

STUDY OF FLOOD AFFECTED AREAS IN RATNAPURA DISTRICT



Flood : 25th - 31st May 2017
Study : 12th June – 18th June 2017
29th June – 18th July 2017

FLOOD AFFECTED DSDs IN RATNAPURA DISTRICT



FLOOD AFFECTED DSDs RATNAPURA DISTRICT



Legend

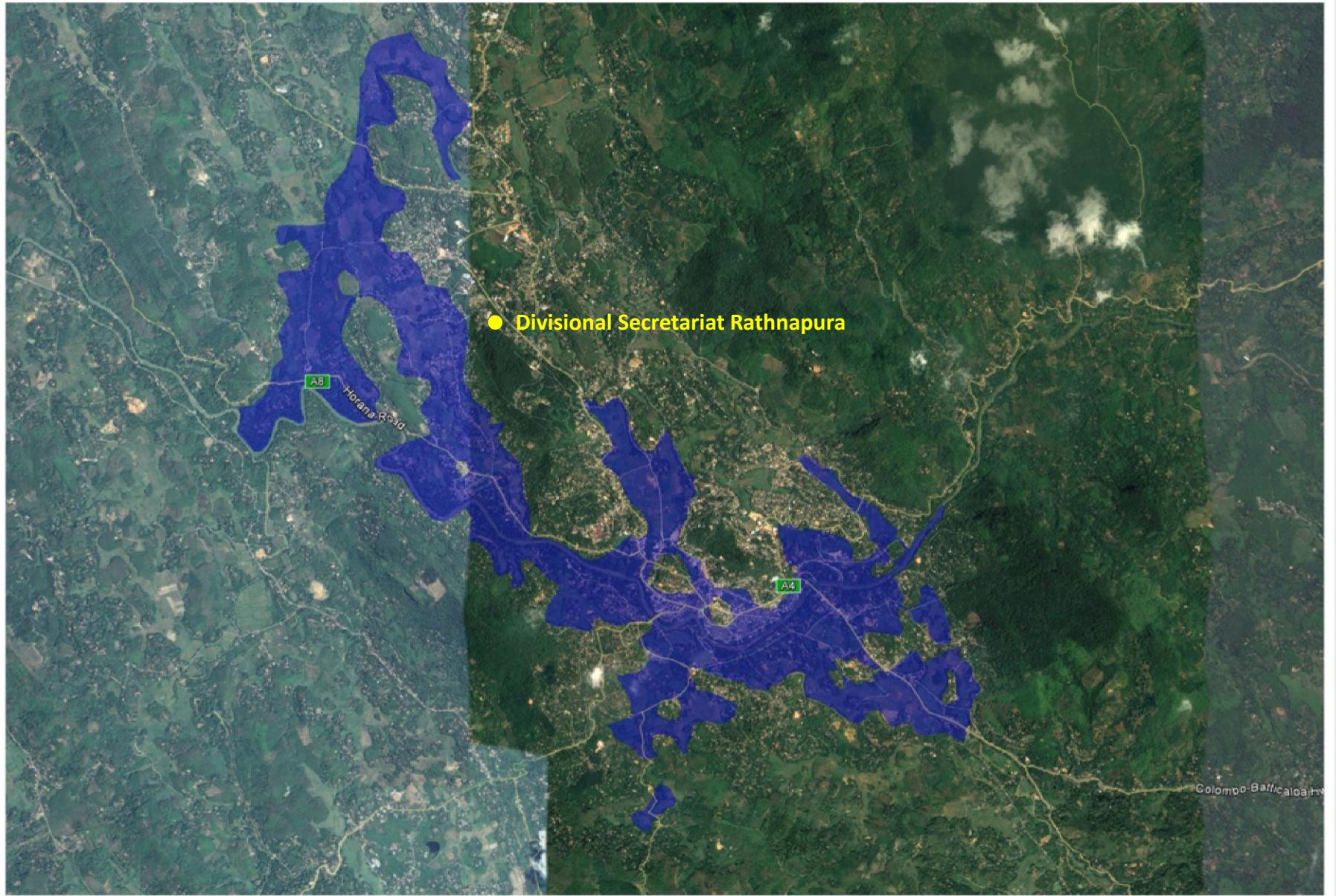
- Road
- Stream
- Flooded Area
- DSDs Boundary

