OF DISASTER MANAGEMENT

MININSTRY OF DEFENCE

Disaster Management Centre

MILITORY COORDINATOR

NATIONAL DISASTER MANAGEMENT COORDINATING MEETING

DISTRICT Level

NAVY BASES

DISTRICT DISASTER MANAGEMENT COORINATING UNITS

Call Center

EW dissemination systems

DMC

OCDS

119
Mirihana

ARMY
HQ

NAVY
HQ

AIR
FORCE
HQ

COAST
GUARD
HQ

All
Police
Stations

Vulnerable
Community

77 Early Warning towers

Repeater Stations

EW Towers

Use of Police & military Communication during disaster   Warning and Evacuation

"Last mile" Dissemination

Government ➜ Community

Communication Tools

Multi hazard EW tower

Temple Bell

Loudspeaker car

SMS

Mega phone

Rider/ Messenger

DMC

⬇

District Divisional GN

Police

Military

Media

Tsunami Warning

Flood Warning

Evacuation Instruction in collaboration with CBDM
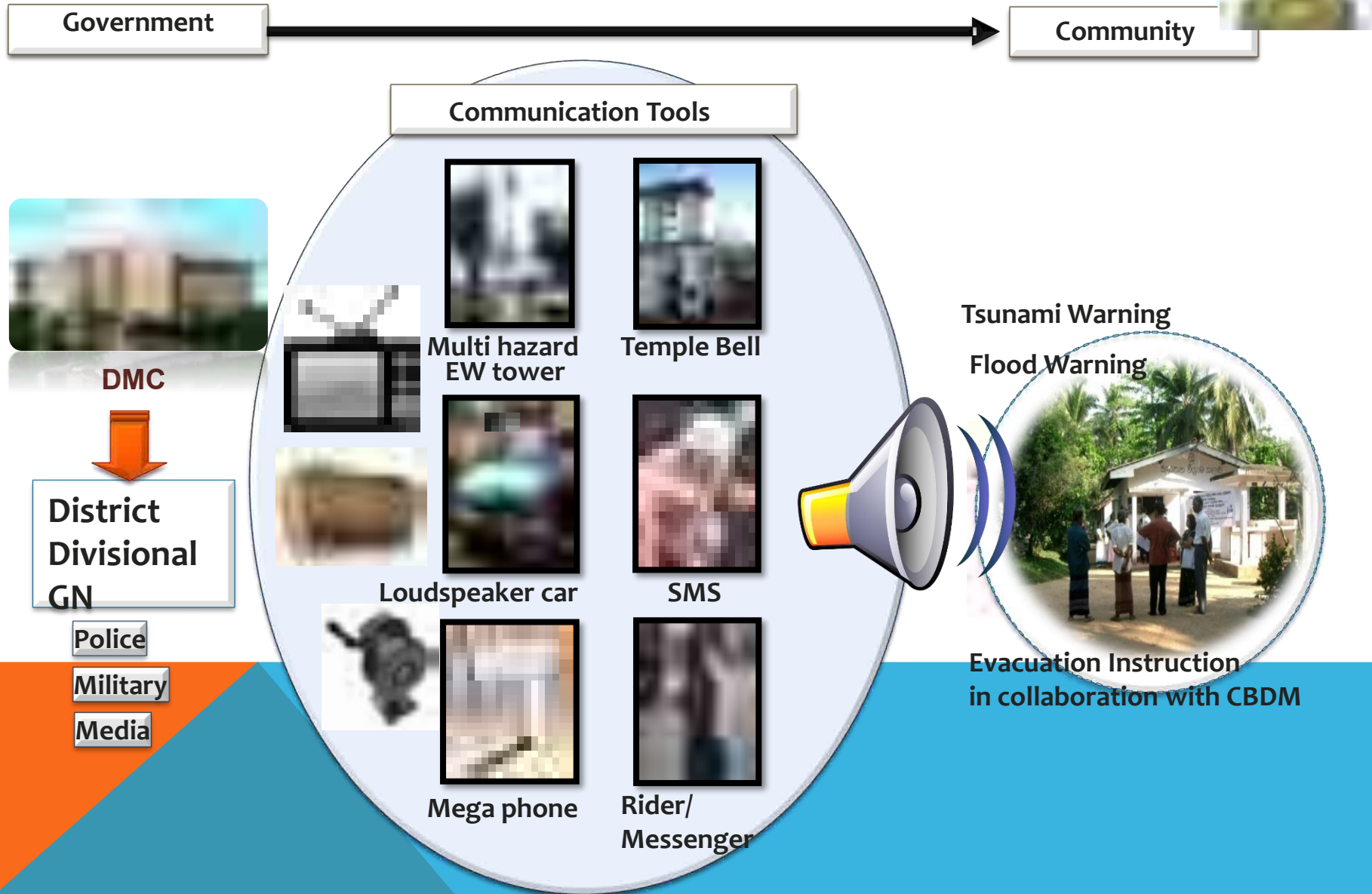
EW through media
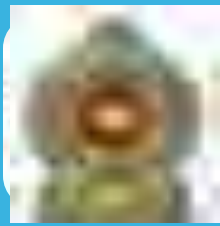
TV channels

