Linking Social-Ecological Adaptability in the Context of Integrated River Basin, Coastal and Ocean Management: The Case of Siak Riau Basin, Riau Province, Indonesia

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It is theoretically well known that ecological stream of coastal zone is started from the upstream ecosystem to the downstream ecosystem, estuary and the ocean. They form ecological connectivity and changes to the connectivity would affect to adaptability of the social agents/system related to the ecosystem. Siak River Basin of Riau Province, Indonesia is a 300 km length of river stream, linking 5 districts of Rokan Hulu, Bengkalis, Siak, Kampar, and Pekanbaru, with the Malaka Strait. This system has been changes in terms of ecological situation where pollution and other environmental degradation happened. Such ecological drivers have influenced to the social system in terms of livelihood system. This paper explores the connectivity and adaptability of social-ecological system (SES) of connected river basin, river stream, estuary and the ocean using conceptual framework of Berkes and Folke (1998). The framework helps to think about phenomena of link between ecosystem, people, local knowledge, property rights to the pattern of interactions, outcomes and sustainable society. Ultimate goal of this exploration is to identify the best policy for ecosystem-based management measures using sustainable principle for Siak River Basin and connected ecosystem.

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