Prepared by : NHQ GIS Unit

FLOOD AFFECTED AREA IN RATNAPURA DSD



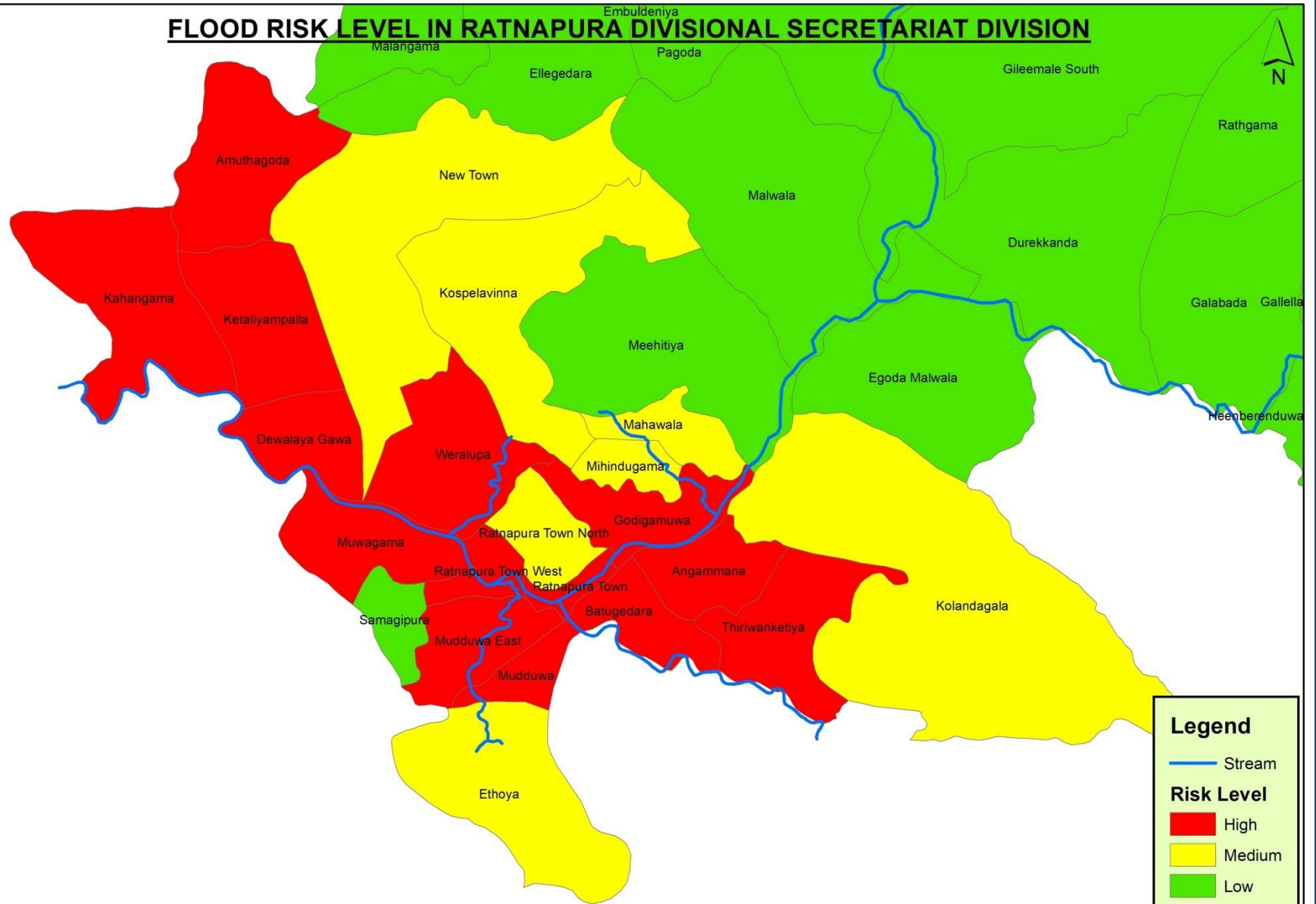
FLOOD AFFECTED AREA IN RATNAPURA DSD



RATNAPURA DSD

- Highest Flood Level - 25ft
- Navy Rescue Teams - Required
- Duration of Flood - 6 days
- Critical Incident - Yes (One death in Ketaliyanpalla)
- Reason to flood
 - Heavy Rainfall in upper catchment areas
 - Overflow of Kalu Ganga & Way Ganga
 - Bottlenecks in Kalu Ganga
 - Kalu Ganga push/reject Way Ganga
- Flooded GNDs
 - Amuthagoda, Kahangama, Weralupa, Ketaliyanpalla, Muwagama, Dewalaya Gawa Thiriwanaketiya, Mudduwa East, Mudduwa, Batugedara, Angammana, Godigamuwa, Ratnapura Town West, Ratnapura Town Kolandagala, Mahawala, Mihindugama, kospelavinna New Town, Ethoya, Ratnapura Town North
- Affected Stream - Kalu Ganga, Way Ganga, Katugas Ela