- ITN
- RUPAVAHINI
- SIRASA TV
- DERANA TV
- SHAKTHI TV
- SWARNAVAHINI
- SIYATHA TV

NEWS WEB SITES
SATTELITE TV

PEO TV NEWS BAR

RADIO channels

- SLBC
- LAKHADA FM
- SIRASA FM
- DERANA FM
- SRI FM
- SIYATHA FM
- KIRULA FM
- LAK FM
- RANGIRI DAMBULU FM

NEWS ALERTS

- JNW NEWS ALERTS
- DERANA ALERTS
- LIVE @ 8 ALERTS

ON AIR

Emergency Response

MILITARY CONTRIBUTION

Supported since beginning for all search /rescue operations, camp management and relief operations

- Army
- Navy
- Ari force
- Police

Around 1000 troops were deployed

National EOC
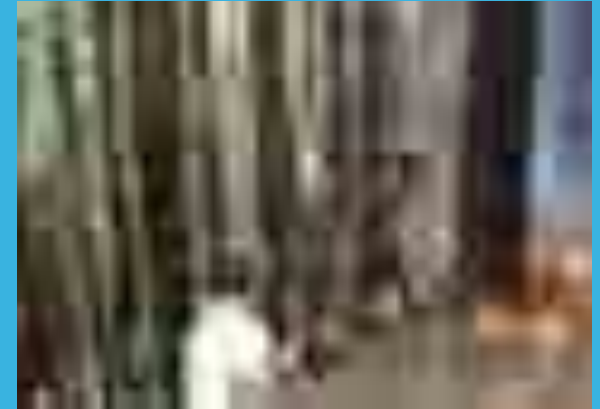
24 x 7 National Emergency Operations Centre
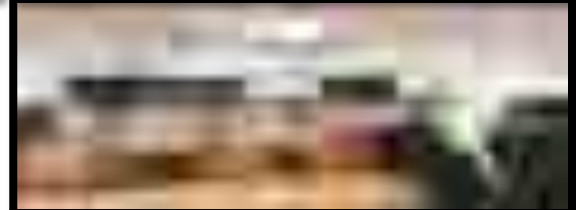
