

RSS-Hydro

HYDROSENS



ENVIRONMENTAL MONITORING REPORT

AREA OF INTEREST: smallislandhcm

TIME PERIOD: 2025-07-01 - 2025-07-31



OVERVIEW

Analysis of environmental data for smallislandhcm from 2025-07-01 to 2025-07-31, including NDVI, vegetation fraction, soil fraction, precipitation, temperature, and curve number. The data indicates moderate vegetation cover, minimal rainfall, warm temperatures, and a relatively high curve number, suggesting a high runoff potential in the area.



Figure 1: *Area of Interest*

KEY INSIGHTS

1. Moderate Vegetation Cover

NDVI and vegetation fraction indicate moderate vegetation.

2. Low Precipitation

Limited rainfall during the analyzed period.

3. High Runoff Potential

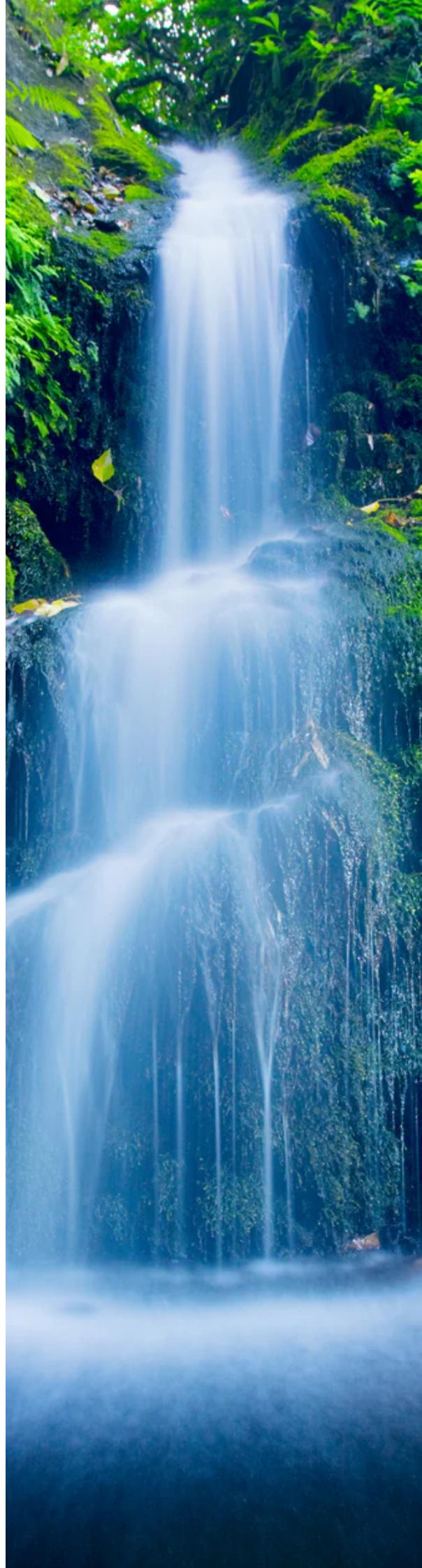
Curve number suggests considerable runoff potential.

4. Warm Temperatures

Temperature is relatively warm.

5. Soil Fraction variation

Soil fraction changes.



STATISTICS

NDVI

Normalized difference vegetation index - The greenness and density of vegetation from 0 to 1.

