



International Water
Management Institute

Wetlands and Human Well-being: A community perspective from the urban wetlands, Colombo, Sri Lanka



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Innovative water solutions for sustainable development
Food · Climate · Growth

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Human Well-being

A state of existence that fulfills various human needs, including material living conditions and quality of life, as well as the ability to pursue one's goals, thrive, and feel satisfied with one's life (IPCC, 2020)

Human well-being is a state in which there is an opportunity for satisfying social relationships and where human needs are met, where one can act meaningfully to pursue one's goals and can enjoy a satisfactory quality of life (IPBES)

Wetlands and Human Well-being

In the Asian region rich biodiversity and valuable ecosystem services provide vital support for human well-being and sustainable development.

- Ramsar Convention on Wetlands 2012
Healthy wetlands, healthy people, Ramsar Technical Report No. 6, Pierre Horwitz, C. Max Finlayson, Philip Weinstein
- IPBES Nexus Assessment – ongoing
the interconnectedness of nature and human beings
Biodiversity, ecosystems and benefits they provide to people



The value of wetlands

- The ecological services of wetlands have been valued at more than \$47 trillion per year - Davidson et al 2019
- 40% of all species live or breed in wetlands – Asia has many biodiversity hotspots
- Wetlands store 20% of organic ecosystem carbon - Temmink et al. 2022
- Wetlands are disappearing three times faster than forests
- Wetlands can help us adapt to the effects of climate change
- Since 1970, the planet has lost 35% of its wetlands

Key issues impacting the wetlands in the Asian region

- Rapid economic growth has resulted in higher rates of urbanization and agricultural expansion. This has come at a high environmental cost, causing degradation and loss of biodiversity
- Although Asia is beginning to see a reduction in poverty levels, mass poverty persists in some subregions
- Diverse values and value systems across the Asian region shape interactions between people and nature. There are some significant valuation data gaps so caution needs to be applied during interpretation.

