## USING THE NDVI DIFFERENCING FOR MAPPING OF DIPTEROCARP FOREST IN SAVANAKET PROVINCE, LAO PDR

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**ABSTRACT:** A dipterocarp forest is a dominal type of forest native in Lao PDR, it include Dipterocarp tree family, which are tall and are known to produce resins and timber with good quality. It is a typical type of deciduous forest, formed various landscape and ecological system in Lao, especially the elephant ecosystem. Mapping and monitoring of dipterocarp forest is the purpose of the study. Data used is the Landsat 7 and 8 images taken in dry season (January) and wet season (August). In the image of dry season, the Dipterocarp forest areas are looked as the bare land because trees shedding all of their leaves. Inversely with this, in rainly season, the Dipterocarp forest area is looked as the evergreen forest because leaves of trees are ground up with very high canopy index. The NDVI image had been used for determination of the forest areas and then, the NDVI differenced image between two seasons has been used for determination of the Dipterocarp forest. Where having high difference of the NDVI values are the Dipterocarp forest areas.

Depending on the threshold of the difference NDVI value and comparision with other GIS data such as DEM and morphological features, the Dipterocarp forest map has been established with differenced type such as homogenous Dipterocarp forest, Dipterocarp forest mixed with evegreen forest, Dipterocarp forest mixed with rice cultivated plant, Dipterocarp forest mixed with bush and grass…The map has been checked with high accuracy.

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