10.72% 

0.30

TREND

MEAN VALUE

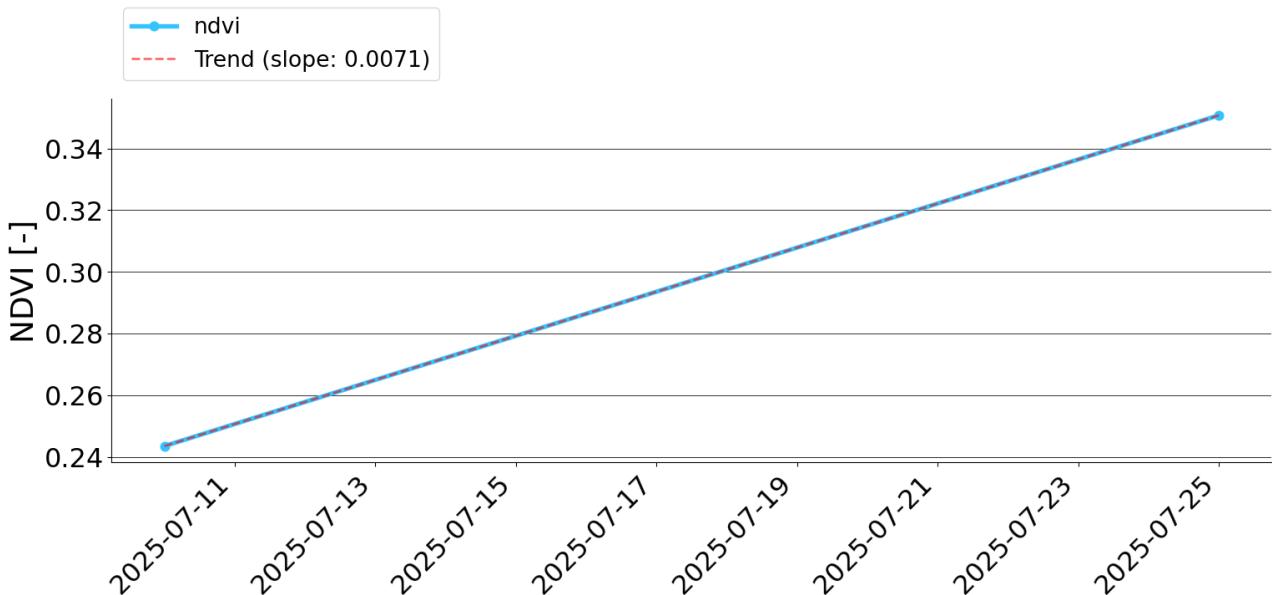


Figure 2: NDVI time series

TIME SERIES INSIGHT

The NDVI values show a moderate level of greenness. It went from 0.24 to 0.35 between July 10th and July 25th. This indicates a modest but active vegetation.

STATISTICS

VEGETATION FRACTION

Proportion of ground covered by vegetation (0-1).

