

# FloodSense

## Urban Pluvial Risk Intelligence Dashboard

Overview

Infrastructure  
Impact

Zones

Forecast



# DASHBOARD OVERVIEW

Overview

Infrastructure Impact

Zones

Forecast

Gives a high-level summary — location, rainfall, elevation, land use, and key flood risk metrics.

**39.10**

Avg Elevation  
(m)

**2.739K**

Count of  
segment\_id

**119.75**

Avg Storm Drain  
Proximity (m)

**42.27**

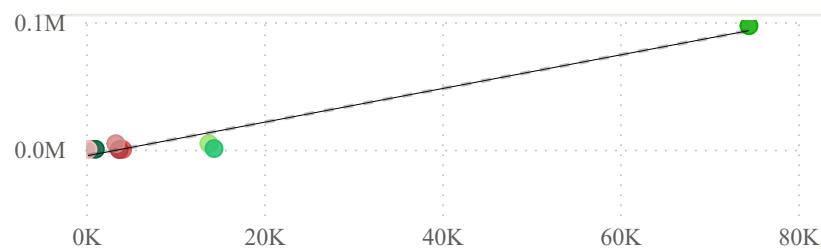
Avg Rainfall Intensity  
(mm/hr)



Esri, FAO, NOAA, USGS

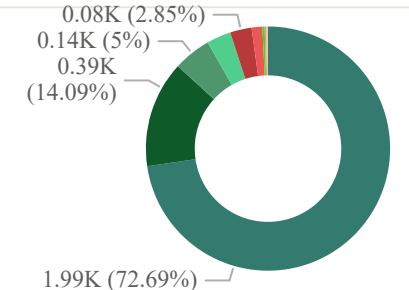
Powered by Esri

## Total Rainfall Intensity and Elevation by RiskGrp

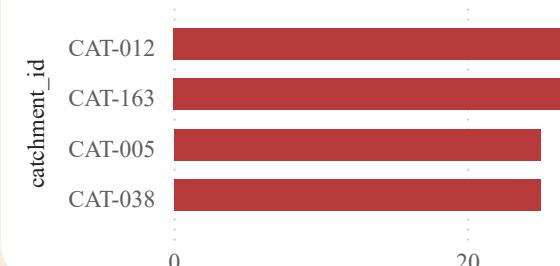


segment_id	catchment_id	Sum of elevation_m	Sum of historical_rainfall_intensity_mm_hr	city_name	Sum of storm_
SEG-00279	CAT-104	74.07	150.00	Hanoi, Vietnam	
SEG-00428	CAT-156	19.34	150.00	Jakarta, Indonesia	
SEG-00772	CAT-123	7.61	150.00	Singapore, Singapore	
SEG-00801	CAT-041	8.88	150.00	Singapore, Singapore	
SEG-01376	CAT-100	21.74	150.00	Guangzhou, China	
SEG-01615	CAT-040	13.40	150.00	Accra, Ghana	
<b>Total</b>		<b>1,07,098.62</b>	<b>1,15,778.10</b>		

