

Pengelolaan lingkungan sempadan sungai berbasis hutan kota berkelanjutan: kasus pada segmen Sungai Cisadane di Kota Tangerang Selatan = Sustainable urban forest based management of environmental stream buffer: case of Cisadane river segment in South Tangerang City

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Abstrak

Sempadan sungai adalah kawasan lindung di kanan kiri sepanjang sungai yang secara alami diperuntukkan bagi vegetasi. Faktanya, kualitas sempadan sungai semakin menurun akibat alih fungsi lahan sempadan sungai oleh masyarakat, terutama di perkotaan sehingga dapat mengganggu fungsi ekologisnya.

Tujuan penelitian ini adalah untuk menganalisis fungsi ekologis sempadan sungai morfologi sempadan sungai, keanekaragaman jenis pohon dan burung, menganalisis kondisi sosial ekonomi pemahaman, pandangan, perilaku, dan kondisi ekonomi masyarakat yang tinggal di sempadan sungai, dan merumuskan strategi pengelolaan lingkungan sempadan sungai berbasis hutan kota berkelanjutan.

Morfologi sempadan sungai dianalisis menggunakan Sistem Informasi Geografis SIG; keanekaragaman jenis pohon diukur menggunakan petak ukur dengan metode jalur berpetak, sedangkan keanekaragaman jenis burung diukur menggunakan transek garis kemudian dianalisis dengan indeks keanekaragaman Shannon Wiener; kondisi sosial ekonomi menggunakan kuesioner, dan penentuan strategi pengelolaan yang tepat menggunakan Analytical Hierarchy Process AHP.

Hasil penelitian menunjukkan terjadi penurunan tegakan sebesar 15,73. Indeks keanekaragaman jenis pohon sebesar 2,707 dan burung sebesar 2,794 yang termasuk kategori Sedang berdasarkan Indeks Shannon Wiener. Pemahaman masyarakat Tinggi dan pandangan masyarakat Cukup Baik, tetapi kondisi ekonomi dan perilaku masyarakat yang tinggal di sempadan sungai Kurang Baik.

Kesimpulannya adalah melalui strategi pengelolaan lingkungan sempadan sungai berbasis hutan kota berkelanjutan secara collaborative management dengan peranan masyarakat yang tinggal di sempadan sungai dan pemerintah yang saling mendukung untuk meningkatkan fungsi ekologis dan fungsi sosial ekonomi sempadan sungai.

Stream buffer is a protected area on either side along a river that is naturally destined for vegetation. In fact, quality of stream buffer was declining due to conversion of riparian land by people, especially in urban areas, which may disrupt its ecological functions.

This study aim to analyze ecological function of stream buffer morphology of stream buffer, diversity of tree and birds species, to analyze socio economic conditions understanding, point of views, behavior, and economic conditions of riverside community, and to formulate strategies that will be used for managing sustainable stream buffer based on urban forests.

Stream buffer morphology was analyzed using Geographic Information System GIS diversity of tree species was measured using a stripping route plot method, while diversity of bird species was measured using line transects and then analyzed by Shannon Wiener 39 s diversity index socio economic conditions was investigated using questionnaires, and appropriate strategies was determined using Analytical Hierarchy Process AHP.

The results showed a decrease in stands of 15,73. Tree species diversity index was 2,707 and bird species

diversity index was 2,794, which belongs to moderate category based on Shannon Wiener Index.

Understanding of riverside community is high and their viewpoint is quite good, but their economic and behavioral conditions are less adequate.

This study conclude that through sustainable urban forest based management of environmental stream buffer strategy in collaborative management with role of riverside community and mutually supportive government to improve the ecological and sosio economic functions of stream buffer.