

# Developing a Wetland Management Framework for Colombo's wetlands

## Key messages

- The Colombo Wetland Complex comprises multiple interconnected wetlands, each playing a crucial role in the ecological functioning of the city. These wetlands provide essential ecosystem services for human beings and nature.
- Currently, multi-stakeholder management of wetlands occurs at various levels, but a systematic plan for wetland management is lacking. As a result, these vital ecosystems continue to degrade and disappear.
- To address this issue, a Wetland Management Framework has been co-developed to align with the National Wetland Policy and Strategy (2006). The framework emphasizes the wise use and conservation of wetlands to ensure the maintenance of their ecological functions and the benefits they provide.
- All agencies involved view the Wetland Management Framework as practical and feasible for managing the wetlands in the Metro Colombo Wetland Complex. This is the first time such a framework has been developed in consultation with key stakeholders.
- The key elements of the framework are:
  - Multi-agency collaboration: Ensuring successful wetland management and project delivery through cooperation;
  - Designated wetland managers: Appointed by the lead agency for each wetland area to oversee management efforts;
  - Organisational policy alignment: Aligning organisational wetland policies with the Wetland Management Framework to ensure cohesive action;
  - Adaptive management plans: Action plans developed considering both the ecological character of the wetlands and local community needs;
  - Stakeholder engagement: Facilitating early and ongoing engagement and consultation with all stakeholders, including local governments, local communities and civil society groups;
  - Leadership: Community engagement led by an 'Engagement Champion' to foster trust in relationships with all parts of the community; and
  - Monitoring of wetlands: Active involvement of the community in management and monitoring activities to ensure shared stewardship of wetland biodiversity and resources.

## Introduction

Colombo is a city built on and around wetlands. These wetlands provide a myriad of services, including flood defence, air cooling, food supply, habitats for animals and plants, as well as many other benefits. In 2018, Colombo became the first capital city to receive Wetland City Accreditation from the Ramsar Convention on Wetlands, a global agreement to protect and wisely use the world's wetlands.

Despite providing multiple benefits, some areas of the city have experienced wetland loss of up to 60% since 1980, with the annual rate of loss for the entire Colombo Metropolitan Region (CMR) estimated at approximately 1.2% (GoSL 2016). Given Colombo's recent designation as a Ramsar Wetland City and ongoing urbanisation, it is important to reassess and update the current rate of loss.



Aerial photo of a Colombo wetland (photo: Martin Seemungal/IWMI).



The country's first national policy and strategy for wetland conservation was developed in 2006 (MOE 2006). Ten years later, in 2016, a comprehensive study undertook the development of a detailed Metro Colombo Wetland Management Strategy (WMS) with the aim of capacity enhancement for flood and drainage management under the World Bank-funded Metro Colombo Urban Development Project (GoSL 2016). The goal of the WMS was to build on previous efforts to ensure the wise use and sustainable management of all wetlands within the Colombo Metropolitan Region. The WMS (2016–2026) marked the first time evidence-based interventions were implemented to restore and rehabilitate the remaining wetlands for flood mitigation. Following the implementation of the WMS, a moratorium was enacted in 2018 prohibiting the infilling of wetlands, underscoring the government's commitment to protecting Colombo's wetlands.

## The need for a Wetland Management Framework

A National Wetland Steering Committee was established in 2006 to bring together all the stakeholders that have a role in wetland management to help coordinate wetland conservation and restoration efforts nationally. Since the publication of the WMS (GoSL 2016) and the declaration of Colombo as a Wetland City in 2018 (Ramsar 2024), government institutions have contributed to wetland initiatives in different ways, depending on their mandates. The Urban Development Authority has prepared a wetland zoning document (UDA 2006) to identify vulnerable areas. However, wetland initiatives across the Metro Colombo area often lack coordination, and community engagement practices remain inconsistent. Although the WMS is in place, there is no overarching wetland management framework to coordinate activities among government institutions, foster formal engagement with communities and ultimately protect the city's remaining wetlands.

A project funded by the UK Government's Darwin Initiative on *Increasing the resilience of biodiversity and livelihoods in Colombo's wetlands* was implemented from 2020 to 2024 by the International Water Management Institute (IWMI) and the Cobra Collective UK, in collaboration with six key partners involved in wetland management in Sri Lanka (IWMI 2022). The initial baseline assessment conducted by this project revealed that while the government's institutional involvement was positive and proactive, community engagement in decision-making and reporting wetland issues was sparse. The project updated the wetland status assessment, bringing together governmental and non-governmental institutions, including civil society, to report on their work. The resulting Metro Colombo Urban Wetland Status Report was published in 2021 (IWMI and CC 2021).

