

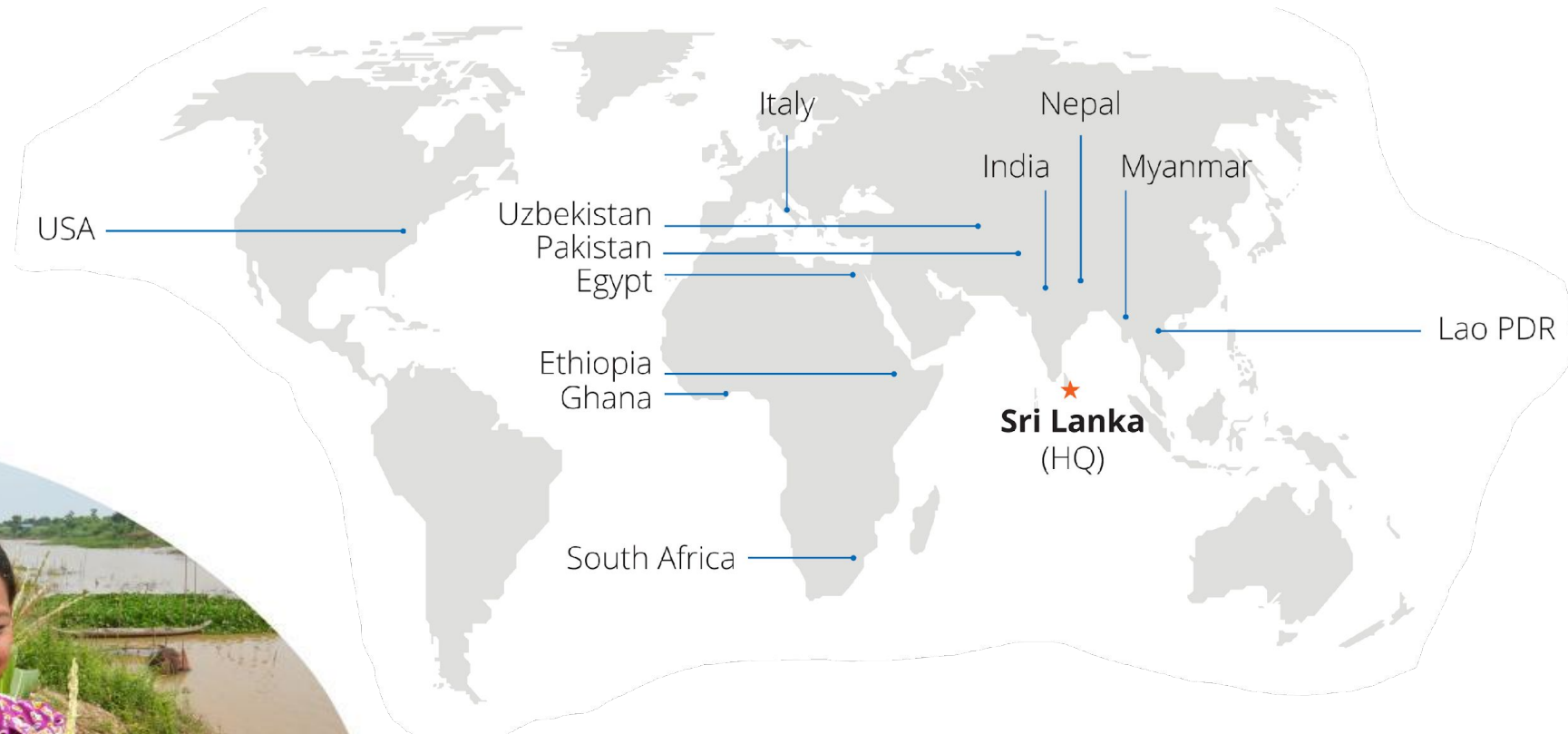
# Water Innovations for Climate Resilience

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Water, Climate Change and Resilience