## Distribution of Risk Labels



## High-Risk Segment Count by Catchment



# INFRASTRUCTURE IMPACT REPORT

Overview

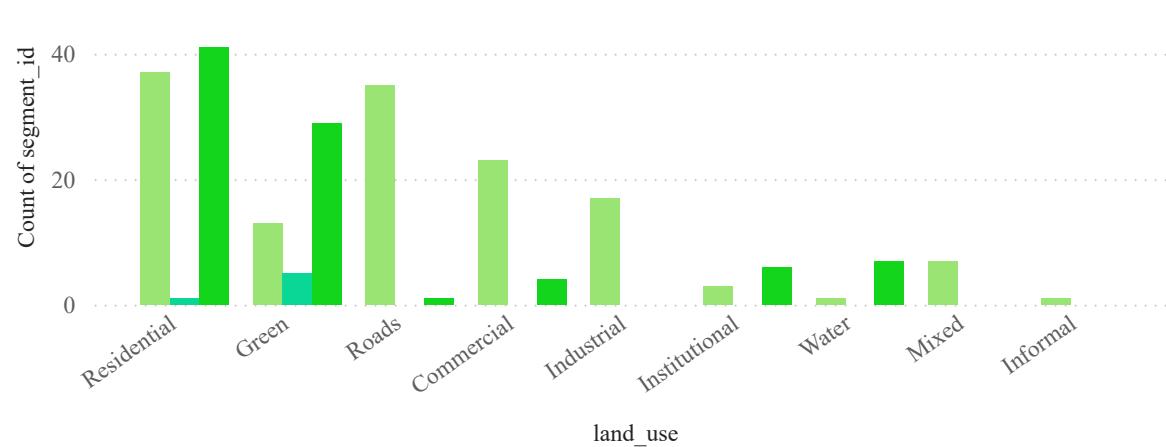
Infrastructure Impact

Zones

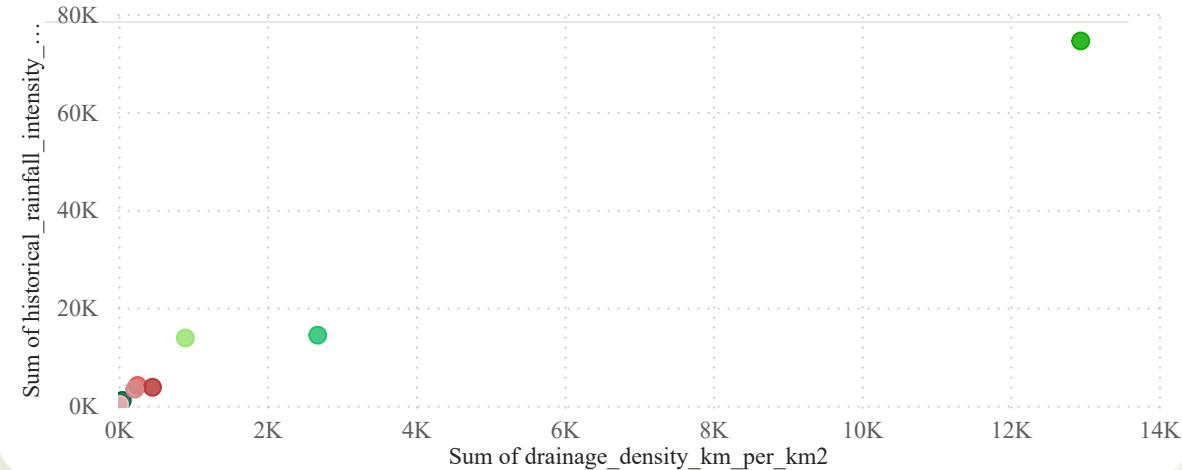
Forecast

Shows how land use types (Institutional, Residential, etc.) and drainage infrastructure affect flood risk.

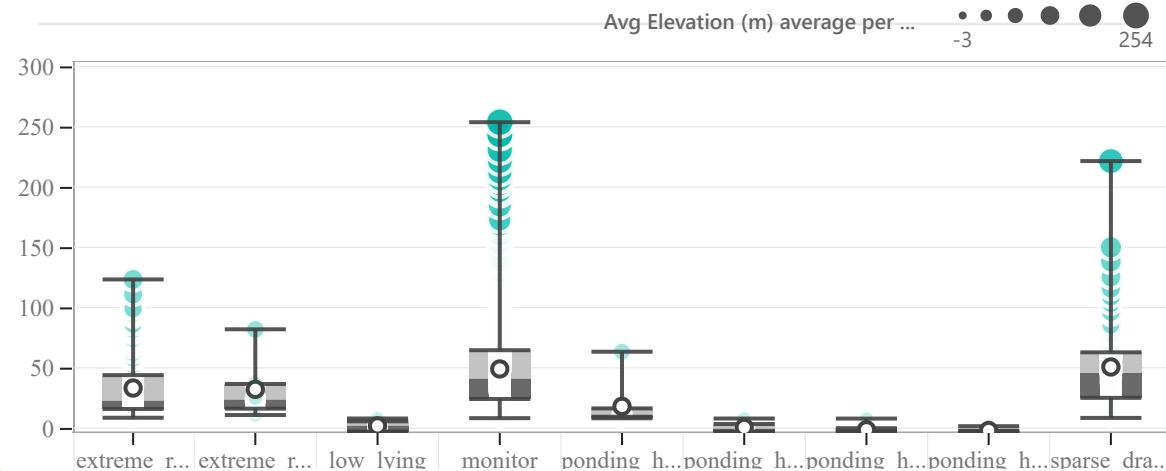
Segment Distribution by Land Use and Risk Label



