



NBRO Readiness for SW Monsoon- 2025

By

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NBRO

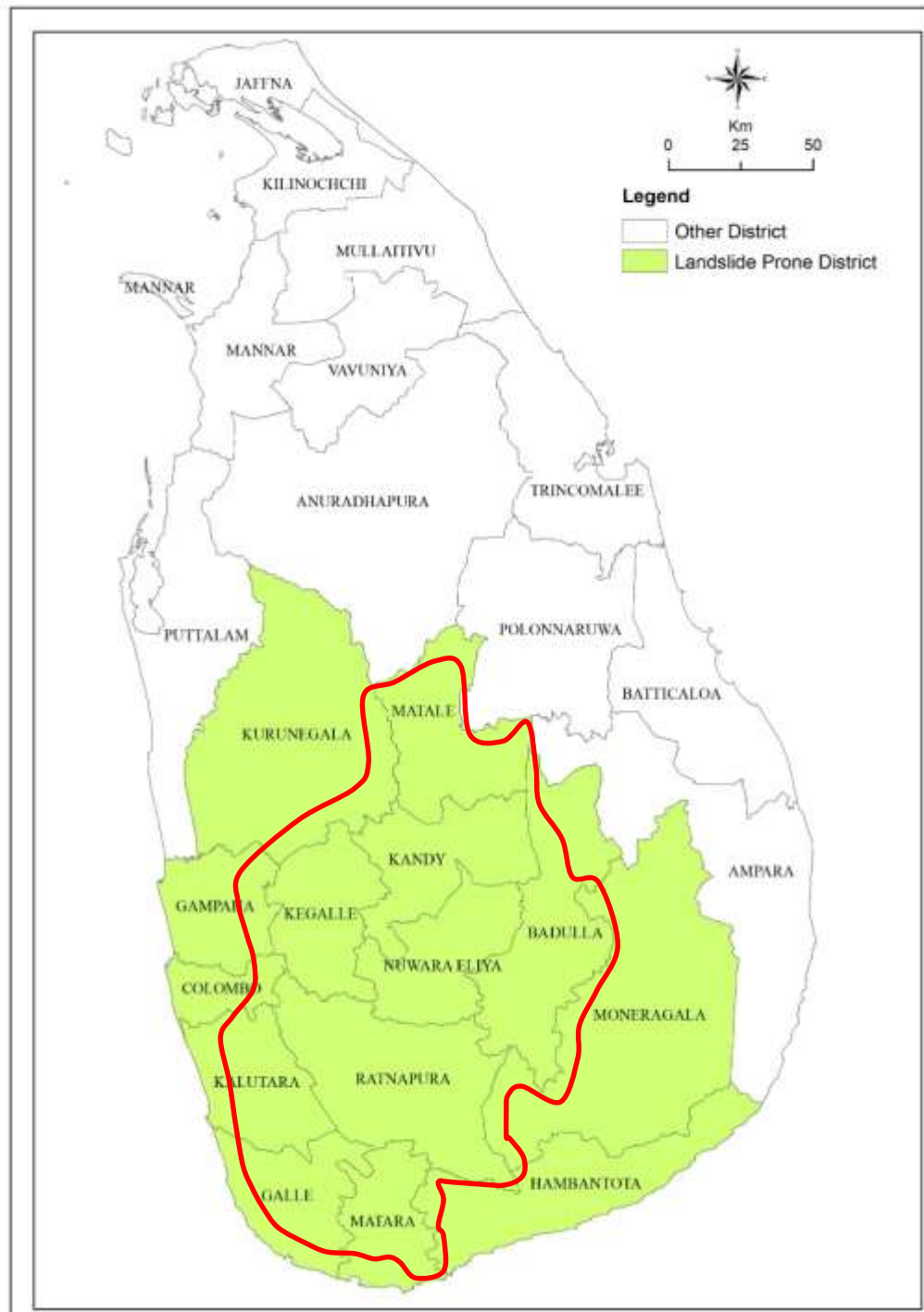
Outline

- Landslide Prone Districts
- Landslides Susceptible areas for SW Monsoon
- NBRO Preparedness

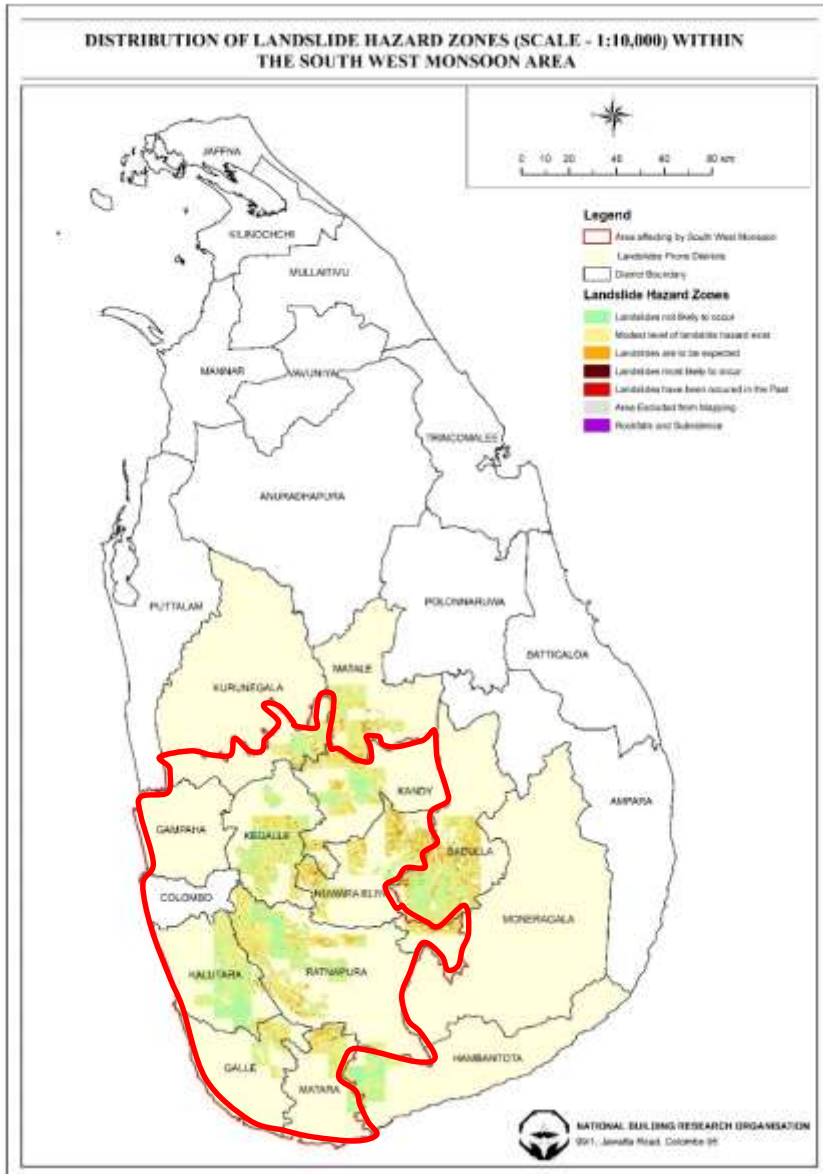
Landslide Prone Districts

Badulla
N'Eliya
Matale
Kandy
Kegalle
Monaragala
Rathnapura
Gampaha
Colombo

Kaluthara
Galle
Matara
Hambantota
Kurunegala
Matale
Kandy
Kegalle
Monaragala
Gampaha
Colombo



