

SRI LANKA¹

1. General Information

1.1 Geography

Sri Lanka is an island country located in the Indian Ocean. Total land area is about 65,610 square kilometers. The central part of the southern half of the island is mountainous with heights more than 2.5 Km. The core regions of the central highlands contain many complex topographical features such as ridges, peaks, plateaus, basins, valleys and escarpments. The remainder of the island is practically flat except for several small hills that rise abruptly in the lowlands. These topographical features (Figure 1) strongly affect the spatial patterns of winds, seasonal rainfall, temperature, relative humidity and other climatic elements, particularly during the monsoon season. Sri Lanka's highest

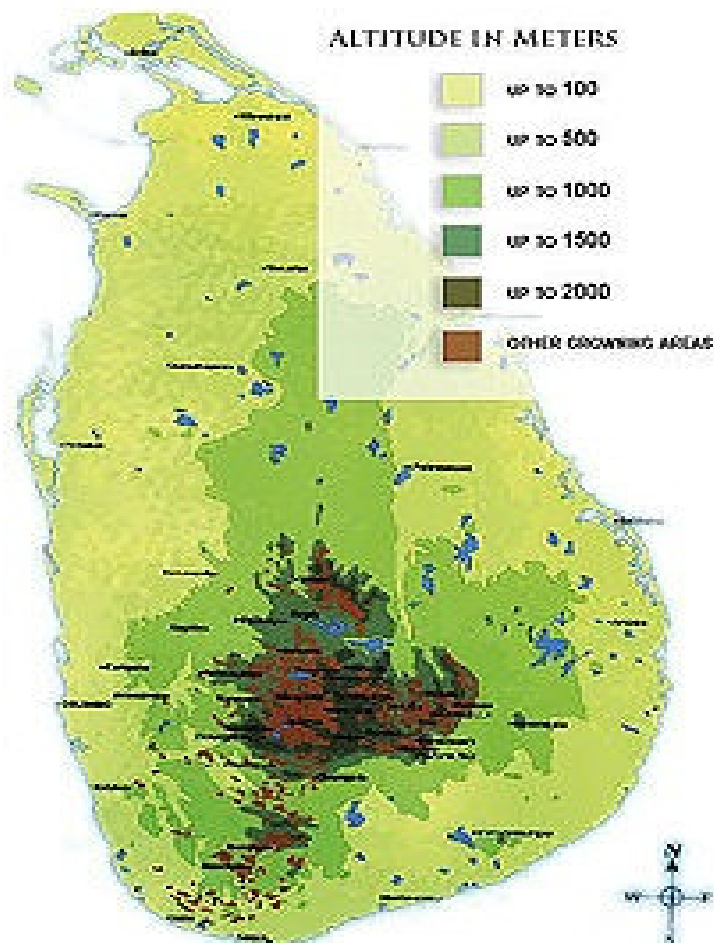


Figure 1

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mountain is Pidurutalagala which is 2,524 meters in height. Most of the island's surface consists of plains between 30 and 200 meters above sea level. Hundred and three rivers rise in the Central Highlands and flow in a radial pattern toward the sea (Figure 2).



Figure 2

1.2 Climate

Due to the location of Sri Lanka, within the tropics between 5o 55' to 9o 51' North latitude and between 79o 42' to 81o 53' East longitude, the climate of the island could be characterized as tropical. The Climate of Sri Lanka is dominated by the above mentioned topographical features of the country and the Southwest and Northeast monsoons regional scale wind regimes. The Climate experienced

during 12 months period in Sri Lanka can be characterized in to 4 climate seasons (Figure 3) as follows.

1. First Intermonsoon Season - March - April
2. Southwest monsoon season - May - September
3. Second Intermonsoon season - October - November
4. Northeast Monsoon season - December - February

The rainfall pattern is influenced by the monsoon winds of the Indian Ocean and Bay of Bengal and is marked by four seasons. The mean annual rainfall varies from under 900mm in the driest parts (southeastern and northwestern) to over 5000mm in the wettest parts (western slopes of the central highlands) (Figure 4). Sometimes tropical cyclones bring overcast skies and rains to the southwest, northeast, and eastern parts of the island. The average yearly temperature for the country, as a whole, ranges from 26° C to 28° C.