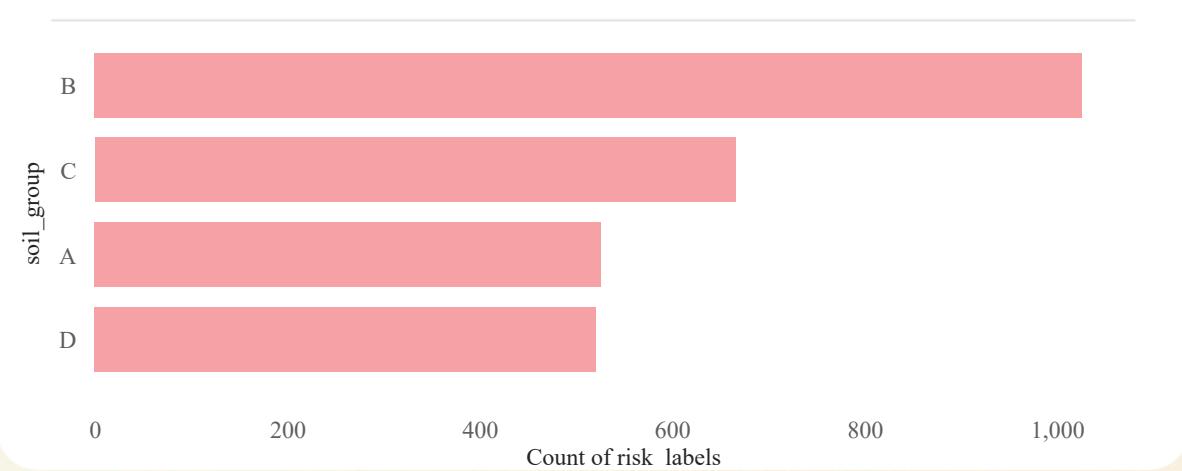
Drainage Density, Rainfall Intensity, and Soil Group by Risk Label



