Analysis of the Impact of Rebana Priority Areas on Phenomenon of Landuse Changes in Indramayu Regency

Ayubella Anggraini Leksono, Bambang Edhi Leksono and Yuliana Susilowati (Indonesia)

Key words: Land management; Spatial planning; Cellular Automata, Landuse Changes

SUMMARY

The Government of Indonesia is committed to increasing national production and ensuring the adequacy of domestic food while at the same time contributing to the condition international food amid the threat of a global food crisis. In 2019, national rice production was consistent at 31.3 million tons with West Java Province being third with the highest rice production figures (indonesiabaik.id, 2022). In West Java Province itself, Indramayu Regency is the highest rice production producing area with a rice harvest area of 226,626 hectares (ha) with yields in 2020 of 1,363,312 tons of dry milled grain (GKG) which is equivalent to 782,132 tons of rice (BPS, 2020). This is what makes Indramayu Regency part of the National rice barns. Population growth is a phenomenon that cannot be avoided. This phenomenon is running rapidly accompanied by development activities in various fields which can lead to increased demand for land. The increase in demand for land has an effect on the conversion of agricultural land to non-agriculture (Lestari, 2009). If this cannot be controlled, it can threaten capacity in food supply (Iqbal and Sumaryanto, 2007). The conversion of agricultural land to the industrial sector in Indramayu Regency is increasingly inevitable with the Presidential Regulation of the Republic of Indonesia Number 87 of 2021 concerning the Acceleration of the Development of the Rebana Area and the Southern Part of West Java. Through the Presidential Decree it is explained that Indramayu Regency is part of the Rebana Priority Area. Where Indramayu Regency has a role in spatial structure as a Regional Activity Center (PKW) with a role to serve national scale activities, together with Patimban and Kadipaten-Kertajati. Indramayu Regency is planned to have 6 Industrial Allotment Areas (KPI), which include the Cages KPI, Patrol KPI, Losarang KPI, Balongan KPI, Tukdana KPI, and Cipali Indramayu KPI. Change data in Indramayu Regency is used to predict land cover in 2031 and find out how much change will occur in Indramayu Regency. The prediction was carried out using the Cellullar Automata-Markov method with 4 land cover classes, namely built-up land, undeveloped land, vacant land, and bodies of water. The results of the land cover prediction will be compared

with the Indramayu District Spatial Planning up to 2031, related to the spatial pattern plan to see how it fits with the government's desired plan. That way the research aims to determine the dynamics of land use change, especially on paddy agricultural land to support food self-sufficiency and on industrial land to support the success of Rebana Area Development.