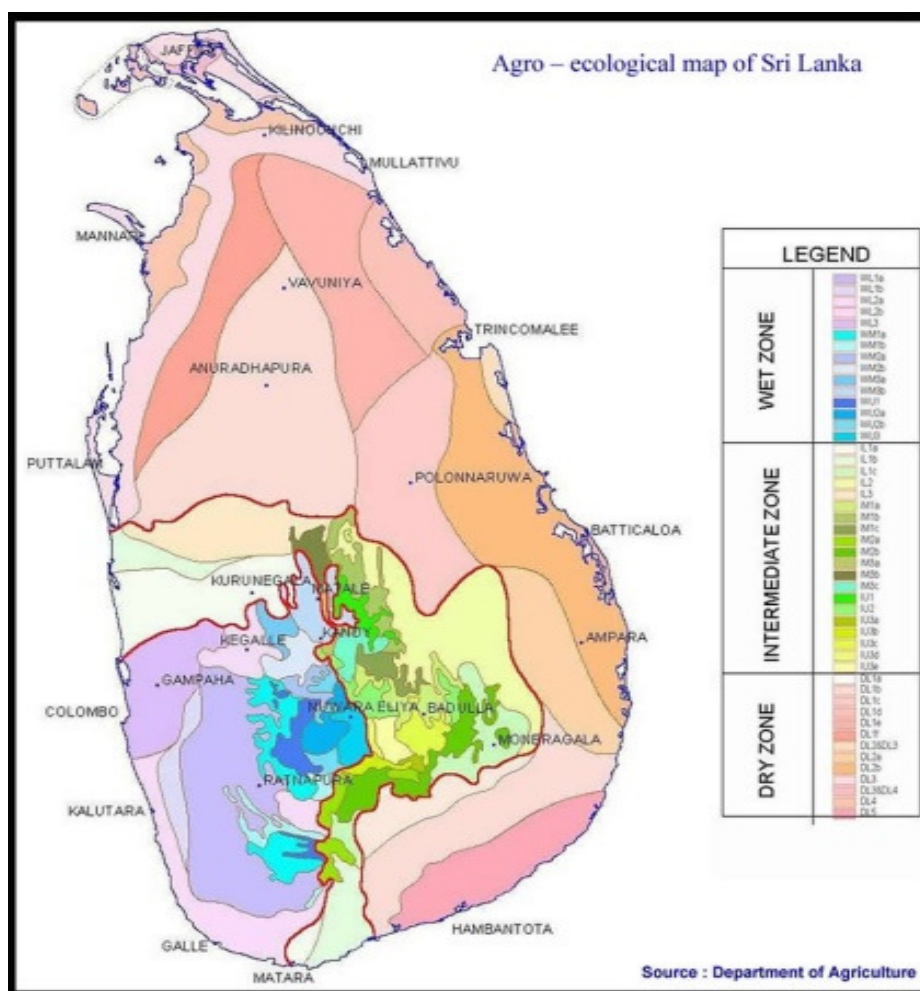


Figure 3

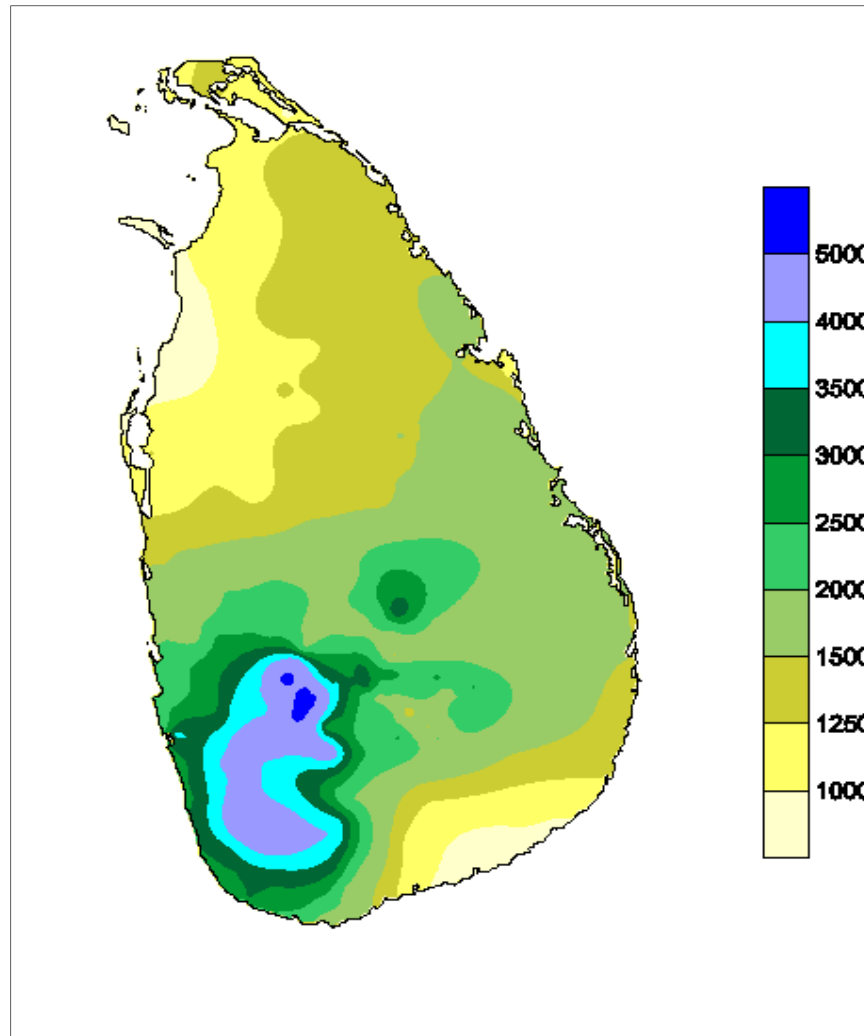


Figure 4

1.3 Demography

According to the last population census held in 2001 the whole population of the country was 18,797,252 while being 9,359,148 males and 9,438,109 females. Estimated population for 2010 was 20,653,000. The main languages are the Sinhala and the Tamil while the English is widely used. Considering the population by Religions, there are 70% of Buddhists, 15% of Hindus, 7.5% of Muslims and 7.5% of Christians in the country. The main ethnic group is the Sinhalese having 73.8% of the whole population. The Tamils are 13.9%, the Moors are 7.2%, the Indian Tamils are 4.6% and the others are 5% of the total population of the country.

