

# Increasing the resilience of biodiversity and livelihoods in the wetlands of Colombo, Sri Lanka

The urban wetlands in Colombo, Sri Lanka, contain unique biodiversity and provide flood protection and numerous additional benefits to people. Despite this, the destruction of wetlands continues to occur. Although increased attention has been given to tackle the loss of wetlands, government initiatives would benefit from greater community engagement and wetland monitoring. The aim of this project is to develop a mechanism for aligning community wetland practices and monitoring with government policies. At the catchment scale, the objective is to promote best practices in community wetland management to safeguard biodiversity, improve livelihoods and ensure the well-being of the population of Colombo.



An aerial view of the city of Colombo in Sri Lanka with its network of wetlands supporting urban dwellers - A hub for green growth (photo: Martin Seemungal).





Department of Wildlife Conservation





cobracollective we empower communities



ield Ornithology

Group of Sri Lanka

Sri Lanka Land Development Corporatio



entral Environmenta Authority











## **Colombo Wetland Complex**

Colombo is built on, and around, wetlands. The city has a series of interconnected natural and modified wetlands, such as lakes, ponds, canals, marshes, woodlands, etc. (Figure 1). These are spread throughout Metro Colombo (121.5 km<sup>2</sup>) with wetlands covering approximately 19 km<sup>2</sup>. Eighty-five percent of the wetlands are freshwater receiving water from rainfall, rivers and groundwater, while the remaining 15% are coastal wetlands that receive water from the sea. The wetlands are rich in biodiversity with more than 250 plant types and more than 280 animal types. This includes threatened plants, such as the tree climber (*Aganope heptaphylla*), and threatened animals, such as the

fishing cat (*Prionailurus viverrinus*). Wetlands are fundamental to the well-being of the people of Colombo, particularly the urban poor, with 60% of households directly benefiting from wetland livelihoods and products, such as fish and rice, and 100% receiving indirect benefits from flood protection, climate cooling and pest regulation.

In 2018, Colombo became the first capital city to gain Wetland City Accreditation from the Ramsar Convention on Wetlands – a global agreement to protect and wisely use the world's wetland ecosystems, to which Sri Lanka is a signatory.

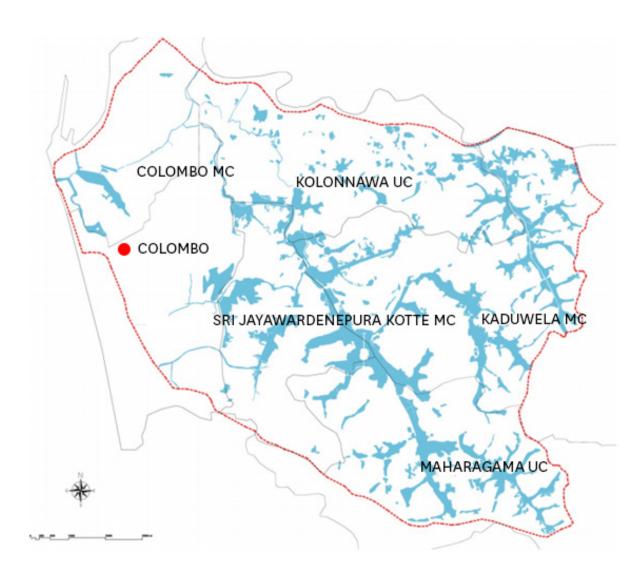


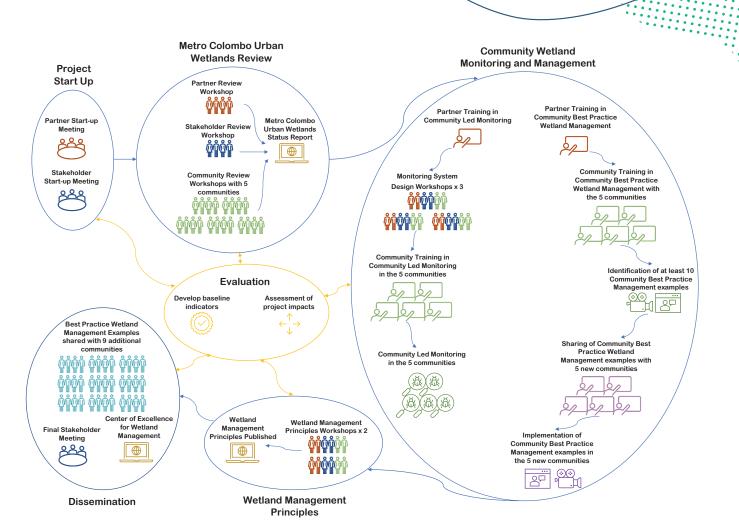
Figure 1. Wetlands of the Colombo Metropolitan Region (*source:* Sri Lanka Land Development Corporation [SLLDC]). *Note:* MC - Municipal Council; UC - Urban Council.