OVERALL EMERGENCY RESPONSE COORDINATION FLOWCHART
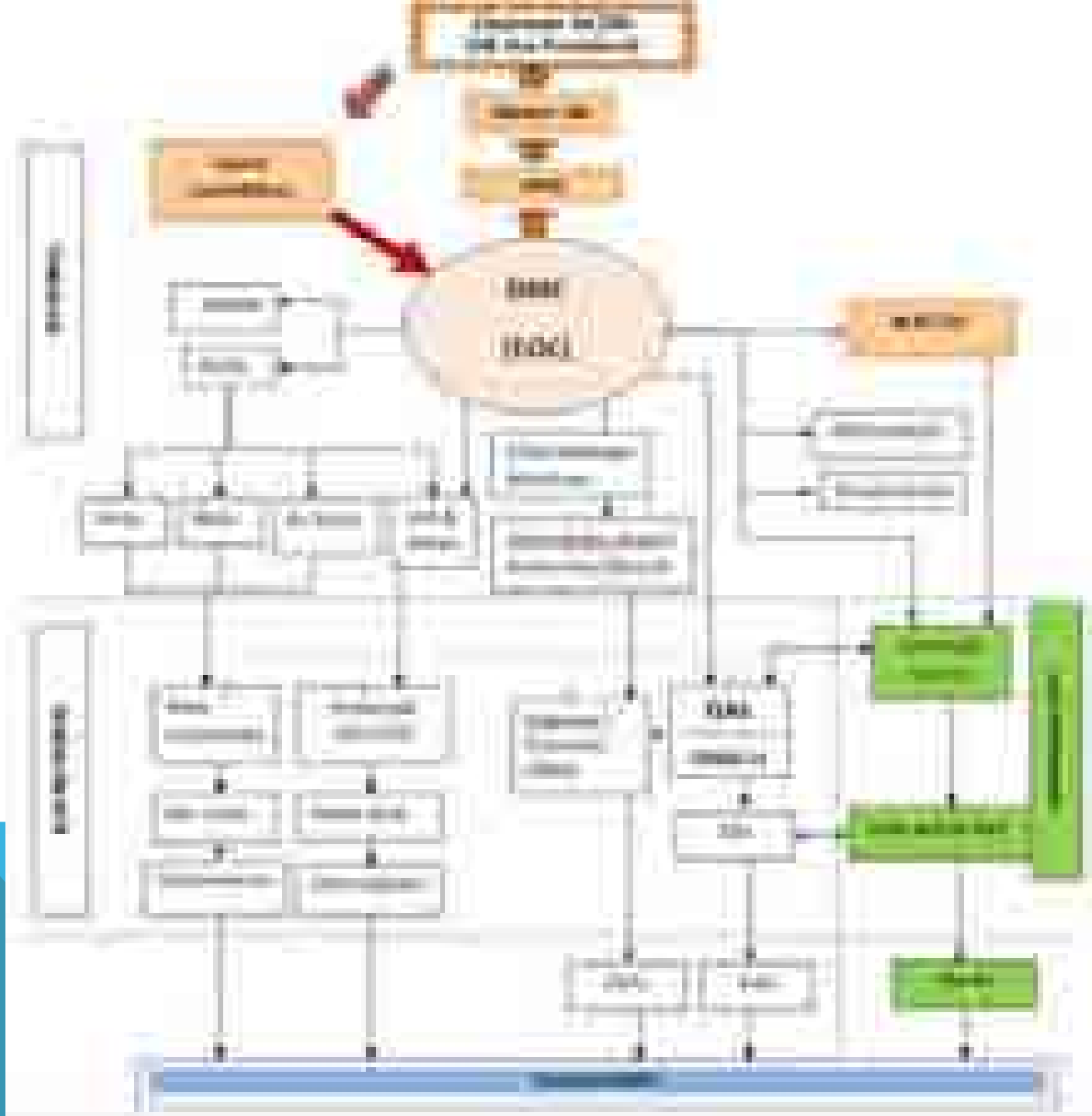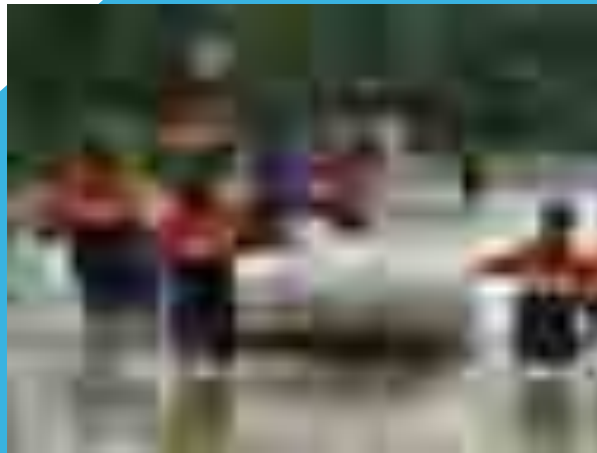
Emergency Response

SAR Teams Develop by Army

Equipment allocated to the SAR teams by the DMC

Air Rescue missions by Sri Lanka Air force

More than 150 fire incidents - 2014

4RS Teams by NAVY

June-2014 (people rescued in Kalutara and Rathnapura Districts)
May-2016(people rescued in Colombo district)
Feb-2017(people rescued in Kalutara boat wreckage)

Humanitarian response by volunteers & NGO's

Maha Willachchiya

Ipalogama

Padaviya

Divers in Nachchaduwa Tank

Madawachchiya

Horrowpathana

Stockpiling of Machinery and equipment for emergency response

Armed forces/Police :