1.4 History of Sri Lanka

History of Sri Lanka begins around 30,000 years ago when the island was first inhabited. The Chronicles, including the Mahawansa, the Dipawansa the Chulawansa and the Rajawaliya, record events from the beginnings of the Sinhalese monarchy in the 6th century BC. The Buddhism was

introduced in the 3rd century BC by Arhath Mahinda (son of the Indian emperor Ashoka the Great). The European Colonialist arrived in the 16th century and disestablishment of the monarchy in 1815. The Portuguese arrived in 1505 and ruled a part of the country's coastal Area. Then the Dutch rule lasted from 1656 to 1796 and ruled a part of the country. The British ruled the country from 1796 to 1948. However by a peaceful process and constitutional evolution, Sri Lanka won back her independence in 1948 and is now a sovereign republic. In 1983 a civil war was started and it ended in 2009.

2 Natural Hazards in the Country.

2.1 Natural Hazards likely to affect the country

Over the past few decades disaster losses in Sri Lanka have increased substantially. The country is prone to natural disasters caused by floods, cyclones, landslides, droughts and coastal erosion with increasing instances of environmental pollution related hazards. The devastation caused by the Indian Ocean tsunami of 2004 has highlighted that Sri Lanka also vulnerable to tsunamis. Except tsunami, Sri Lanka is affected by different kind of natural hazards such as floods, droughts, cyclones, land slights and coastal erosion. Other localized hazards include lightning strikes, epidemics, high winds, fires and wild elephant attacks. Figure 5 shows the loss of human Lives due to disasters from 1974 to 2007 in the country.

