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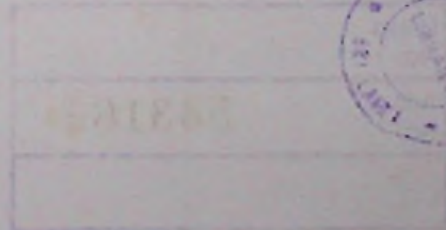# Analysis of policy options for a scientifically based and well-managed marine and coastal protected area network in Sri Lanka

A thesis submitted for the Degree of Doctor of Philosophy

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Abstract

One global approach to combat injustice to environment and to ensure its sustainability is to create protected areas. Although several marine and coastal protected areas (MCPAs) have been established, Sri Lanka's stand in implementing Convnetion on Biological Diversity (CBD) Aichi Target 11 with respect MCPA establishment and management, is not clear. The research adopted a multidisciplinary and multi-analytical approach including desk-top reviews, key informant discussions and field studies in Bundala (BNP) and Pigeon Island (PINP) National Parks, Seguwantivu Managrove Conservaiton Froest (CF) and Panama lagoon Fishery Management Area. Data collection involved the use of semi structed questioners as well as conductiving informal interviews. Data were polled in interpretation of the results.

Representative Gap analysis indicates that biodiversity conservation in Sri Lanka is highly sectoral with six key legislations having provisions to declare 20 categories of PAs. In total 64 PAs includes marine and coastal elements: Fauna and Flora Protection Ordinance (FFPO) - two Marine National Parks, five National Parks, 25 Sanctuaries and one Strict Nature Reserve; Forest Conservaiton Ordinance (FCO) -14 Conservation Forests and one Reserved Forest coverin mangrove habitats; Fisheries and Aquatic Resources Act (FARA) -15 Fishery Management Areas; and. National Environment Act (NEA) - one Environmental Protected Area. Althogh legislative provisions exist to declare Marine Reserves (under FFPO), and Fishery reserves and (under FARA), these are yet to be established.

Other area based management approaches such as Ramsar sites (six) and a UNESCO-MAB site assist in protecting the marine and coastal resources. These MCPAs together cover less than one percent of the Exclusive Economic Zone (EEZ) and approximately eight percent of the costal belt indicating the country is lagging behind in implementing the Aichi target 11 by 2020. Present MCPA system need to be expanded for the long-term conservation of several marine species (e.g. Marine mammals), which are globally threatened and highly migratory.

The establishment, extensions, re-notifications or complete abolishment of PAs, are not done under a long-term scientific plan, mainly due to prevailing socio-political pressures, and the dependency on infrequently received donor funding. The results of rating the management effectiveness of three major MCPAs was less than 50 percent (BNP - 46.76 percent; PINP - 42.98 percent and Seguwanthiv CF - 31.2 percent). All three MCPAs are complete no take zones as per legislative provisions, yet human interference takes place affecting the implementation of conservation objectives.

Creating a network of MCPAs however by no means an end in itself, but rather a process to support and to trigger conservation and sustainable use of oceans and coasts. This network of MCPAs should be established and managed within an integrated coastal and oceans management framework, that will maintain the health of Sri Lanka's coastal and marine environments, while contributing to livelihood support and disaster risk reduction measures. This will require improved coordination, synergy and partnerships among various actors and programmes that are presently active within the local, national, regional as well as global levels, as well as introducing new governance structures.