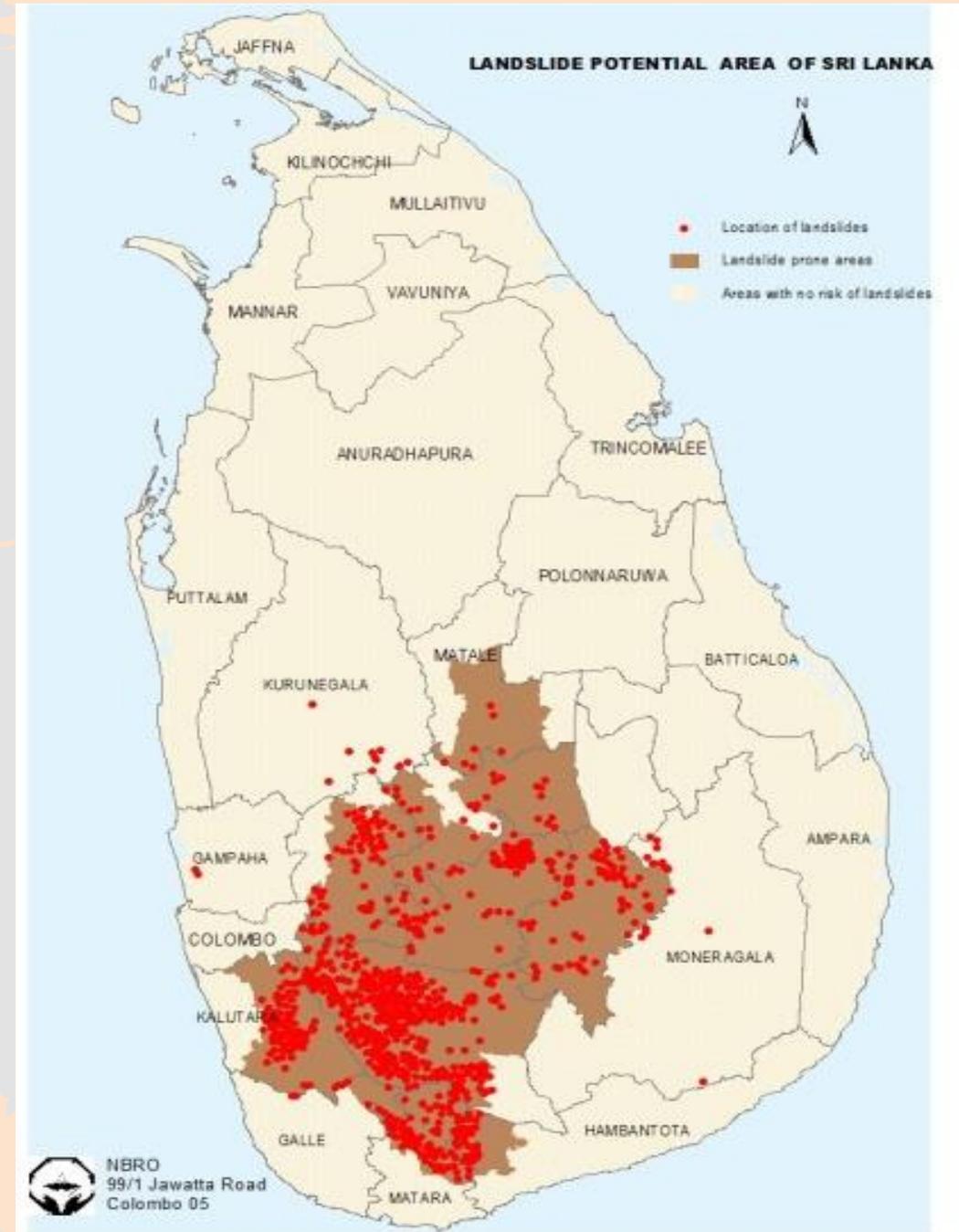


LANDSLIDE RISK REDUCTION IN SRI LANKA

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 MANAGEMENT



Landslide Risk Information Portal
View landslide hazard risk of any location

Landslide Symptoms (SPI)

Landslide Hazard Zonation Maps

Resilient Construction Guidelines

Potential Debris Flow Direction

Landslide Exposed Building Information;

- Households
- Schools
- Religious
- Commercial

Thilakannu pakyam

ID	BAD/BAD/2019/06/24/15/25
District	Badulla
DSD	Badulla
GND	Thelbedda
Household Name	Thilakannu pakyam
Telephone No.	0
Mobile No.	
Address	New life housing scheme, kendagolla division, thelbedda estate
Building Occupancy	Non residential

Thelbedda Estate

District	Badulla
DS Division	Badulla
GN Division	Thelbedda
Village Name	
Local Authority	Badulla MC
location_of_house	Estate
Materials of Foundation	Granite
Type of Wall	Load bearing walls
Roofing Material	Iron Sheets
Subsidence of roads, buildings & side bunds	signs_landslide
Land susceptible to disaster	No