## The project

The Increasing the resilience of biodiversity and livelihoods in Colombo's wetlands project, funded by the Darwin Initiative, United Kingdom, involves the direct engagement of all stakeholders, including communities, civil society and the government, through training and consultation. The comprehensive engagement will be used to determine

## the following:

- The current status of Colombo's urban wetlands.
- Best practice community wetland monitoring and management examples.
- Wetland management principles to help inform policy.



The project activity plan (source: Cobra Collective).



Clean-up activities at a site in the Colombo Wetland Complex (photo: SLLDC).

# **Project details and anticipated outputs**

Title	Increasing the resilience of biodiversity and livelihoods in Colombo's wetlands
Overall project impact	Engaged communities of Colombo managing wetlands sustainably and delivering: a halt to wetland loss and degradation; biodiversity protection; improved direct and indirect benefits for households; and improved health and well-being
Output 1	Production of the Metro Colombo Urban Wetland Status report
Output 2	Identification of best practices for community wetland management and monitoring protocols
Output 3	Development of Wetland Management Principles
Output 4	Project evaluation
Output 5	Dissemination of project findings
Partners	International Water Management Institute (IWMI), Colombo, Sri Lanka
	Department of Wildlife Conservation, Ministry of Wildlife and Forest Conservation, Sri Lanka
	Sri Lanka Land Development Corporation (SLLDC), Ministry of Urban Development and Housing, Sri Lanka
	Central Environmental Authority (CEA), Ministry of Environment, Sri Lanka
	Urban Development Authority (UDA), Ministry of Urban Development and Housing, Sri Lanka
	Cobra Collective CIC, United Kingdom
	Field Ornithology Group of Sri Lanka (FOGSL), Department of Zoology, University of Colombo, Sri Lanka
	Biodiversity Secretariat, Ministry of Environment, Sri Lanka
Funder	Darwin Initiative, United Kingdom
Project timeframe	September 1, 2020 – January 31, 2024

#### Source

Data were adapted from the following source:

Government of Sri Lanka. 2016. *Metro Colombo wetland management strategy*. Metro Colombo Urban Development Project (MCUDP). No. MCUDP/ PHRD/03. The consultancy services for the preparation of a management strategy for wetlands and carrying out an assessment of water quality in the inland waterways and lakes within Metro Colombo Area. Colombo, Sri Lanka: Government of Sri Lanka. Available at https://www.ramsar.org/sites/default/files/Colombo%20Wetland%20Management%20Strategy.pdf (accessed October 9, 2020).

## Acknowledgements

Funding received from the UK government through the Darwin Initiative is gratefully acknowledged.

This study contributes to the CGIAR Initiative on NEXUS Gains (https://www.cgiar.org/initiative/28-nexus-gains-realizing-multiple-benefits-acrosswater-energy-food-forest-biodiversity-systems/). We would like to thank all funders who supported the initiative through their contributions to the CGIAR Trust Fund: https://www.cgiar.org/funders/

## Contacts

Matthew McCartney (Project Leader), Research Group Leader - Sustainable Water Infrastructure and Ecosystems, International Water Management Institute (IWMI), Colombo, Sri Lanka (m.mccartney@cgiar.org)

Matthew Simpson (Project Leader), Cobra Collective, UK (matt@cobracollective.org). Cobra Collective CIC, a UK-based social enterprise, aims to empower communities to achieve positive change through capacity building, strengthening resilience, and developing long-term partnerships and collaborations (https://cobracollective.org/vision/).

Priyanie Amerasinghe (Project Coordinator), Emeritus Scientist, IWMI, Colombo, Sri Lanka (p.amerasinghe@cgiar.org)





The International Water Management Institute (IWMI) is an international, research-for-development organization that works with governments, civil society and the private sector to solve water problems in developing countries and scale up solutions. Through partnership, IWMI combines research on the sustainable use of water and land resources, knowledge services and products with capacity strengthening, dialogue and policy analysis to support implementation of water management solutions for agriculture, ecosystems, climate change and inclusive economic growth. Headquartered in Colombo, Sri Lanka, IWMI is a CGIAR Research Center with offices in 14 countries and a global network of scientists operating in more than 30 countries. International Water Management Institute (IWMI)

Headquarters 127 Sunil Mawatha, Pelawatte, Battaramulla, Sri Lanka

Mailing address: P. O. Box 2075, Colombo, Sri Lanka Tel: +94 11 2880000 Fax: +94 11 2786854 Email: iwmi@cgiar.org www.iwmi.org