Public Addressing Systems, HF/VHF Sets, Ropes,

S&R Boats, Safety Jackets, Search Lights, sirens,

Megaphones

District & Divisional Secretariats:

Water bowsers, Rescue boats, Mega Phones,

Chainsaws, VHF/HF sets, Canopies, Sirens

Local Authorities:

Backhoe loaders, Water bowsers, Gully Emptier,

Water pumps, Generators, Sirens

Communities:

Megaphones, Fire extinguishers, Safety Jackets, PA Systems, Kitchen Utensils, First aids kits, Rain Gauges

Schools:

First aids kits, Rain Gauges

24 x 7 National Emergency Operation Centre

Purpose of conducting Exercises
•Check the preparedness level at each level
•Check the efficiency of early warning dissemination mechanisms
•To Asses the responding **capacities** of community
•To get familiarize with SOPs on Early Warning Dissemination

Exercises
•**Information Transferring Exercises**
    National level up to community level through district, division, GN
•**Information transferring and Evacuation Exercise**
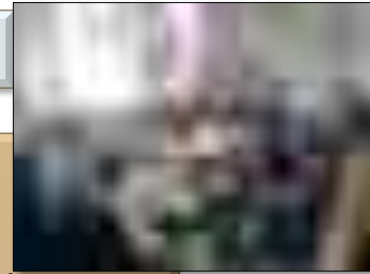•**Community evacuation exercise**
    One village, several villages, all vulnerable GN divisions, ….
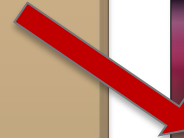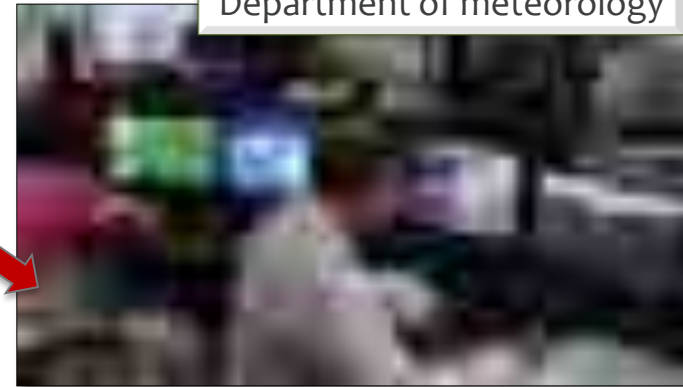•**Table Top Exercises**
    With other Institutions, ………
•**Role Play Exercises**
    For institutions

Department of meteorology

Killinochchi District

National DRM Plan

Objective: National DRM Plan

Establishment of mechanisms/systems for Disaster Risk Management (DRM) in Sri Lanka as a multi-sectoral, inter-ministerial, and inter-agency activity, by identifying and assessing the capacities of existing agencies for improving their capacities and mandates as necessary to implement the identified tasks, using methodologies and concepts already developed and field tested.

Sri Lanka has ratified the UN Agreement on "Sendai Framework for Disaster Risk Reduction: 2015-2030", in 2015

2.1. Consideration of priority Action for DRR given under Sendai Framework

There are Sendai Framework Guiding Principles (13)

Priority 1:   Understanding disaster risk

Priority 2:   Strengthening disaster risk governance to manage disaster risk

Priority 3:   Investing in disaster risk reduction for resilience

Priority 4:   Enhancing disaster preparedness for effective response and to "Build Back Better" in Recovery, Rehabilitation and Reconstruction

LESSON LEARNT/ BEST PRACTICES

INCIDENT	LESSON
2004 TSUNAMI	2005 No 13 Disaster Management Act/ Establish – Disaster Management Centre/ Ministry of Disaster Management / 24*7 Emergency Operation Unit
2010 FLASH FLOOD	Implement Land Reclamation Act/ Flood Control and City Development Plan
2013 High Wind	Strengthen Early Warning / Improve Fisheries Awareness/ Distribute Life Jackets
2013/2014 Drought	Improvement of Drought Control Method
2014 Landslide	Awareness of State sector/ Landslide Safety Location Identification/ Safety Reconstruction Method / Building Codes
2016 Flood/ Landslide	Insurance System