Forecasting fire activity in Indonesia

Towards an Fire Early Warning System for Indonesia (ToFEWSI)

https://tofewsi.github.io

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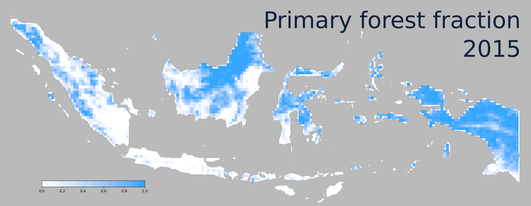
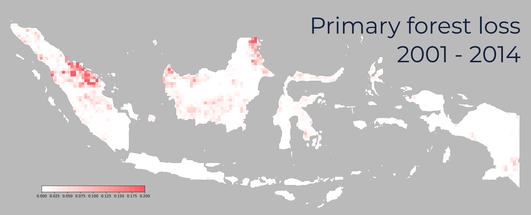
This study explores if extreme peatland and forest burning events can be predicted by supervised learning methods using fire weather indices and available land use datasets.

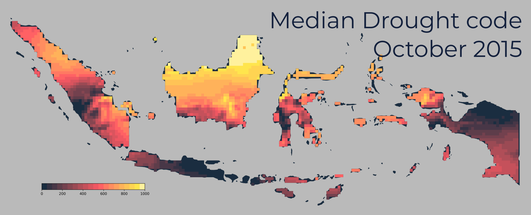
Primary forest fraction 2015



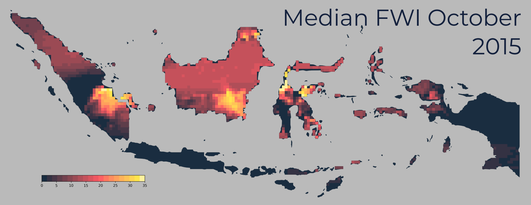
Primary forest loss 2001 - 2014



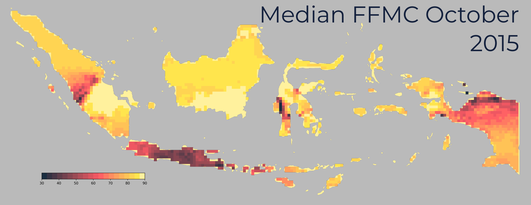
Median Drought code October 2015



Median FWI October 2015



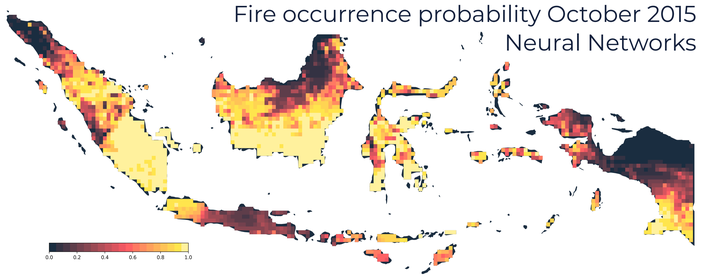
Median FFMC October 2015



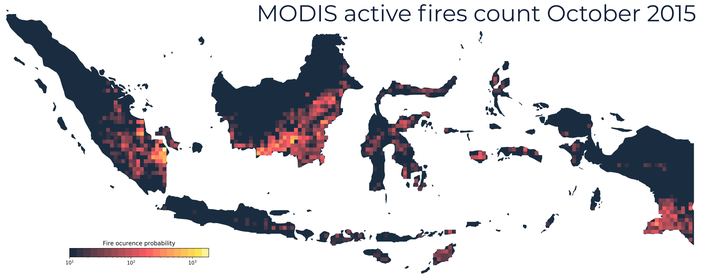
Land cover and land use information is critical for modelling fire activity in Indonesia

Full set of features used for learning and prediction

Fire occurrence probability October 2015
Neural Networks



MODIS active fires count October 2015



Only fire weather features used for learning and prediction

Fire occurrence probability October 2015
Neural Networks