Average Elevation by Catchment, Drain Proximity, and Risk Label



Risk Label Frequency by Soil Group



# SPATIAL RISK MAPPING REPORT

Overview

Infrastructure Impact

Zones

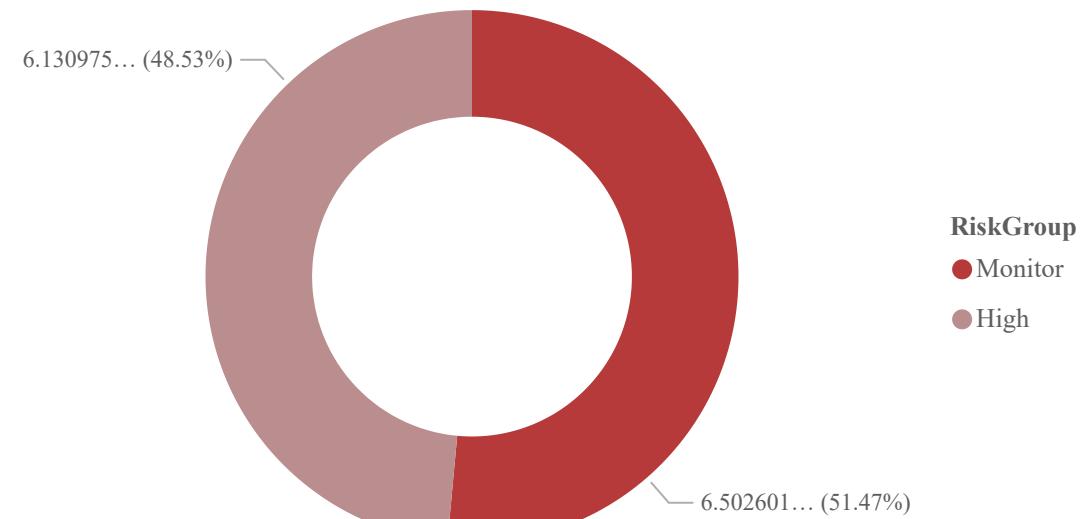
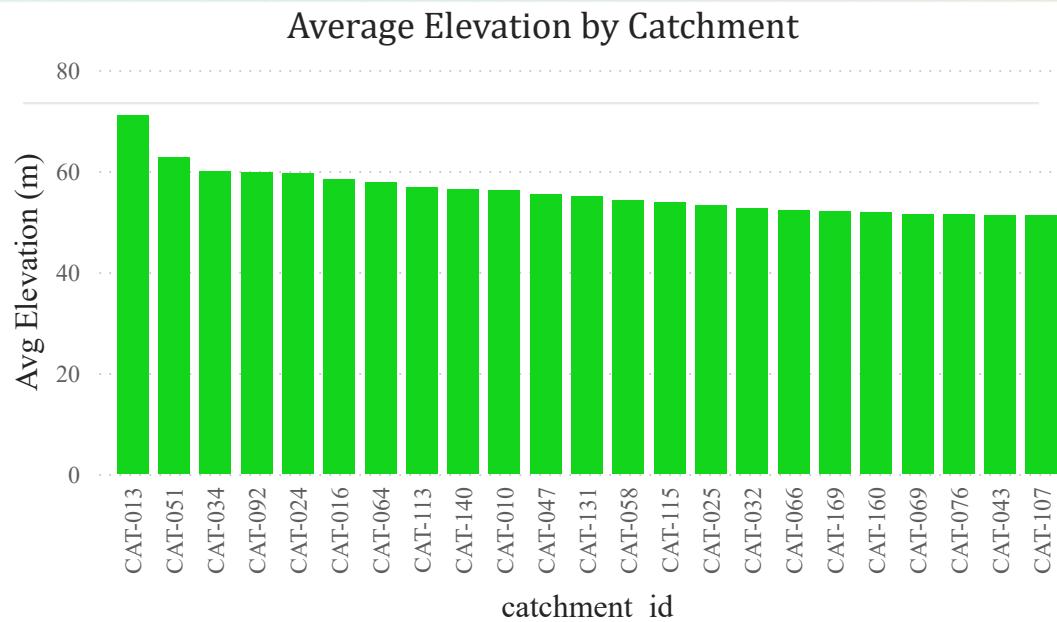
Forecast

Spatial analysis of catchments, wards, and drainage density; local flood hotspot identification.

segment_id	High Risk Count	Avg Elevation (m)	Avg Rainfall Intensity (mm/hr)
SEG-00279		74.07	150.00
SEG-00428		19.34	150.00
SEG-00772		7.61	150.00
SEG-00801		8.88	150.00
SEG-01376		21.74	150.00
SEG-01615		13.40	150.00
SEG-01756		21.91	150.00
SEG-02003		18.84	150.00
SEG-02836		78.53	150.00
<b>Total</b>		<b>39.10</b>	<b>42.27</b>

RiskGroup	Borough Central	Borough Delta	Borough East	Borough Harbor	Borough Hill
High	17	20	16	19	
Monitor		35	36	34	36
<b>Total</b>	<b>52</b>	<b>56</b>	<b>50</b>	<b>55</b>	

