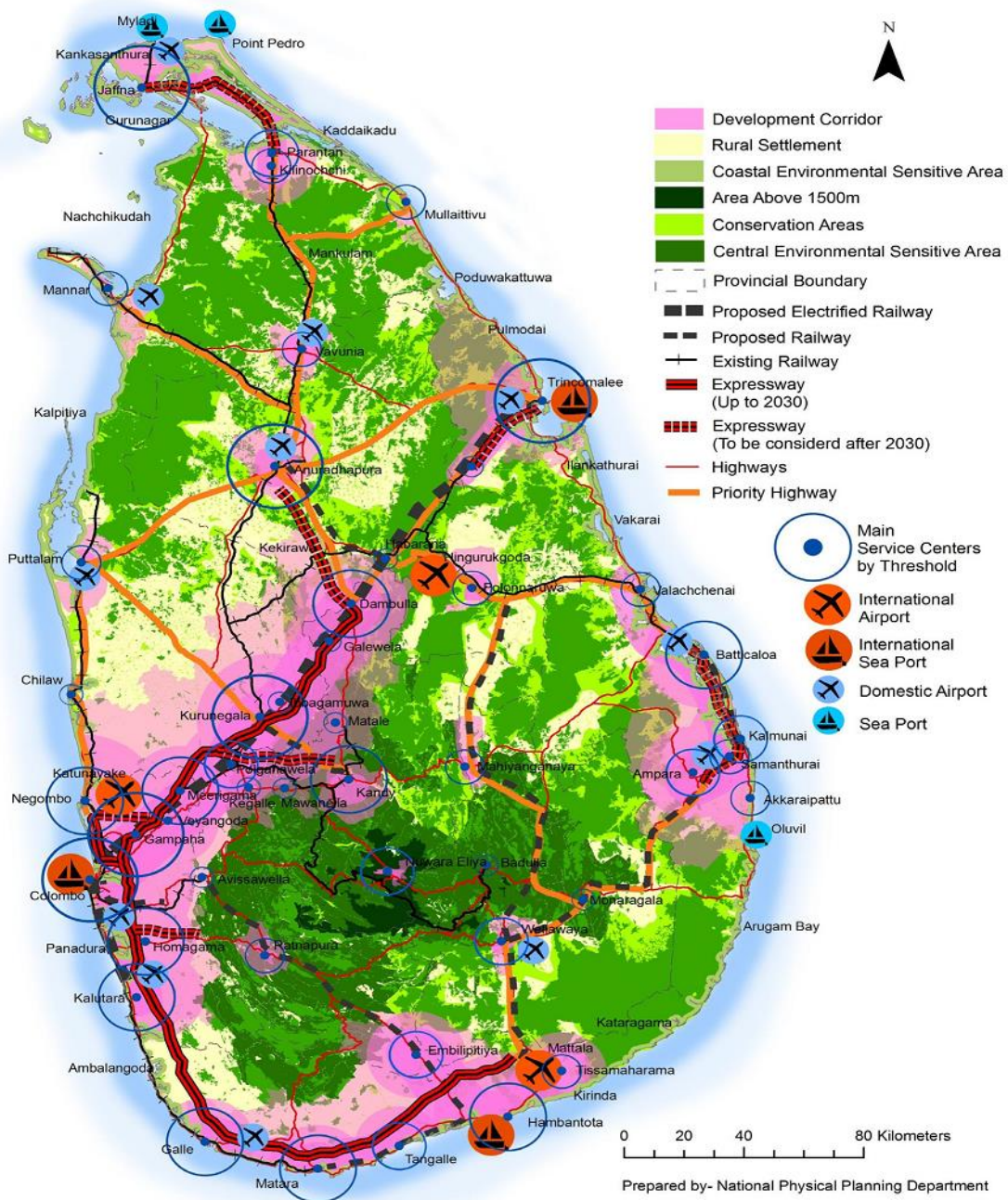


Figure 5.1 : The Proposed Spatial Structure



United Nations International Conference on Space-based Technologies for Disaster Risk Reduction –