Increasing the resilience of biodiversity and livelihoods in Colombo's wetlands

Darwin Initiative
Department for Environment Food & Rural
Affairs

2020 September to 2024 January

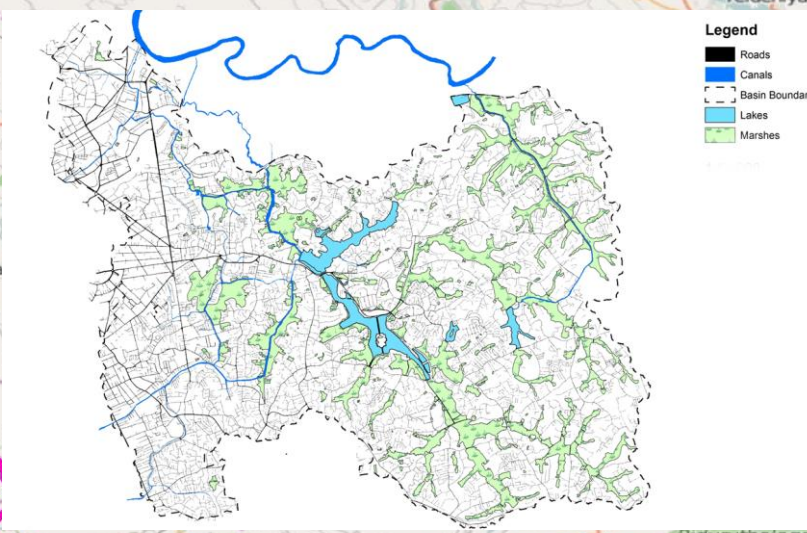


RESEARCH PROGRAM ON
Water, Land and
Ecosystems

Metro Colombo Wetland Complex

Legend

- Streams
- Kolonnawa Basin
- Metro Colombo Basin
- Kelani Basin

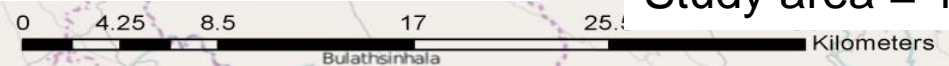


Kelani Basin

Colombo

Metro Colombo Wetland Complex

CMR Catchment = 227 km²
Study area = 121 km²



Outputs

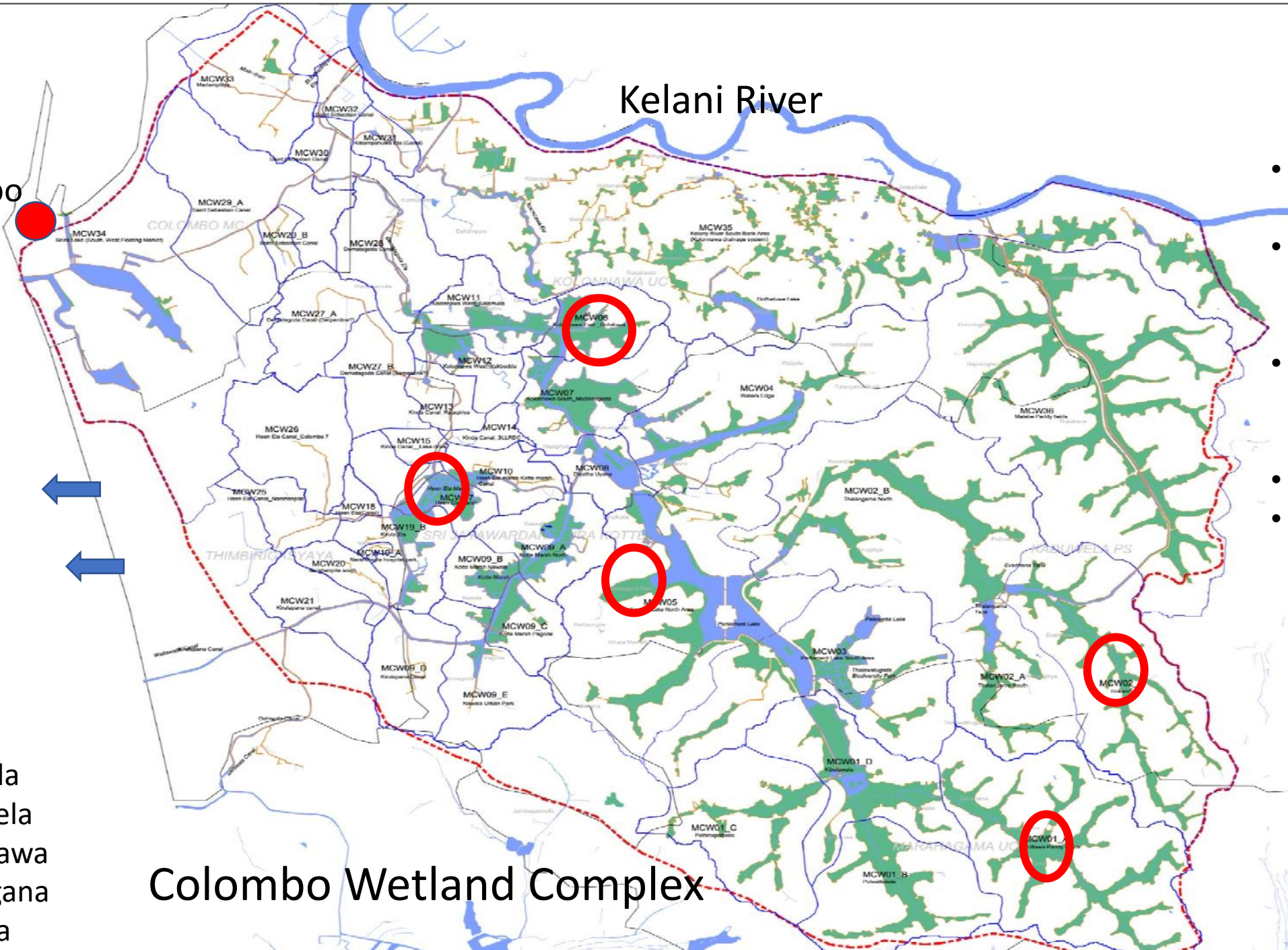
- Baseline and training
- Community management and monitoring
- Wetland management and best practices
- Evaluation
- Dissemination

Colombo

Kelani River

Heen ela
Madiwela
Kolonnawa
Beddagana
Kottawa

Colombo Wetland Complex



METRO COLOMBO
WETLANDS ZONING MAP

- Wetlands
- Catchment
- Wetlands Area in the Catchment

Criteria for wetland selection

- Governance/regulations structure
- Importance for flood storage
- Importance for biodiversity
- Level of threats and degradation
- Actively engaged and type of community
- Existing livelihoods
- Land ownership
- Wetland type – tank, paddy field, coastal, inland etc.
- Number of active projects
- Easy access