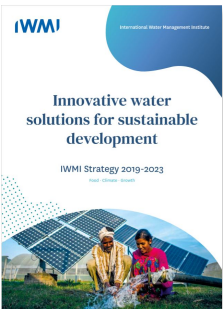
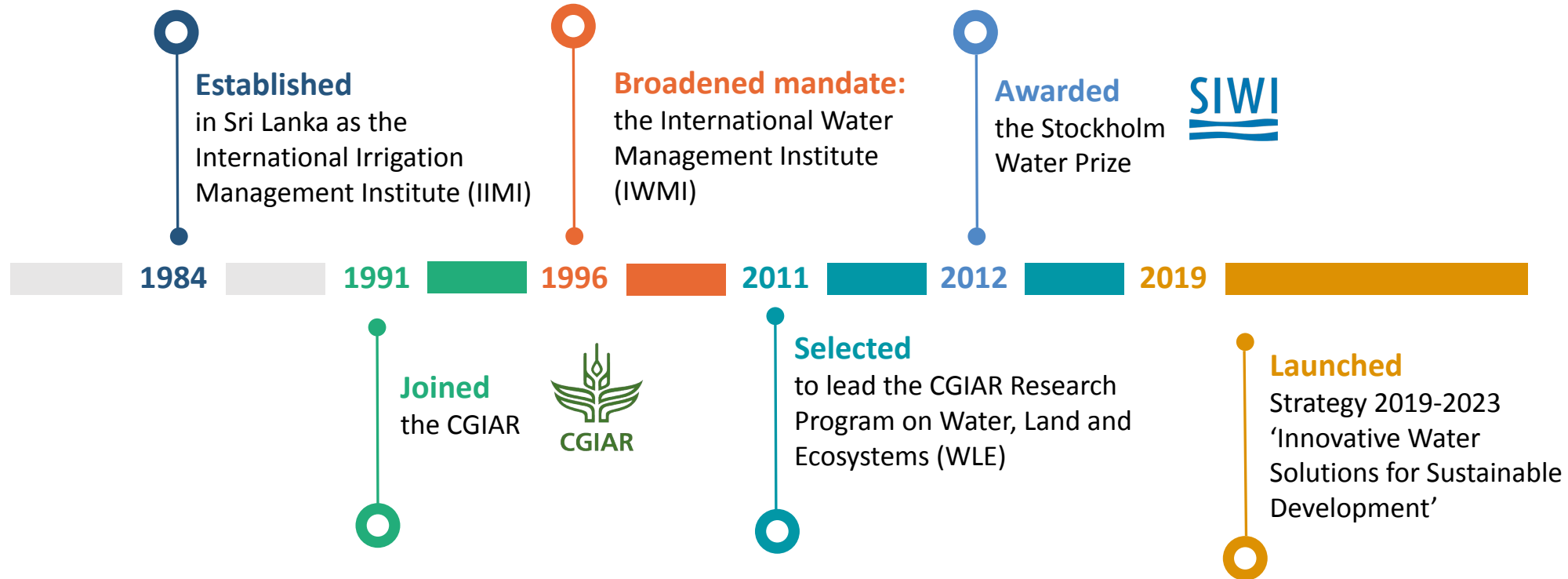
Innovative water solutions for sustainable development

Food · Climate · Growth

# IWMI Offices



# History of IWMI



# Our Research Centers



**International Food Policy Research Institute (IFPRI)**



**Center for International Forestry Research (CIFOR)**



Science for resilient livelihoods in dry areas

**International Center for Agricultural Research in the Dry Areas (ICARDA)**



**International Livestock Research Institute (ILRI)**



**International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)**

Alliance



**The Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT)**



AfricaRice

**Africa Rice Center**



**International Institute of Tropical Agriculture (IITA)**



**International Water Management Institute (IWM)**



**International Rice Research Institute (IRRI)**



**WorldFish**



**World Agroforestry (ICRAF)**



**International Potato Center (CIP)**



**International Maize and Wheat Improvement Center (CIMMYT)**

# Water, Climate Change and Resilience

The goal is to equip people and societies with the means to make the adjustments across systems, sectors, and scales that are needed to withstand, recover from, and anticipate the impacts of climate change.

## Outcome

Improved climate change adaptation and mitigation with greater resilience to natural disasters and societal disruption through increased use of water-smart solutions

## Key questions



How can farmers adapt to climate change?



How can water management help make development more resilient?



What are the best ways to increase preparedness for water-related disasters and reduce risks for vulnerable communities?



How can the dangers of water as a risk multiplier for conflict and migration in fragile communities be reduced?

# AWARE

The **AWARE Platform** helps countries overcome the challenges and respond to extreme climate events in advance to protect people before disasters strike based on early warning to early action and finance.



## Early Warning

This tool allows the users to monitor past and current climate and vegetation conditions, floods and drought severity to anticipate future conditions and early actions.