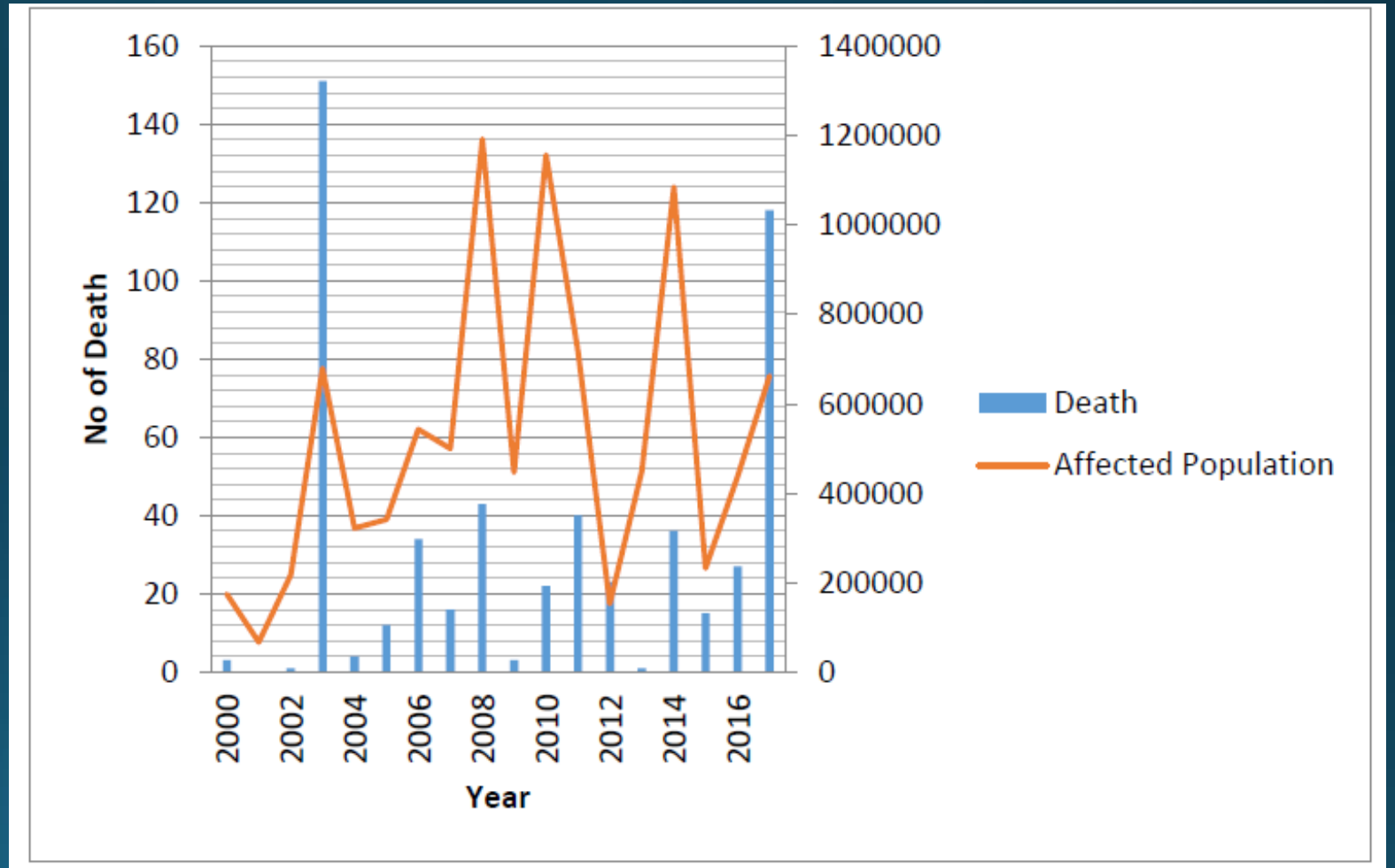
“Important of Advance Technology for Enhancing Disaster Preparedness for Effective Emergency Response”