Landslides Susceptible areas for SW Monsoon



Provinces

Western, Sabaragamuwa, Central, Southern

Districts and respective DS divisions

1. Badulla : Haldummulla

2. N-Eliya District: Ambagamuwa , Kothmale , Nuwara Eliya.

3. Matale District: Wilgamuwa, Laggala-Pallegama (Riverstern). Not much affected, but get fairly heavy falls.

4. Kandy District: Gangawatakorale, Yatinuwara, Udunuwara, Udapalatha, Gangaihalakorale, Doluwa, Deltota, Pasbagekorele and some areas of Harispatthuwa, Hataraliyadda, Pathadumbara, Galagedera, Pujapitiya, Akurana and Panwila.

5. Kegalle: *High impact* - Aranayake, Bulathkohupitiya, Yatiyantota, Deraniyagala, Part of Dehiowita. *Medium impact* - Galigamuwa, Ruwanwella, remaining part of Dehiowita.

6. Ratnapura: Ratnapura, Kuruwita, Eheliyagoda (Highest RF), Kirella, Ayagama, Kalawana, Niwithigala, Elaptha, Pelmadulla, Kahawatta, Opanayake, Balangoda (Sabaragamuwa range).

7. Kalutara: Bulathsinhala, Baduraliya (Palindanuwara), Agalawatta, Walallawita, Ingiriya, and certain other GN divisions in Mathugama, Dodangoda, Horana, Millaniya, and Madurawala

8. Galle: All district may affect with cutting failures, but landslides are possible in Neluwa, Tawalama, Nagoda, Niyagama, Elpitiya, Yakkalamulla.

9. Matara: All district may affect with cutting failures, but landslides possible in Kotapola, Pasgoda, Pitabeddera and Akuressa DS.

10. Hambantota: Landslide possible in Katuwana, Walasmulla (Matara and Rathnapura district boarder). Mainly cutting failures are possible in Okewela, Weeraketiya, Belliatthe, Tengalle.

11. Kurunegala: Hilly areas near to Gampaha and Kegalle boarder.

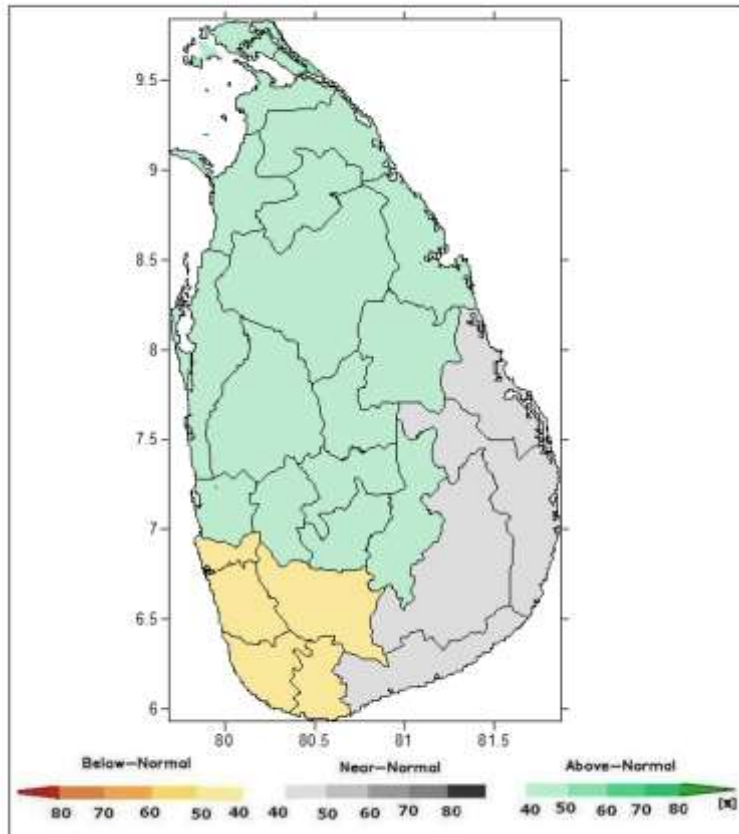
12. Monaragala: Generally, the hilly areas of Monaragala districts will not be affected.

13. Colombo: Landslides possible in Seethawaka. Mainly Cutting failures are possible in Padukka, Kesbewa, Kaduwela, Kolonnawa, Malabe, Maharagama, Homagama.

14. Gampaha: Mainly Cutting failures are possible in Attanagalle, Dompe, Mahara, Mirigama.

As per the Met Department Prediction for the year 2025;

Southwest monsoon 2025



ABOVE NORMAL:

GAMPAHA, KEGALLE, KANDY, BADULLA, NUWARA ELIYA,
MATALE & KURUNEGALA

NEAR NORMAL:

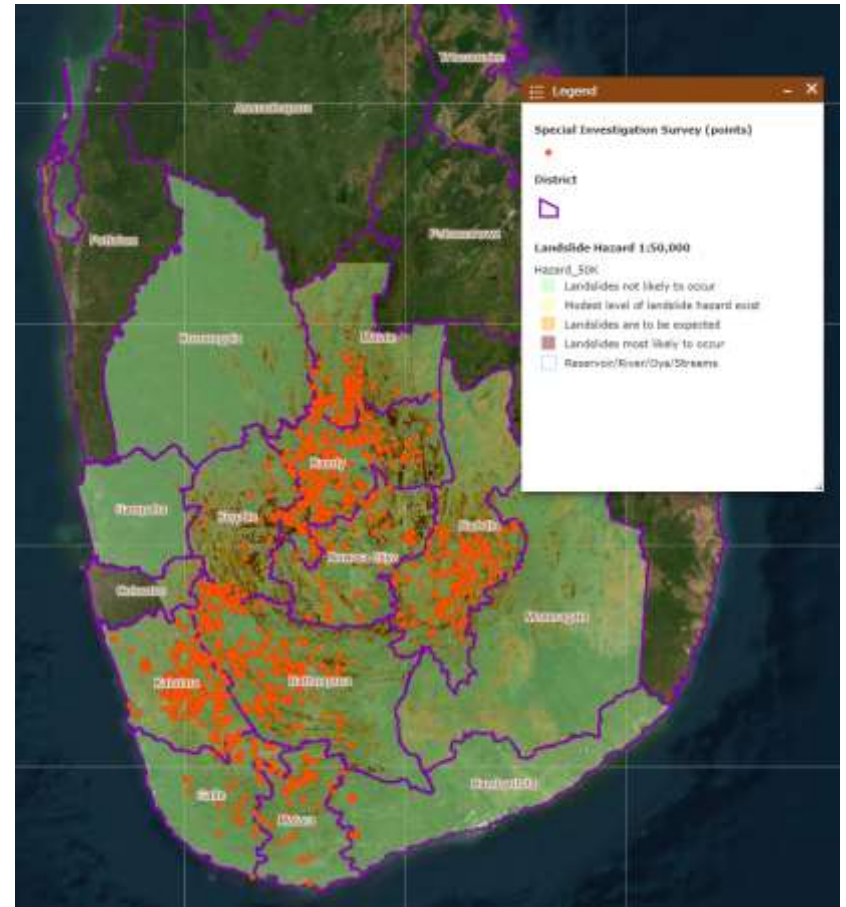
HAMBANTOTA & MONARAGALA

BELOW NORMAL:

COLOMBO, KALUTARA, GALLE, MATARA & RATNAPURA

NBRO have identified, following numbers of locations as high risk

#	District	Number of LI Locations
1	Badulla	2,856
2	Galle	324
3	Hambantota	128
4	Kalutara	1,989
5	Kandy	2,075
6	Kegalle	540
7	Matale	1,333
8	Matara	544
9	Nuwara Eliya	2,461
10	Ratnapura	2,500
11	Colombo	71
12	Gampaha	29
13	Moneragala	170
14	Kurunegala	198
Total		15,218



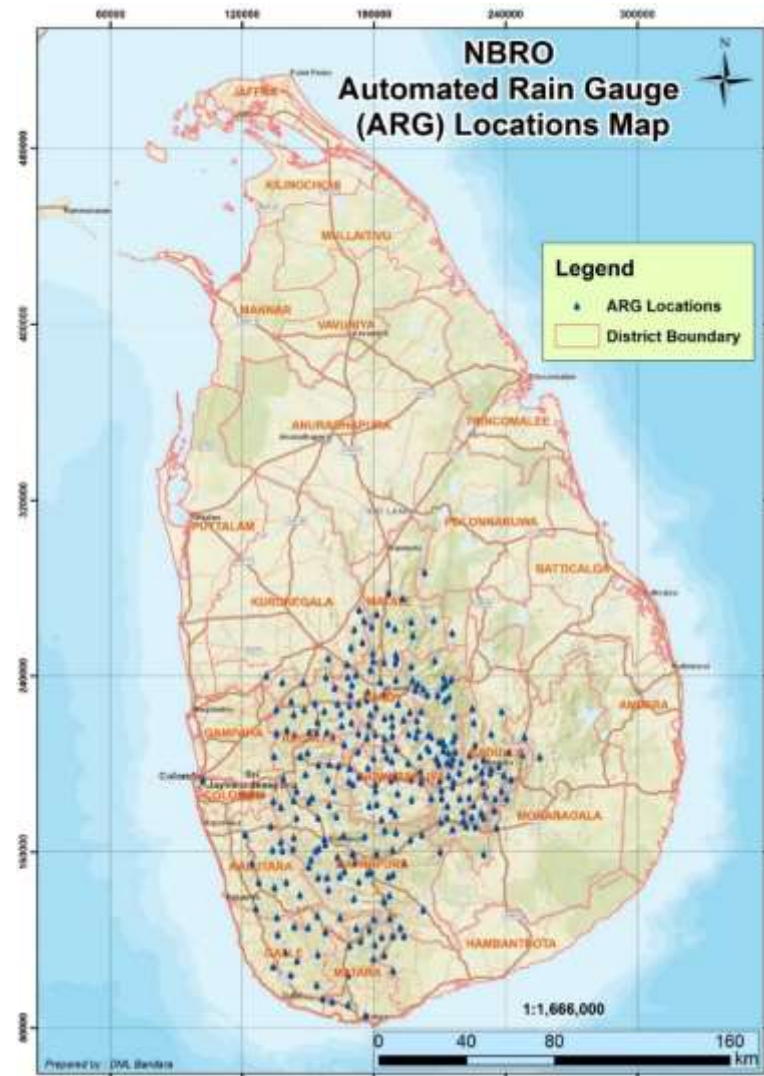
High Risk Clusters as below;

District	Total Risk Clusters
Rathnapura	62
Badulla	58
Nuwara Eliya	71
Kandy	36
Matale	32
Galle	5
Matara	
Hamabntota	11
Kalutara	52
Kurunegala	1
Total	328



NBRO Preparedness

- Landslide EW will be issued based on short range forecasts issued by Met Dept. and real time rainfall data received from **330** automated rain gauges located around the Central Highland of the country. EWC will be operated 24/7.
- EW will be issued to DMC for dissemination to the relevant authorities and communities.
- CBEW group will be coordinated and encouraged for self evacuation whenever possible and necessary.
- Field investigations of landslide susceptible/potential sites for complying with complains by public/Govt. authorities will be carried out by field staff allocated in each district.



