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# Forest fire prevention through agricultural innovation in the ex-mega rice project area in Central Kalimantan

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In 1995, the Government of Indonesia initiated the Central Kalimantan Peatland Development Project – commonly known as the Mega Rice Project - to convert up to one million hectares of peat and lowland swamp to rice cultivation. In order to prepare the land for cultivation the peatland was drained through the construction of thousands of kilometers of canals and forest was cut. The effects were very damaging for the environment as the soils dried and the forests degraded. Agricultural developments were largely unsuccessful in the difficult peat land conditions. Agriculture is traditionally being practiced on the mineral soils along the river. A diversity of food crops, estate crops and livestock is grown and reared in the area. The limited suitability of the peat lands for agriculture often has to do with the acidity of the soils. Much land is only suitable for a limited number of crops. This leads to low agricultural production resulting in poverty among local communities. Fire has traditionally been used for land clearing and is still a common tool for agricultural preparations and land clearing for other purposes. Farmers traditionally monitor fires as they burn to avoid spreading. However, when peat soils are dry and forests are degraded they easily catch on fire. This paper aims to reduce the incidence of forest fires through the introduction of innovative techniques that limit the use of fire in land clearing. These techniques taken from the climate smart agriculture approach will be able to support the local communities to diversify their farming methods and make use of the environmental circumstances in which they live to increase their agricultural production and improve their livelihoods. The result show that land clearing with limited use of fire have positive effects on agricultural production and can reduce the incidence of forest fires.

## Biography

Susilawati is an Agronomic Researcher who has conducted research in the field, especially for food crops in sub-optimal land, such as swamps land, peatland and dry land. She is active to the introduction of superior rice varieties of environmental friendly to local communities. Management and utilization of plant genetic resources, prevention of land fires through cultivation activities, both nationally and internationally. Some of her innovations that have been produced include "Jajar Legowo Super" that specific on tidal swamp land, technology pf ratoon in rice cultivation on tidal land. She was the best researcher for local-specific research fields in 2017.

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