Sri Lanka

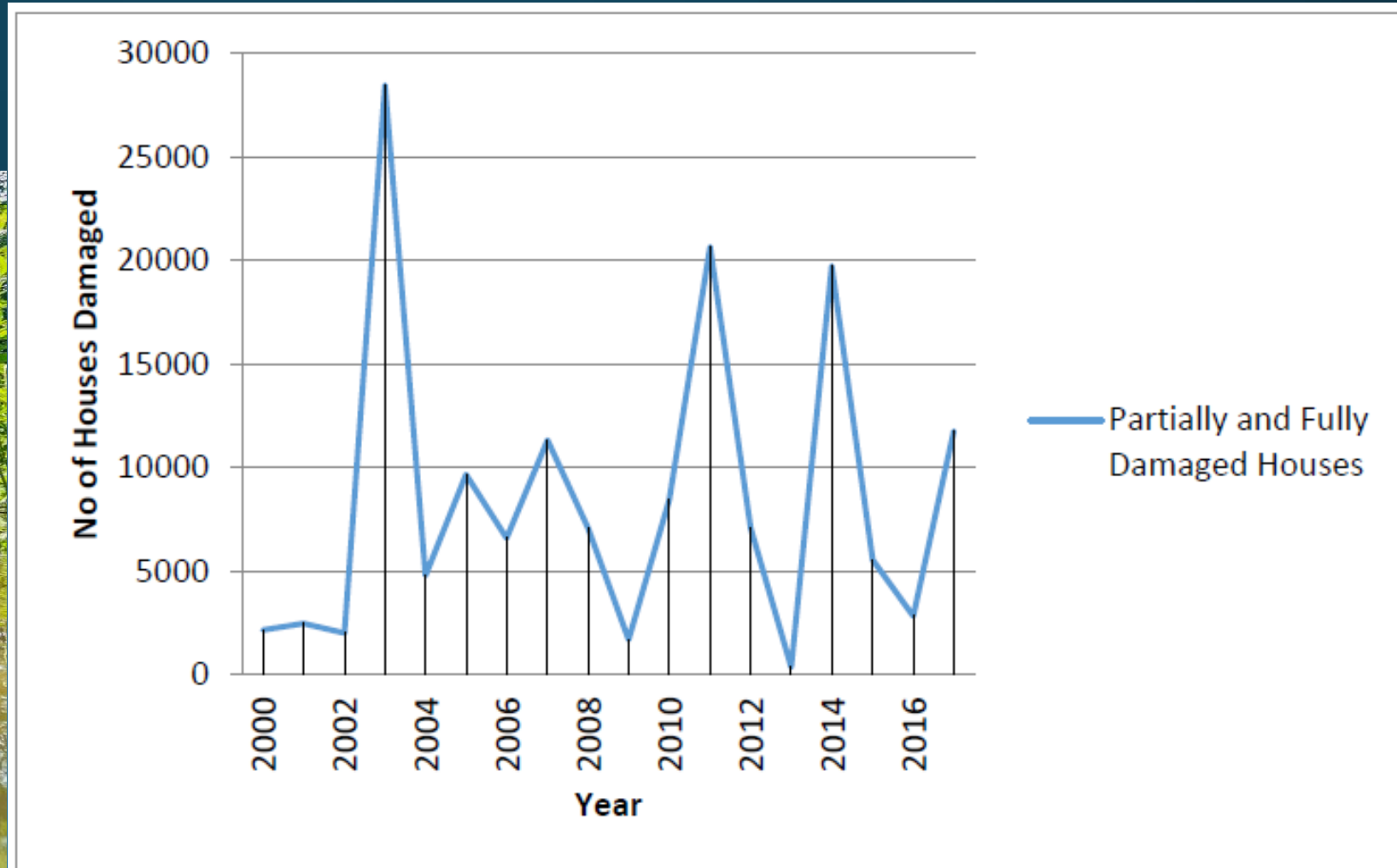
Dr S Amalanathan

Sri Lanka – Disaster Context

- Past few years Sri Lanka experience multi dimensional disaster occurrence
- Below chart shows deaths and affected over past 18 years by floods
- Since 2010 Sri Lanka experiencing floods and droughts at the same time frame in different geographies



Disaster Context cont..



Current progress on technology usage

Disaster Risk Reduction

- DesInventar database – historical events
- Hazard mapping/zonation
- Lidar survey to get geographical elements
- Risk profiling
- Spatial analysis for long term climate projections
- Water management planning

