

INTEGRATED WATER RESOURCES MANAGEMENT (IWRM)





NUST
CENTRE FOR
CONTINUING EDUCATION

This short course introduces the principles and practice of **Integrated Water Resources Management (IWRM)** as a holistic and participatory approach to managing water resources in a sustainable, equitable, and efficient manner. Furthermore, it emphasizes cross-sectoral coordination, stakeholder engagement, policy and institutional frameworks, and adaptive strategies for addressing water-related challenges, particularly under conditions of climate variability and socio-economic change.

TARGET AUDIENCE:

Municipality workers, engineers, water utility staff, urban planners, environmental officers, local government leaders, community development professionals, extension officers, policy makers, researchers, students.

DURATION:

3-6 November 2025

VENUE:

National University of Science and Technology (Zimbabwe)

COURSE OBJECTIVES:

By the end of this course, participants will be able to:

- Explain the core principles, objectives and significance of Integrated Water Resources Management (IWRM).
- Analyse and manage water resources using a holistic, multi-sectoral and sustainability focused approach.
- Apply IWRM frameworks and tools in municipal planning, policy formulation and service delivery systems.
- Identify and propose solutions to key urban water challenges, including scarcity, pollution, and equity concerns.

COURSE OUTLINE:

DAY 1: INTRODUCTION TO IWRM AND WATER GOVERNANCE

Municipality workers, engineers, water utility staff, urban planners, environmental officers, local government leaders, community development professionals, extension officers, policy makers, researchers, students.

- What is IWRM?
- Importance of IWRM in urban and peri-urban settings
- Water governance and the role of municipalities
- Stakeholders in water resource management
- Community engagement and inclusive water governance
- Case studies: Successful IWRM implementation in cities

DAY 2: ENVIRONMENTAL ETHICS AND SUSTAINABILITY IN IWRM

- What is IWRM?
- How does ethics relate to IWRM?
- How does IWRM ethics work on a local, national and transboundary level?
- A critical evaluation of IWRM using the Deku River as a case study

SOME NEW TOOLS FOR IWRM PRACTITIONERS TO
CONSIDER

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DAY 3: RETHINKING WASTEWATER

- Urban pollution sources and mitigation
- Wastewater collection, treatment, monitoring and reuse
- Dealing with emerging pollutants
- Resource recovery from Wastewater
- Green infrastructure for wastewater treatment

DAY 4: INSTITUTIONAL INTEGRATION AND PLANNING

- Incorporating IWRM in municipal development plans and budgets
- Financing water services sustainably
- Role of public-private partnerships (PPPs)
- Action planning and roadmaps for IWRM implementation
- Legal frameworks and compliance (local bylaws, national standards)

ASSESSMENT & CERTIFICATION

- Group project: Develop an IWRM strategy for a local context
- Presentations from group discussions.
- Certificate of completion from the National University of Science and Technology (NUST)



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This short course is funded by the European Commission through the ACEWATER III project