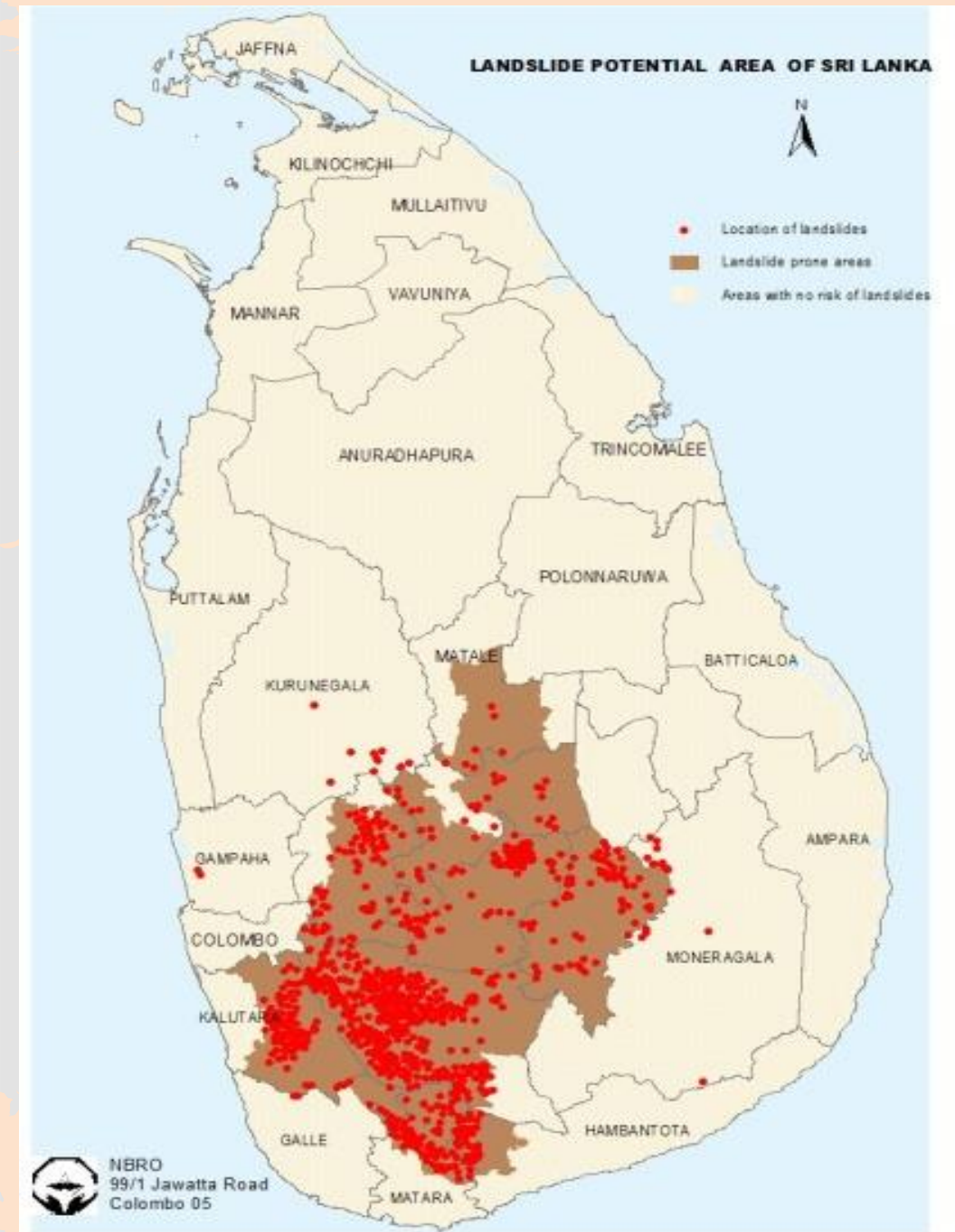


LANDSLIDE RISK REDUCTION IN SRI LANKA

Eng.(Dr.) Asiri Karunawardena
Director General
National Building Research Organization



LANDSLIDE RISK REDUCTION

Risk Reduction Options

Living with
landslide
(Adaptation)