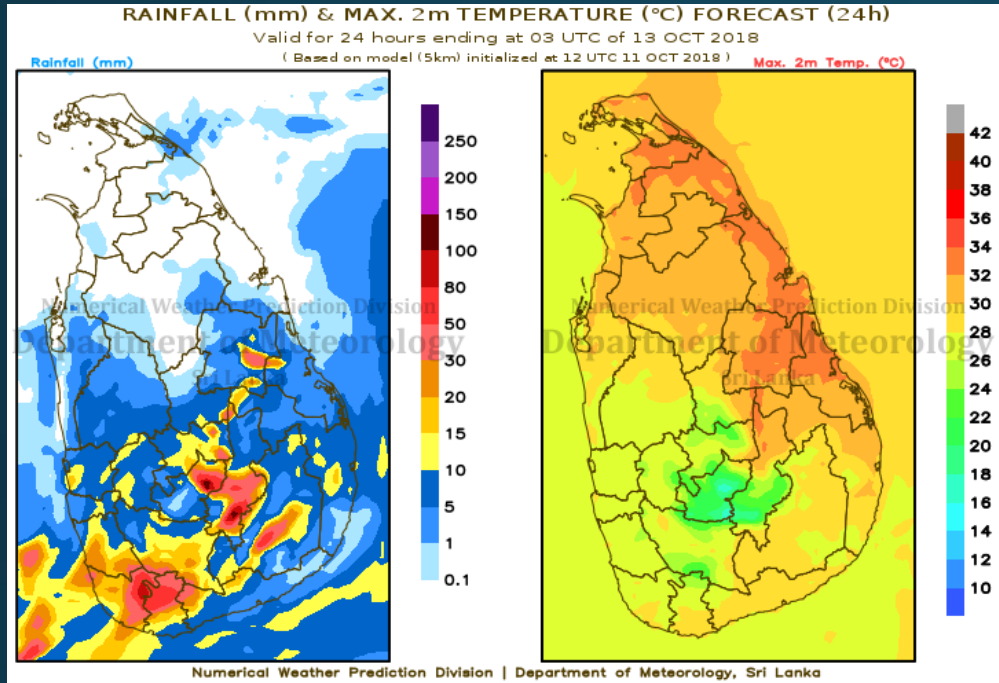
Disaster Response

- Weather prediction/modelling
- Satellite data for nowcasting/modelling for impact scenarios
- Early warning using space technology
- Resource mapping
- Information monitoring tools (PRISM)
- Satellite data acquisition for emergency planning (rapid impact assessments)