Consultations conducted during the project, involving communities, government agencies and civil society organisations, along with insights from the Urban Wetland Status Report, indicated the need for a Wetland Management Framework to support the objectives of the WMS. Hence,

a key output of the project was the co-development of a Wetland Management Framework that emphasizes community involvement, in alignment with the policies and strategies established in 2006 and 2016.

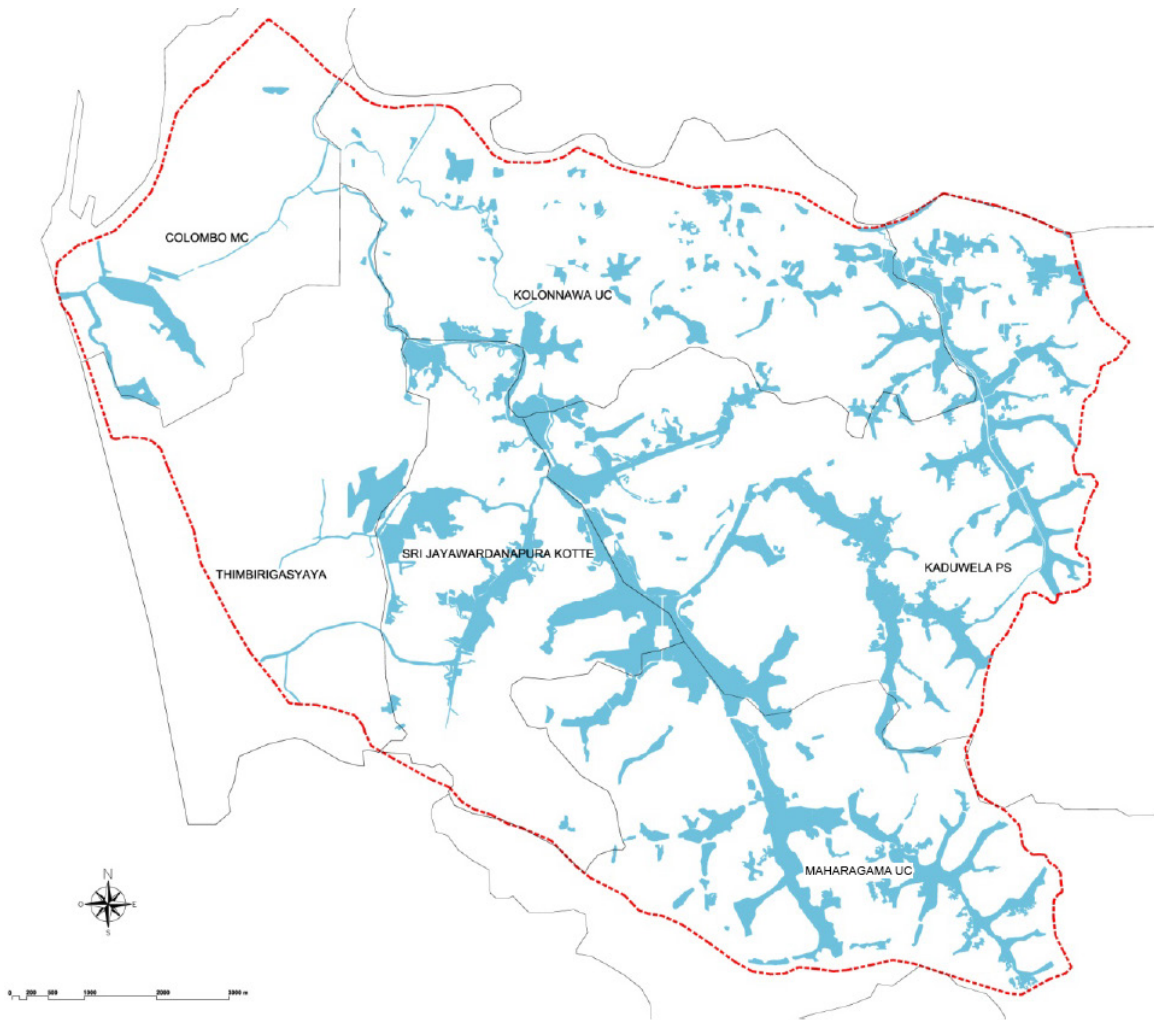
In developing the Wetland Management Framework, the project investigated mechanisms to harmonize community wetland practices with government policies. At the catchment scale, the project identified and promoted community best practices in wetland management, aiming to safeguard biodiversity, improve livelihoods and enhance the well-being of approximately 2.3 million people.