## Early Action

This tool summarizes the actions to be measured for different stages of disasters using the Early Warning module to mitigate climate through proactive management measures.



## Early Finance

Provides overview and reporting of early finance opportunities based on the actions taken by institutes.



## Sectorial Climate Risks

Provides overview and reporting of climate risk indicators health related issues and price fluctuation of major crops to anticipate future condition based on the data collected.



## Online Bulletin

This tool helps to disseminate drought related information to guide various users for timely early action and decision-making process.



## User Guide

The user guide provides the opportunity for users to step-wise procedure on the various knowledge products of AWARE for quick access and information sharing.

# Alert Dashboard - Drought

The aware alert dashboard offers to monitor and display alerts or notifications related to various hazards (flood, drought and landslide).

The screenshot displays the AWARE Platform interface for monitoring drought alerts. The top navigation bar includes the CGIAR Climate Resilience logo, the platform name, and user options like 'About', 'English', and 'Niran...'. The main dashboard features a sidebar with navigation links and a central alert panel with a map of Zambia.

**Navigation and Filters:**

- Home: AWARE Home
- Alert Dashboard (Active)
- Early Warning
- Early Action
- Early Finance
- Sectorial Climate Risks
- Online Bulletin
- User Guide
- Disclaimer

**Alert Dashboard Filters:**

- Countries: Zambia
- Regions: Central
- District: Chibombo
- Risk: Drought
- Lead time: October
- Clear All
- Table View

**Alerts Panel:**

- IRI (Index of Agreement):** Normal
  - Current Value: 0
  - Active Threshold: -70
  - Readiness Threshold: -50
  - Preparedness Threshold: -40
  - Severity: Normal
- SPI (GPM) (Standardized Precipitation Index):** Readiness Phase
  - Current Value: -1.49
  - Active Threshold: -2
  - Readiness Threshold: -1
  - Preparedness Threshold: 0
  - Severity: Severe
- IDS (Index of Drought Severity):** Normal
  - Current Value: 0.35
  - Active Threshold: 0.1
  - Readiness Threshold: 0.2
  - Preparedness Threshold: 0.3
  - Severity: Normal

**Map Legend (IRI):**

- White indicates Climatological odds
- 70%
- 60%
- 50%
- 45%
- 40%
- Normal
- 40%
- 45%
- 50%

The map shows the district of Chibombo in Zambia, with major roads (T2, T4, T6) and towns (Kabwe, Chisamba, Lusaka, Shingela) labeled. The map is currently showing a white area, indicating climatological odds.



# Why Climate Smart Governance (CSG) Dashboard?



## Country Overview

Welcome to the country overview summaries that provide an overview of key development indicators.

[View More](#)



## Climate Outlook

This climate Outlook tool presents the projection or forecast of future climate conditions over a specified period, and it provides users with...

[View More](#)



## Project Tracker

The project tracker allows users to monitor and track adaptation and mitigation projects, and the tool offers improved coordination and facilitation...

[View More](#)



## Geo Intelligence Tools

This geo-intelligence tool offers various geospatial data and visualization capabilities for project preparation, monitoring and coordination among...

[View More](#)



## Monitoring and Evaluation

The M&E tool enables users to monitor and evaluate projects effectively, supports timely decision-making on project performance, and...

[View More](#)



## Development Indicators

The tool enables monitoring of Sustainable Development Indicators at the country and project level as well as the Sendai Framework for Disaster...

[View More](#)



## Adaptation Catalog

This adaptation catalogue tool allows users to learn about experiences from countries on good adaptation practices that are implemented...

[View More](#)



