Norwegian assistance to Myanmar in the field of Integrated Water Resources Management Institutional Building and Training

The long-term goal is well-functioning Integrated Water Resources Management for inland waters in Myanmar.

The project is part of a cooperation between Norwegian Institute for Water Research (NIVA) and the Ministry of Natural Resources and Environmental Conservation (MONREC).
Project objectives and activities:
Establish methods and standards for Integrated Water Resources Management (IWRM), and initiate the implementation process.

- Integrated Water Resources Management in Sittaung River and Bago River
- Monitoring activities in Inlay Lake
- Integrated Water Resources Tools
- Water Quality Laboratory

What is “Integrated Water Resources Management?”
It is a process which promotes the coordinated management of water, land and related resources, in order to maximize economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems (Global Water Partnership). The rationale is that all system components are linked through the hydrological cycle.
IWRM case studies in Sittaung River and Bago River

The Sittaung River Basin and the Bago River are selected as case study sites for practical IWRM work tasks. The work will be based on

- The National Water Framework Directive
- The National Water Policy in Myanmar

Monitoring in Inlay Lake

The degree of eutrophication of the lake, the extent and expansion of the reed belts and other water vegetation, physical-chemical and biological parameters such as phytoplankton, macrophytes, and at a later stage fish, the sedimentation and shallowing of the lake, and the loss of free lake surface will be monitored.

- Local people will be trained as field operators of the different monitoring activities.
IWRM tools

- The National Water Framework Directive (NWFD)
- Quality Guidelines for general ecological status of water types in Myanmar
- A database system for storing and management of monitoring data
- Stakeholder involvement in the development of a water management plan

National Water Quality laboratory

A laboratory is necessary for monitoring, for environmental impact assessment, for control of drinking water, etc.

- Located at the Forest Research Institute in Nay Pyi Taw
- Purchase of new instruments and standard lab equipment
- Analysis of general water quality, chemical and bacteriological aspects will be provided.
**Systematic water management**

Systematic and cyclic water management tasks are presented in the figure. An important aim is the production of River Basin Management Plan, its implementation and monitoring.

**Sustainable development, poverty and gender aspects in the project**

Access to water is understood as sufficient, safe, accessible and affordable water without discrimination (WHO 2003). The IWRM approach in this project will take into account the needs of different users in the river basin; it has the ambition in the long run to contribute to poverty alleviation. The project will promote and ensure participation of women and other vulnerable groups.

The Programme consists of three component projects:

1. Conservation of Biodiversity and Improved Management of Protected Areas in Myanmar
2. Integrated Water Resources Management – Institutional Building and Training (IWRM project)
3. Management of Hazardous Waste

The IWRM project has formed a project management group which consists of representatives from the Ministry of Natural Resources and Environmental Conservation, the Ministry of Agriculture, Livestock and Irrigation, the Ministry of Transport and Communication and NIVA has been established.

Norwegian Institute for Water Research, NIVA, is Norway’s leading research institute in the field of use and protection of water bodies and water quality in fresh and marine waters.

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