Disaster Recovery

- Land use maps
- Risk area identification through spatial mapping

Key achievements on space technology use

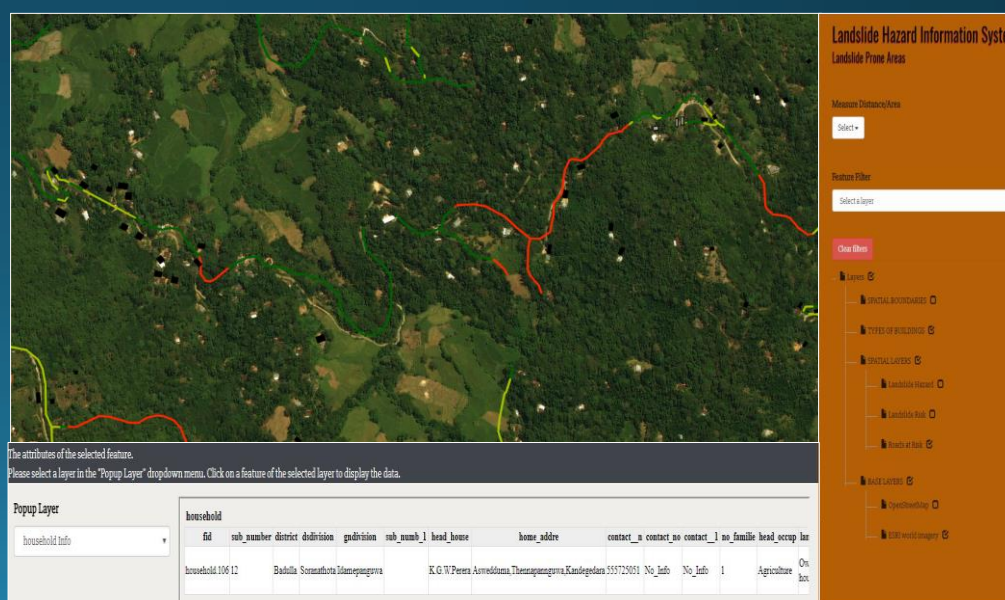
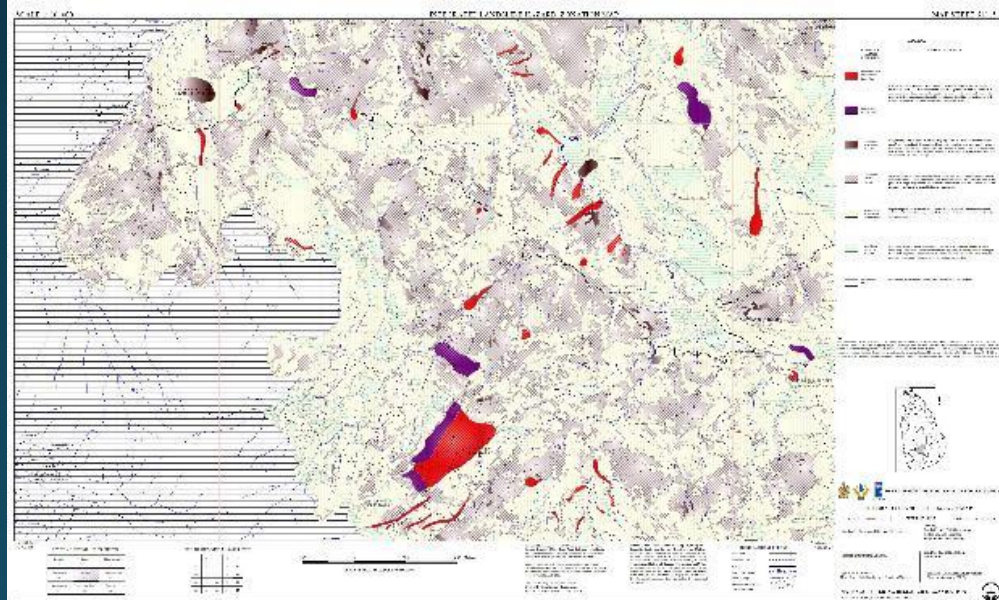
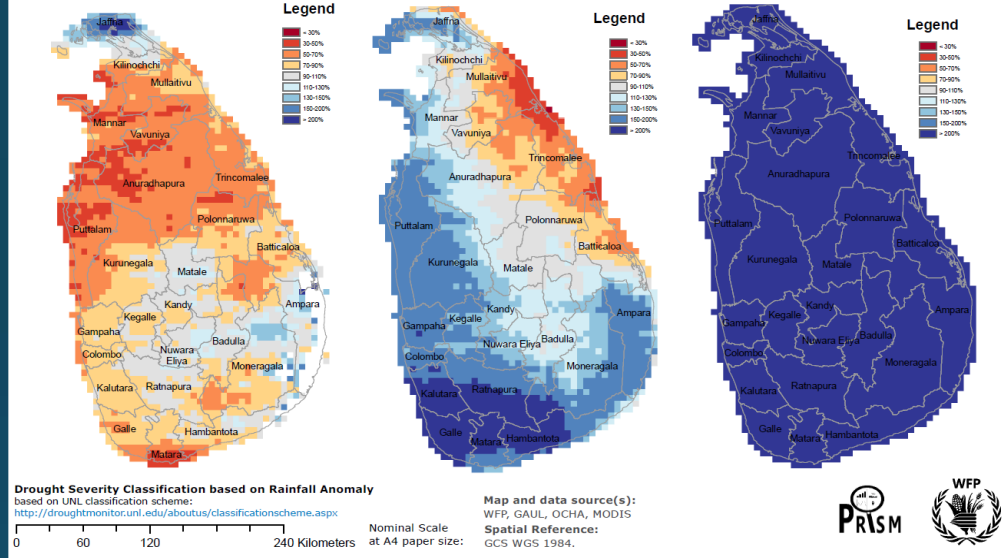


Rainfall Anomaly: September 2018

Dekad 02- September

Dekad 03- September

Dekad 01- October



Existing challenges in use of space technology

- Non existence of digital survey data (1:5000)
- No risk profile covering entire country
- Location specific weather forecasting
- Seasonal weather outlooks,
- Impact based spatial data for planning
- Capacity gaps in the government sector
- Limitation of available satellite data for Sri Lanka

What we need

- Improve numerical weather forecasting, especially location specific predictions
- Impact assessment using space technology
- Development of risk profile for entire country
- Develop impact scenarios using latest technological advancement
- Emergency planning tools with spatial data and techniques

- Build capacities of government officers on usage of latest technology
- Production capacity of analytical reports using space data for decision making
- Establishment of integrated systems for impact based decisions on long term planning

Way forward

- Obtain best practices of systems and tools for Disaster Management
- Technical transfer for utilization of advance technology
- Training for government officers on GIS/RS, planning tools, usage of space data for response/recovery planning
- Build partnership with international agencies and academia for effective knowledge transfer

THANK YOU