Existing NBRO ARG network

No	Year	Nos.	Funding
1	2007	05	UNDP
2	2014	35	UNDP
2	2015	20	UNDP
3	2016	15	World Bank
4	2017	50+30	SL Government & JICA
5	2018	50+10 + 6	SL Gov. + WFP + Oxfam
6	2018	30+10	SL Gov. + Oxfam
7	2018/19	40	SL Gov.
8	2021	26	World Bank
9	2022	03	WFP
10	Total	330	



- 🚀 Upgrading ARGs & Expanding Coverage**
- 150 New Automated Rain Gauges (ARGs) Underway**
- 📍 Funded by: World Bank – CresMPA Project**
- ✓ Enhancing real-time rainfall monitoring**
- ✓ Improving landslide early warning systems**
- ✓ Expanding coverage to high-risk areas**

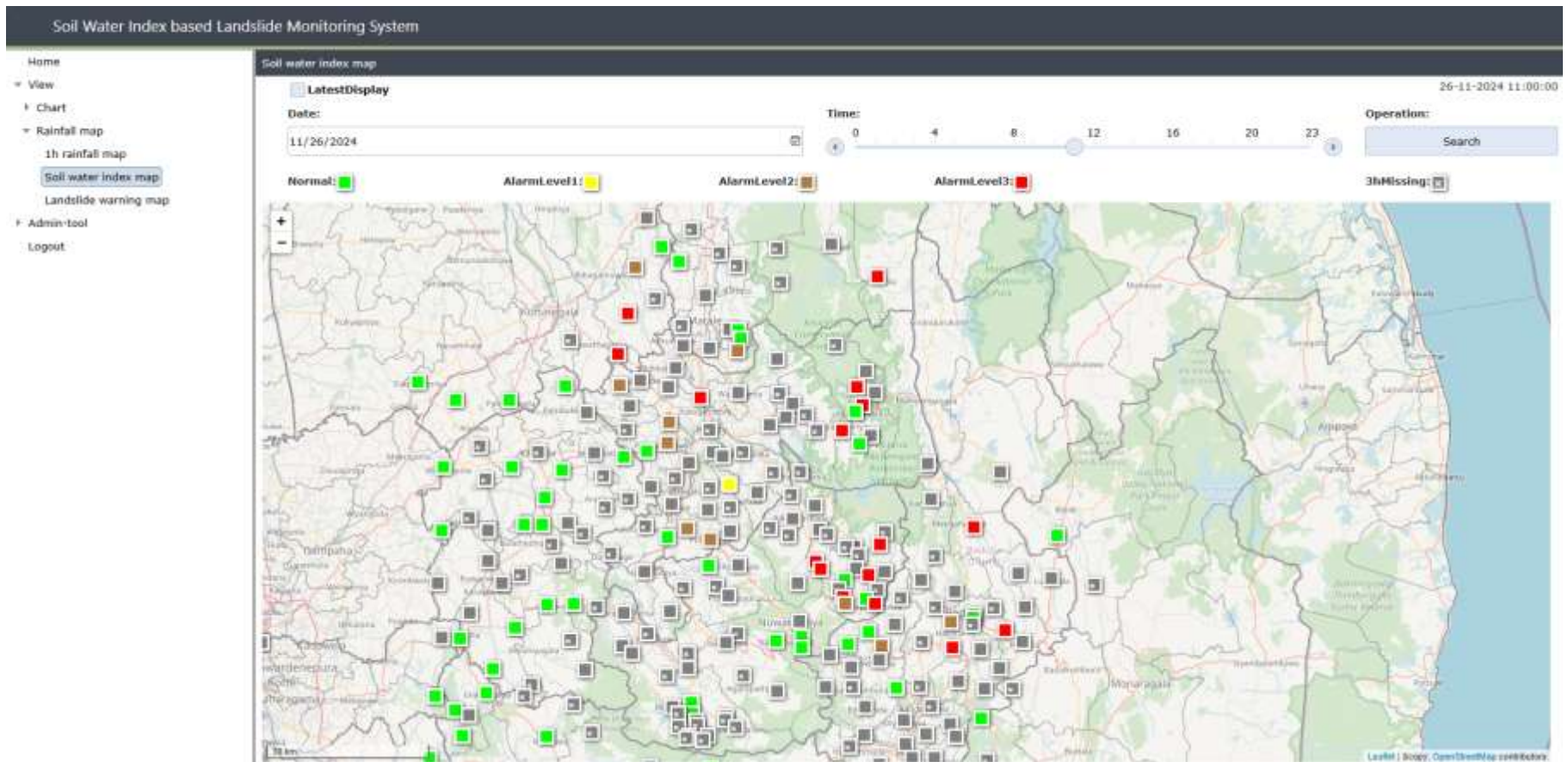
ARG count of each District

No	District	ARG Count
1	Badulla	47
2	Colombo	04
3	Galle	13
4	Gampaha	01
5	Hambantota	04
6	Kalutara	16
7	Kandy	49
8	Kegalle	34
9	Kurunegala	10
10	Matale	19
11	Matara	16
12	Moneragala	04
13	Nuwara-Eliya	63
14	Ratnapura	50

