

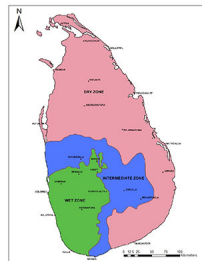
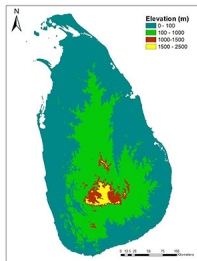
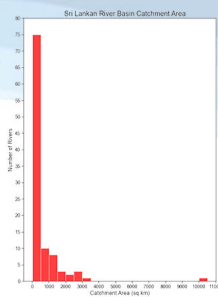


## ICHARM 20<sup>th</sup> Anniversary Symposium Interdisciplinary Framework for Disaster Management in Sri Lanka under Platform on Water Resilience and Disasters

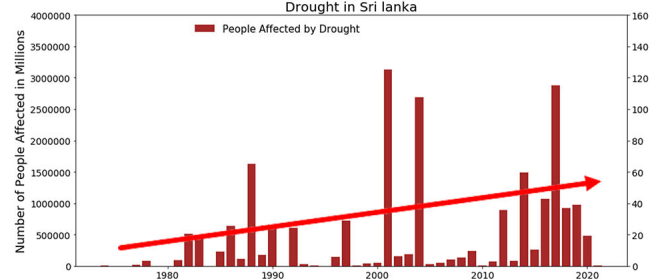
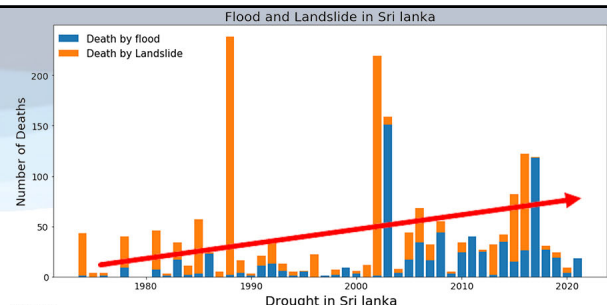
**Eng. Sugeeshwara Seenipellage, Additional Secretary to the President**  
**President's Office, Sri Lanka**

### Sri Lanka - Current Profile

- 🌐 Island Country in South Asia with 65,000 km<sup>2</sup> of land area
- 👥 22 million population approximately
- 🏞️ Topography varied from 0 m to 2525 m
- 🌤️ 103 river basins
- 🌡️ 4 climatic seasons
- 🌡️ 3 climatic zones
- 🌾 2 main agricultural seasons



| Climatic Seasons    | Intermediate-2 (DM-2) 1000-1500mm | North East Monsoon (NE) 500-1000mm | Intermediate-1 (DM-1) 1500-2000mm | South West Monsoon (SW) 2000-2500mm |
|---------------------|-----------------------------------|------------------------------------|-----------------------------------|-------------------------------------|
| Months              | Oct, Nov, Dec                     | Jan, Feb, Mar                      | Apr, May                          | Jun, Jul, Aug, Sep                  |
| Agriculture Seasons | Off 2                             | Maha Season                        | Off 1                             | Yala Season, Off 2                  |



#### GLOBAL CLIMATE RISK INDEX 2019

| Ranking 2017 | Country                   | CRI score | Death toll | Deaths per 100,000 inhabitants | Absolute losses (in million US\$ PPP) | Losses per unit GDP in % | Human Development Index 2017 <sup>19</sup> |
|--------------|---------------------------|-----------|------------|--------------------------------|---------------------------------------|--------------------------|--------------------------------------------|
| 1 (105)      | Puerto Rico <sup>15</sup> | 1.50      | 2,978      | 90,242                         | 82,315,240                            | 63.328                   | -                                          |
| 2 (4)        | Sri Lanka                 | 9.00      | 246        | 1,147                          | 3,129,351                             | 1,135                    | 76                                         |
| 3 (120)      | Dominica                  | 9.33      | 31         | 43,662                         | 1,686,894                             | 215,440                  | 103                                        |
| 4 (14)       | Nepal                     | 10.50     | 164        | 0.559                          | 1,909,382                             | 2,412                    | 149                                        |

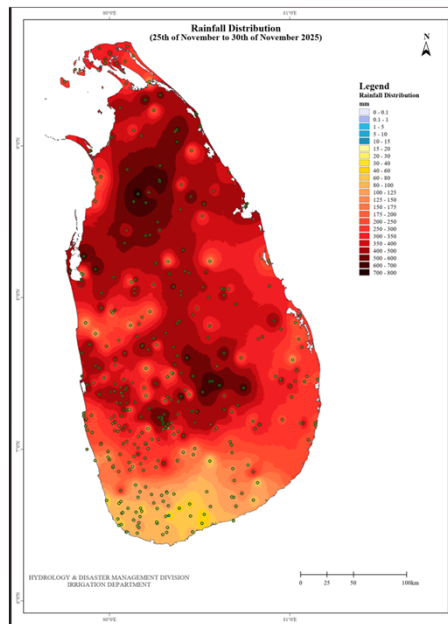
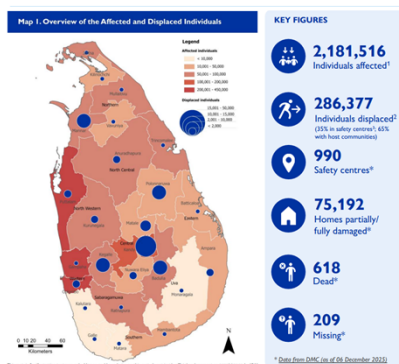
**10 ECONOMIES WORST AFFECTED BY NATURE LOSS BY 2050\***

\* Worst affected economies of the reduction in national average GDP by 2050, compared to baseline in 2019. In world economic projections, the loss of natural capital is estimated to be 10% of GDP by 2050.