FLOOD RISK LEVEL IN RATNAPURA DIVISIONAL SECRETARIAT DIVISION



Prepared by : NHQ GIS Unit

GND MUWAGAMA



MUWAGAMA BRIDGE



MUWAGAMA BRIDGE



MUWAGAMA KANDA HANDIYA



PEELLAWALA HANDIYA

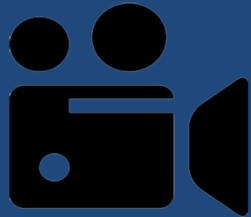
GND MUWAGAMA



BALIBADDE GODA

GND MUWAGAMA

SPEECH OF VOLUNTEER ABOUT FLOODING



FLOODED AREA



FLOODED AREA



FLOOD SITUATION



GND MUWAGAMA

Grama Niladari



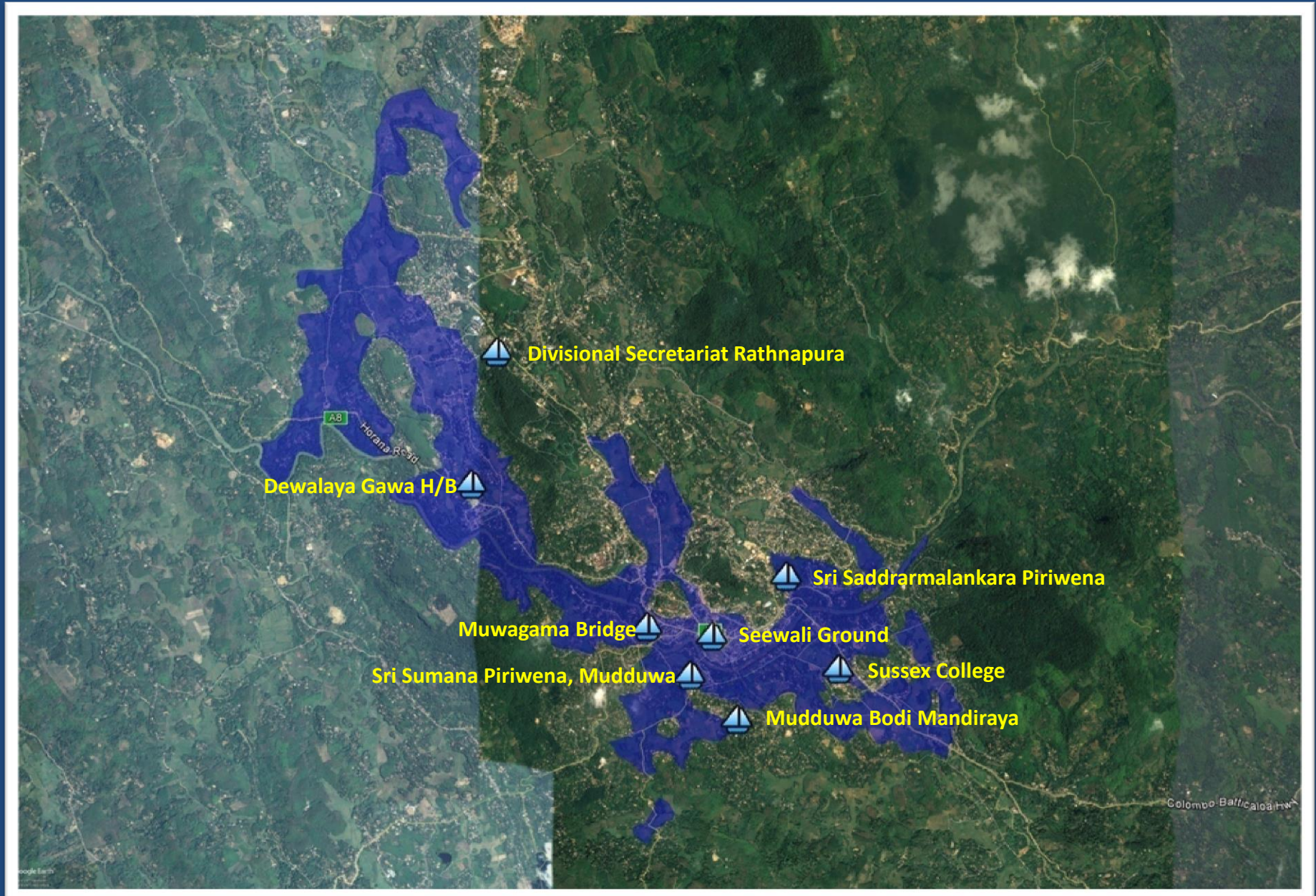
