

- Modules:** Duration and contents may be adjusted to meet the qualifications and profiles of the participants
- Venue:** DHI, Agern Allé 5, DK-2970 Hørsholm, Denmark
- When:** 2 -27 June 2008
- Course Fee:** 4400 € in tuition fee. Does NOT cover transportation, accommodation, daily subsistence etc.

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About DHI

DHI is an independent, international consulting and research organisation.

DHI is authorised by the Ministry of Science, Technology and Innovation as an Approved Technological Service Institute and is member of GTS - Advanced Technology Group, a network of seven independent Danish research and technology organisations. More info on www.dhigroup.com

Our objectives are to advance technological development and competence within the fields of water, environment and health.

We offer a wide range of consulting services and leading edge technologies, software tools, chemical / biological laboratories and physical model test facilities as well as field surveys and monitoring programmes.

We are 700 employees based in 20 countries worldwide.

DHI is designated as International Collaborating Centre for the World Health Organization, WHO, and for the United Nations Environmental Programme, UNEP, and furthermore as a Resource Centre for the Global Water Partnership.



Integrated Environment and Water Management course at DHI

The purpose of the course is to provide people working with environment and water resource management with a wide-ranging appreciation of the tools available. The course will provide the participant with a background for assessing water quality, water resources and other environmental issues and allow them to use these in an integrated way in environmental management. The course will be based on a mix of lectures, exercises and field trips. Training in the use of PC-based methods, including GIS will be a part of the training course.



Course participants on field trip

The target group of participants are environmental practitioners, water resource managers and others working with environmental issues, taken from middle managers and middle-to-senior administrators connected to public authorities regulating or administering water and environmental services and or working with implementation of the **Millennium Development Goals**.

Participants should have a technical background in some aspects within environmental management or water management, and would normally be expected to be at least at graduate level.

The course is also suitable for environmental managers in large private sector companies, as well as to some NGO development organisations. The participants must be fluent in spoken and written English (the course language).

The intensive nature of the course provides a maximum amount of information in a number of disciplines over the short time frame of 4 weeks with more than 120 hours of theoretical and practical instruction. The staff of DHI engaged on the course will be available to assist participants during the course period, and full use will be made of DHI's facilities in Hørsholm, Denmark.

Course material (lecture notes, guidelines, etc) to be used upon return to the various home countries, will be provided. Furthermore, the participants will work on individual projects supervised by an expert within the field. During your stay you will have access to PC with internet connection, allowing for e-mail service and for searching for information.



Participants working with Water quality assessment

Certification. A Course Certificate will be provided to all participants who complete the course.

Below you will find a few CVs of the key teachers:

CV Jesper Goodley Danniøe: Jesper has headed training courses at DHI for more than 10 years. He uses his background as a biologist to focus his training on water quality assessment and will introduce biological monitoring as a modern tool for assessment. Recent projects: Establishing water quality monitoring in the Caucasus region. Implementation of waste water and water abstraction permits in Vietnam.

CV Arne Jensen: Arne is a marine specialist and he has worked with environmental issues in many countries. He has established monitoring systems along the Egyptian coastline, he has made EIA in Vietnam on water supply systems and he is one of the key trainers in EIA. Recently Arne has worked in the United Arab Emirates on training.

CV Jennifer Oakley: Jennifer is librarian at DHI. She is the key person to provide course participants information and literature for their individual studies. Further, she is also helping in taking care of the participants and help them feel at home at DHI.

Overview of the course contents

Course module	Subjects:
Foundation module. This module is designed to give individuals a basic understanding in those aspects of the course in which they have limited knowledge, and bring all participants to the same basic level for the other modules.	Basic principles of hydrology, water quality and water quantity. Introduction to impacts of actions on the environment.
Water assessment. The module will provide the participant with a wider understanding of the importance of water for the environment, how to assess the resources and quality, conflicts of water users and how the water quality and quantity influence on the aquatic biology.	Water quantity and quality assessment methods. Tools in water management, trans-boundary problems, legislation, etc.
Data analysis and presentation. The module will deal with the evaluation of data, computerisation of records, statistical analyses and presentation techniques for different types of data and area of use to meet the needs of different decision-making processes.	Raw data collection and storage. Keeping of records. Use of surveys. Database development. Data retrieval. Elementary statistics. Computerisation of records. Incorporation of GIS.
GIS and modelling. Introduction to GIS and simple modelling systems based on GIS. Limitations in the use of modelling	Introduction to GIS systems, modelling systems for water resource management, time series management.
Integrated Water Resource Management. The module will provide the participants with an understanding of the many cross-cutting factors that are important in a sound management of the water resources. The water quality assessment, data management, modelling and GIS will be placed in this context.	Main principles in IWRM, water resources Policy and legislation, institutional roles, management instruments, introduction to the Global Water Partnership's Toolbox, cases and policy tools. Introduction to catchment modelling tools and their application. Public participation.
Environmental management. Successful environmental management is based on an understanding of the integration of the different aspects of water, biology, protection etc. This module will provide the participant with an understanding of the many aspects of EM, how to balance these against each other and how to assess the environmental impacts.	Environmental Impact Assessment, Planning=>Policy=>Management cycle, design of surveys, environmental audits, cleaner technology and waste minimisation.
Individual working sessions. Each participant will have individual time for describing any water- or environmental management problems in his/her country and then use the new knowledge to propose a strategy for the future.	All participants will have access to consultations with DHI water resource and quality specialists, who will help the participants in setting up a strategy for their country. All strategies will be presented during the course.