## Severe Flood and Landslide Experienced Due to Cyclone Ditvah in November 2025

- ▶ Cyclone Ditwa, which began as a depression on 26 November and crossed eastern Sri Lanka by 28 November 2025. The Cyclone genesis location is closer to the Sri Lankan Coast compared to the historic experience. Therefore, the response time was also reduced. The cyclone path was along the east coast of the country before making landfall and going through Sri Lanka
- ▶ Floodwaters inundated over 1.1 million hectares, roughly 20 % of Sri Lanka's land area, the largest flood footprint the country has seen in decades.
- ▶ An estimated 2.3 million people were exposed to flood conditions across all 25 districts.
- ▶ Ditwah triggered at least 1,200 landslides nationwide, with the central and south-central highlands experiencing the highest densities of slope failures.
- ▶ Extensive flooding and slope failures destroyed homes, submerged key infrastructure, and blocked transportation routes, isolating rural communities.



## International Flood Initiative (IFI)

International Flood Initiative (IFI) is a joint initiative in collaboration with international organizations such as UNESCO-IHP, WMO, UNISDR, UNU, IAHS and IAHR. IFI focuses on research, information networking, education and training, empowering communities and providing technical assistance and guidance. ICHARM is working as the Secretariat for IFI.

### Platform on Water Resilience and Disasters

As one of its main activities, IFI initiated "platforms on water resilience and disasters" worldwide, particularly in Asian countries. These platforms are national frameworks in which government organizations related to flood control, meteorology, and disaster management collaborate for common purposes.

Platform of water resilience and disasters started in Sri Lanka with the participation key Sri Lankan water and disaster agencies (such as the [Irrigation Department](#), the [Disaster Management Center \(DMC\)](#), and the [Department of Meteorology](#)) to collaborate on early warnings, data sharing, and flood forecasting. The inaugural meeting, known as the "Plenary Session for the Platform on Water and Disasters," was held in Colombo. Subsequent plenary sessions conducted in 2018, 2019, and in 2024, under the coordination of ICHARM.

## Platform on Water Resilience and Disasters in Sri Lanka

IFI promotes an integrated approach to flood management to take advantage of the benefits of floods and use of flood plains while minimizing the social, environmental and economic risks through collaboration among international organizations.



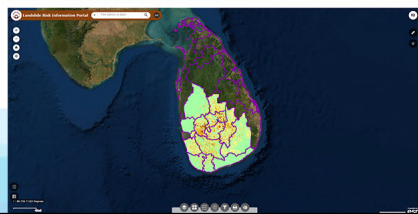
Under IFI scheme, for strengthening Water-related Disasters Resilience and Enabling Sustainable Development in Sri Lanka, the Platform on Water Resilience and Disasters was established with the support of ICHARM in 2017.



## Targeted Actions and Progress

| No. | Targeted Actions                       | Plan                                                                                                                                | Progress                                                                                                                                                                                                                                                                                             |
|-----|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 01  | Improving Early Warning Systems        | Supporting for improving weather forecasting & flood forecasting                                                                    | 1. Weather forecasting in the Tokyo DIAS system.<br>2. Flood Forecasting model for Kalu River in the DIAS.<br>2. Developing flood models for major river basins under World Bank Funding                                                                                                             |
| 02  | Improving the real-time observation    | Linking the real-time observation by all the stakeholders.                                                                          | 1. Automated Rain Gauges installed by ICHARM.<br>2. Automated Rain Gauges installed by local agencies .<br>3. River gauges installed by local agencies.                                                                                                                                              |
| 03  | Climate Change and adaptation planning | 1. Understanding the climate risk of river basins.<br>2. Planning for adaptation strategies through river basin management.         | 1. Understanding the climate risk of Mahaweli River basin through a climate change impact assessment (completed under a PhD research).<br>2. Planning adaptation strategies through reservoir management (continuing under PhD research)                                                             |
| 04  | Capacity Development of stakeholders   | 1. Inhouse short term training for stakeholders<br>2. PhD and Master level training<br>3. Development of an online synthesis system | 1. Long term training for master level and PhD level (20 M.Sc and 2 PhD completed, 1 PhD student continuing)<br>2. 3 short term training programs (100 participants altogether)<br>3. Short term training is under planning for training of trainers (40 numbers from all the stakeholder agencies.) |

## DIAS-ICHARM: Flood Information Sharing Support in Sri Lanka

[illegible]

- Hydrological modelling, forecasting and early warning
- Climate change impact
- Drought monitoring and prediction
- Flood hazard mapping and visualization
- Sediment disaster risk identification
- Evacuation and contingency planning under COVID-19
- Forecast informed reservoir operation for flood control and power generation
- Cultural and historical approaches for disaster resilience and sustainability



- Facilitator training (30 ~ 40 participants will join)
- Expert training (100 ~200 participants will be trained by facilitators)





**Thank You**