The Wetland Management Framework is intended to enhance the wetland planning and management efforts of both government agencies and communities throughout the Metro Colombo Wetland Complex (MCWC). This policy brief provides an overview of the proposed Wetland Management Framework.

## The wetlands of Colombo

The MCWC covers a total area of 121.5 km<sup>2</sup>, encompassing urban, peri-urban and rural environments, of which 19 km<sup>2</sup> (15.6%) is designated as wetlands (Figure 1). The urban landscape can be described as one consisting of a wetland mosaic interspersed with built-up areas and infrastructure. Within the MCWC, freshwater wetlands dominate, accounting for more than 85% of the wetlands (Figure 2) (GoSL 2016). Abandoned paddy lands are abundant, many of which are being rehabilitated for a new wave of activities linked to urban agriculture, an emerging trend since the COVID-19 pandemic. Open water wetlands, such as tanks, lakes and canals, represent just over 20% of all the wetlands (GoSL 2016). Despite the complexity of the wetland classification, 27 individual wetlands have been delineated within the complex.

The MCWC comes under the purview of a number of state agencies that have direct and indirect mandates to protect wetlands and promote their wise use. The Sri Lanka Land Development Corporation (SLLDC) is the primary authority responsible for managing and regulating wetland hydrology and ensuring proper drainage and water retention. The Urban Development Authority (UDA) is responsible for urban landscaping, implementing recreational projects and issuing building permits. The Central Environmental Authority (CEA) is the de facto guardian of wetlands in Sri Lanka and led the development of the National Wetland Policy and Strategy in 2006. The Department of Wildlife Conservation (DWC) is the Ramsar focal agency and manages protected wetland sites within the MCWC. The Department of Agrarian Development (DAD) and area-specific Agrarian Service Centers are mandated to oversee rice cultivation and therefore have a vested interest in wetland paddy fields. Additionally, local agencies have an indirect mandate to manage wetlands as they (along with the UDA) issue building permits and are involved in the supervision and monitoring of constructions (UDA 2023). Given the number of governmental entities involved, inter-agency collaboration and communication are vital if wetland governance is to be effective.



**Figure 1.** Wetlands of the Metro Colombo Wetland Complex.

Source: GoSL 2016

Note: The management approach of these wetlands is described in the Wetland Management Strategy Report (GoSL 2016).

Habitat type	Upland	Woodland	Herb dominated	Open water	Woodland	Herb dominated		Open water	
Habitat feature		Mixed woodland	Tall herb	Flowing water	Annona woodland	Low herb	Tall herb	Standing water	
Wetland type		Mixed woodland	Marginal vegetation	Floating vegetation	Annona woodland	Active paddy	Abandoned paddy	Floating vegetation	Open water
Illustration									

**Figure 2.** The main wetland types identified within the Wetland Management Strategy Report.

Source: GoSL 2016

The Colombo Wetland Management Framework was developed in consultation with SLLDC, UDA, CEA and DWC to ensure that it aligns with government priorities, including those identified in two key policies: the National Wetland Policy and Strategy 2006 and the Colombo Wetland Management Strategy 2016.

Key aspects of the National Wetland Policy and Strategy (MOE 2006) include the following:

- Establishment of a National Wetland Steering Committee (NWSC)
- Establishment of Wetland Management Committees (WMCs) for sensitive wetlands by the CEA
- Preparation of basic wetland programmes for sensitive wetlands
- Preparation of wetland management plans for sensitive wetlands
- Establishment of Wetland Facilitating Committees (WFCs) at divisional, district and provincial levels to support the delivery of wetland programmes

It is important to note that not all wetlands within the MCWC were identified as sensitive wetlands. As a result, WMCs and WFCs have not been established for all wetlands. Other agency-led projects or programmes within wetlands also lack committees. To date, the only WMC established in the MCWC is for the Thalangama wetland area. Although more wetlands within the MCWC have been designated as sensitive since the 2018 moratorium on infilling, WMCs for these designated wetlands are yet to be established.