0.44% ↗

0.34

TREND

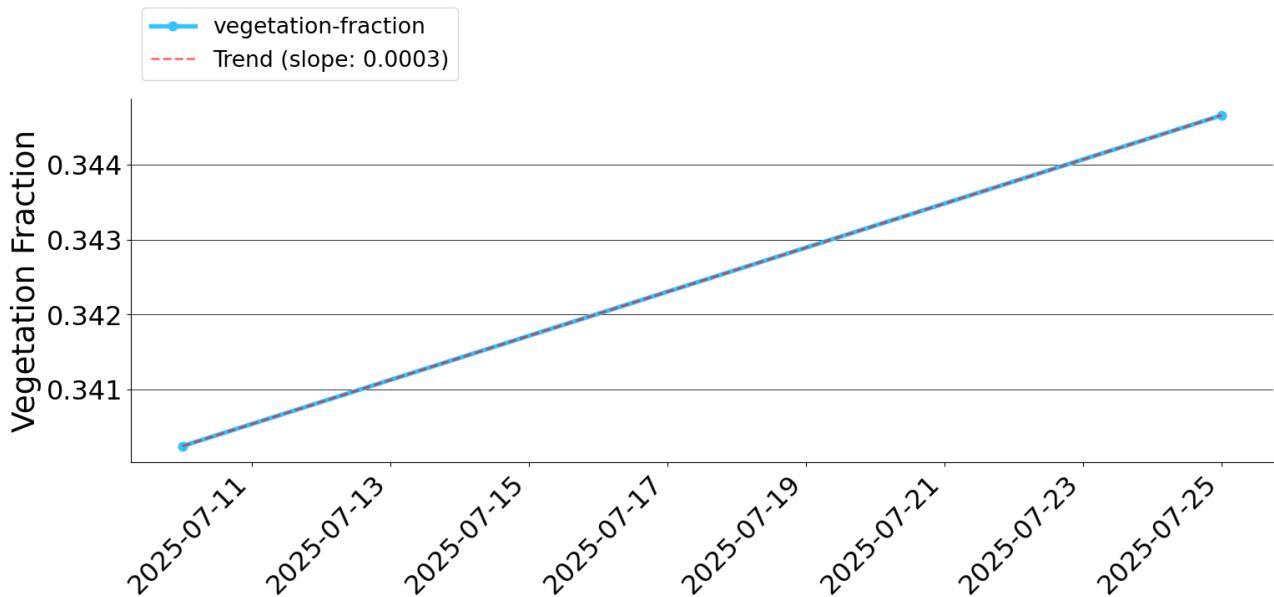
MEAN VALUE

Figure 3: VEGETATION FRACTION time series

TIME SERIES INSIGHT

Vegetation fraction displays a modest coverage of around 34%. From July 10th to July 25th, the values remained relatively stable, at 0.34 and 0.34 respectively. This indicates consistent but not extensive vegetation presence.

STATISTICS

SOIL FRACTION

Proportion of ground covered by soil (0-1).

8.98% 

0.14

TREND

MEAN VALUE

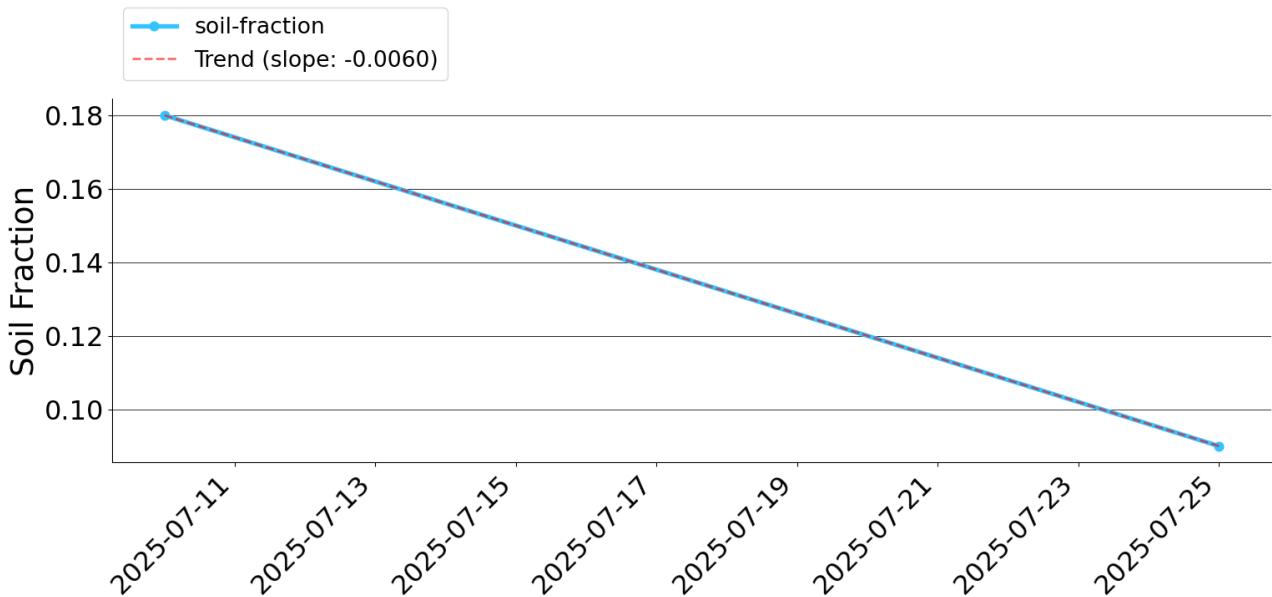


Figure 4: SOIL FRACTION time series

TIME SERIES INSIGHT

The soil fraction values decreased from 0.18 on July 10th to 0.09 on July 25th. In July, a drop in soil fraction is correlated with increased vegetation, suggesting a healthier land.

STATISTICS

PRECIPITATION

Amount of rainfall in millimeters.

