

Sensitivitas dan Dinamika Kalender Tanam Padi Terhadap Parameter ENSO (*El-Nino-Southern Oscillation*) dan IOD (*Indian Ocean Dipole Mode*) di Daerah Monsunal Dan Equatorial

(Rice Cropping Calendar Dynamics and its Sensitivity of ENSO (El-Nino-Southern Oscillation) and IOD (Indian of Ocean Dipole Mode) Parameters in Monsoonal and Equatorial Regions)

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ABSTRAK

Penelitian dilakukan untuk mengidentifikasi daerah-daerah yang sering atau selalu dipengaruhi oleh fenomena ENSO dan IOD serta dampaknya terhadap pergeseran awal musim tanam, terutama di sentra produksi beras baik di wilayah monsunal maupun equatorial. Penelitian dilaksanakan di Kabupaten Indramayu dan Cianjur (monsunal) dan Solok dan Pesisir Selatan (Equatorial). Analisis korelasi antara ENSO dan IOD dengan curah hujan dilakukan untuk memperoleh hubungan antara ENSO dan IOD dengan curah hujan pada periode Desember-Februari, Maret-Mei, Juni-Agustus, September-November. Hubungan antar parameter ditentukan berdasarkan tingkat korelasinya yaitu kuat ($r \leq 0.54$), sedang ($-0.4 > r \geq 0.53$), dan lemah ($-0.39 > r \geq 0.33$). Sedangkan wilayah yang tidak terpengaruh mempunyai nilai ≥ 0.32 . Analisis disajikan dalam bentuk spasial untuk mempermudah dalam menentukan daerah yang sensitif terhadap anomali iklim. Dinamika dan sensitivitas waktu tanam ditentukan dari 'overlay' antara Peta Kalender Tanam Eksisting dengan hasil deliniasi wilayah terkena dampak ENSO dan IOD. Hasil penelitian menunjukkan bahwa ENSO dan IOD sangat berpengaruh terhadap penurunan curah hujan saat memasuki periode September - November. Indramayu merupakan wilayah bertipe curah hujan monsun hampir seluruh wilayahnya dipengaruhi oleh ENSO dan IOD. Sensitivitas dan dinamika kalender tanam lebih tegas di wilayah tersebut yang dicirikan dengan penundaan awal waktu tanam sekitar 2-6 dasarian. Alternatif waktu tanam pada Musim Tanam I berkisar antara Desember dasarian I sampai dengan Desember dasarian III. Sedangkan pada wilayah yang terpengaruh ENSO dan IOD bertipe curah hujan equatorial seperti di Pesisir Selatan, penundaan waktu tanam hanya sekitar 2-4 dasarian. Alternatif waktu tanam pada Musim Tanam I berkisar antara November dasarian I sampai dengan Desember dasarian I. Hasil penelitian ini diharapkan dapat menunjang program Peningkatan Produksi Beras Nasional.

Kata Kunci: Kalender tanam padi, ENSO, IOD, monsun, equatorial.

ABSTRACT

The research was conducted to identify areas that are often or always influenced by ENSO and IOD phenomena and its impact on the early shift the planting season, especially in the main rice producer of the West Java. Research has been conducted in Indramayu and Cianjur regency (monsoon region) and Solok and Pesisir Selatan (Equatorial region). Analysis of the correlation between ENSO and the IOD with rainfall has been carried out to obtain the relationship between ENSO and the IOD with rainfall in the period from December to February, March to May, June to August, and September to November. Relationships between the parameters determined by the level of the strong correlation ($r \leq 0.54$), middle ($-0.4 > r \geq 0.53$), and weak ($-0.39 > r \geq 0.33$). Whereas uninfluenced areas have value ≥ 0.32 . The analysis presented in the form of spatial to facilitate in determining which areas are sensitive to climate anomalies. Dynamics and the sensitivity of planting time is determined from the 'overlay' of Existing Planting Calendar Map with delineation of areas affected by ENSO and IOD. The results showed that the

ENSO and IOD phenomena that strongly influence in September-November period. Indramayu is a monsoon rainfall region which almost the entire area influenced by the ENSO and IOD. Sensitivity and dynamics of planting calendar more clearly in the region which is characterized by delayed planting time from 2 to 6 dekads (ten day periods). The planting time alternative in the first planting season ranged from first to third dekad of December. Meanwhile in the equatorial rainfall region influenced by IOD and ENSO such as Pesisir Selatan, delayed planting time is only about 2 to 4 dekads. The planting time alternative in the first planting season ranged from first dekad of November to first dekad of December. The results of this study expected to support the programs of National Rice Production Increased.

Keywords : Rice planting calendar, ENSO, IOD, monsoon, equatorial.