

An assesment of potential for coastal ecosystem services in Artvin

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Abstract: Ecosystem services can be defined as benefits provided by ecosystems to people. As a landmark paper about ecosystem services, Millennium Ecosystem Assessment (MEA) report developed an integrated evaluation for researchers working on ecosystem services, including decision makers, scientists, official and non-official organizations, and classified ecosystem services under 4 categories: provisioning services, regulating services, cultural services and supporting services. It is known that, coastal areas are habitats in which sea and land ecosystems meet and affect each other, and with their unique properties distinguishing them from other regions, they are nonrenewable natural resources rendered appealing for economic, social and competitive activities such as urbanization, industry, transportation, tourism, etc. In this context, the aim of this study is to evaluate the potential of ecosystem services in coastal areas. In the study, a GIS-based evaluation for determining spatial usages was implemented. In this context, CORINE 2006 land cover map was reclassified and five ecosystems were determined shore of Artvin province by the Black Sea is 36.2 km, 9.1 km of which is in Arhavi and 27.1 km of which is in Hopa, which was selected as the study area. These ecosystems are urban, forests, cultivated, inland waters and coastal areas. They cover 2100.24 ha of cultivated, 1307.92 ha of forest, 231.69 ha of urban, 401.40 ha of coastal and 120.35 ha of inland waters. Ecosystem services produced by the mentioned ecosystems were identified by considering MEA report. But supporting services were not included in this study because they do not directly influence on human wellbeing. After that, according to the spatial usages and MEA report, coastal areas were evaluated in terms of the producing potential of ecosystem services. Consequently, it is expected that ecosystems and ecosystems services obtained in this study should be constituted baseline for planning of all areas, especially coastal areas.

Keywords: Ecosystem, Ecosystem services, Coastal areas, Artvin