## Investment Portfolio Planning

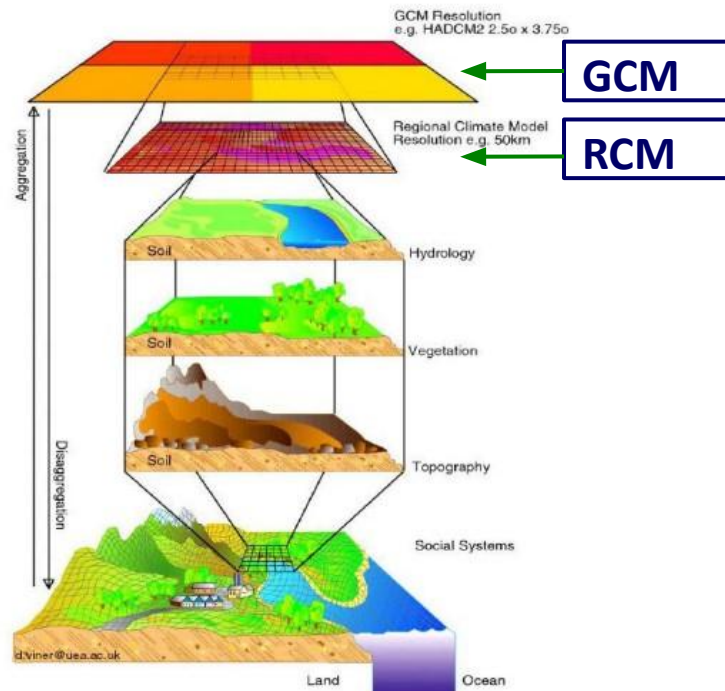
The investment portfolio planning tool assists users in strategically utilizing the CSG Dashboard knowledge products and information to prepare...

[View More](#)



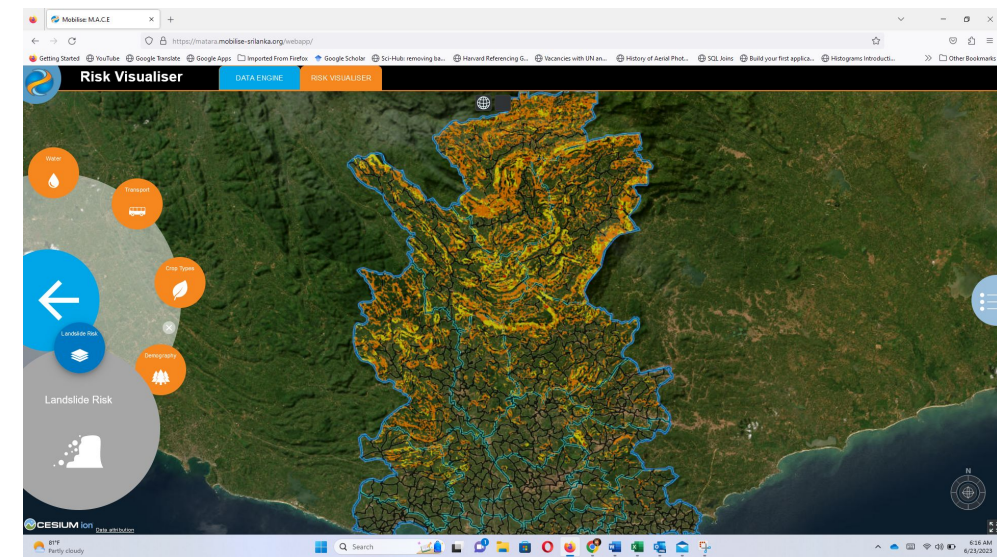
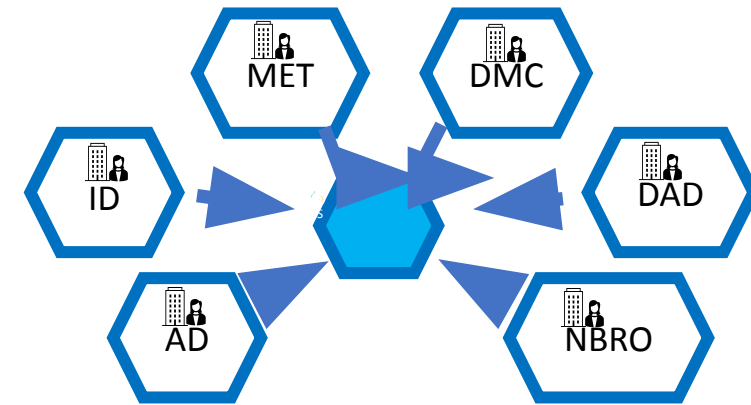
# Capacity Strengthening for Climate Modelling and Early Warning of Disasters