79.58% ↘

1.90

TREND

MEAN VALUE

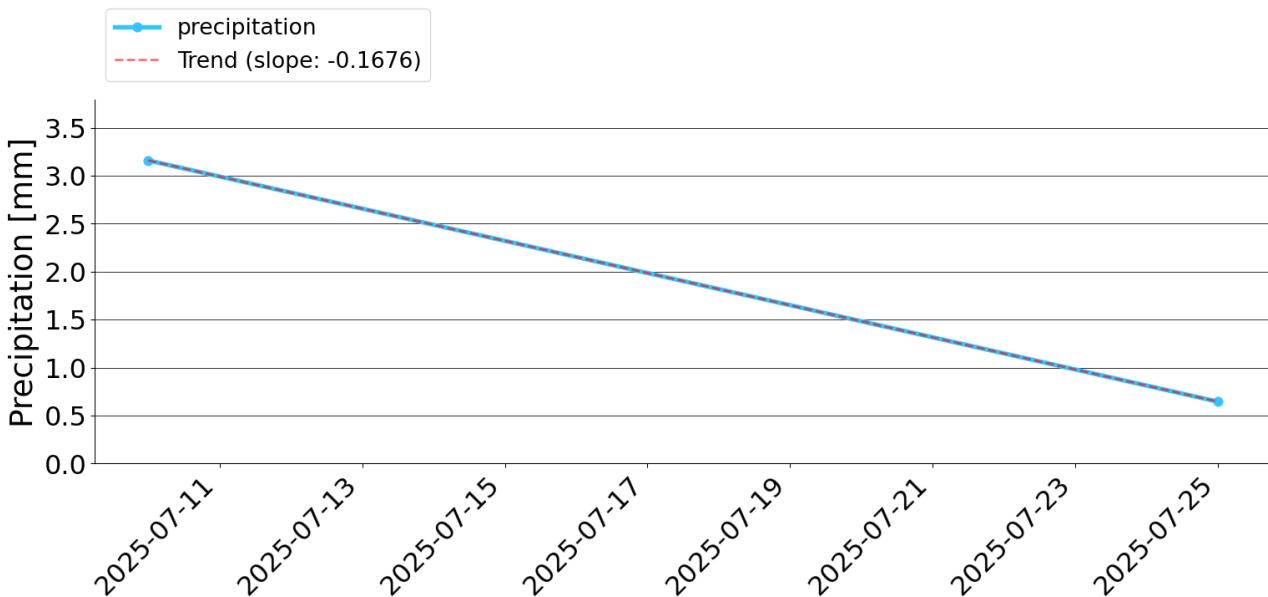


Figure 5: PRECIPITATION time series

TIME SERIES INSIGHT

Precipitation levels are low, fluctuating between 3.16 mm on July 10th and 0.64 mm on July 25th. Given the low values, the water availability may be limited.

STATISTICS

TEMPERATURE

The measure of atmospheric heat in °C.

