

DHI WATER POLICY

Governance for Sustainable Development

Scope of advisory services

Freshwater and coastal resources management

- ◆ **Policies, strategies and legal frameworks**
- ◆ **Institutional roles and capacity development**
- ◆ **Management instruments**

DHI WATER POLICY



DHI Water Policy specialises in Integrated Water Resources, Integrated Coastal Zone and Natural Resources Management and Development. DHI Water Policy is member of the largest European advisory and research organisation within water, the DHI Group and can immediately draw on the multitude of available professionals and modelling

technologies. DHI Water Policy assists and advises clients within key aspects of policies, legislation, strategies, institutional development, action planning and implementation of institutional reforms.

Key areas of advisory services

Management of water, coastal and natural resources for sustainable development

In a world where limited resources are increasingly stressed, good water governance is more than ever crucial for sustainable development.

DHI Water Policy considers Integrated Water Resources and Coastal Zone Management as cyclic planning processes. National IWRM and Coastal Zone plans and roadmaps have been recommended by international fora and processes. Among these are Agenda 21 and the joint plan of implementation from the World Summit on Sustainable Development in Johannesburg, 2002. DHI has pioneered the concept development for such processes and assisted national planning processes in Burkina Faso, Nicaragua, Uganda, Vietnam and Zambia. Further, DHI Water Policy has assisted UNEP's IWRM 2005 Programme aiming at accelerating the implementation of IWRM in 10 sub-regions of the world.

DHI Water Policy sees Integrated Coastal Zone Management (ICZM) as an appropriate framework to meet the commitments and obligations of recent international agreements and initiatives for the coastal zone. Under the UNEP Collaborating Centre on Water & Environment a special activity is the FreshCo Initiative for establishing improved systems for Integrated Coastal Area and River Basin Management. The aim is to ensure a sustainable economic development of the coastal zone and its associated river basins, through maintaining healthy and productive aquatic ecosystems and natural resources.

DHI Water Policy assists countries remedying weaknesses in water and natural resources governance. The approach is to address the priority issues, among others by adjusting key elements in the governance framework.

DHI Water Policy hosts a number of international and national centres working within water resource management. These include, Advisory Centre for Global Water Partnership; UNEP (United Nations Environment Programme) Collaborating Centre on Water and Environment; WHO (World Health Organization) Collaborating Centre on Water and Health and the Danish Water Forum. The Clients, to which DHI Water Policy has provided services, include multilateral and bilateral donor agencies, development banks and government agencies. Among the most notable are: UNEP, UNESCO, WHO, EU, World Bank, Danida, Sida and Danish Ministry of Environment.

Our staff is carefully selected to respond to the clients' requirements and represents the foremost in knowledge on management and planning frameworks for water resources, coastal resources and the associated issues and problems. DHI Water Policy strives to be a trusted and highly valued partner fully covering areas right from the policy and strategy level to action plan implementation and associated monitoring and evaluation.

Water resources management for a better environment

Ecosystem health and productivity are essential for human livelihoods and life support systems. Water and coastal resources management must strive to maintain water regimes which are favorable to maintenance of healthy ecosystems

Understanding the functions of aquatic and land-based ecosystems and their needs are essential for the development of necessary management functions to sustain ecosystem health and productivity. This understanding has to be built into freshwater and coastal zone policies, legislation and planning. DHI Water Policy has assisted countries in developing river basin plans according to the EU Water Framework Directive and has provided support in national EU approximation processes.

Water resources management for reduction of health risks

Water Resources development may result in water quality and health impacts - and assessing and preventing these as part of the planning and implementation of infrastructure is an essential requirement to management.

Water source and water resources protection are essential if high quality water has to remain uncontaminated. Both groundwater and surface waters are vulnerable to pollution and require both localised and larger-scale actions to prevent pollution of drinking water and water for other human uses. DHI Water Policy has developed and applied a comprehensive risk assessment and risk management approach that encompasses all steps in water supply from catchment to consumer as an effective means of ensuring a safe drinking-water supply in a cost-efficient way.

Water resources management in a world with climate changes

Natural and human-induced climate change adds to the threats to the sustainability of the world's water resources and thus to the livelihoods of the increasing populations. Adaptation measures, risk assessment and safety factors are all part of the management requirements imposed by climate changes.

Mitigating climate changes is no longer an option; we will have to adapt to future changed climatic conditions. The emerging climatic challenges need careful assessment in order to design effective and sustainable approaches and solutions. Not necessarily new knowledge and tools – a combination of existing knowledge and tools in new ways may take us far. DHI Water Policy has the experience and knowledge to address such challenges from many years of cross-sectoral development of water policies and action plans, based on factual and quantitative knowledge of the water resources



Key areas of professional capabilities

Policy dialogue, analysis and advice

Analysing effective policy options, assisting policy formulation, facilitating roundtables on policy issues, advising on strategic approaches and good practices

Water legislation and regulations

Peer reviewing and assisting development of legislation, analysing impacts, assessing human and financial resource requirements and implementation modalities

Diagnostic water and coastal resources assessments

Identifying key water and coastal issues, establishing root causes, assisting selection of strategies to address root causes, developing action plan.

Analysis and reform of management institutions

Analysing management functions at trans-national, national and basin level, preparing strategic assessments for institutional reform, assessing requirements for management instruments.