Mitigation
(Risk
Treatment)

Resettlement

- Creating awareness for preparedness
- Landslide early warning
- Resilient Construction
- Risk Transfer
- Land use Management

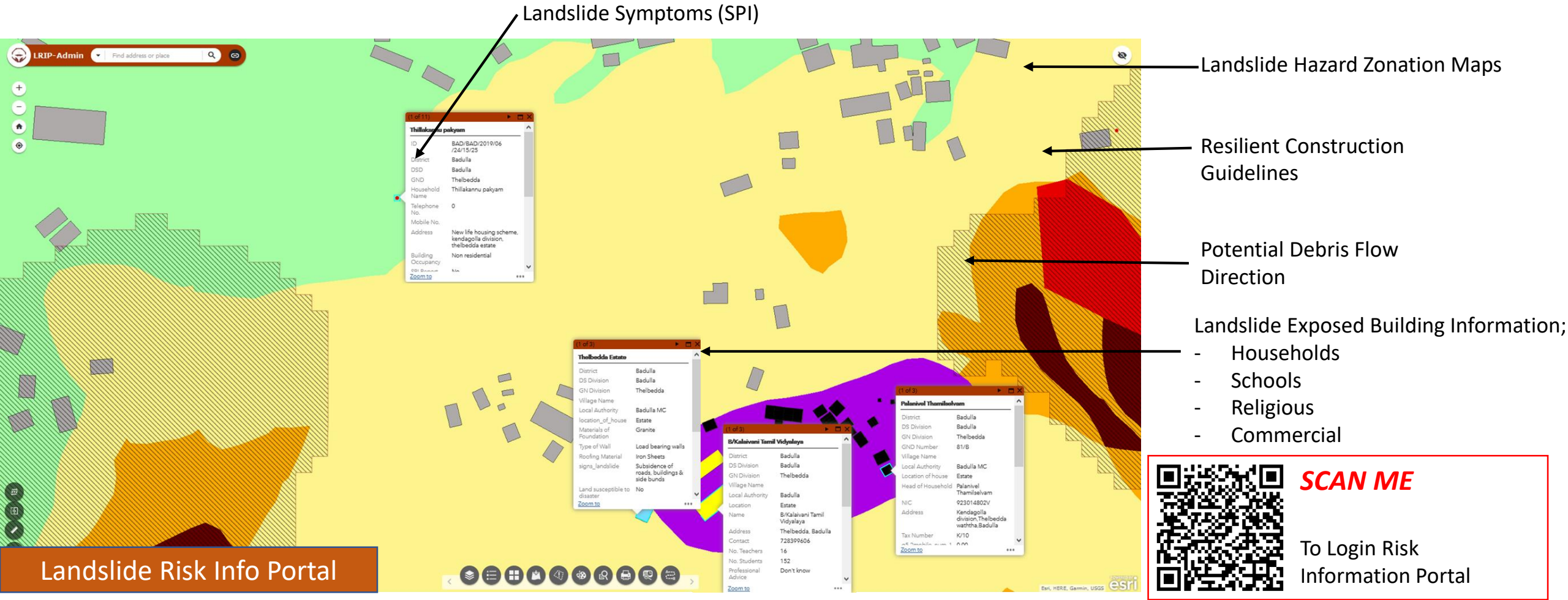
- Local level mitigation program
- Land slide mitigation along major roads
- Land slide mitigation for protecting critical infrastructure , school , hospitals
- Large scale (National level)

- Safe land provided + Rs 1.2 Mn for House construction
- Additional Rs 0.4 Mn for buying a land
- Providing Rs1.6 Mn for buying house in safe land
- Owner driven approach