B/Kalaivani Tamil Vidyalaya

District	Badulla
DS Division	Badulla
GN Division	Thelbedda
Local Authority	Badulla
Location	Estate
Name	B/Kalaivani Tamil Vidyalaya
Address	Thelbedda, Badulla
Contact	728399606
No. Teachers	16
No. Students	152
Professional Advice	Don't know

Palanivel Thamilselvam

District	Badulla
DS Division	Badulla
GN Division	Thelbedda
GND Number	81/B
Village Name	
Local Authority	Badulla MC
Location of house	Estate
Head of Household	Palanivel Thamilselvam
NIC	923014802V
Address	Kendagolla division, Thelbedda wathra, Badulla
Tax Number	K/10

QR Code

SCAN ME

To Login Risk Information Portal

Landslide Risk Info Portal

Status up to Jan. 31st, 2021

95,618
Building Units Surveyed

12,104
SPI High Risk Buildings

14,313
Housing Units to be Resettle

1,382
Resettled Houses

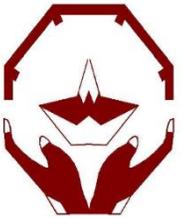
1,840
Resettlement in Progress

Landslide Early Warning

Landslide Early Warning Message
To our web
+
MAP with Live Location



Partially



Landslide Early Warning Message

Landslide Early Warning SMS



Last mile dissemination?



Local Community

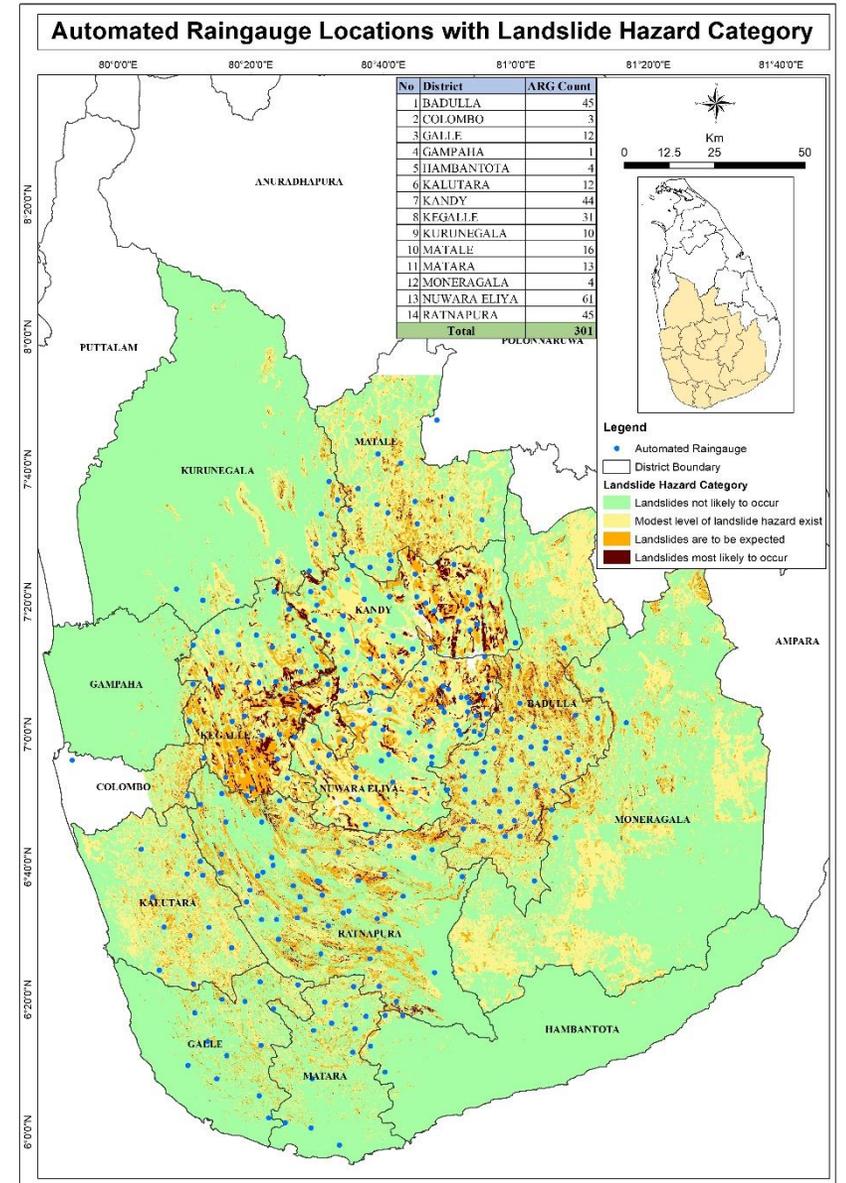
Automated Landslide Early Warning Generation – (within 10 minutes) Including,

- SMS
- **MAP (without Arc GIS)**

Landslide Early Warning App



Live Location Map



About 300 Nos of Automated Rain 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)



Vulnerability Assessments

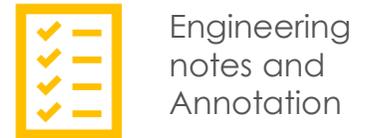


Rockfall Monitoring



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

Key features



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