Guiding the met department in dynamical downscaling of climate scenarios



Source: Bergaoui 2022

Pilot climate information sharing and early warning platform for Matara district

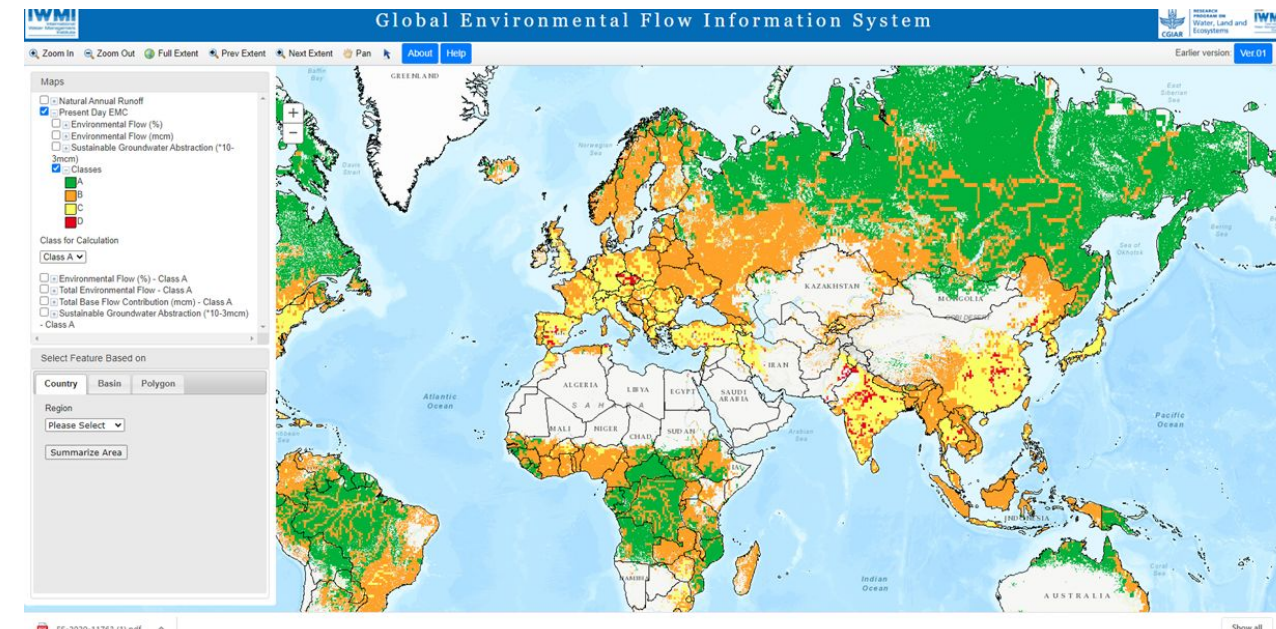
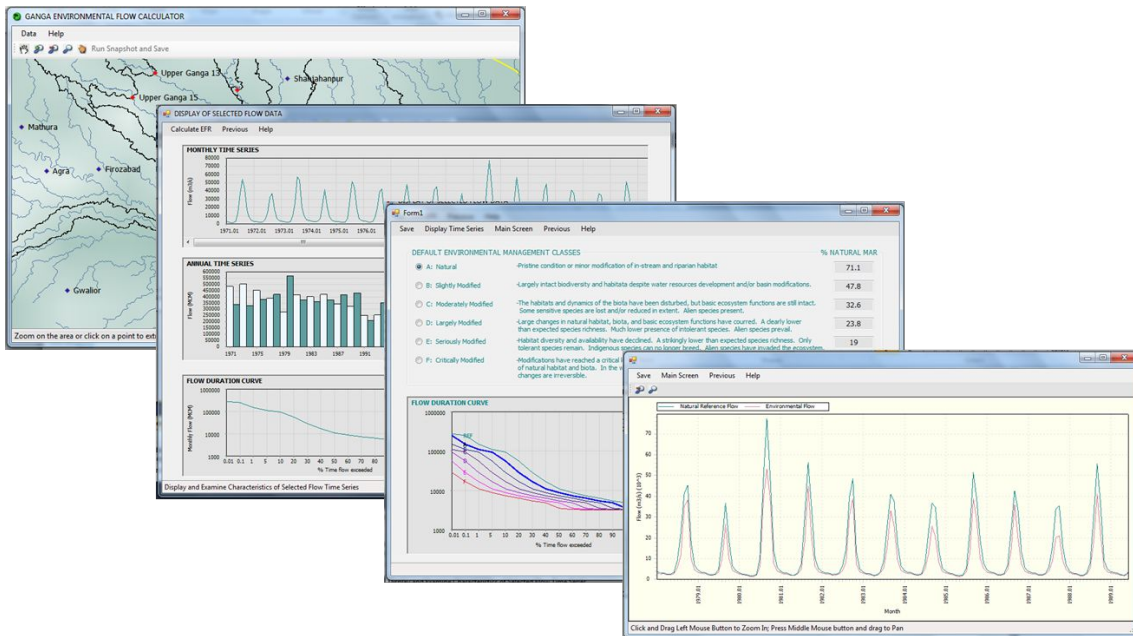


