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Examination of Demarcation Criteria of Environmentally Sensitive Areas in Sri Lanka

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Abstract

Sri Lanka is home to a rich biodiversity across a wide array of ecosystems and is listed among 36 biodiversity hotspots. Being a party to the Conservation on Biological Diversity (CBD) and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), designating Protected Areas (PAs) is considered the key approach to the conservation of biodiversity of Sri Lanka. Accordingly, 26.5% of the total land area of the country has been designated as PAs. Only the species covered under the schedules of the Flora and Fauna Protection Ordinance receive legal protection outside PAs. Therefore, a strategic approach is required to conserve the biodiversity not covered under schedules and which exist outside PAs. In this context, Environmentally Sensitive Areas (ESAs) have been introduced as Other effective area-based conservation measures (OECM) and the National ESA policy provides an ESA selection criterion. The research aimed to examine the appropriate criteria for determining the boundaries for selected ESAs. A case study approach was chosen and three cases from Kala Oya Basin were analysed: Gangewadiya in Wanathawilluwa Divisional Secretariat Division (DSD), Kala Oya Riverine and Manawekanda, in Ipalogama DSD. Gangewadiya ESA covers 2290 ha of land as 17.2% and 100% within two Grama Niladari Divisions (GNDs). Kala Oya Riverine ESA is comprised of different types of borders which are administrative, natural, and social. Manawekanda ESA covers 856 ha: 95%, 3.95%, 0.7% 0.35% of respective GNDs. Criteria for identifying and declaring the respective ESAs are having globally/nationally threatened species, endemic, indigenous, wild crop relatives, migratory species assemblages, unique ecosystems, and lending itself to management by a local body or community group. These ecosystems provide basic ecosystem services and services critical for ensuring connectivity of important habitats/key biological elements/improving ecological viability of existing PAs. These cases indicate though GPS boundaries have been drawn in maps to identify ESAs based on ecological boundaries, species, and habitat distribution, it is difficult to apply management strategies based on GPS boundary of the ESAs and it requires a strategy in demarcating the boundaries of ESAs. The boundaries can be defined with reference to natural, customary, surveyed, or administrative boundaries and physical demarcation is not necessary as coordinates can translate to link with those boundaries. Therefore, the ESAs can be demarcated as OECM using GND boundaries or other natural, customary, surveyed, manmade, or admin boundaries that encompass GPS locations of the map.

Keywords: Other effective area-based conservation measure (OECM), Environmentally Sensitive Areas (ESA), Customary boundaries, Administrative limits, Biodiversity