

Perubahan alur sungai wilayah hilir Sungai Batanghari Provinsi Jambi periode 1990-2020 = River channel changes in the Batanghari River Downstream, Jambi Province period of 1990-2020

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Abstrak

Daerah Aliran Sungai Batanghari merupakan sendi penyangga kehidupan masyarakat Provinsi Jambi yang sedang menghadapi degradasi berat yang utamanya diakibatkan oleh konversi tutupan lahan di DAS Batanghari. Degradasi ini telah mengakibatkan ketidakseimbangan debit sungai yang mempengaruhi tingkat erosi dan sedimentasi disepanjang alur sungai dan menyebabkan perubahan alur sungai Batanghari di bagian hilir yang dapat merusak infrastruktur disekitarnya. Sehingga penelitian ini bertujuan untuk menganalisis perubahan bentuk alur Sungai Batanghari pada tahun 1990, 2000, 2013 dan 2020 beserta kaitannya dengan perubahan tutupan lahan. Dalam mencapai tujuan penelitian, digunakan data citra satelit Landsat multitemporal yang kemudian dianalisis dengan menggunakan sinosity index untuk mendapatkan informasi tentang perubahan alur sungai. Hasil penelitian ini mendapatkan selama periode 1990 – 2020 terjadi perubahan alur sungai sebanyak 44 segmen sungai di bagian hilir Sungai Batanghari yang diantaranya 31 segmen mengalami peningkatan nilai sinosity index yang mengindikasikan pembelokan alur sungai, 13 segmen mengalami penurunan nilai sinosity index yang mengindikasikan pelurusan alur sungai dan 3 segmen mengalami perubahan tipe alur sungai menuju sungai yang lebih berkelok. Perubahan alur sungai di bagian hilir Batanghari erat kaitannya dengan penurunan tutupan lahan hutan dan peningkatan tutupan lahan pertanian lahan kering khususnya perkebunan kelapa sawit di DAS Batanghari.

.....The Batanghari River Basin is the life support for the people of Jambi Province, which is facing severe degradation, which is mainly caused by land cover conversion in the Batanghari watershed. This degradation has resulted in an imbalance of river discharge which affects the level of erosion and sedimentation along the river channel and causes changes in the Batanghari river flow downstream which can damage the surrounding infrastructure. So this study aims to analyze changes in the shape of the Batanghari River channel in 1990, 2000, 2013 and 2020 and their relation to changes in land cover. In achieving the research objectives, multitemporal Landsat satellite imagery data were used which were then analyzed using the sinosity index to obtain information about changes in river flow. The results of this study found that during the period 1990 - 2020 there were changes in river flow as many as 44 river segments in the lower reaches of the Batanghari River, of which 31 segments experienced an increase in the value of the sinosity index which indicated a bend in the river channel, 13 segments experienced a decrease in the value of the sinosity index which indicated the straight of the river channel and 3 segments experienced a change in the type of river flow towards a more winding river. Changes in river flow downstream of Batanghari are strongly suspected to be closely related to a decrease in forest land cover and an increase in dry land agricultural land cover especially oil palm plantations in the Batanghari watershed.