

**KORELASI ANTARA IKLIM GLOBAL, CURAH HUJAN, DAN
PRODUKTIVITAS PADI, JAGUNG SERTA KEDELAI DI
KABUPATEN BANJARNEGARA, JAWA TENGAH**

INTISARI

Oleh:

MERLIANA SILITONGA

12/333258/TP/10492

Penelitian ini dilatarbelakangi oleh adanya anomali (penyimpangan) iklim yang sering terjadi beberapa tahun terakhir. Anasir iklim yang paling terasa perubahannya ialah curah hujan. Penelitian ini bertujuan untuk menghitung besarnya pengaruh iklim global terhadap curah hujan di Kabupaten Banjarnegara serta pengaruh curah hujan terhadap produktivitas padi, jagung, kedelai di Kecamatan Mandiraja.

Di dalam penelitian ini digunakan dua indikator iklim global yaitu *Dipole Mode Index* (DMI) dan *Anomaly of Sea Surface Temperature* (ASST) Nino 3.4. Metode yang digunakan adalah metode deskriptif melalui studi literatur dari berbagai buku dan penelitian-penelitian yang telah ada sebelumnya. Analisis yang dilakukan berupa analisis regresi (tunggal dan berganda) dan korelasi.

Pengaruh ASST Nino 3.4 terhadap curah hujan tahunan di Kabupaten Banjarnegara hanya sebesar 17,55%. Sedangkan ASST Nino 3.4 per 6 bulan mempengaruhi curah hujan sebesar 0,02% (periode November-April) dan sebesar 44,09% (periode Mei-Oktober). Sedangkan pengaruh ASST Nino 3.4 per 3 bulannya sebesar 8,34% (periode November-Januari); 3,87% (periode Februari-April); 12,81% (periode Mei-Juli); dan 42,39% (periode Agustus-Oktober). Pengaruh DMI terhadap curah hujan tahunan di Kabupaten Banjarnegara hanya sebesar 24,36%. Sedangkan DMI per 6 bulan mempengaruhi sebesar 10,86% (periode November-Januari) dan sebesar 30,66% (periode Mei-Oktober). Untuk pengaruh DMI per 3 bulannya sebesar 24,25% (periode November-Januari); 2,99% (periode Februari-April); 4,87% (periode Mei-Juli); dan 48,2% (periode Agustus-Oktober). Pengaruh Curah Hujan Efektif (CHE) paling tinggi terjadi pada tanaman padi sebesar 43,22% (periode tanam Februari-April) sedangkan pada tanaman jagung dan kedelai masing-masing sebesar 64,58% (periode tanam Agustus-Oktober); dan sebesar 38,48% (periode tanam Juli-September).

Kata kunci : Curah hujan, DMI, ASST Nino 3.4, regresi, korelasi

**CORRELATION BETWEEN GLOBAL CLIMATE, RAINFALL, AND
PRODUCTIVITY OF RICE, CORN AND SOYBEAN IN REGENCY OF
BANJARNEGARA, CENTRAL JAVA**

ABSTRACT

By:

MERLIANA SILITONGA

12/333258/TP/10492

This research is motivated by the presence of anomalies (deviation) of climate which often happens in recent years. The most noticeably climatic elements is rainfall. This study aims to quantify the effects of global climate on rainfall in Regency of Banjarnegara as well as the influence of rainfall on the productivity of rice, corn, soybeans in Sub District of Mandiraja.

In this research, there were two indicators of global climate used, they were Dipole Mode Index (DMI) and the Anomaly of Sea Surface Temperature (ASST) Nino 3.4. The method used was descriptive method through the study of literature from various books and studies that have been done before. The analyses were done by regression (single and multiple) and correlation.

Influence of ASST Nino 3.4 on the annual rainfall in Regency of Banjarnegara amounted to only 17,55%. ASST Nino affects 3.4 per 6-months rainfall in amount of 0,02% (November-April period) and 44,09% (May to October period). Influence of ASST Nino 3.4 per 3-months amounted to 8,34% (November to January period); 3,87% (February to April period); 12,81% (May to July period); and 42,39% (August to October period). Influence of DMI on the annual rainfall in Regency of Banjarnegara only amounted to 24,36%. DMI affected per 6-months rainfall of 10,86% (November to January period) and 30,66% (May to October period). Influence of DMI per 3-months amounted to 24,25% (November to January period); 2,99% (February to April period); 4,87% (May to July period); and 48,2% (August to October period). Effective Precipitation (CHE) gave the highest effect to rice plants amounted to 43,22% (the planting period from February to April) while the corn and soybean crops respectively by 64,58% (planting period from August to October) and 38,48% (the planting period from July to September).

Keywords : Rainfall, DMI, ASST Nino 3.4, regression, correlation