

Indonesia elevates remote sensing agri devices usage

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A remote sensing research collaboration for estimating oil palm productivity, modeling areas prone to forest fires, and oceanographic studies in Lamandau District, Central Kalimantan was also established by the National Research and Innovation Agency (BRIN) with the Lamandau Polytechnic from Lamandau District, Central Kalimantan.

The signing of the cooperation between the two parties was carried out by Rahmat Arief as Head of the Remote Sensing Research Center (PRPJ), Aviation and Space Research Organization (ORPA) BRIN with A. Adhityawan Nugroho as Director of the Lamandau Polytechnic at the Teratai Building KST Soekarno Cibinong.

Technology is indeed closely related to infrastructure. BRIN has an open platform infrastructure concept, where the existing infrastructure at BRIN can be accessed by all groups. Such as High Performance Computing (HPC), laboratories, data centers and other facilities, he continued.

This research is expected to accurately predict oil palm productivity in Bulik District, Lamandau Regency using remote sensing data. Palm oil companies can use it to carry out plantation management and production according to the expected targets for regional development in Lamandau Regency and Central Kalimantan Province. As well as knowing the risk of fire and environmental impact on sea waters.

One of the remote sensing applications has been carried out by Untoro et al. (2018) to estimate oil palm productivity using imagery from the Sentinel-2 satellite. Further research regarding the estimation of oil palm productivity using remote sensing needs to be carried out in order to obtain results that are more guaranteed to be accurate.

Rahmat Arief said "BRIN has a duty to increase the number of partners in collaboration, especially in conducting research collaboration. The goal is to form a research ecosystem to become the basis of the economy. A research-based economy will be more resilient, especially one that uses high technology. For this reason, BRIN seeks to establish a research ecosystem that will be supported by policies, human resources, infrastructure and business processes. These four things are very important"

The Lamandau Regency's palm oil production is quite large and so is its export, although at this time there are countries that are starting to become our competitors, such as countries in Africa. Specifically for Lamandau, according to Bapeda data, 20% of Lamandau Regency's PDRP is supported by the plantation sector. So during the yesterday's pandemic, cities that depended on the service or real sector were badly affected. But for Lamandau Regency, the postscript, which has a side job as a farmer, is not too affected, Adhityawan explained.

For information, the scope of the agreement includes estimation of productivity of oil palm plantations with limits on the NDVI (Normalized Differential Vegetation Index) vegetation index and other possible vegetation indices obtained from the processing of Landsat 8, Pleiades imagery on plantation land and rainfall data, rainy days, fertilizer, and plant age obtained from Bulik District, Lamandau Regency. Mapping of fire-prone areas, hydro-oceanographic studies and research on the utilization of remote sensing data for capture fisheries.