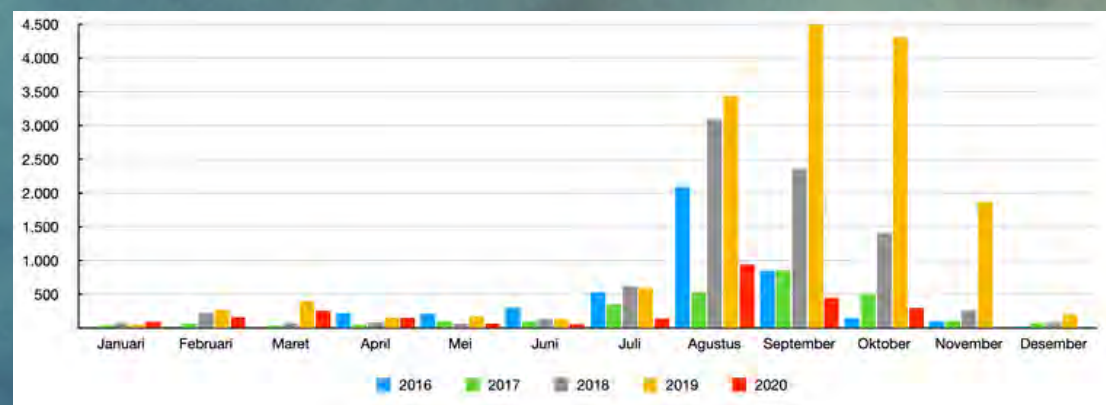




AI Innovation for Forest Fires Prevention



Hotspot Occurrence over Indonesia



(source: LAPAN Terra-Aqua)

Increased number of hotspots during dry season were recorded by satellite.

National Laboratory of Weather Modification Technology responds users in mitigating land and forest fires every year.

However, the timeliness of the implementation becomes a problem. The difficult of finding potential clouds in dry seasons causes the cloud seeding operation to be less effective.

Potential cloud development

Dry season

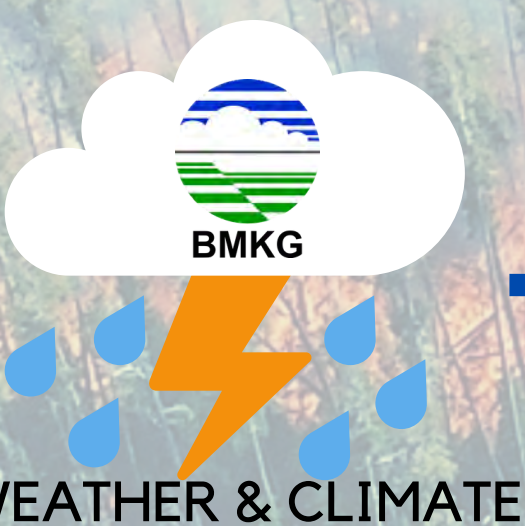
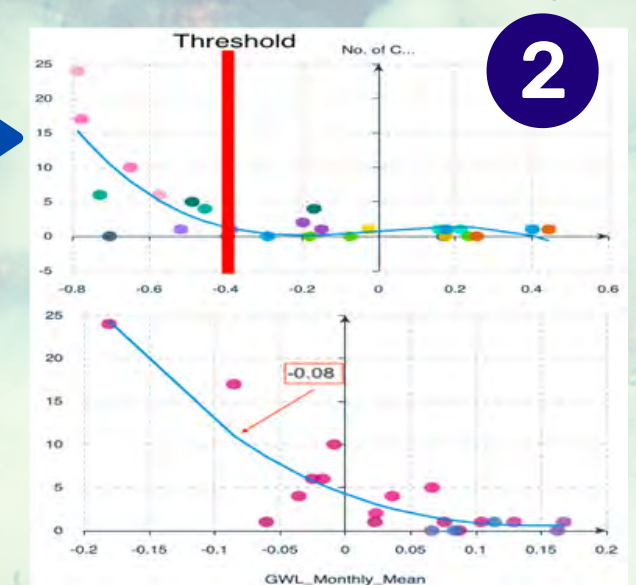
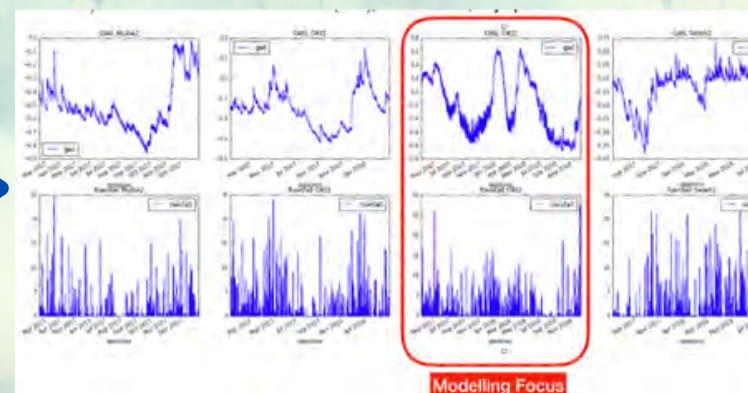
Low relative humidity
Relatively low convective activity

Rarely found

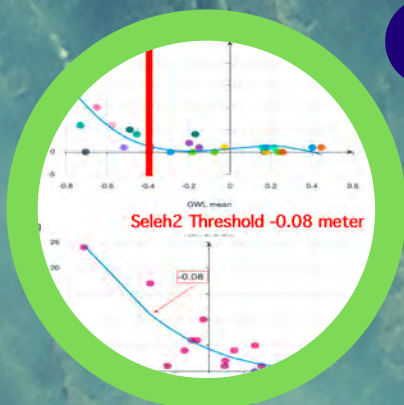
Wet season

High relative humidity
Relatively high convective activity

Easily discoverable



1 hotspot clustering.



2 ground water level & hotspot correlation analysis.



planning an effective way to prevent forest fires.

3

The AI implementation on the ground water level forecasting helps cloud seeding operation for rewetting peatland in order to mitigate / prevent land and forest fires.

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