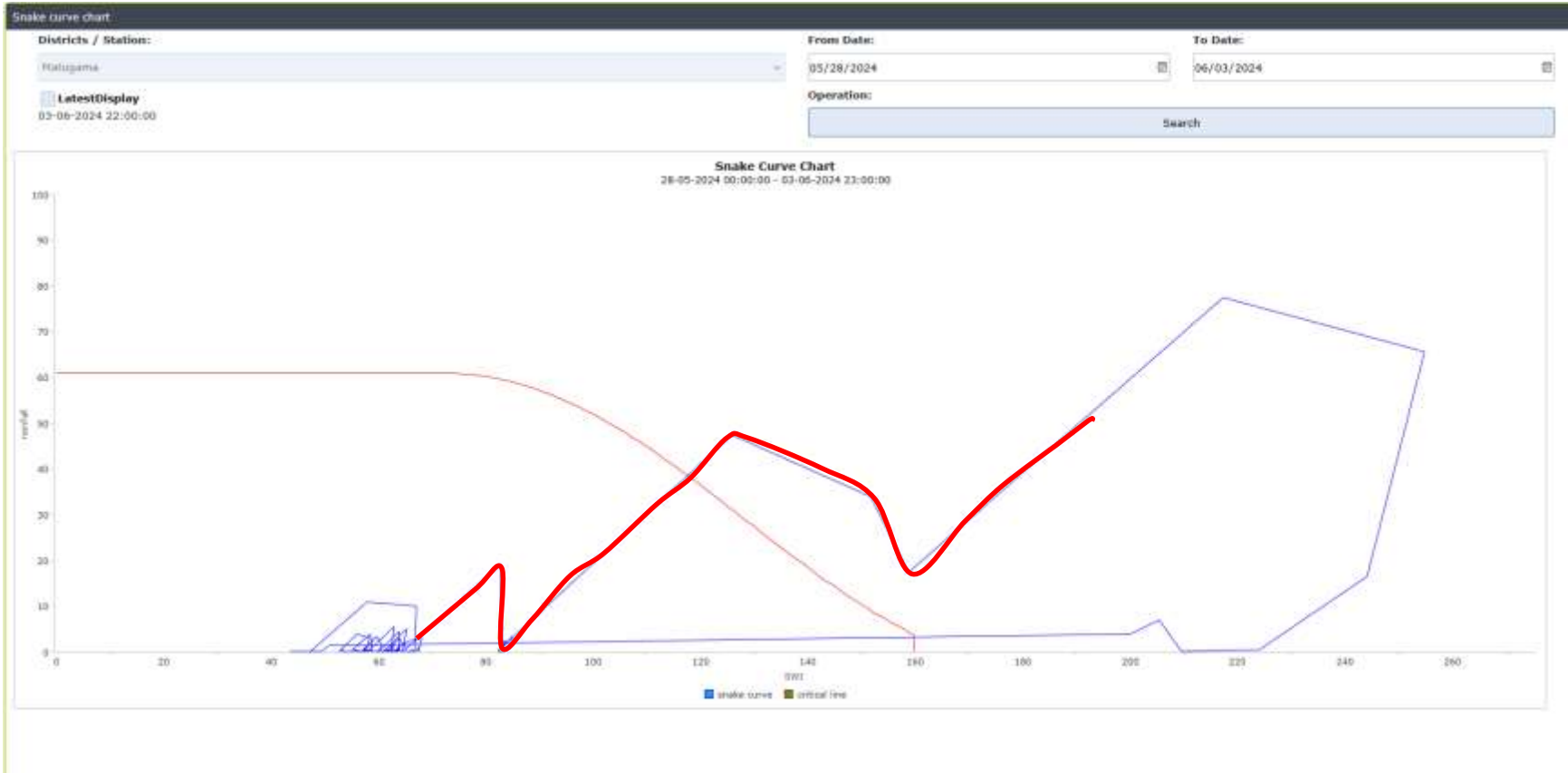
NBRO Early Warning Center



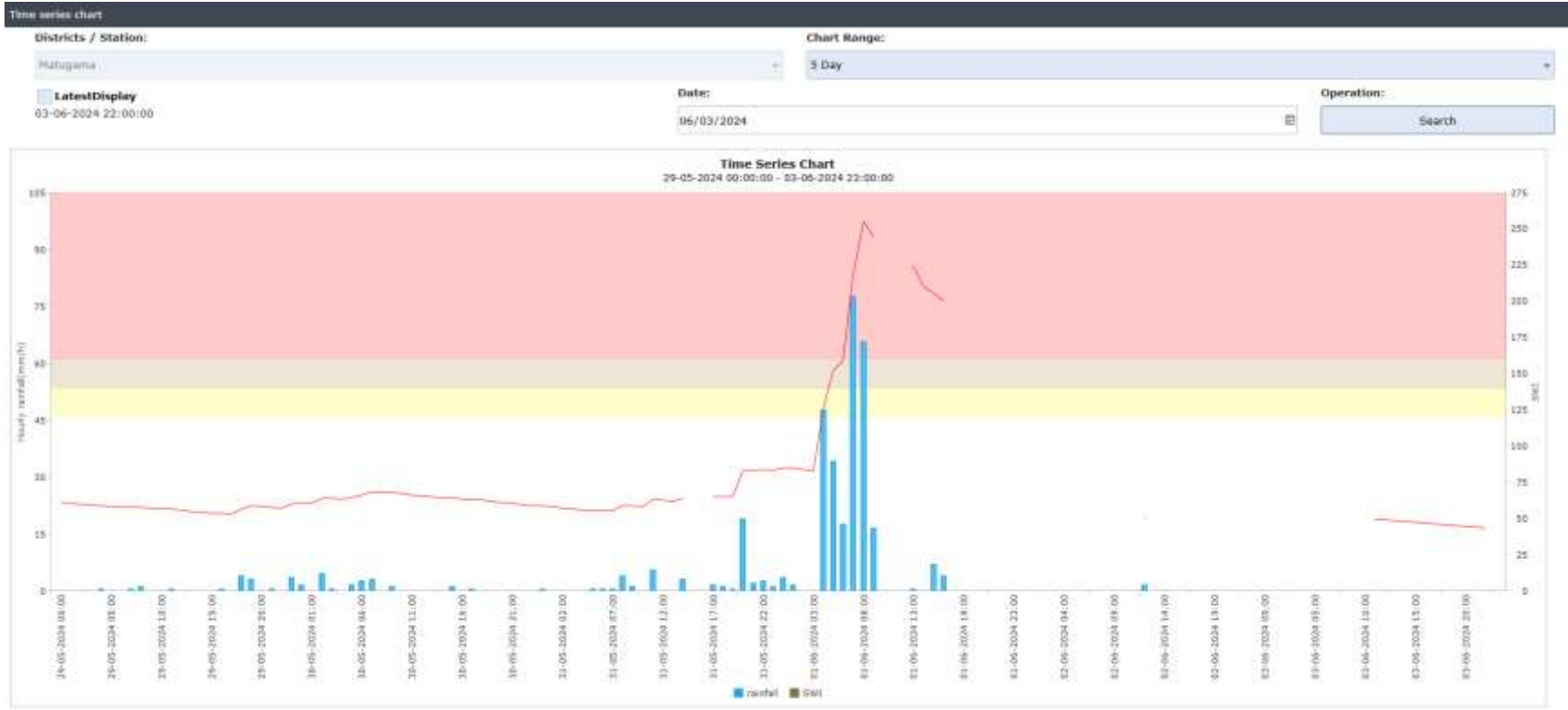
Soil Water Index Based Landslide EW System



