Pengembangan strategi pengendalian pencemaran air sungai Cimanuk bagian hilir (Studi di Sungai Cimanuk Bagian Hilir, Jatibarang, Indramayu, Jawa Barat) = Development of water pollution control strategies of Cimanuk river downstream (Study in Cimanuk River Downstream, Jatibarang, Indramayu, West Java)

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Abstrak

Sungai Cimanuk adalah sungai terpanjang kedua di Provinsi Jawa Barat. Sungai Cimanuk sebagai sumber daya air dimanfaatkan untuk sumber air baku di PDAM dan berperan menjaga kelestarian lingkungan, meningkatkan pertumbuhan ekonomi serta kesejahteraan sosial masyarakat di sekitarnya. Sungai Cimanuk bagian hilir terindikasi tercemar akibat aktivitas masyarakat yang tidak terkendali di sempadan sungainya. K ualitas air sungai Cimanuk bagian hilir harus dikelola dan dikendalikan tingkat pencemarannya. Riset ini bertujuan untuk menganalisis kualitas air sungai, menganalisis aktivitas masyarakat di sempadan sungai, dan merumuskan strategi pengendalian pencemaran air Sungai Cimanuk bagian hilir. Analisis kualitas air sungai diuji berdasarkan 7 parameter fisika-kimia dibandingkan dengan 6 baku mutu air sungai yang ditetapkan IDN, WJP, UKTAG, USEPA, MOEG, dan DOE. Pengambilan sampel air sungai dilakukan di Boyongbong, Sukaregang, Tomo, dan Jatibarang. Penentuan status mutu air sungai Tahun 2013-2018 menggunakan metode IP. Perumusan strategi pengendalian pencemaran air sungai menggunakan metode SWOT. Hasil riset menunjukkan kualitas air Sungai Cimanuk bagian hilir berada pada kondisi buruk ditandai dengan konsentrasi TSS (81,57 ± 132,69 mg/L), BOD (8,41 ± 6,53 mg/L), COD (33,92 ± 26,51 mg/L), DO (5,54 ± 1,67 mg/L), dan Amonia (0,21 ± 0,31 mg/L) tidak memenuhi baku mutu air sungai. Sungai Cimanuk bagian hilir dinyatakan tercemar ringan-sedang ditandai dengan nilai IP sebesar 1,04-7,51. Pencemaran Sungai Cimanuk bagian hilir terjadi disebabkan oleh aktivitas masyarakat (pembuangan limbah domestik, pembuangan sampah, pembuangan limbah peternakan ayam dan kambing, serta pembuatan batu bata) yang tidak terkendali di sepanjang sempadan sungainya. Strategi pengendalian pencemaran air Sungai Cimanuk bagian hilir yang direkomendasikan adalah strategi pertumbuhan yang progrefis, yaitu menerapkan kebijakan dengan cara (a) meningkatkan infrastruktur pengendalian pencemaran air melalui pembuatan tempat pengelolaan akhir sampah terpadu dan IPAL komunal, (b) meningkatkan peran dan partisipasi akademisi, peneliti, dan kelompok masyarakat dalam setiap kegiatan perencanaan dan pelaksanaan pengendalian pencemaran air sungai, dan (c) meningkatkan koordinasi instansi/lembaga pemerintah dengan berbagai pihak dalam hal penentuan kebijakan pengendalian pencemaran air di Sungai Cimanuk bagian hilir.

.....Cimanuk River is the second longest river in West Java Province. The Cimanuk River as a water resource is used for raw water sources in the PDAM and plays a role in preserving the environment, increasing economic growth and social welfare of communities. However, the Cimanuk River downstream indicated to be polluted due to uncontrolled community activities in the river border. The water quality of the Cimanuk river downstream must be managed and controlled for its pollution level. This research aims to analyze river water quality, analyze community activities in river border, and formulate a water pollution control strategy in the Cimanuk River downstream. Analysis of river water quality based on 7

physicochemical parameters compared to 6 river water quality standards set by IDN, WJP, UKTAG, USEPA, MOELG, and DOE. Water sampling point of the Cimanuk River at Boyongbong, Sukaregang, Tomo, and Jatibarang. Assessment of the water quality status for 2013-2018 used the PI method. Formulation of the water pollution control strategies used the SWOT method. The results shows the water quality of the Cimanuk River downstream in a poor condition characterized by concentration TSS (81,57 ± 132,69 mg/L), BOD (8,41 ± 6,53 mg/L), COD (33,92 ± 26,51 mg/L), DO (5,54 ± 1,67 mg/L), and Ammonia (0,21 ± 0,31 mg/L) not meet the water quality standards. The PI value of the Cimanuk River downstream between 1.04-7.51 indicates slightly to moderately polluted. Pollution of the Cimanuk River downstream caused uncontrol community activities (domestic waste disposal, trash disposal, chicken and goat farm waste disposal, and brick industry). The recommended of the water pollution control strategies for Cimanuk River downstream is a growth strategy. Implementation of policies by (a) improve the facilities and infrastructure monitoring river water quality and wastewater quality (b) increase the role and participation of academics, researchers, and community in activity of planning and act river water pollution control, and (c) improve coordination between government agencies/institutions and various parties in determining water pollution control policies in the Cimanuk River downstream.