



International Centre  
for Hydropower

# Reservoir Sediment Management for Sustainable Hydropower in Africa

**26 - 30 September 2022**  
**Zambia**

**Application deadline – 22 July 2022**

Course fee – USD\$ 1000

\*Residents USD\$ 500

\*Fee includes course materials, meals, and accommodation for non-residents

# RESERVOIR SEDIMENT MANAGEMENT FOR SUSTAINABLE HYDROPOWER IN AFRICA

Water reservoirs support both water and energy security, providing essential services required for development in Africa. Africa's hydrological shifts due to climate change coupled with topography and pattern of land use are some of the factors that are leading to increase the variability in erosion and sediment transport and rates of reservoir siltation.

The build-up of sediments in reservoirs significantly reduce storage capacity thereby affecting energy production and the reliable supply of water. Moreover, sediments compromise the safety of the structures, damage equipment and results in significant financial consequences.

Sediment management is therefore important and relevant for the sustainable use of water resources and addresses the problems of food, water, and energy insecurity.

It has become even more critical to ensure the continued and stable supply of energy and water to vulnerable populations and essential service sectors such as hospitals.

To implement sustainable sediment management, a capacity both in terms of resources and trained manpower is essential and a priority requirement for the region.

## COURSE OBJECTIVE

This ICH training will contribute to the ongoing efforts of mitigating the sedimentation problems of reservoirs for more sustainable uses by exploring and disseminating practical methods and strategies that are viable to apply in handling sediments in a more eco-nomically, technically and environmentally feasible way. This training will also share experiences for sediment handling at other locations, making it possible to learn from good practices and results achieved at other projects.

Participants will learn practical cost-effective, innovative, technical solutions to reservoir sedimentation for optimum benefits of the water resources in Africa.

## COURSE OUTLINE

This course is a continuance of Part I online classes hosted in 2020/2021.

Part II is intended as a follow-up and practical hands-on training that will include comprehensive technical site visits performing physical measurements of sediment and modelling approaches for the estimation of sediment in water bodies. It is therefore recommended that participants from the 2020/2021 online sessions enrol to complete the practical training offered by this course.

For new participants the course will start with a brief recap of the previous content covered online and continue with the hands-on practical measurements.



... ICH, enhancing sustainable development of hydropower resources

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## TARGET GROUP

The course is aimed at reservoir operators, government water resource and energy agencies, reservoir owners, utility managers and field level experts. Executives of power companies, ministries, and relevant private sector enterprises with reservoir operation and management responsibility will benefit from this course. The course will also be of value to engineers working in water resources planning and multipurpose projects.

## MAIN TOPICS

- Focus on reservoir sedimentation, processes, and sediment load estimation
- Impact of climate change on reservoir sedimentation,- a regional perspective
- Monitoring sedimentation in existing reservoirs
- Sediment data collection and forecasting techniques
- Handling sediment in reservoirs
- Strategies for management of sediment in reservoirs
- Case studies

Women are encouraged to apply.



# SPECIFICS FOR THE COURSE

## GENERAL

All lecturers and resource persons are well-known specialists within their field, and they have extensive international and regional experience. Attending the courses is an opportunity to discuss and learn about current issues related to hydropower and other renewables together with professionals from the continent and abroad. Participants are encouraged to bring along information that can be shared about pending energy and power market issues of your interest.

## ADMISSION REQUIREMENTS

- A minimum of about 5 years of working experience is required.
- Applicants should hold an applicable degree or possess relevant background knowledge.
- Proficiency in English is compulsory for this course

Notice of admission will be given shortly after the application closing date.

ICH reserves the right to accept or reject any applicant based on their qualifications and experience.



## SPECIFICS FOR THE COURSE

### *Women are encouraged to apply.*

Information on travel, detailed course programme and other relevant information will be sent to all participants in due course. Participants are expected to arrive at the venue of the course the day prior to the course start and leave no earlier than the day after end of the course.

## COURSE FEE

The course fee\* includes lectures, materials, accommodation, and meals. International travel expenses are not included. There is a reduced fee for ICH members. A limited number of sponsored seats are available for participants from countries prioritized by NORAD (Norwegian Agency for Development Cooperation).

Those who would like a guaranteed seat on the course should secure their own funding.

\*Accommodation will be provided for participants attending from outside the host country and paying USD\$ 1000. Attendance without accommodation is USD\$ 500.

## CONTACT;

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