Mr. KVR Indika Kumara
0713455799

Volunteer

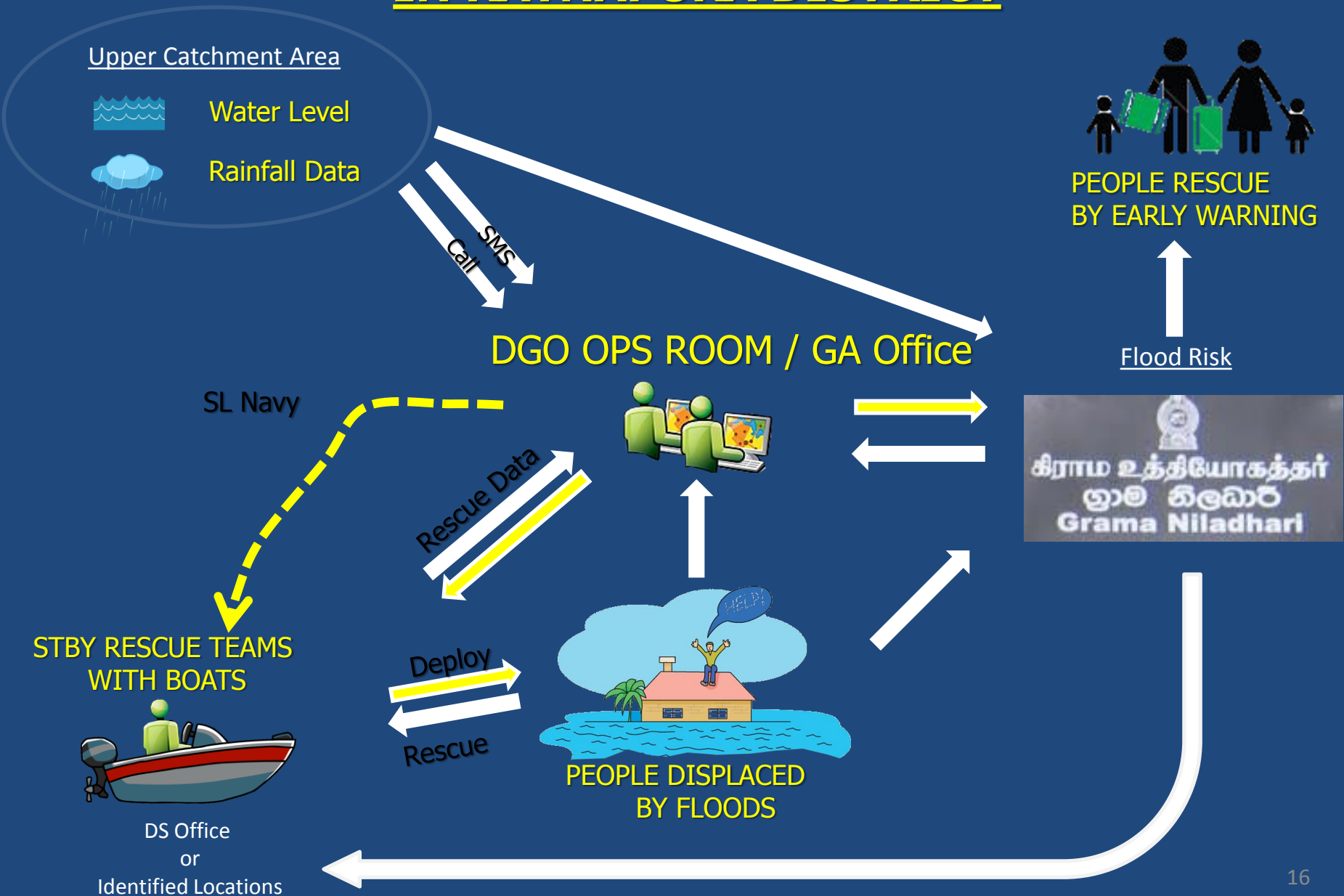


Mr. Kapila
0717500215

PROPOSED BOAT DEPLOYMENT IN RATHNAPURA DSD

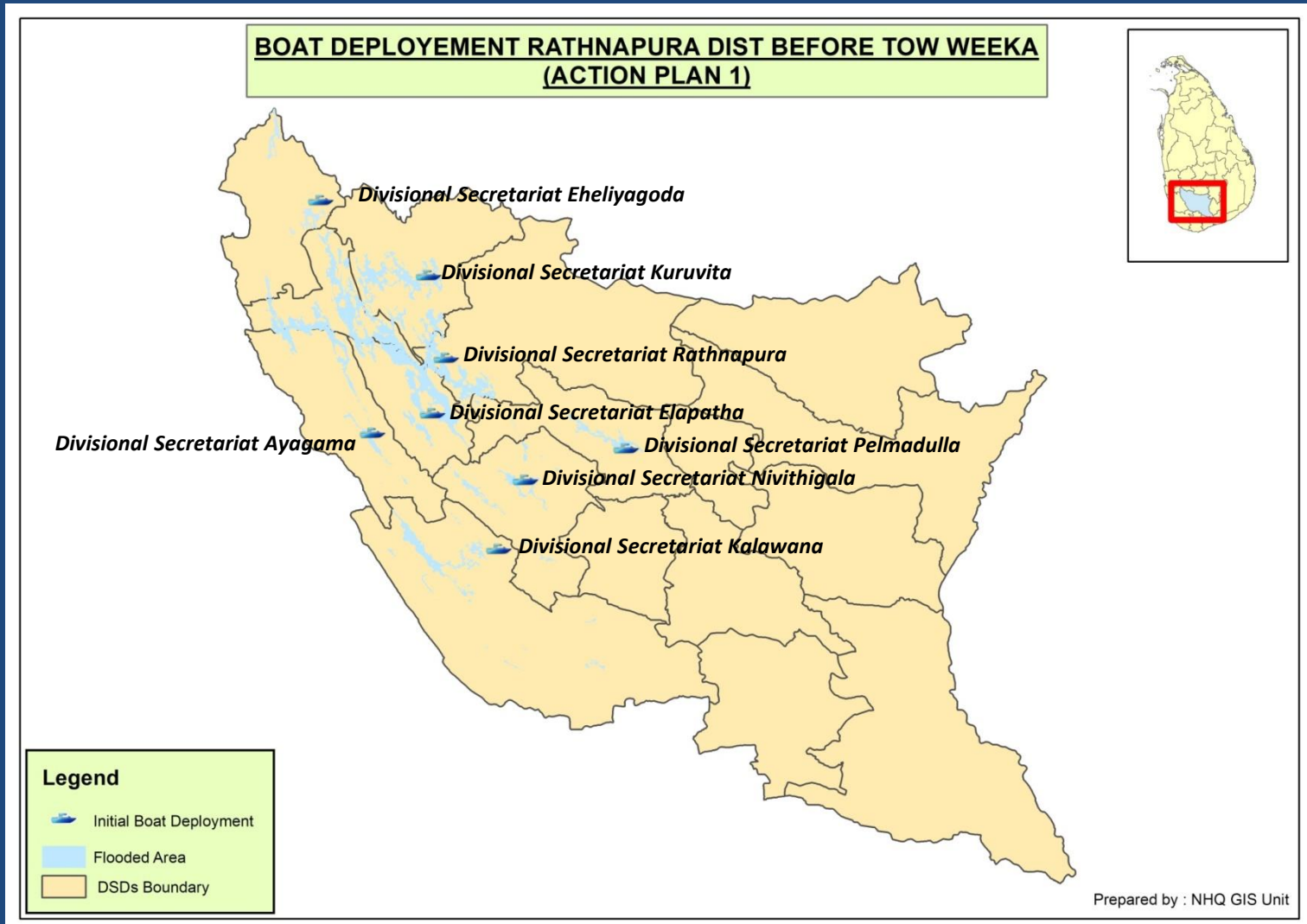