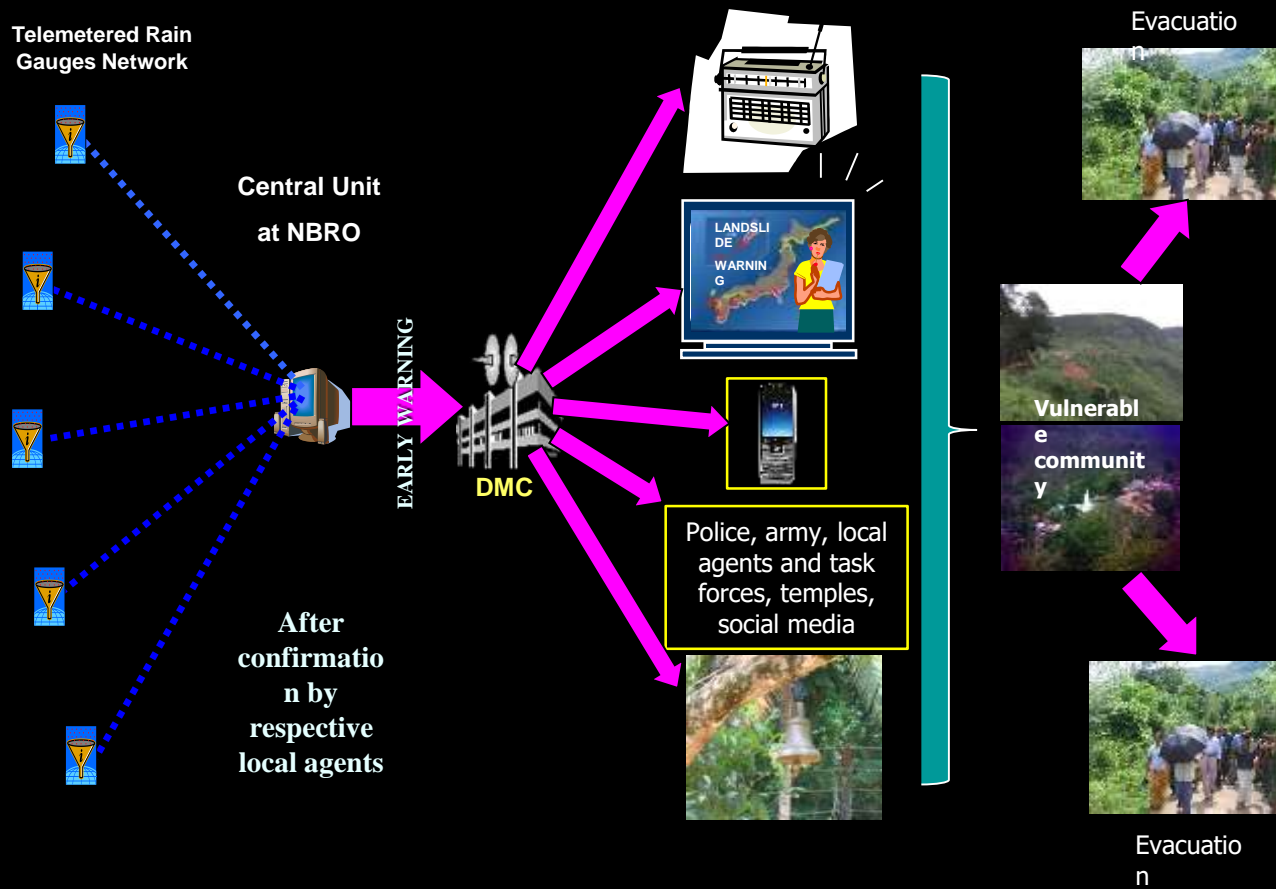
Snake Curve Chart 05/28/2024 to 06/03/2024



Time series Chart 05/29/2024 to 06/03/2024

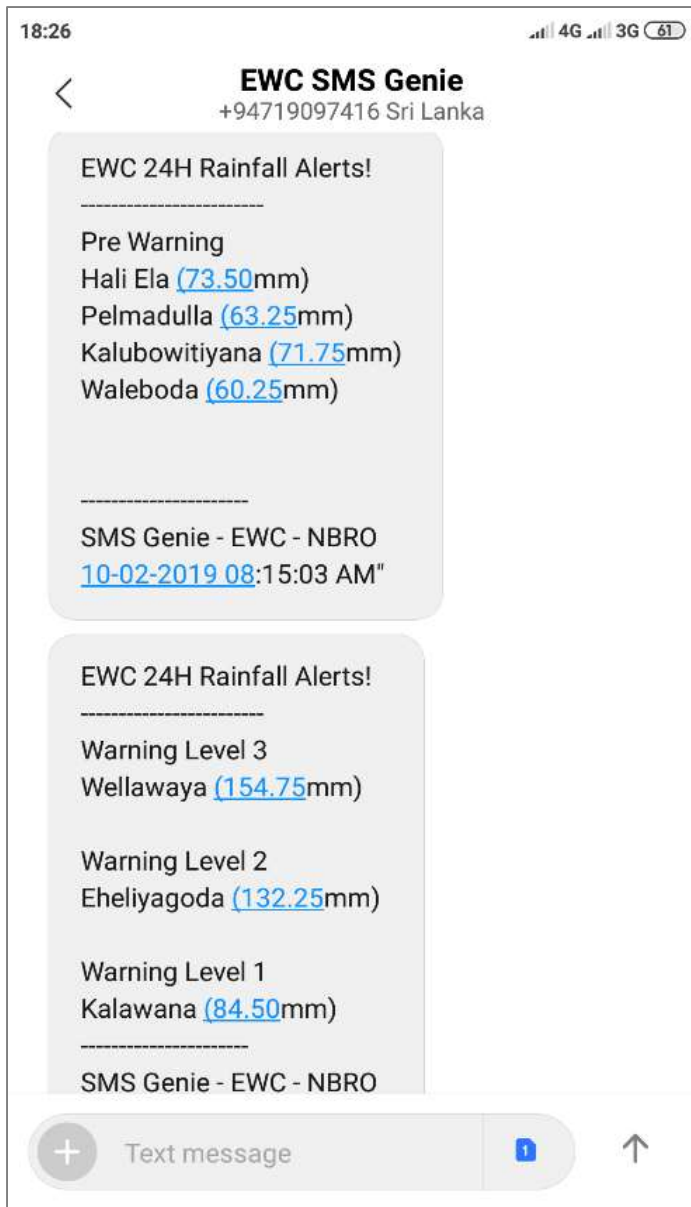


General Landslide Early Warning System –Flow Chart

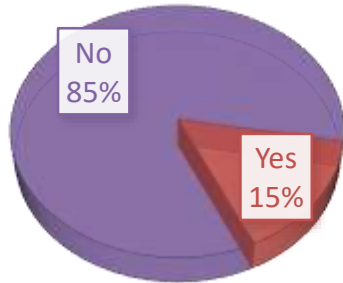


LEWs can be accessed via

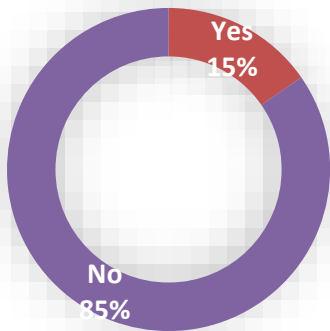
NBRO EW *mobile app*



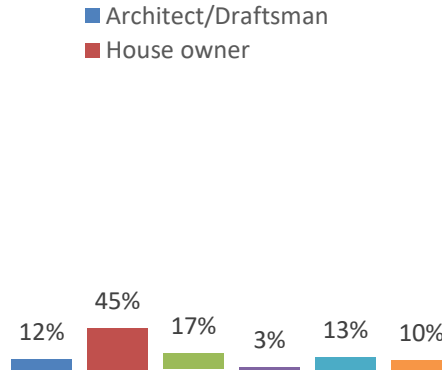
NUWARA ELIYA DISTRICT



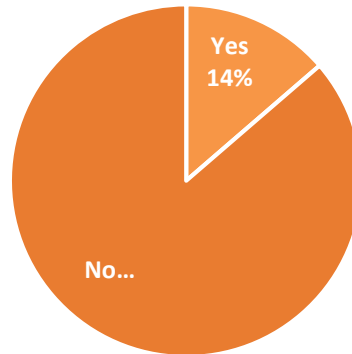
Approval Obtained for House Construction



