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Assessing the Impact of Porto Novo Lagoon Utilisation and its Sustainable Management in Benin Republic

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Abstract

The lagoon of Porto-Novo is one of the most important ecosystems in Benin because of its ecological function for aquatic animals and its socio-economic services for surrounding population. Over the past years, the use of natural resources of the lagoon was intensified generating social conflicts and natural ecosystem degradation. Through this study, we firstly aim to analyse the forms and the intensity of water uses at Porto Novo lagoon with regards to its regenerative capacity and secondly to assess the consequences of the use of the lagoon and the resulting risks on the surrounding population. Socio-economic survey was conducted in 7 villages surrounding the lagoon to assess the lagoon uses form and its consequences on both the ecosystem and local population. Our results showed that the lagoon of Porto-Novo is used for fishing, sand extraction, transportation of goods and services, as well as domestic uses. Fishing is the main developed activity in and around the lagoon. The analysis of the regenerative capacity of the lagoon as well as its current productivity trends indicated a real depletion and threat on fish stocks in the lagoon. Thus, a sustainable management of the lagoon is required through an integrated approach which takes into account the structure and dynamics of fish productivity as well as the involvement of local population and different stakeholders for an effective management and sustainable use of the lagoon resources. Finally, this study provides useful information for policy makers to promote the sustainable management of the lagoon of Porto-Novo in Benin and reversing the process of overuse.

Keywords: Degradation, ecosystem, lagoon of Porto-Novo, regenerative capacity, sustainable management