Average Drainage Density by Risk Group



# RISK FORECASTING REPORT

Overview

Infrastructure Impact

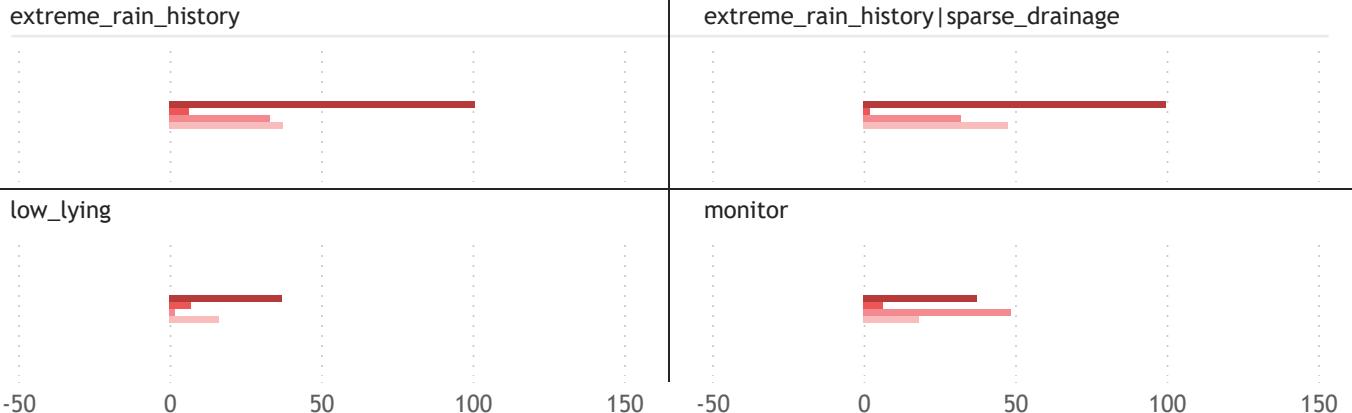
Zones

Forecast

Displays predicted flood risk classes, feature importance, return periods, etc.

segment_id	catchment_id	risk_labels	Sum of elevation_m	Sum of historical
SEG-00001	CAT-136	monitor	25.13	
SEG-00003	CAT-023	monitor	30.88	
SEG-00004	CAT-168	monitor	24.28	
SEG-00005	CAT-171	monitor	35.70	
SEG-00007	CAT-112	monitor	15.80	
SEG-00008	CAT-116	monitor	20.08	
SEG-00010	CAT-066	monitor	19.05	
SEG-00011	CAT-032	monitor	12.22	
SEG-00012	CAT-069	monitor	114.17	
SEG-00014	CAT-024	monitor	18.54	
SEG-00015	CAT-160	monitor	88.57	
SEG-00016	CAT-091	monitor	13.43	
SEG-00017	CAT-038	monitor	8.99	
SEG-00020	CAT-148	monitor	67.05	
SEG-00022	CAT-030	monitor	31.58	
SEG-00023	CAT-080	monitor	25.13	
SEG-00024	CAT-133	monitor	33.74	
SEG-00026	CAT-010	monitor	40.28	
SEG-00027	CAT-153	monitor	15.00	
SEG-00028	CAT-011	monitor	109.32	
SEG-00029	CAT-167	monitor	90.74	
SEG-00030	CAT-048	monitor	93.76	
SEG-00031	CAT-156	monitor	9.16	
<b>Total</b>			<b>97,055.66</b>	

## Average Rainfall, Drainage, Elevation, and Return Period by Risk Label



Avg Elevation (m)

**39.10**

Average Rainfall (mm/hr)

**42.27**

Avg Drainage Density (km/km<sup>2</sup>)

**6.40**

% Monitor-Risk Segments

**0.73**

Avg Return Period (years)

**19.32**

Total Segments

**3K**