PLANNING OF EARLY WARNING AND FLOOD RESCUE IN RATNAPURA DISTRICT

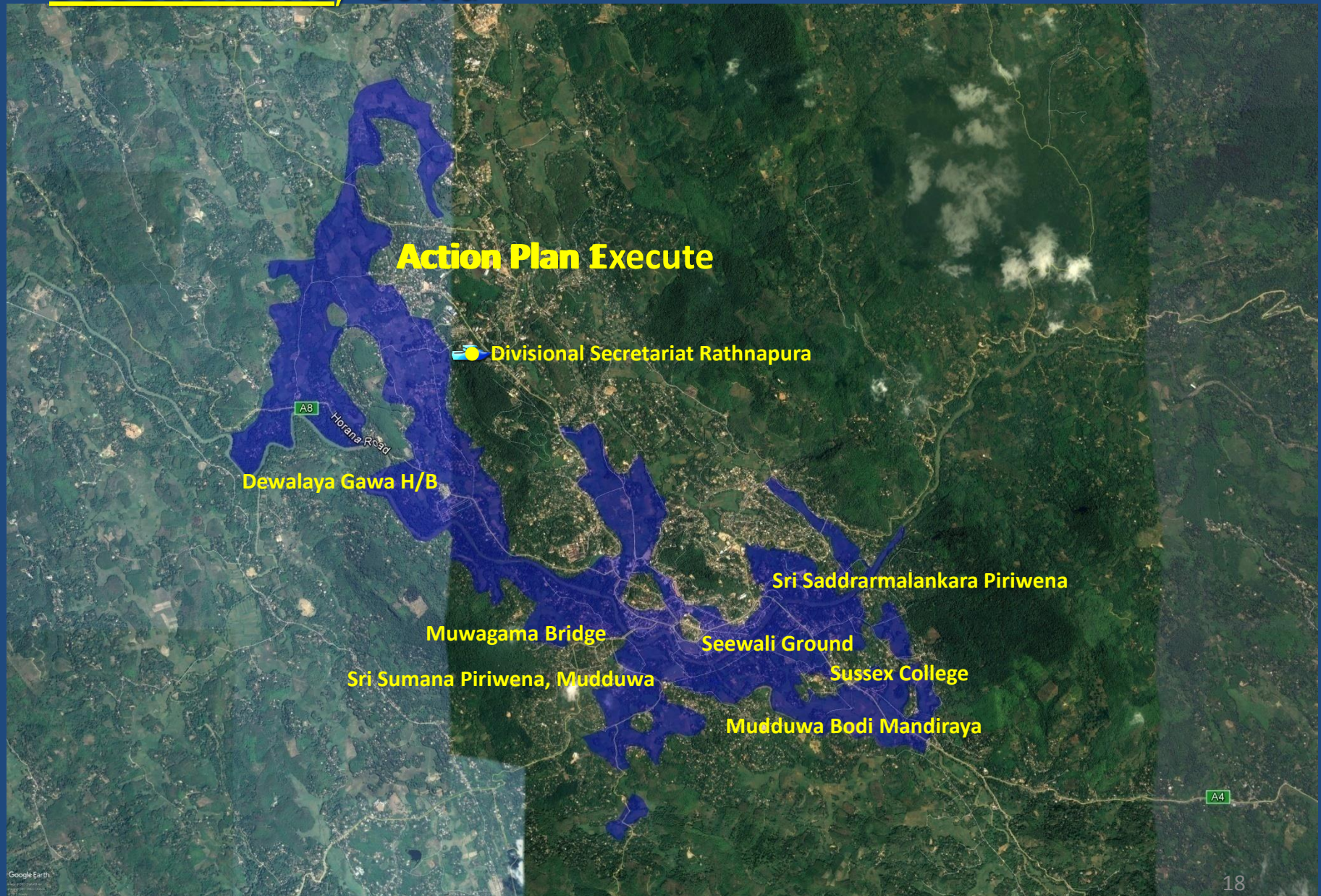


SUGGESTIONS

- Deploy boats two weeks before DSD wise
- Meet GA, DSD, GN, Volunteers, and other stakeholders

