RINGKASAN

Indonesia merupakan negara beriklim topis dengan curah hujan yang tinggi. Curah hujan di Kecamatan Punggelan Kabupaten Banjarnegara berkisar antara 3.000-5.000 mm/tahun, sehingga erosi yang terjadi cukup besar. Penelitian bertujuan untuk mengetahui besarnya tingkat bahaya erosi dan merencanakan pertanian konservasi di Kecamatan Punggelan Kabupaten Banjarnegara.

Penelitian dilaksanakan di Kecamatan Punggelan Kabupaten Banjarnegara pada bulan Maret sampai Mei 2017. Metode yang digunakan adalah metode survei dengan dasar penentuan sampel tanah adalah peta Satuan Lahan Homogen (SLH). Sampel tanah diambil dengan metode *purposive sample*. Perhitungan prediksi erosi dengan persamaan USLE (*Universal Soil Loss Equation*). Variabel yang diamati yaitu erosivitas hujan, erodibilitas tanah, panjang dan kemiringan lereng, pengelolaan tanaman, dan tindakan konservasi tanah.

Hasil penelitian menunjukkan bahwa prediksi erosi terendah sebesar 173,58 ton/ha/tahun pada SLH GruIIa, sementara prediksi erosi tertinggi pada unit lahan PMKVc sebesar 3332,78 ton/ha/tahun. Arahan perencanaan pertanian yang dianjurkan adalah budidaya tanaman dengan perbaikan konstruksi teras, penanaman rumput *Brachiaria decumbens* dan pergiliran tanaman berurutan disertai penutupan tanah dengan sisa tanaman.

Kata kunci : USLE, prediksi erosi, konservasi

SUMMARY

Indonesia is a topical climate country with high rainfall. Rainfall in District Punggelan Banjarnegara District ranges from 3.000-5.000 mm/year, so that the erosion is quite large. The aim of this research is to know the level of erosion hazard and to plan conservation farming in Punggelan Sub-district, Banjarnegara District.

The research was conducted in Punggelan Sub-district of Banjarnegara District from March to May 2017. The method used was survey method based on the determination of soil samples as homogenous land unit. The soil sample was taken by purposive sample method. Calculation of erosion prediction with USLE equation (Universal Soil Loss Equation). The observed variables are rain erosivity, soil erodibility, slope length and slope, crop management, and soil conservation measures.

The results showed that the lowest erosion prediction was 173,58 ton/ha/year in SLH GruIIa, while the highest erosion prediction on the unit of PMKVc land was 3332,78 ton/ha/year. The suggested agricultural planning directions are cultivation of crops with the improvement of the terrace construction, the planting of Brachiaria decumbens grass and the sequential cultivation of plants along with the closing of the soil with the rest of the plant.

Keywords: USLE, prediction of erossion, conservation