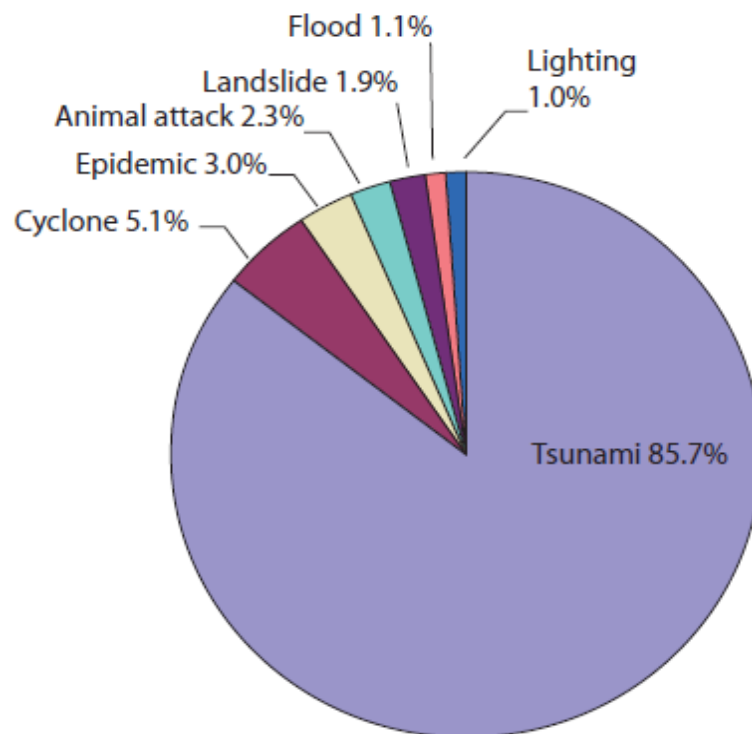


Figure 5

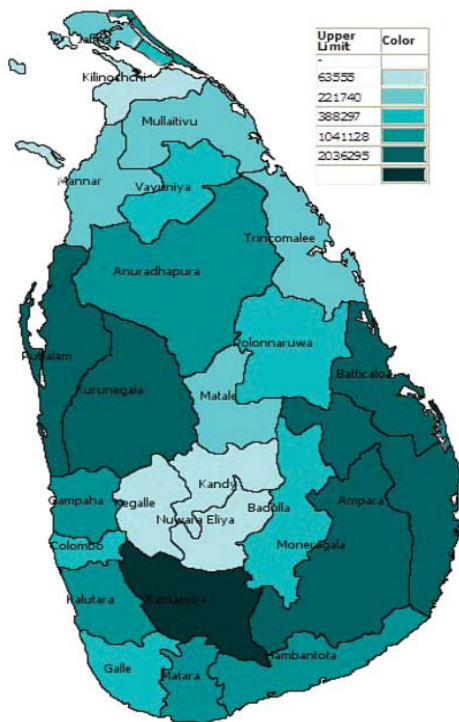


Figure 6

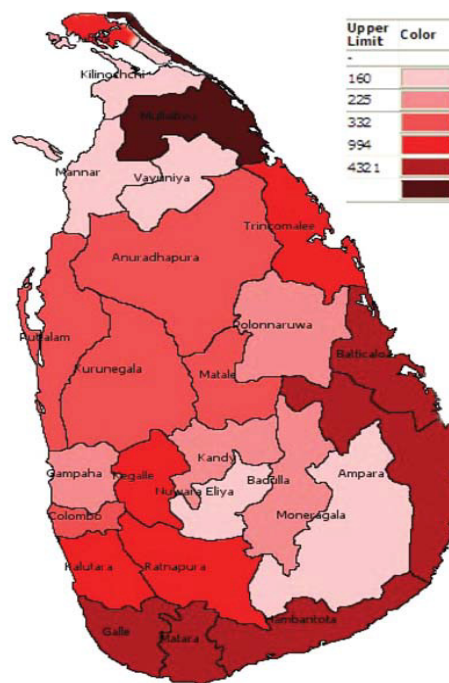


Figure 7

2.1 Recent major disaster

The tsunami on 26th of December 2004 was the biggest havoc the Sri Lanka has ever faced. The southern, western, eastern and northern coastal belt was prone that tsunami event. It was almost the two third of Sri Lanka's coastal belt. More than 35,000 people were killed while around 5,000 people were missing and around 100,000 houses had been completely destroyed. A number of 260,967 families and 1.3 million people were affected. The Figure 8 shows the tsunami affected area of the country. Figure 9 and Figure 10 shows two pictures of tsunami

In 2003, big floods and landslides were occurred in many parts of the country. Reported human deaths were 369 while 123 people were injured. Thirty three people were reported missing and 756027 were affected. 8652 houses were completely destroyed and 26942 houses were damaged partially.

In 2010 and 2011 again with foods and landslides 26 people were died and 19 people were injured. Completely destroyed houses were 1196 while 7281 houses were partially damaged and 1165618 people were affected.

Except the above mentioned major disaster events lots of people were affected and big economic lost was occurred by the droughts, wild elephant attacks and other small scale disaster events.