2.17% 

28.37

TREND

MEAN VALUE

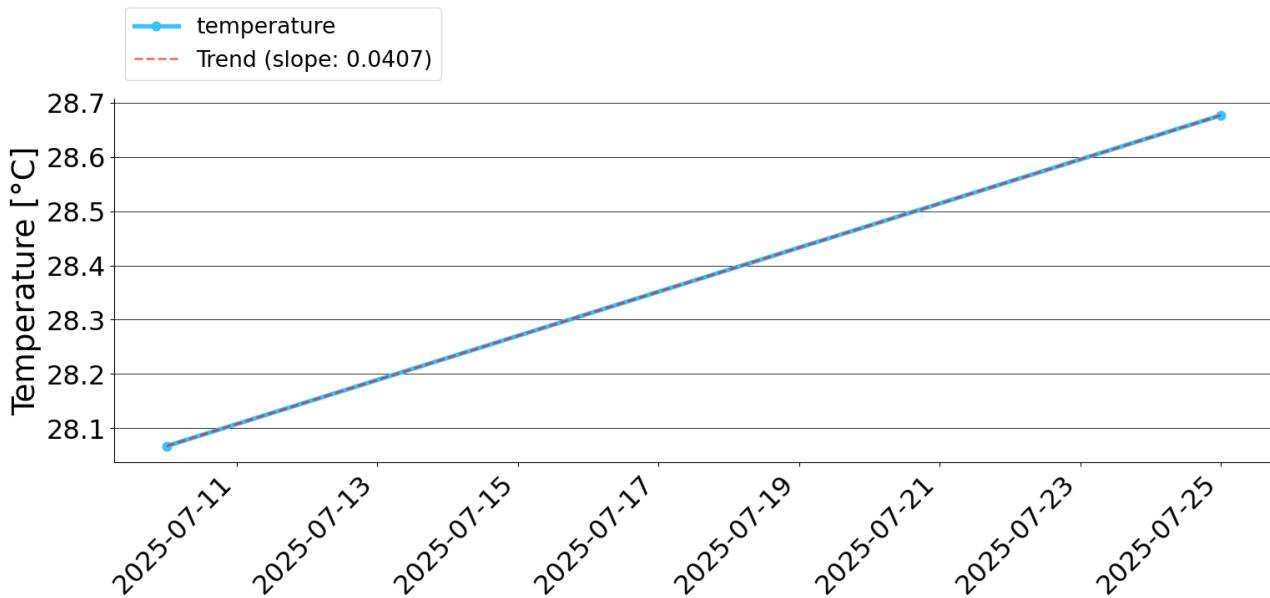


Figure 6: TEMPERATURE time series

TIME SERIES INSIGHT

Temperature remains consistently high throughout the observation period. This warm temperature can affect evaporation rates and water balance in the ecosystem.

STATISTICS

CURVE NUMBER

Direct surface runoff from a rainfall event (1-100).

1.35% 

89.64

TREND

MEAN VALUE

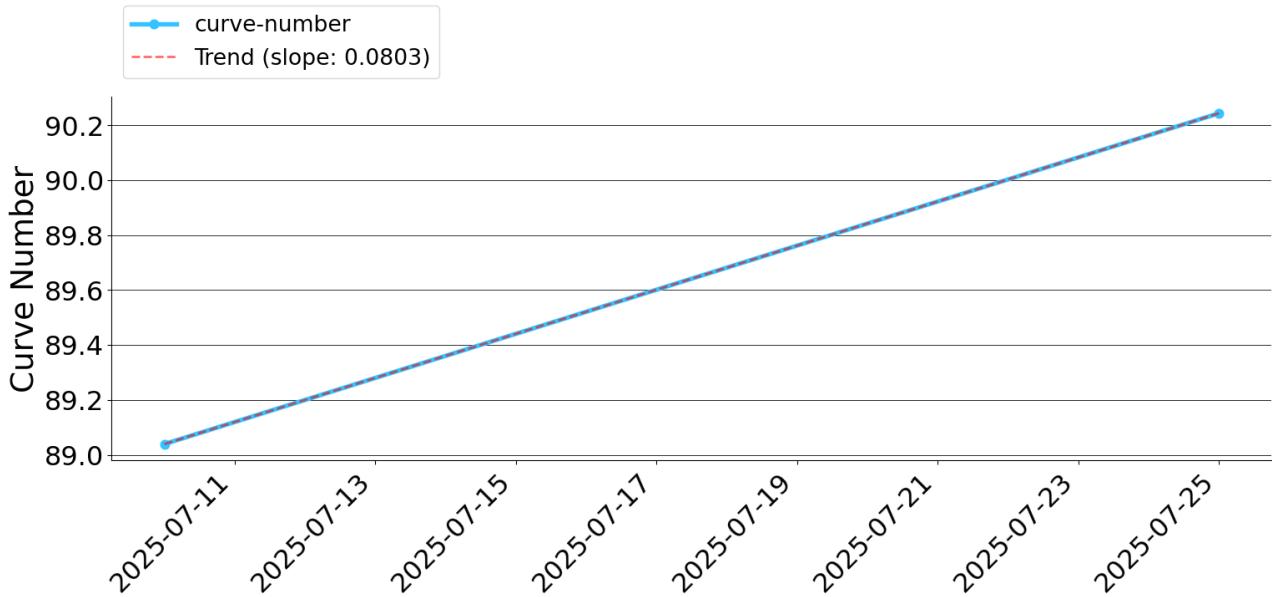


Figure 7: CURVE NUMBER time series

TIME SERIES INSIGHT

Curve number values are elevated, indicating a high runoff potential. This is consistent with built-up areas. The CN values imply that this area is prone to surface runoff.