# IWMI Environmental Flow Tools

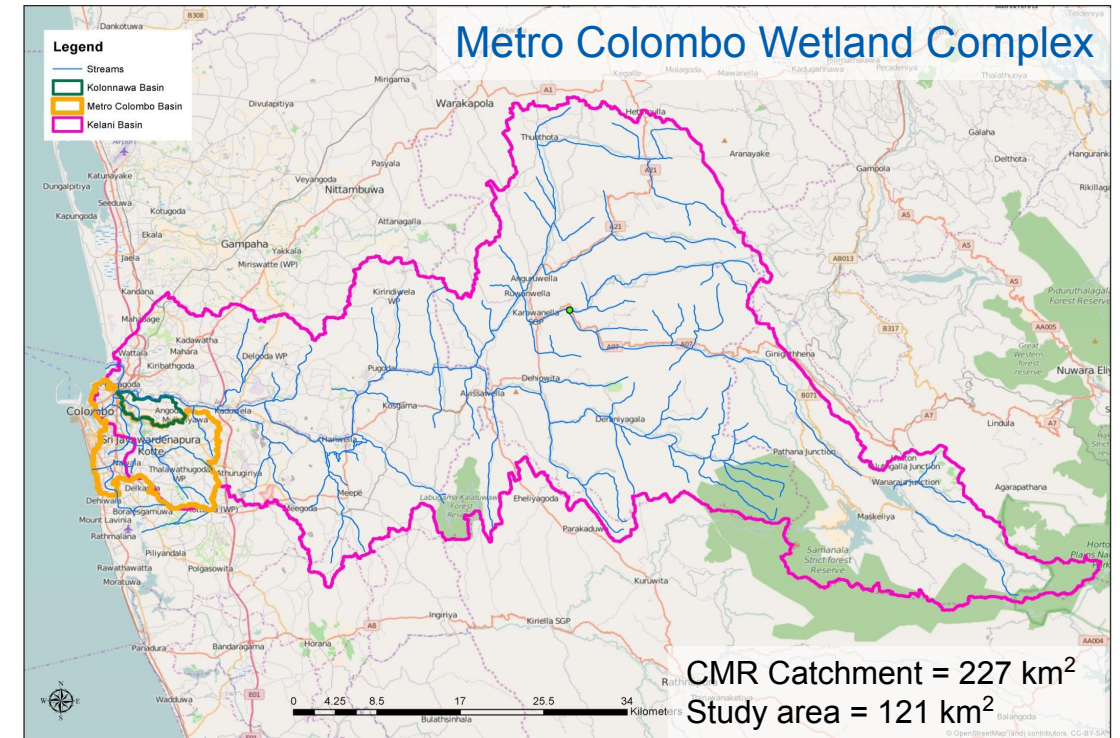
Online and offline software tools for quick desktop estimation of environmental flow (EF) requirements of rivers.



Used in estimating SDG indicator 6.4.2 for all countries!



# Sustainable Water Infrastructure & Ecosystems (SWIE) - Wetlands



Ongoing projects:

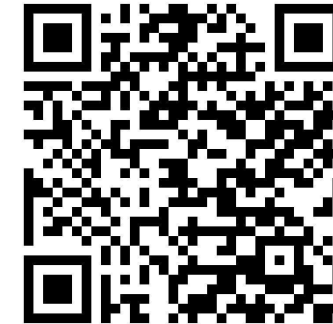
1. Increasing the Resilience of Biodiversity & Livelihoods in Colombo's Wetlands – community engagement focused
2. Rights of Wetlands Operationalisation for Biodiversity & Community Resilience – policy focused

# Increasing the Resilience of Biodiversity & Livelihoods in Colombo's Wetlands

**Wetland Water Quality Monitoring Device:** remote controlled device built with locally sourced materials to test basic parameters of water quality.



**Wetland Monitoring App:** Citizen Science tool to monitor various aspects of wetlands (water quality, level, birds, animals etc.) with a dashboard for anyone to obtain data.





International Water  
Management Institute

Thank you.

**Innovative water solutions for sustainable development**

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