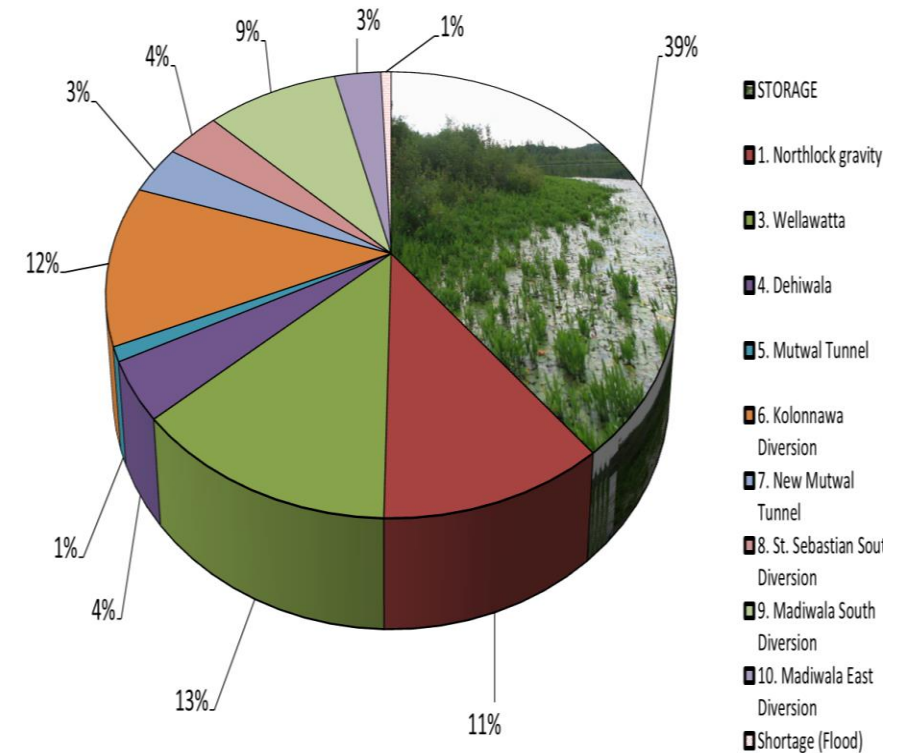


Additional sites: Attidiya, Mullariawa – Ambatale wewa, Crow island, Madinnagoda, Kimbulawela

The Darwin Project

Aims:

- Study the community wetland practices and monitoring, and develop a framework/mechanism to align with government policies
- Promote community best practices of wetland management, to safeguard biodiversity, improve livelihoods and secure the well-being of people



Identifying Community Groups?



Beddagana Sanctuary – 20 ha
Government



Heen ela Sanctuary - 31 ha
(Government)



Kolonnawa – Gothatuwa Sanctuary – 35 ha
(Government)

A group of seven people, including a woman in a blue uniform, a woman in a light blue shirt, a young girl in a yellow shirt, and several men, are gathered around a concrete structure in a rural field. The structure appears to be a well or a small dam. In the background, there are palm trees, a white house with a red roof, and a utility tower. The scene is set in a sunny, open area with green grass and some trees.

Kottawa – 29 ha
(Private)



Madiwela – 9 ha
(Government)

Community best practices

- Waste Management (Kolonnawa)
- Good agriculture practices (Kottawa and Madiwela)
- Awareness programs on wetland protection for citizens (Beddagana)
- Creating habitats for biodiversity (Heen Ela)