Water sector reforms

Assisting overall reform processes within policy and legislation, institutional roles and management instruments, developing strategic implementation plans, assessing financial and human resource requirements and bringing good practices to the table

Stakeholder involvement and participatory processes

Assisting stakeholder analyses, facilitating stakeholder dialogues, assisting design of participation aspects of reform processes, facilitation of partnership development.

Human resource development and institutional capacity building

Assessing requirements to competencies, assessing capacity building requirements and training needs, organising and delivering training of trainers, hands-on instruction, on-the-job training and individual coaching

Environmental, social and economic assessments

Preparing Strategic Environmental Assessments (SEA) and Social Impact Assessments (SIA), Specialized Environmental Impact Assessments (EIA) and assessments of Economics of IWRM

Monitoring, evaluation and review

Assisting process and outcome monitoring, selecting indicators, designing efficient data collection, evaluating results and assisting reviews and process amendments

Transboundary issues and cooperation

Assisting identification and quantification of transboundary issues, facilitating formation of cooperative bodies, assisting development of a framework for cooperation and conflict resolution

Policies, strategies, legislation and action plans

Development of roadmaps, strategies and actions for IWRM 2005 Plans, Global (2005 – 2007)

Indicator development and monitoring of progress towards IWRM target, Global (2006-2008)

EU Water Initiative on policy dialogue, Eastern Europe, Caucasus and Central Asia (2002-2004)

Advisory Centre on IWRM for Global Water Partnership, Global (1996 -)

UNEP Collaborating Centre for Water Resources Management, UCC Water, Global (2002 -)

Peer-review of the Water Resources Act, Zambia (2005)

Implementation of Law on Water Resources. Abstraction and discharge regulations, Vietnam (2004-2005)

Development of IWRM based Water Legislation, Burkina Faso (1999)

Support to Water Sector Reform Process, Kenya (2005-)

Strategic Environmental Assessment (SEA) of Water Resources Management Plans in Ghana, (2005)

National Action Plan for Integrated Water Resources Management, Burkina Faso (1998-2001)

Water Resources Management Action Plan, Uganda (1993-1994)

Regional Water Resources Management Action Plan, Central America (1997-1999)

Analysis of trends and challenges for Water and Sanitation in the European Region, UNECE (2003-2004)

Strengthening of institutional and administrative capacity to implement the EU Directives on Drinking Water and bathing water (2004-2006)

Transboundary and river basin management

Development of Transboundary cooperation on IWRM, Caucasus (2005-2008)

Scoping study for Decision Support System, Nile Basin (2000)

Western River Basins Sector Project, Sri Lanka (1998-1999)

Management plan for Lac de Guiers, Senegal (2004-2005)

Pilot Study for basinwide management of Water Resources and Environment, Thailand (1998-2000)

Diagnostic Water Resources Assessment - Zambezi River Action Plan, Zambia (1997-1998)

Mekong Basin Development Plan, Detailed Planning, Cambodia (1998-1999)

Awareness workshops and dialogues on Protocol on Shared Watercourse Systems in southern Africa, SADC (1998-1999)

Tools for implementation of the EU Water Framework Directive, Lithuania (2003)

Decision Support System for Water Resources, Honduras (2001 – 2002)

Pre-Accession Planning for compliance with EU Legislation in the Water Sector, Czech Republic (1997-2002)

Integrated Coastal Zone Management

Environmental Management of the Coastal Zone (Phase 3), Cambodia, (2002-2007).

Environmental Management of the Coastal Zone, (Phase 2), Cambodia (2000-2002),

Integrating Environmental Issues into Spatial Planning – Local Plans in Sabah, Malaysia, (2001-2004)

Regional Environment Programme, Caspian Sea (2002-2004).

Master Plan for Pollution Monitoring and Enforcement, Estonia (1996-1999)

Integrated Coastal Zone Management in the states of Sabah, Sarawak and Penang, Malaysia, (1996-2000)

Environmental Management for the Songkhla Lake Basin, Thailand, (1996-1999)

Institutional Capacity Building in Ministry of Environment, Thailand, (1995-1998)

Marine Environmental Management Plan for the Pape-Kolka Coastal Zone, Latvia, 1995-2000

Assistance to programme management, developments, appraisal and review

Review of Danida support to IWRM, Southern Africa (2006)

Formulation of Danida Water Sector Programme, Mali (2006)

Regional Programme for Water Resources Management in Caucasus and Central Asia, Central Asia (2000)

Pre-Appraisal of Water Resources Support, Vietnam (2001)

Formulation of Danida Water Sector Programme, Uganda (2001)

Integrated Catchment Management Plan for River Padas Catchment, Capacity Building and Human Resources Development, Sabah, Malaysia (1998)

Appraisals of various stages of Water Utilization Program (WUP) and development of project documents for Basin Development Plan, Mekong Basin (1998 -)

Capacity building

Support to Capacity Building of Water Resources Sector Institutes, Vietnam (2001-2006)

Capacity Building in Water Resources Management, Uganda (2003-2007)

Twinning Arrangement for Co-Operation and Capacity Building on Environmental and Natural Resources Management, Thailand (2000-2005)

Technical Assistance to West African regional schools for water engineers (2001-2004)

Capacity Building of Water Resources Regulations Unit, Uganda (2003 –)

Integrated Environment and Water Management Course, Denmark (1997-)

Integrated Coastal Zone Management (ICZM) Courses, Denmark (2000-)

Environmental Impact Assessment (EIA) training courses at management level, (2000)