Status of the Mangrove Ecosystem in Abay-Dhahan, Somalia

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Mangroves are coastal intertidal forests and they are found along sheltered coastlines, shallow-water lagoons, estuaries, and river basins in tropical and subtropical regions of the world. Mangroves are of remarkable global importance to stabilize coastlines, reduce erosion, foster biodiversity, support fishery resources, and protect coastal communities from various natural calamities. However, the mangroves are extremely vulnerable to a variety of anthropogenic stresses that can cause devastating harm to biodiversity. This is a serious issue especially for the mangrove ecosystem in Abay-Dhahan, Somalia. Hence, the present study has been undertaken to (1) identify the true mangroves and associated plants, (2) evaluate the intensity of threats on mangrove ecosystem, (3) assess the usage of mangroves at the local scale, and (4) provide suggestions to minimize the threats for mangrove conservation. This study used structured questionnaires, community interactions and satellite imagery analysis from September to December, 2022. 30 respondents were randomly selected and SPSS and Excel were used for data analysis. This work identified 64 mangrove plants *Avicennia marina* (82.8%) and *Rhizophora mucronata* (17.2%), with *Avicennia marina* being the dominant species and 85 associated plants, were recorded, with *Heliotropium europaeum* being the most abundant (89.4%), and also recorded a high anthropogenic pressure such as pollution and woodcutting as rated threat intensity index (31-45). The mangroves were found used mostly for firewood (30%), charcoal production (23.3%), and timber for constructions (13.3). The present study recommends raising awareness (26.7%) among the local community, introducing alternative solutions for firewood, developing strategies for sustainable waste management, implementing innovative approaches such as integrated conservation and livelihood, enacting adequate legislation to protect and conserve mangrove forests, and conducting long-term monitoring research with participation of the various stakeholders.

Keywords: *Mangroves*, *Anthropogenic effect, Vulnerable, Pollution, Wood cutting, Awareness*