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BOOK OF ABSTRACTS

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S13-O Ecosystem services of flooded forests in a large tropical floodplain of Tonle Sap Lake

Sophanna Ly [1] , Sovannara Uk [2] , NGOC-BAO Pham [3] , Chihiro Yoshimura [4]

[1] Civil and environmental engineering, Tokyo Institute of Technology, Japan
[2] Civil and Environmental Engineering, Tokyo Institute of Technology, Japan
[3] Natural Resources and Ecosystem Services, Institute for Global Environmental Strategies, Japan
[4] Civil and Environmental Engineering, Tokyo Institute of Technology, Japan

Flooded forests are unique ecosystems which are beneficial to humans in various ways through their services. However, on a global scale, their services are being undermined by deforestation and the degradation of flooded forests. One of the main reasons for this is that their services are not fully appreciated, and the business benefits outweigh them. Here, we elucidate the ecosystem services of flooded forests in the large tropical floodplain of Tonle Sap Lake (TSL), with particular attention to the socio-economic and local characteristics of the communities. Twenty-two villages in nine communes on the floodplain of the TSL were randomly selected for the study, and another 97 households were randomly selected for the field survey. The results show that local villagers and communities value the provisioning services (PS), cultural services (CS), coordination services (RS), and support services (SS) of the flooded forests. The economic valuation of provisioning services alone is estimated to be US$934/person/year on average. People who have the fishing job as a profession received more economic benefit from the flooded forests. The cultural services of the flood forests valued by the majority of communities were ecotourism, followed by social relations, religious, aesthetic, educational, cultural heritage, and inspirational services. Estimates of the willingness-to-pay for these services were heavily influenced by community characteristics (household size, age, gender, education, occupation, and distance between the community's house and the flooded forest). The RS of the flooded forests included local temperature regulation, water purification, and storm and flood control, while the SS included fish spawning grounds and waterfowl habitats. The findings of this study provide useful information to policymakers on the importance of flooded forests to surrounding ecosystems, especially to communities that depend primarily on flooded forests and are willing to protect them to sustain their livelihoods.