DIVISIONS AFFECTED BY TSUNAMIS

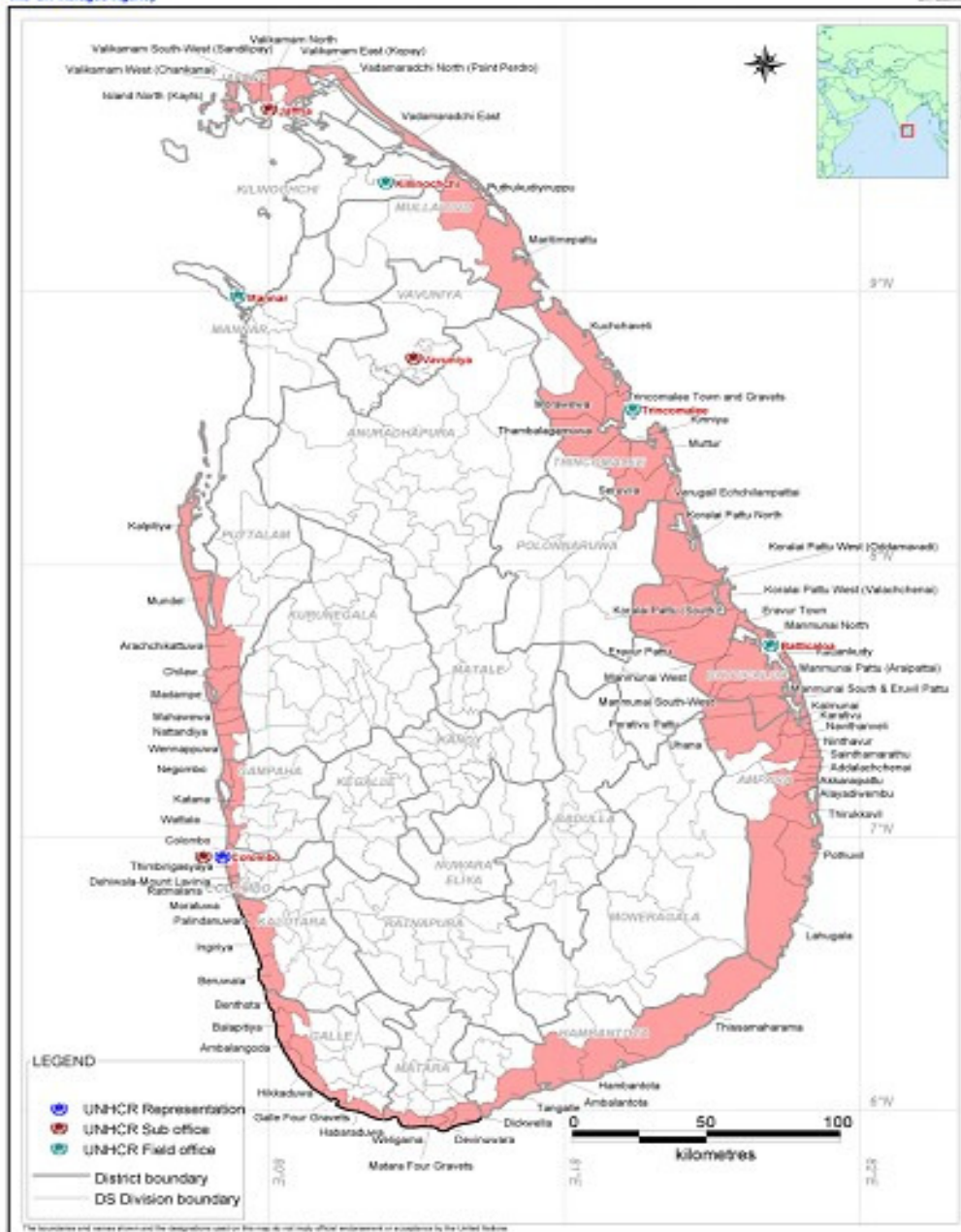


Figure 8



Figure 9



Figure 10

3 Disaster Management System

3.1 Administration System

Sri Lanka has three (3) administrative levels of governance; national, provincial councils and local authorities. Under the national level, Ministry of Disaster Management is the mandated organization for disaster management activities. Disaster Management Centre, Disaster Relief Service Centre, National Building Research Organization and Department of Meteorology are functioning under the Ministry of Disaster Management. Under the Provincial Councils no mandated body for disaster management activities, but in the stage of disaster relief services, the social service department operating under the provincial councils act to distribute relief services. But the provincial councils don't have a disaster management organization or budget line for disaster management. The local authorities (may be Municipal Councils, Urban Councils or Pradeshiya sabas) also don't have a mandated section for disaster management but they work in the both stages of disaster management that means in pre-disaster management activities and post disaster management activities.

The main administration system for disaster management of the country operates under the central government and through the Ministry of Disaster Management by district level. There are 25 districts and each district is administered under a District Secretary, who is appointed by the central government. The main tasks of the District Secretariat are to coordinate and communicate activities of the central government

through Divisional Secretariats. The District Secretariat is also responsible for implementing and monitoring development projects at the district level and assisting lower-level subdivisions in their activities, as well as revenue collection and coordination of elections in the district. A district is divided into a number of Divisional Secretary Divisions (commonly known as DS divisions), which are in turn subdivided into Grama Niladari Divisions.

3.2 Legal System and Framework

The Sri Lanka Disaster Management Act No.13 of 2005 is the main legal document for disaster management in Sri Lanka and it was enacted in July 2005 which provides the legal basis for instituting a disaster risk management system in the country. The National Council for Disaster Management (NCDM), is a high-level inter-ministerial body. The chairman and vice chairman of the NCDM is H.E. the President and Hon Prime Minister respectively. Other members are Leader of the Opposition, Ministers in charge of 20 selected subject areas, Provincial Council Chief Ministers and five members of the Opposition. The Act also provides for establishing the Disaster Management Centre (DMC) under the Council to be the apex body for the purpose of planning, co-coordinating and implementing of certain natural and other forms of disasters. The Figure 11 shows the structure of the National Council for Disaster Management.

