Machine Learning for Floods Predictions and Early Warning: Sustainable strategies for adapting to the annual floods of the White Nile

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Machine Learning Algorithms are capable of learning and improving from experience without the need of being explicitly programmed. Computer programs that utilize the power of machine learning are capable of learning and improving from experience, given some source of data.

Machine learning has revolutionized almost every industry. In the field of disaster management for instance, machine learning plays a tremendous role in making close important predictions that matter in mitigating the risks associated with the disaster. Time series data on rainfall and river level and discharge data collected from sensors for instance, can be used to make predictions and simulations of floods.

The white Nile river in South Sudan is often flooding annually, yet authorities are almost caught unprepared to cope with the severity of the floods. Adapting to a changing and challenging climate which results in climate related disasters such as floods on the White Nile is vital for sustainability. Predictions and early warning should be emphasized to increase existing synergies.

Rainfall Data (2019)
State:Central Equatoria
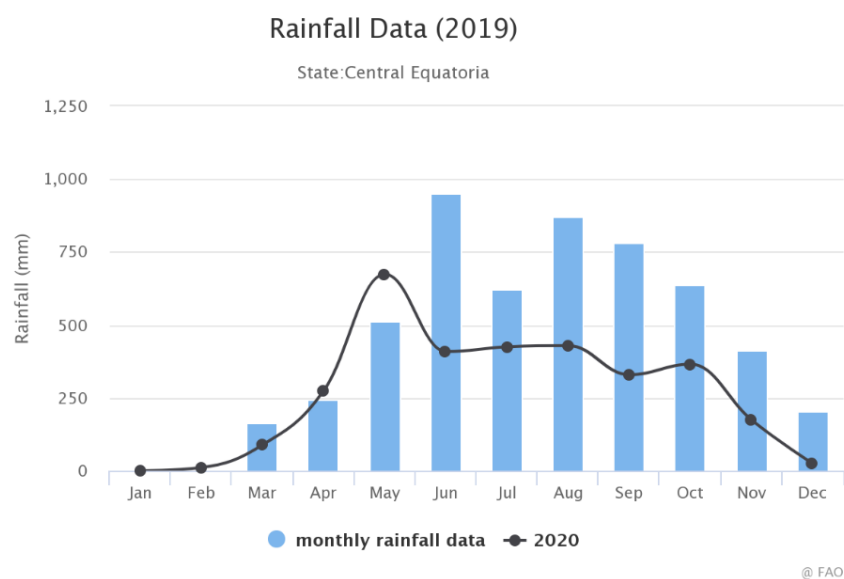
One of the worst flooding in South Sudan happened between August and November 2019 – rainfall data (FAO) showed patterns that correlated with the floods .