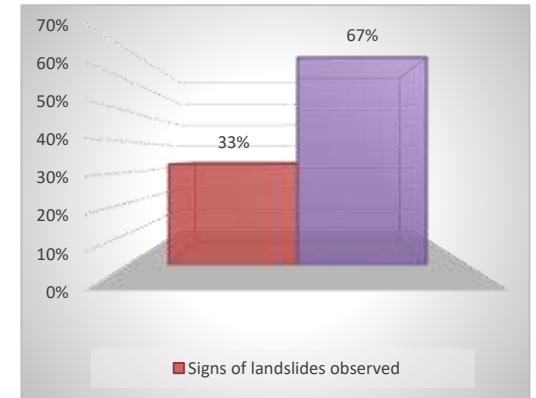
Receive Instructions on Disaster Preparedness



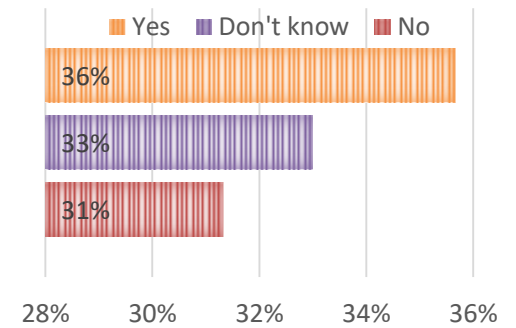
Obtained professional Support for the House



Household Members Engage in Disaster Management Activities

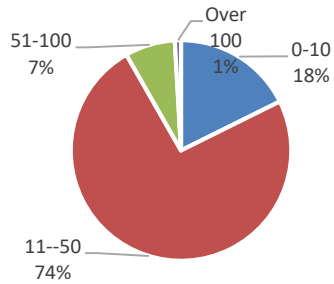


Signs of Landslides in the Vicinity of the House

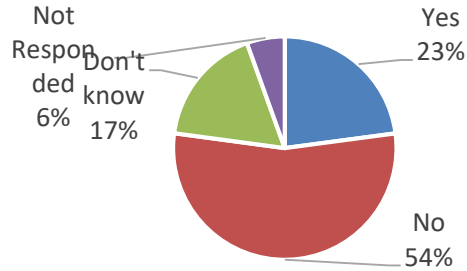


Availability of the Disaster Management Committee in the Village

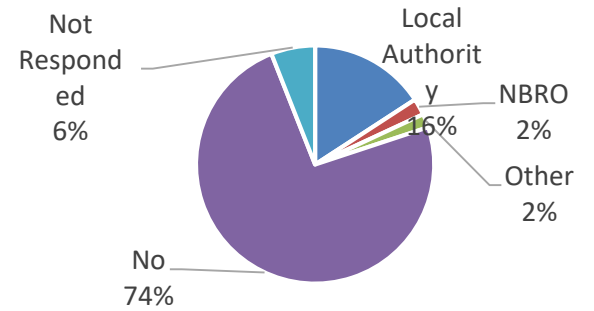
KANDY DISTRICT



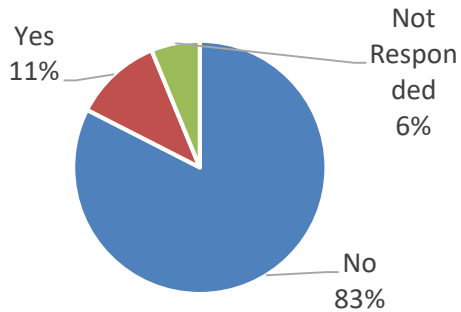
Age of House-District Comparison



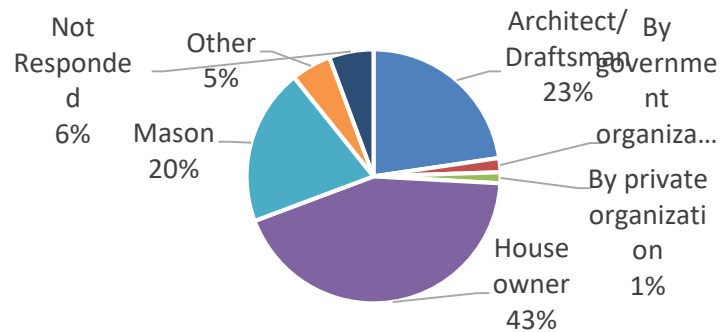
Obtained professional Support for the House



Approval Obtained for House Construction-District

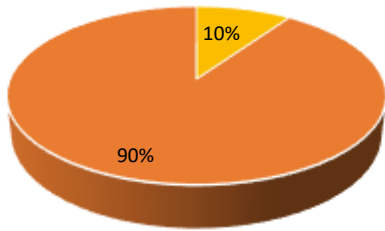


Signs of the Landslides in the Vicinity of the House



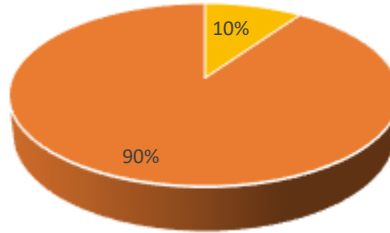
Designer of the House

KEGALLE DISTRICT



No Yes

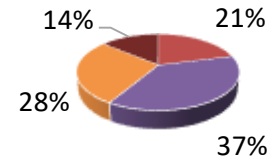
Approval Obtained for House Construction



