Package 'ditwahLandslide'

January 26, 2026

Title Early Warning Information on Landslides in Sri Lanka During the Ditwah Storm

Version 1.2.0

Description Provides curated early warning data on landslides in Sri Lanka during the Ditwah storm. It includes structured, machine-readable tidy dataset. This is developed for education and research purposes.

License GPL (>= 3)

Imports dplyr, ggplot2, lubridate, plotly, stringr, shiny

Encoding UTF-8

RoxygenNote 7.3.3

Depends R (>= 4.1.0)

LazyData true

NeedsCompilation no

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Repository CRAN

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Contents

`ditwah_landslides_warnings` *Landslide early warning messages during Ditwah strom in November, 2025*

Description

A dataset containing early warning messages for landslide-prone areas, including report details, validity periods, locations, and warning levels.

Usage

```
ditwah_landslides_warnings
```

Format

A data frame with the following variables:

ID_DataAnalyst `chr`. Identifier of the data analyst

Report_Date `dttm`. Date on which the landslide early warning report was issued.

Report_Time `chr`. Time at which the report was issued, in HH:MM format.

Message_ID `chr`. Unique identifier for each warning message. Encodes the warning type, date, time, and message sequence.

Valid_From_Date `dttm`. Start date from which the warning is valid.

Valid_From_Time `chr`. Start time from which the warning is valid, in HH:MM format.

Valid_To_Date `dttm`. End date until which the warning remains valid.

Valid_To_Time `chr`. End time until which the warning remains valid, in HH:MM format.

District `chr`. Administrative district where the potential landslide risk has been identified.

Location `chr`. Specific locality, town, or area within the district affected by the warning.

Level `dbl`. Landslide early warning level (1 = Level 1, 2 = Level 2, 3 = Level 3). Represents the severity of the situation.

State `dbl`. Direction and magnitude of the landslide (1-shifted one level up, 2-shifted two levels up, -1-shifted one level down, -2-shifted two levels down).

Province Province

Source

Based on land slides early warning pdf reports published by Disaster Management Centre, Sri Lanka. The data from PDF files were cleaned and processes by the package authors. Accessed from https://www.dmc.gov.lk/index.php?option=com_dmcreports&view=reports&Itemid=276&report_type_id=5&lang=en

run_app *Launch the Landslides Warnings Shiny Application*

Description

This function launches the Shiny application included in the **ditwahLandslide** package. The app must be located in `inst/app/` within the package source. When installed, this directory is available via `system.file()`.

Usage

```
run_app(...)
```

Arguments

`...`	Additional arguments passed to `shiny::runApp()`.

Value

The Shiny app is launched; no R object is returned.

Examples

```
if (interactive()) {
  run_app()
}
```

viz_landslide_warnings_from_to *Heatmap of Transitions Between Landslide Warning Levels*

Description

Temporal progression of landslide warning state

Usage

```
viz_landslide_warnings_from_to(
  data,
  district = NULL,
  province = NULL,
  interactivity = TRUE,
  ang = 90
)
```

Arguments

data	name of the dataset, by default ditwah_landslides_warnings
district	District name or All, if no district put NULL
province	Province name or All, if no province put NULL
interactivity	if TRUE interactive plot will be generated, if FALSE static plot will be generated
ang	angle of the x-axis lables

Value

Heatmap plot of landslide warnings

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