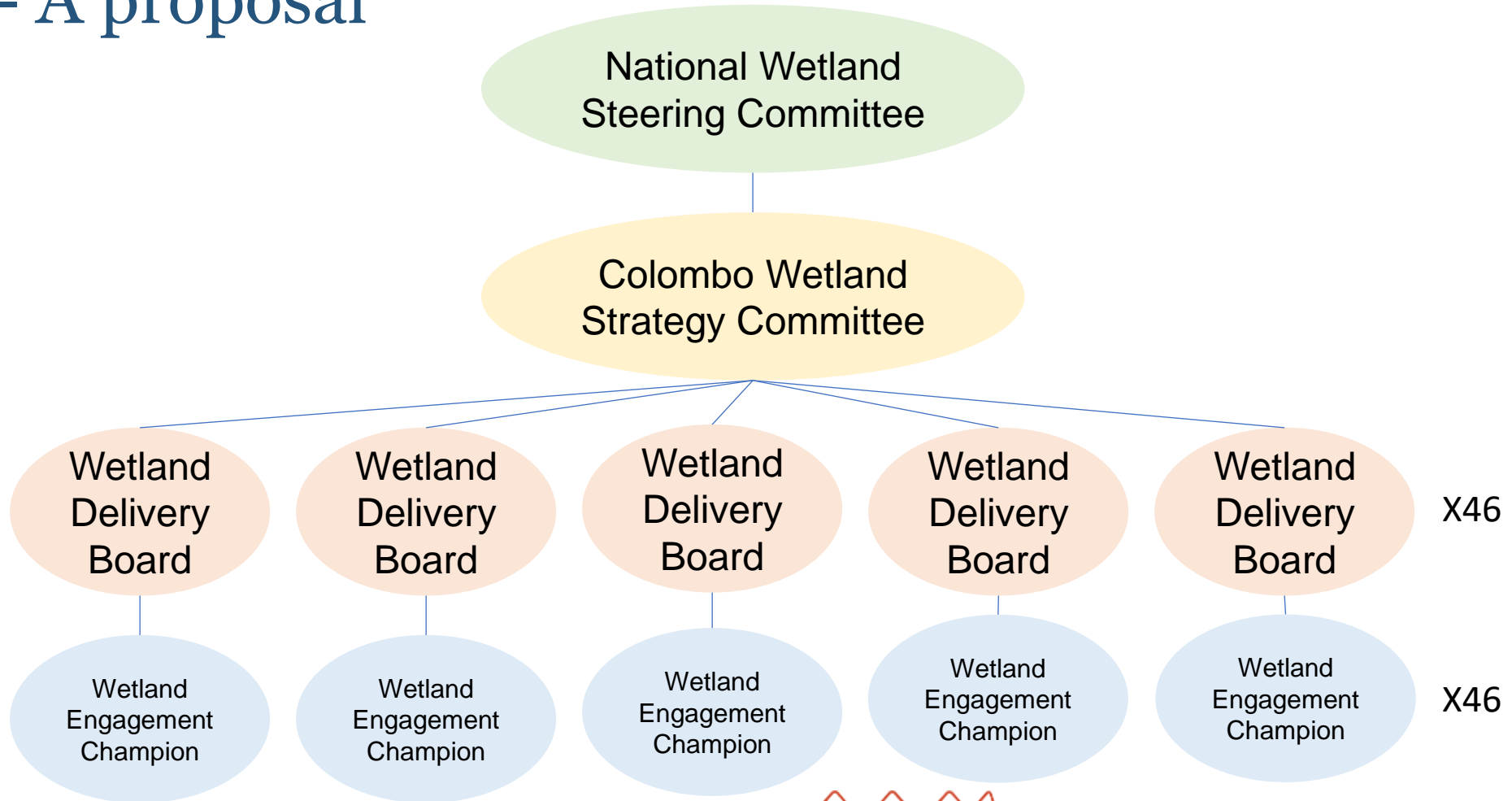
Outputs/outcomes

- Production of the Metro Colombo Urban Wetland Status Report
- Production of training materials - Online course on Community Wetland Management, Open University's OpenLearn Create platform
(<https://www.open.edu/openlearncreate/course/index.php?categoryid=491>)
- Training workshops in the community best practices on the wetland management approach
- Production of participatory videos – for decision-makers
- Training workshops on gender-sensitive community-led monitoring
- Wetland Monitoring App – Biodiversity and wetland status
- Wetland School Program – FOGSL
- Wetland Management Framework – co-developed

Co-development of a Wetland Management Framework

- Two key policies informed the development of the Colombo Wetland Management Framework:
 - National Wetland Policy and Strategy 2006
 - Colombo Wetland Management Strategy 2016
- Governmental and non-governmental Institutions, UN organisations, and other international organizations
- Citizens (Mainly wetland communities)

Colombo Wetland Management Framework - A proposal



The Darwin Project experience has led to the formulation of a set of principles for wetland management within Colombo

1. Multi-agency collaboration for successful wetland management and project delivery
2. Each wetland area has a clear wetland organisational champion as the lead agency
3. Organisational wetland policies should be aligned and include the wetland management framework
4. Adaptive wetland management plans should consider the wetlands' ecological character and local community needs, set objectives and produce action plans
5. Early and ongoing engagement and consultation with all stakeholders including local government, local communities and civil society groups
6. Community engagement led by an 'Engagement Champion' that builds a relationship of trust with all parts of the community
7. Use of participatory techniques in engagement so all voices are heard
8. Ensuring engagement occurs at key project or planning stages
9. Involving communities in management and monitoring activities





The Field Ornithology Group of Sri Lanka and IWMI launched a School Wetlands Program for 100 students from 5 schools

Partners

- Biodiversity Secretariat, Ministry of Environment, Sri Lanka
- Sri Lanka Land Development Corporation, Ministry of Urban Development and Housing, Sri Lanka
- Department of Wildlife Conservation, Ministry of Wildlife and Forest Conservation, Sri Lanka
- Central Environment Authority, Ministry of Environment, Sri Lanka
- Urban Development Authority, Ministry of Urban Development and Housing, Sri Lanka
- Field Ornithology Group of Sri Lanka, Department of Zoology, University of Colombo, Sri Lanka
- Cobra Collective, UK (Project Lead, UK)
- IWMI (Co-lead) – Implementing partner



cobra collective
we empower communities

Thank you