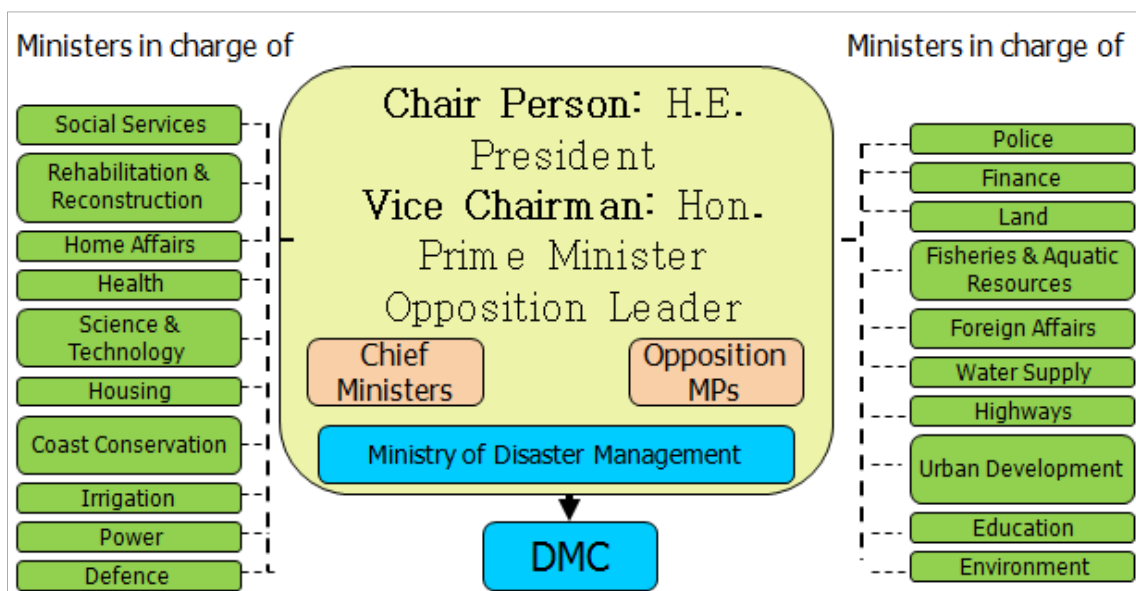


Figure 11

3.3 Structure of the Disaster Management

Sri Lanka Disaster Management Act No.13 of 2005 provides for a framework for DRM in Sri Lanka and addresses disaster management (DM) holistically, leading to a policy shift from response based mechanisms to a proactive approach towards disaster risk reduction (DRR). Twenty one hazards come under the purview of the act. DMC was established in July 2005. In December 2005 the Ministry for Disaster Management and Human Rights (M/DM&HR) was established with the subject of DM listed under its purview. The principal functions of the Disaster Management Centre as per the act are as follows.

- (1). Assisting the Council in the preparation of the National Disaster Management Plan and the National Emergency Operation Plan and proposals for upgrading the same when it becomes necessary
- (2). Taking responsibility for the implementation of the National Disaster Management Plan and the National Emergency Operation Plan, and upon the declaration of a state of disaster to direct and coordinate the implementation of the National Emergency Operation plan
- (3). Ensuring that the various Disaster Management Plans prepared by Ministries, Government Departments or public corporations conforms to the National Disaster Management Plan
- (4). Based on Disaster Management Plans prepared by various Ministries, Government Departments and public corporations under section 10, preparing and implementing programs and plans for disaster preparedness, mitigation, prevention, relief, rehabilitation and reconstruction activities and coordinating of organizations which implement such programs and plans and obtain financial assistance from the Treasury for such activities and release the same to the relevant regions and monitor and evaluate these activities
- (5). Issuing instructions and guidelines to appropriate organizations, non-governmental organizations, district secretaries and divisional secretaries on activities relating to disaster management and initiating and implementing work programs in co-ordination with such organizations and secretaries
- (6). Promoting research and development programs in relation to disaster management and setting up and maintaining a data base on disaster management
- (7). Submitting reports to the Council from time to time and whenever required by the Council in regard to its activities.

To implement the above functions, the Disaster Management Centre has organized

under five sections as shown in figure 12.

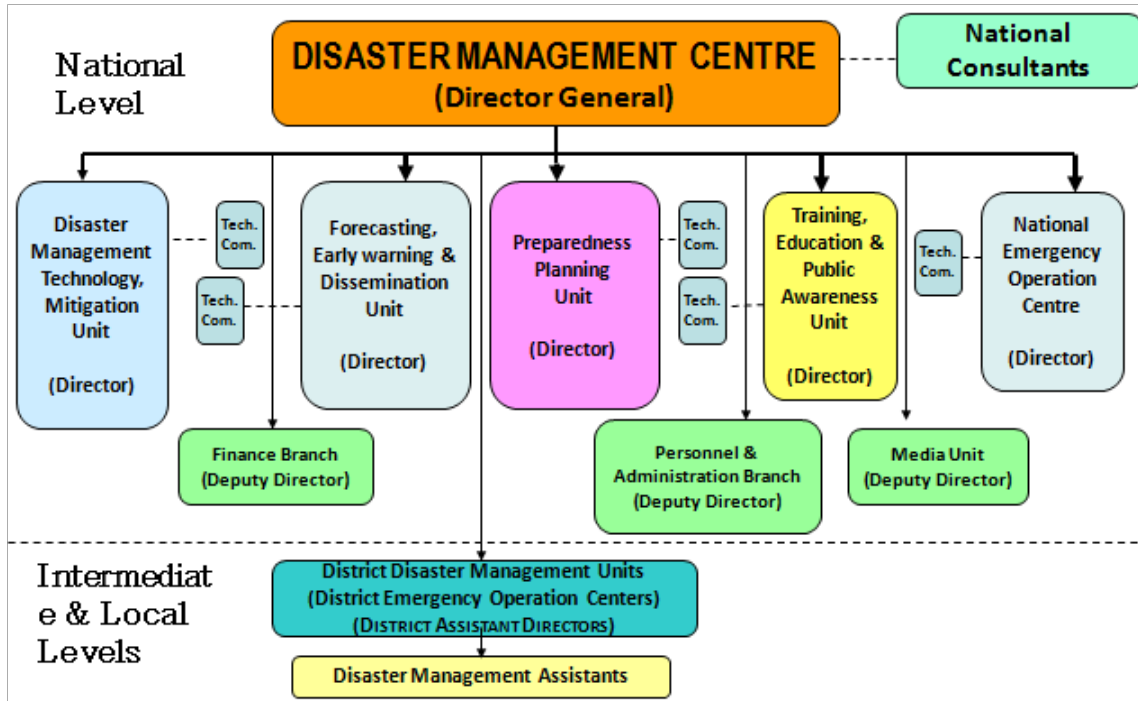


Figure 12

The coordination mechanism of disaster management from the national level to divisional level is shown in Figure 13.