Landslide Risk Information Portal
View landslide hazard risk of any location

LANDSLIDE RISK MANAGEMENT



95,618
Building Units
Surveyed



12,104
SPI High Risk Buildings



14,313
Housing Units to be
Resettle

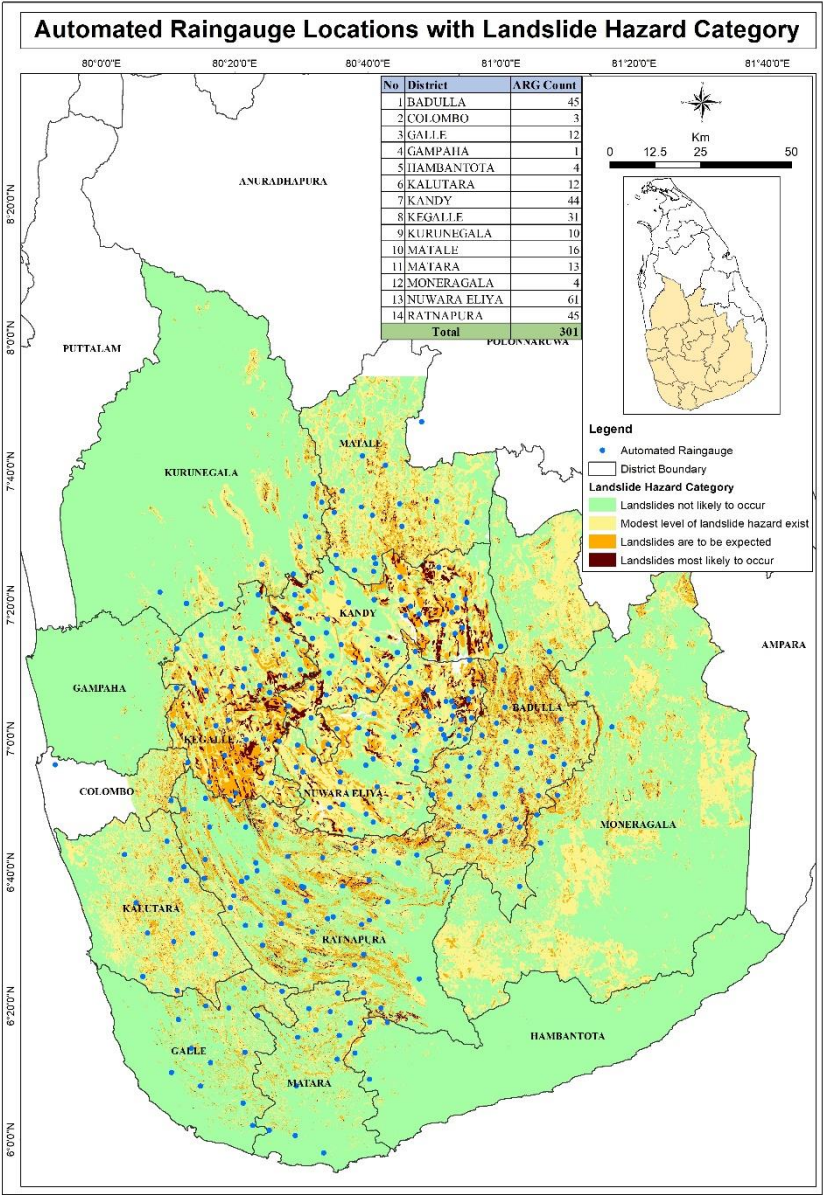
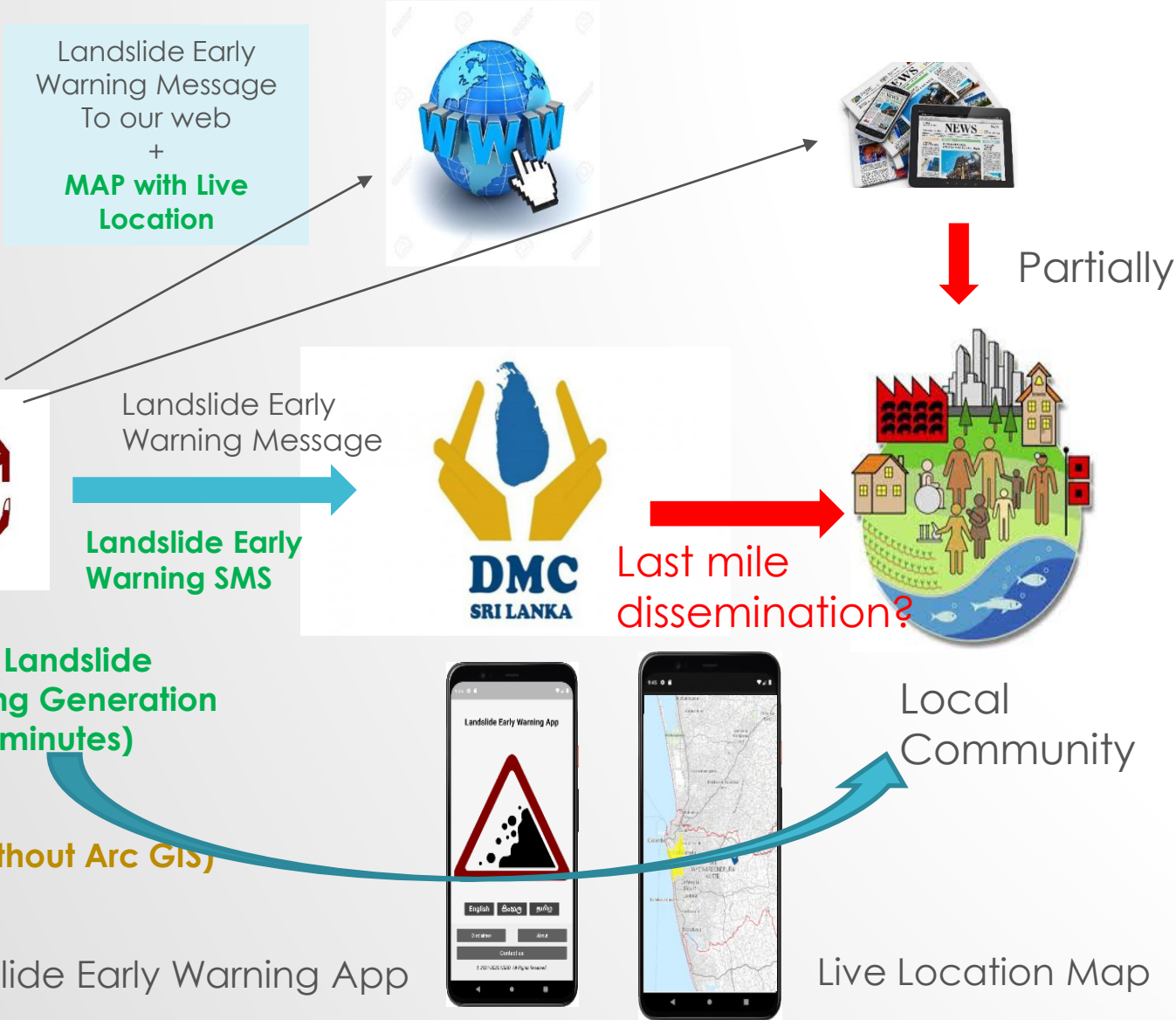


1,382
Resettled Houses



1,840
Resettlement in
Progress

Landslide Early Warning



About 300 Nos of Automated Rqin gauges Data is shared with relevant technical agencies including ICHARM have been installed in catchment area

SPATIAL APPLICATION FOR LANDSLIDE MONITORING



Landslide Mitigation Site No - 147 - Badulla - Ella, Madhuragama (AIIB Project)



Rockfall Monitoring

Aerial Photographs obtained from drone surveys are used to generate the contour profiles of sloping terrains

Key features



3D modelling & Virtual Reality (VR)



Cross sections



Upload the Engineering drawings and measurements



Time series data analysis



Engineering notes and Annotation

Vulnerability Assessments

CHALLENGES & FUTURE TARGETS

Implementation of Online Synthesis System (OSS) for landslide Risk Reduction

- Soil moisture and Precipitation Thresholds for Real-time Landslide Prediction
Rain fall –Runoff/ Infiltration model – DIAS simulation
- Development of cost benefit analysis for planning of mitigation work
- Damage assessment tool for landslide damage
- Contingency plans for reduction of landslide impact and post disaster recovery
- Capacity Building in landslide monitoring, landslide risk management, contingency planning, cost benefit analysis, etc.

Thank You