FISHPOND AQUACULTURE INVENTORY IN MAROS REGENCY OF SOUTH SULAWESI PROVINCE

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Fishpond aquaculture has become a business that attracts many investors because it is very profitable, the source of foreign exchange, and a source of livelihood and income for coastal communities. Inventory and monitoring of fishpond aquaculture provide important baseline data to determine the policy of expansion and revitalization of the fishpond. This research aimed to conduct an inventory and monitoring of fishpond area in Maros regency of South Sulawesi province using SPOT-4 and ALOS PALSAR data. This study used satellite images of SPOT-4, 25 April 2010 and ALOS PALSAR, 2 July 2010. SPOT image classification process is performed using maximum likelihood supervised classification method and density slices method for ALOS PALSAR. Fishpond area calculation results are validated and verified with the ground truth data obtained information that the fishpond area in Maros regency by SPOT data is 9693.58 hectares (Ha), while based on ALOS PALSAR data is 7080.5 Ha, the result was much smaller when compared to the result of SPOT data. This was due on the classification result of PALSAR data shows some objects around fishponds (dike, mangrove and scrub) separately and not combined in fishponds area calculation, meanwhile the results of SPOT-4 image classification combines object around fishponds area.

Keywords: Fishpond aquaculture, optic remote sensing, satellite imaging radar, SPOT-4, PALSAR

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