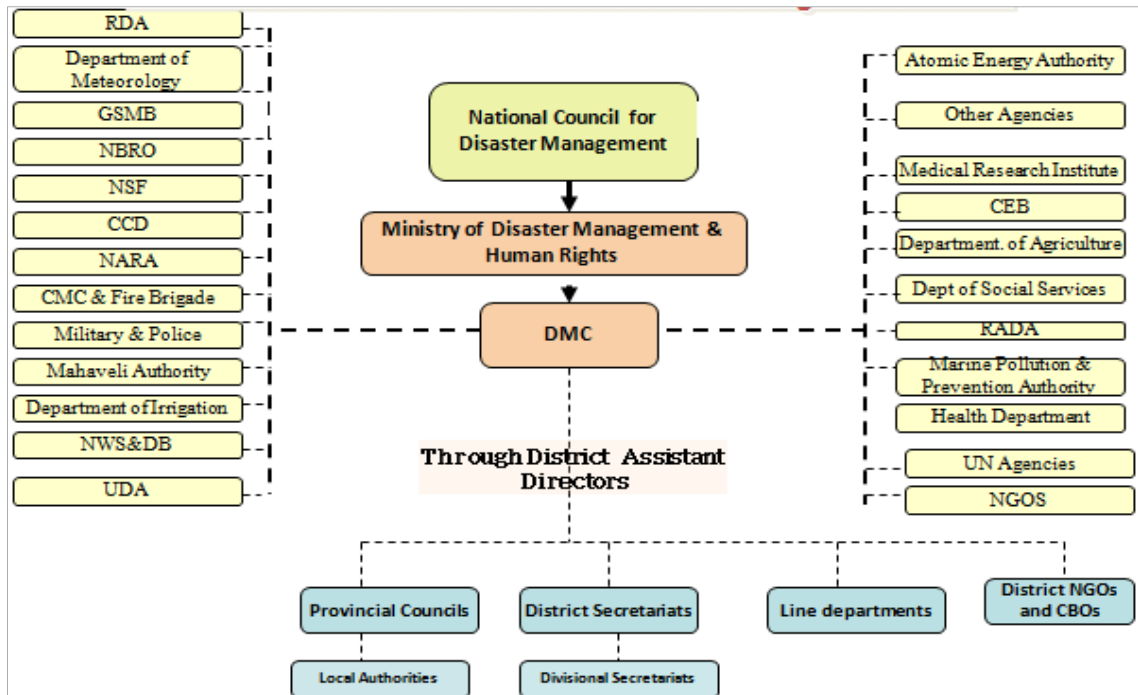


Figure 13

The disaster management mechanism in intermediate and local level is shown in Figure 14.