Under the WMS, five key recommendations were outlined: Recognise, Prevent, Restore, Engage and Govern (GoSL 2016). The Metro Colombo Urban Wetland Status Report (IWMI and CC 2021) reviewed the progress in implementing these recommendations and a summary of the findings is presented in Table 1.

**Table 1.** Implementation progress of Wetland Management Strategy recommendations (GoSL 2016) based on the Metro Colombo Urban Wetland Status Report (IWMI and CC 2021).

Colombo Wetland Management Strategy 2016 recommendations	Metro Colombo Urban Wetland Status Report 2021: Progress review
<p>The <i>Recognise</i> recommendation:</p> <ul style="list-style-type: none"> <li>• Integrating wetland values into urban planning institutions</li> <li>• Integrating wetland values into urban spatial planning</li> </ul>	<p>Wetland values are recognised by key agencies and staff, but they have not been fully integrated into urban planning.</p>
<p>The <i>Prevent</i> recommendation:</p> <ul style="list-style-type: none"> <li>• Implementing the obligations under the Convention on Wetlands</li> <li>• Upholding existing legislation and policies</li> </ul>	<p>Colombo Wetland City Accreditation under the Convention on Wetlands was achieved, and wetland protection was strengthened through Cabinet Paper No CP/18/1817/803/028 that declared a moratorium on wetland destruction and declared Colombo’s wetlands as sanctuaries. However, the review also found that implementation of existing legislation was not fully effective.</p>
<p>The <i>Restore</i> recommendation:</p> <ul style="list-style-type: none"> <li>• Enhancing wetland ecosystem services for cross-sectoral benefits</li> <li>• Developing a systematic benefits-based wetland restoration plan</li> <li>• Restoring wetlands as essential elements in climate change mitigation and adaptation programmes</li> </ul>	<p>Wetland restoration champions in institutions have not been identified, and a comprehensive wetland restoration plan has not been developed or implemented, although individual projects have been undertaken.</p>
<p>The <i>Engage</i> recommendation:</p> <ul style="list-style-type: none"> <li>• Engaging with local communities and stakeholders</li> <li>• Implementing a communications plan</li> <li>• Promoting Colombo’s wetlands</li> </ul>	<p>An appropriate governance structure to facilitate and encourage community and stakeholder engagement has not been established within some agencies and specific projects. However, the review found that while most agencies have engaged in communications and promotional efforts for Colombo’s wetlands, inter-agency integration remains lacking. The Wetland Management Strategy has not been established or internalised under the National Wetland Steering Committee. The review noted progress in wetland demarcation and the harmonisation of legal instruments to protect wetlands through Cabinet Paper No CP/18/1817/803/028. However, inter-agency monitoring of wetland status has not occurred and regular reviews and updates of the Wetland Management Strategy have not occurred to date.</p>
<p>The <i>Govern</i> recommendation:</p> <ul style="list-style-type: none"> <li>• Developing institutional capacities</li> <li>• Resolving implications for existing regulations</li> <li>• Implementing a monitoring and evaluation plan</li> <li>• Reviewing, adapting and renewing</li> </ul>	<p>The review noted progress in wetland demarcation and the harmonisation of legal instruments to protect wetlands through Cabinet Paper No CP/18/1817/803/028. However, inter-agency monitoring of wetland status has not occurred and regular reviews and updates of the Wetland Management Strategy have not occurred to date.</p>

The review of the wetlands policy, strategy and status report, along with the extensive knowledge gained through the Darwin Initiative project, led to the co-development of the Colombo Wetland Management Framework. The Darwin Initiative project provided the opportunity for extensive stakeholder and community engagement through questionnaires, workshops, project partner meetings, one-on-one discussions with government agencies and participatory video production with 10 wetland communities.

**The proposed Colombo Wetland Management Framework** includes a set of principles developed to help guide successful wetland management within the city. The principles are:

- *Multi-agency collaboration:* Ensuring successful wetland management and project delivery through cooperation;
- *Designated wetland managers:* Appointed by the lead agency for each wetland area to oversee management efforts;
- *Organisational policy alignment:* Aligning organisational wetland policies with the Wetland Management Framework to ensure cohesive action;
- *Adaptative management plans:* Action plans developed considering both the ecological character of the wetlands and local community needs;
- *Stakeholder engagement:* Facilitating early and ongoing engagement and consultation with all stakeholders, including local governments, local communities and civil society groups;
- *Leadership:* Community engagement led by an ‘Engagement Champion’ to foster trust in relationships with all parts of the community; and
- *Monitoring of wetlands:* Active involvement of the community in management and monitoring activities to ensure shared stewardship of wetland biodiversity and resources.