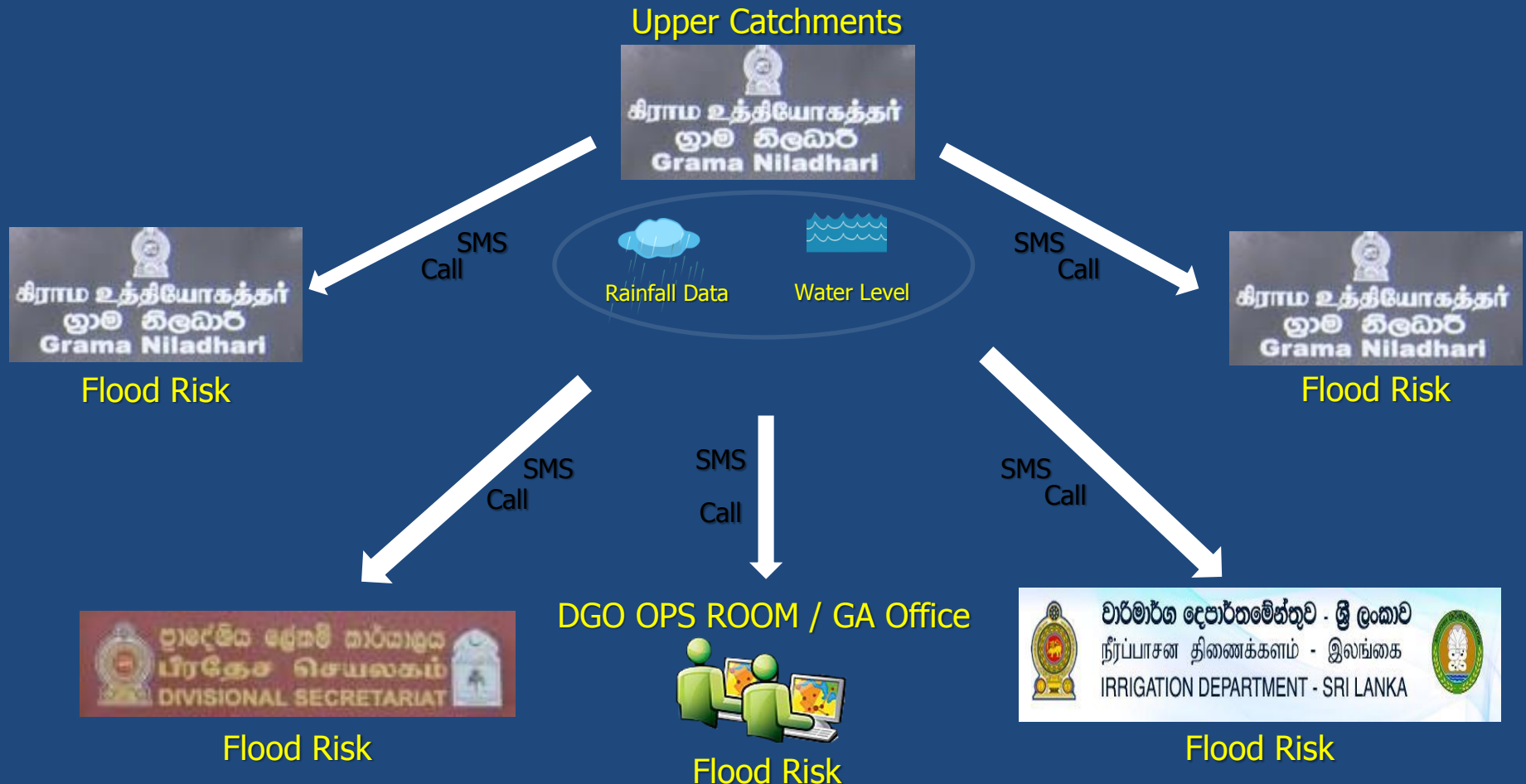


SUGGESTIONS, Cont'd



SUGGESTIONS, Cont'd

- Rainfall monitor by Upper Catchment GN



SUGGESTIONS, Cont'd

- Install Siren in flood risk villages for early warning
 - This is highly recommended for landslide.



SUGGESTIONS, Cont'd

- Training of GNs, DOs, SDOs, ARPAs and Volunteers in flood risk GNDs



SUGGESTIONS, Cont'd

- Once year conduct exercise before Monsoon.
- Provide life jackets, life belts, ropes, emergency lamps, etc..; during risk period(within 45 days) to village level.
- Educate flood risk areas personnel how to protect lives and valuables from flood.
- Manage upper catchment water flow.
- There are some areas need special skill sailors to rescue the flood victims that boats can't operate and water flow is very high. Eg Ayagama, Palmadulla, Alapatha.
- Identify possible landslide areas that block water streams

Main causes for flood in ratnapur

- Heavy rain.
- Ratnapura city Surrounded by hills.
- High flow from Catchment areas to Ratnapura.
- Flow from Ratnapura to Kalutara is very slow.
- Kalu Ganga flows in curved way.
- Bottle neck in Kalu Ganga.

Station	Greates Daily Rainfall (mm)	Date
Nedunkerni	805.7	15.12.1897
Balangoda	755.9	16.05.1940
Deniyaya	730.0	17.05.2003
Balangoda	625.5	17.05.1940
Watawala	524.0	06.10.1913
Jaffna	520.0	18.11.1918
Kalawana	518.6	26.05.2017
Norton Bridge	508.0	06.07.1989

Station	Greates Daily Rainfall (mm)	Date
Colombo	493.8	04.06.1992
Kandy	441.4	14.08.1947
Rathnapura	394.4	15.07.1942
Nuwara Eliya	343.2	23.11.1978
Batticaloa	330.7	05.12.1967
Trincomalee	322.8	17.12.1949
Anuradhapura	319.5	31.12.1948
Hambantota	296.9	06.05.1975

- **Observed 24 hour rainfall events more than 300 mm**

Date	Rainfall in mm
6 th May 1939	302.3
2 nd June 1942	327.4
15 th July 1942	394.4
26 th Aug 1949	330.4
8 th June 1996	392.5
17 th May 2003	345.2