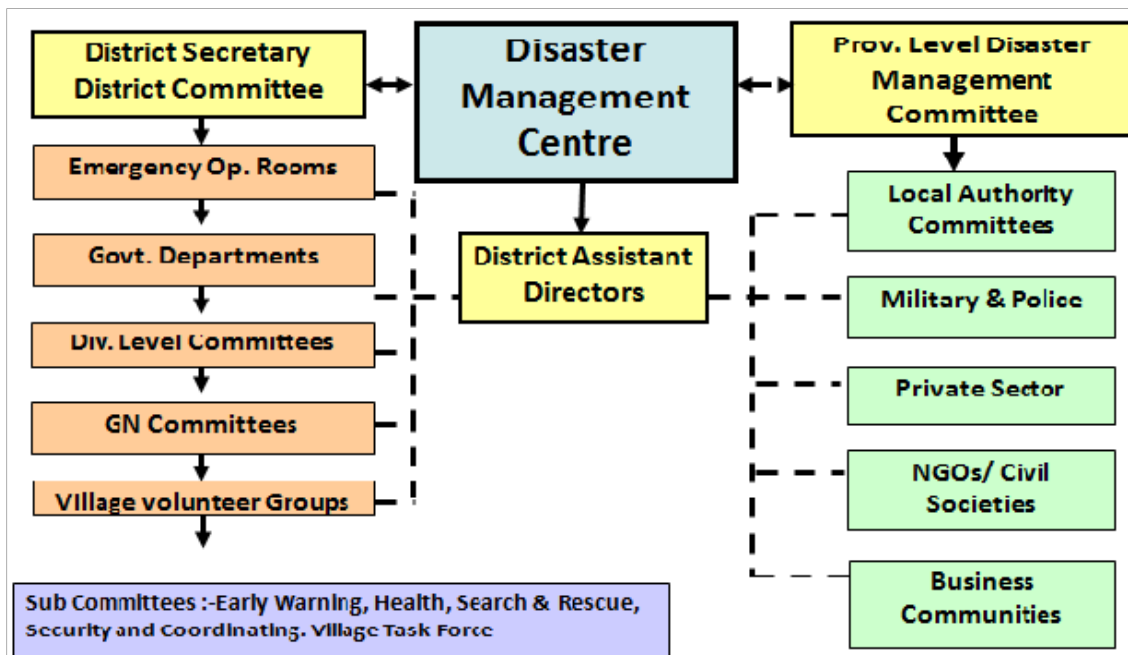


Figure 14

4. Disaster Management Strategy, Policy and Plan

“Towards a Safer Sri Lanka: A Road Map for Disaster Risk Management” is the master plan for disaster management in Sri Lanka. DMC has been accorded the lead role in directing the strategic planning process for disaster prevention, mitigation, response and recovery. A comprehensive DRM framework for Sri Lanka will unify the efforts of all agencies working in various sectors across all regions and levels of development activity. The DMC has prepared the road Map to identify and coordinate multi stakeholder efforts in the next 10 years through a holistic strategy. According to the Road Map it is focused on seven thematic components which are consistent with ongoing and past efforts in the field of disaster risk management and development planning, and as in the Hyogo Framework of Action 2005-2015. The seventh thematic components are as follows.

1. Policy, Institutional Mandates, and Institutional Development
2. Hazard, Vulnerability and Risk Assessment
3. Tsunami & Multi-hazard Early Warning Systems
4. Preparedness and Response Plans
5. Mitigation and Integration of Disaster Risk Reduction (DRR) into Development Planning

6. Community-based Disaster Risk Management

7. Public Awareness, Education and Training

The projects and activities for disaster management of the country are going on based on above seventh components.

5. Progress of Implementation of Hyogo framework for Action (HFA)

Sri Lanka has prepared the National progress report on the implementation of the Hyogo Framework For Action (2009-2011) – interim. According to the report, lot of outcomes, have been able to achieve by the Sri Lanka. Only a few of them have been mentioned here.

- National Planning Department of the Ministry of Finance has agreed to consider DRR in approving development plans provided guidelines are developed for such a process. DMC is working with Central Environmental Authority (CEA) and other agencies to develop such guidelines. National Water Supply and Drainage Board has initiated implementation of augmentation programme in western, central, and southern provinces. New water supply schemes are been developed for northern and eastern provinces. (Area 1)
- NDMCC meets regularly and discuss programmes implemented by members and policy requirements to make the implementation more effective. Hazard cycle for Sri Lanka has been developed and given to district administration to prepare disasters such as floods, landslides and cyclones. Nearly 40% of the activities identified in the Road Map have been commenced. DM Act is being modified giving more authority to DMC for coordination of DM Activities. Draft Act has been forwarded to Attorney general Department. Disaster Management concepts were included in the Local Government policy which has been approved by the govt. DMC has already provided disaster concerns to be incorporated in to the act based on the LG policy. Development DM plans for Northern Province has been commenced. Training of officials in Govt and LG sector on DM and development of plans commenced. (Area 2)
- DMC with the assistance of Urban Development Authority, practical Action and ADPC has commenced three pilot projects in southern and eastern provinces to prepare Urban development plans for selected towns. UDA has agreed to issue instructions to planning officers to follow Guidelines developed in future urban development planning process. Mainstreaming disaster risk reduction in to housing is being undertaken with the assistance of ADPC. All agencies in state sector were involved. Training programme conducted for technical Officers in the Eastern province to introduce the guidelines developed for construction of disaster resistance buildings. Building application used by Local Authorities for for approval of land subdivision plans and building plans are being modified with the

concurrency of UDA to include DRR concepts. Draft format has been submitted to UDA for their consideration. Environment Authority invites DMC for the meetings where EIA reports are discussed. Integrated Strategic Environment Assessment (ISEA) for the Northern Province is being developed with the assistance of all stakeholders. Proposed development plans are incorporated in the ISEA and areas for development are being identified. Discussions are in progress with relevant development agencies to identify conflict areas and find solutions. Hazard maps for landslides in Nuwaraeliya districts were given to agencies involved in development and development control and officers were trained for the use of hazard maps.

References:

1. <http://www.dmc.gov.lk/attchments/Corporate%20Plan/document.pdf>
2. <http://www.dmc.gov.lk/Publications/Roadmap%20Vol.1.pdf>
3. www.desinventar.lk
4. <http://www.preventionweb.net/english/professional/news/?cid=162>
5. http://www.preventionweb.net/english/hyogo/gar/2011/en/bgdocs/hfa/15598_ika_NationalHFAP_rogress_2009-11.pdf
6. <http://www.meteo.gov.lk>
7. <http://www.treasury.gov.lk/FPPFM/fpd/pdfdocs/annualReport2010/AnnualReport2010-eng.pdf>