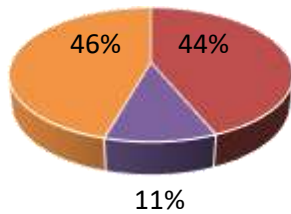
No Yes

Approval Obtained for House Construction-District

- Architect/ Draftsman
- House Owner
- Mason
- By Government /Private or other

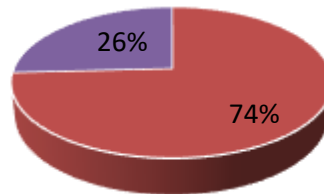


Designer of the House



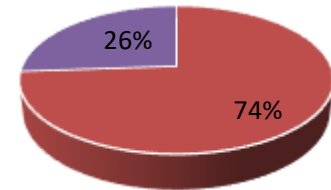
Don't Know No Yes

Availability of the Disaster Management Committee in the Village



No Yes

Receive Instructions on Disaster Preparedness



No Yes

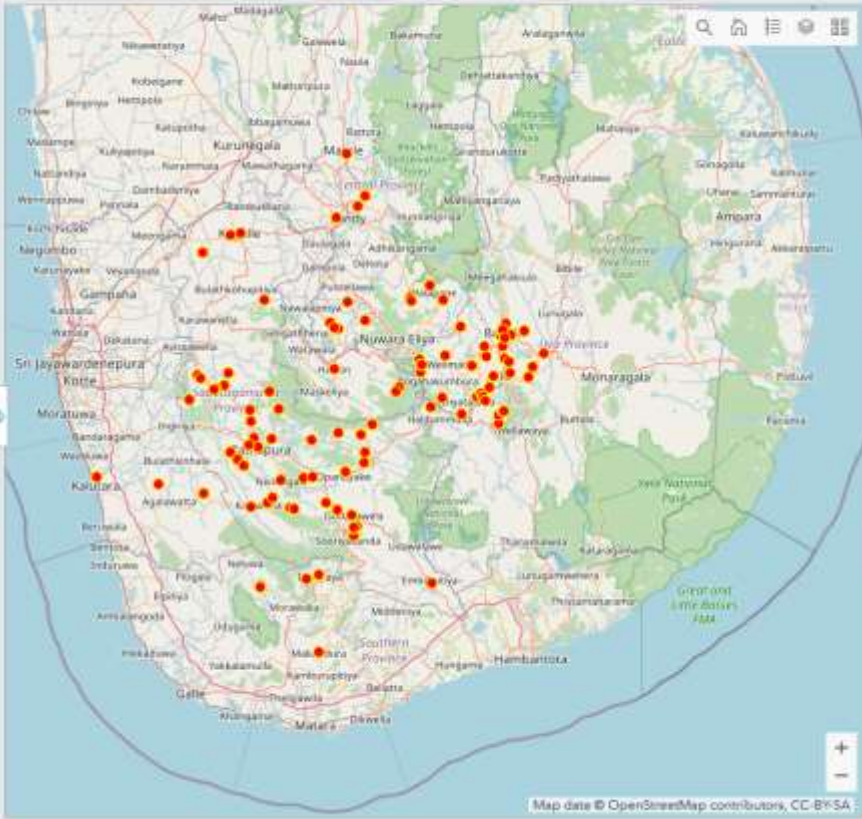
Signs of Landslides in the Vicinity of the House

Community- Manual Rain Gauge Network

Manual Rain Gauge Data Visualization Dashboard - Through CBDRM Programs

Date 11/5/2024

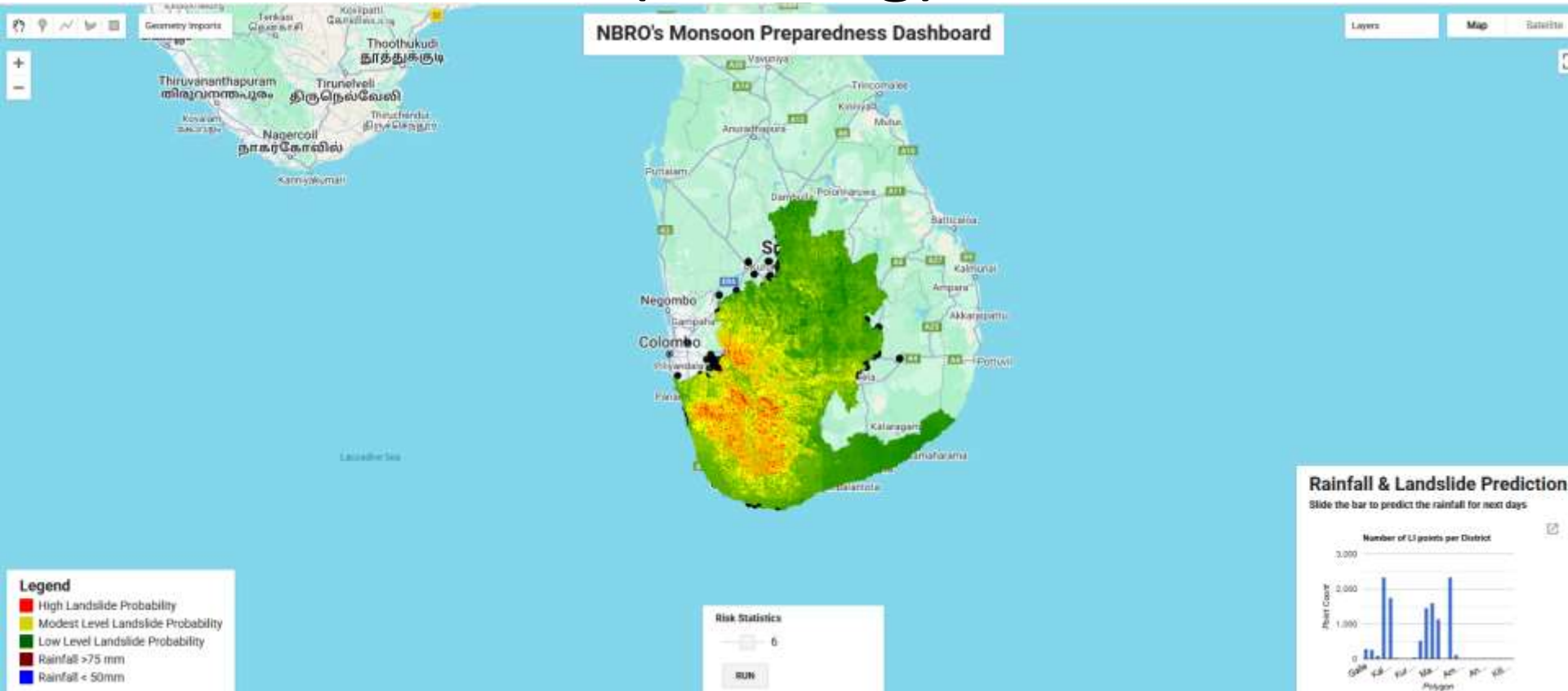
Manual Raingauges Distribution Network



24 Hours Cummalative Rain Fall (mm)



Monsoon Preparedness Dashboard (Piloting)



Thanks