The proposed Wetland Management Framework comprises four interlinked levels (Figure 3):

### **Level 1 - National Wetland Steering Committee**

This committee has already been established and has a mandate that covers all wetlands across Sri Lanka. It is chaired by the Ministry of Environment and Wildlife Resources and includes the key agencies and stakeholders involved in wetland conservation and wise use.

### **Level 2 – Colombo Wetland Strategy Committee**

The geographical remit of this committee would be all the wetlands comprising the Metro Colombo Wetland Complex. Establishing this committee would effectively address the recommendation within the Colombo Wetland Management Strategy (GoSL 2016) and fulfil the mandate in the National Wetland Policy and Strategy (MOE 2006) to form a Wetland Facilitating Committee for Metro Colombo. A key feature of this committee is its multi-agency composition, which entails broader stakeholder and community representation. This inclusive approach will enhance coordination and lead to cost savings in project delivery across Colombo’s wetlands.

The responsibilities of this committee would be to:

- provide strategic overview of Colombo’s wetlands and ensure their integration into urban planning and other major initiatives on transport, health, etc.;
- have an overview of agency projects occurring within each wetland area;
- ensure multi-agency collaboration in project initiation and delivery;
- access multiple funding mechanisms and explore income-generating opportunities;
- enable representation of national and local governments, civil society and communities from across Metro Colombo;
- coordinate wetland awareness-raising and promotional activities specific to Colombo; and
- report to the National Wetland Steering Committee.

### **Level 3 – Wetland Delivery Boards**

For each wetland in the MCWC, a Wetland Delivery Board (WDB) should be established, either for the wetland or for targeted projects. Ideally, a WDB will be established for each demarcated wetland. If this is not feasible initially, WDBs should be established before any project that may impact the wetland.

The responsibilities of WDBs would be to:

- include representatives from multinational agencies, local governments, civil society and communities in the wetland area;
- be led by the key government agency or private owner representative that has landowner responsibility for the wetland, coordinated by the designated manager for each wetland;
- provide an overview and guidance for wetland management plans and/or project delivery strategies;
- direct wider community engagement and consultation; and
- report to the Colombo Wetland Strategy Committee.

### **Level 4 – Wetland Engagement Champions**

The lead agency for each wetland area should designate one or more staff members or identify personnel from other agencies who could undertake the role of Wetland Engagement Champions. This role may be separate from that of the Wetland Manager who coordinates the WDB (above), or both roles could be fulfilled by the same individual. The responsibilities of the Wetland Engagement Champions would be to:

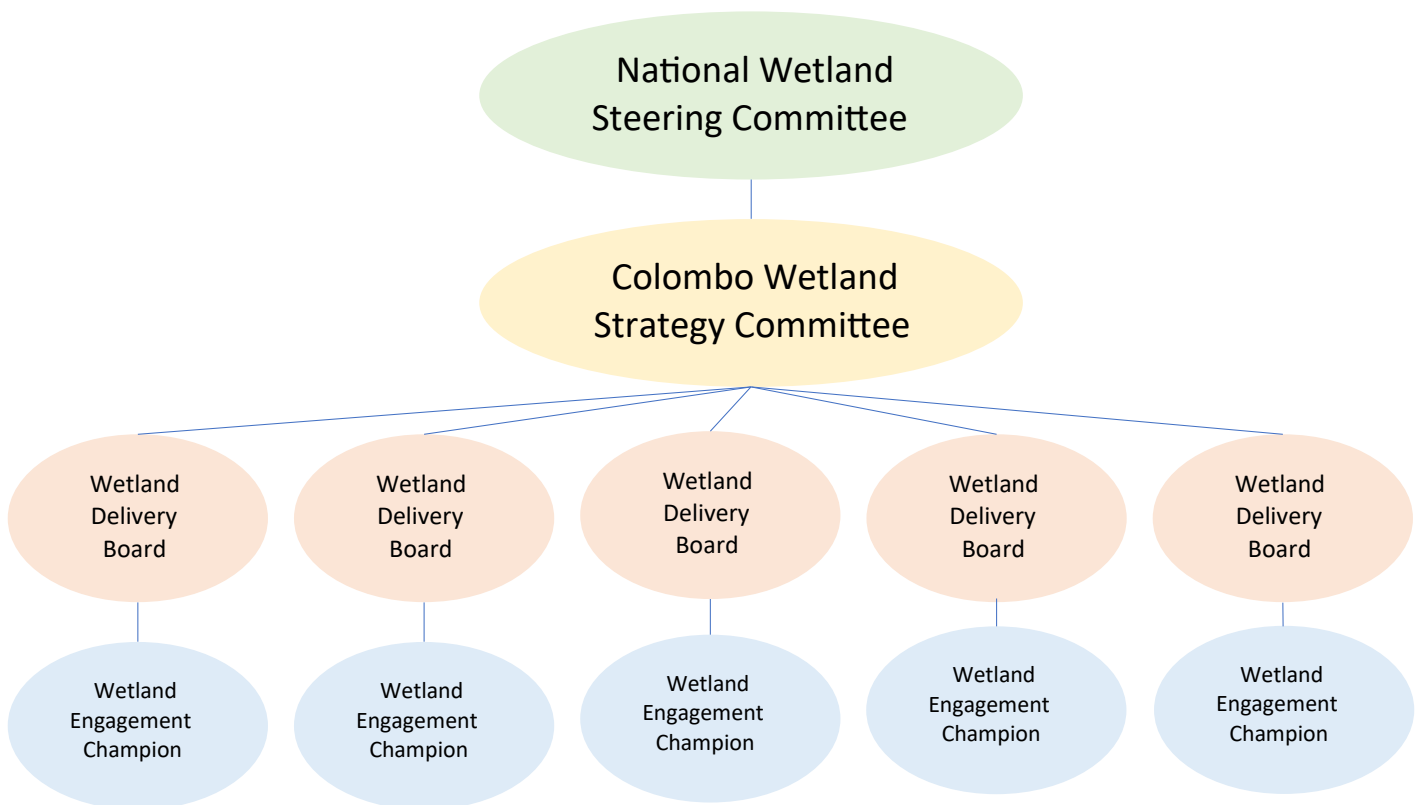
- coordinate closely with the Wetland Manager for each wetland area;
- engage closely with community members, civil society and local government;
- facilitate ongoing engagement activities during management planning or project delivery processes, using participatory techniques;
- build trust with all parts of the community and identify opportunities for community involvement in management and monitoring activities;
- identify opportunities for income generation and livelihood support; and
- report to, and be part of, the WDB for the specific wetland.

The framework does not introduce new roles within government agencies but rather expands the existing activities of staff. The Wetland Engagement Champion is a key part of the Colombo Wetland Management Framework, as demonstrated by the positive impact of this role in the Darwin Initiative project. The champion (referred to as the site coordinator in the project) played a significant role in achieving project outcomes through community mobilisation, coordination of activities, regular communication, and training and awareness raising. Several factors contributed to the success of the champion, including a willingness to work with communities, financial resources, availability of time, strong communication and coordination skills, and a personal interest in wetland management. These factors are essential considerations when identifying suitable candidates for the role.

While the Colombo Wetland Management Strategy recommends the establishment of champions, the role has yet to be formally defined. Nevertheless, through the

Darwin Initiative project, government agency partners and stakeholders recognised the significance of the role of the Wetland Engagement Champion and supported its inclusion in the Wetland Management Framework. The proposed framework, co-developed through partner meetings and workshops, was presented at the project’s high-level meeting on 18 January 2024.

It is envisaged that if applied, the framework will lead to more effective project and programme delivery, reduce single-agency costs, provide access to other funding sources, improve community relations and support for wetland projects, and raise awareness of the significance of wetlands to both humans and the environment. Implementing the Colombo Wetland Management Framework will assist government agencies to fulfil the objectives of both the National Wetland Policy and Strategy and the Colombo Wetland Management Strategy, ultimately leading to better protection and wise use of wetlands within Colombo.



**Figure 3.** Colombo Wetland Management Framework.

*Note:* Level 3 Wetland Delivery Board and Level 4 Wetland Engagement Champion will be established for every identified wetland in the Metro Colombo Wetland Complex.



Heen Ela Wetland, Colombo (photo: Priyanie Amerasinghe/IWMI).

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