Ratnapura District Flood Risk

- As per the historical rainfall and flood data study ,

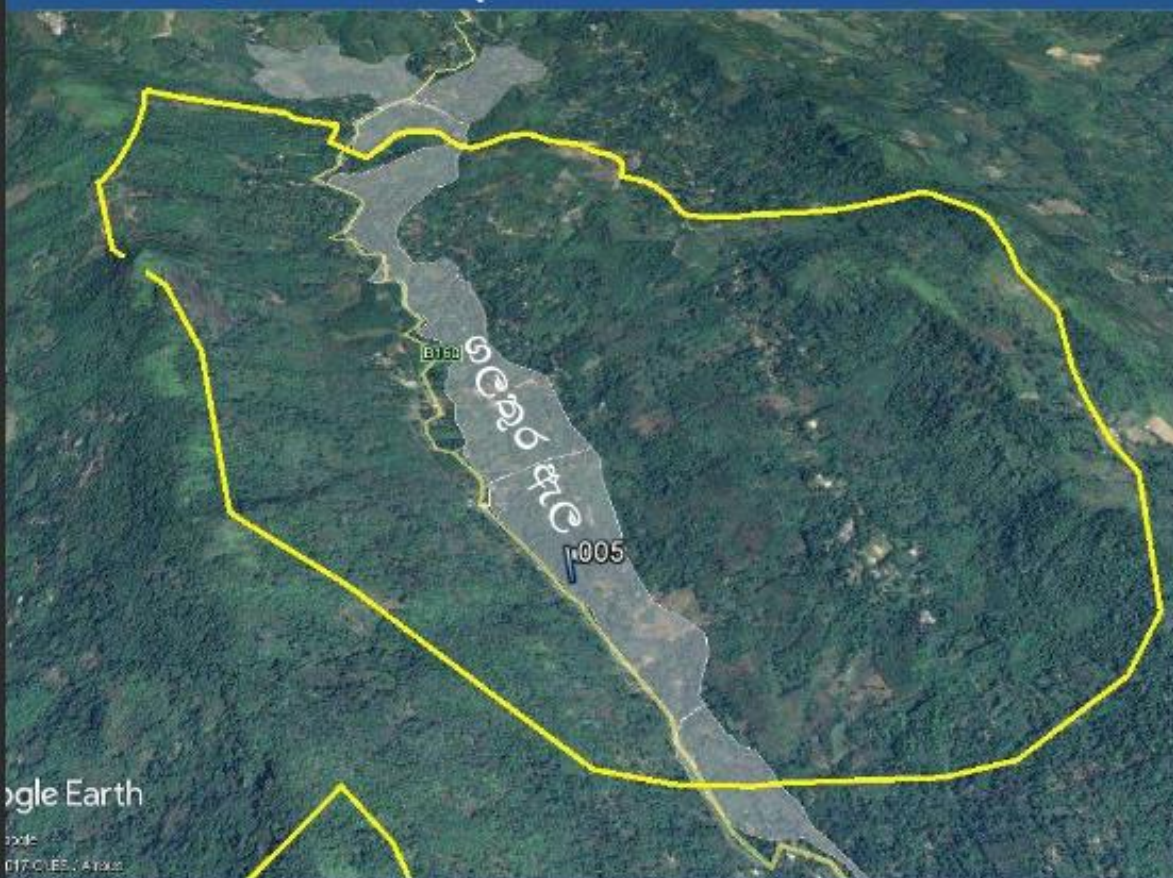
100 mm to 150 mm	Minor Flood
150 mm to 200 mm	Minor / Major Flood
200 mm to 250 mm	Major Flood
250 mm to 300 mm	Major / Critical Flood
300 mm above	Critical Flood

Water Level Vs Time Muwagama

Gauge 23 May 2017 to 31 May 2017



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Dela Gauge 0800hrs, 26 May 2017



Dela Gauge 1300hrs, 26 May 2017



As per historical data study of Ratnapura District,

Every 2 years	Minor Flood
Every 5 years	Major Flood
Every 10 years	Major / Critical Flood
Every 25 years	Critical Flood
Every 50 years	Worst Flood

Realtime Rain Monitor (ALL Rain Gauge)



Summary at 2017/06/08 13:05 (UTC+5:30)

Marker	Station Name	Latest 1hr	24 hrs	3 Days	30 Days
A	Kalutara	0mm	0.2mm	0.8mm	199mm
B	Kalawana	0mm	0.2mm	12.8mm	997.2mm
C	Ratnapra	0mm	0.8mm	47mm	883.2mm
D	Kahawatta	0mm	0mm	8.4mm	557.8mm
E	Doampe	0mm	0.4mm	37.6mm	989.4mm
F	Colombo	0mm	0mm	2.8mm	179.4mm

Rain [mm/day]
(Kalawana, Past 30 days)

