
INFORMATION NOTE

Total Water Management in Finland

1. Introduction

1.1 Finland has been placed at the top in water and environmental management internationally. In 2002, Finland ranked first out of 147 countries in availability and management of water resources, based on the Water Poverty Index developed by the Centre for Ecology and Hydrology in the United Kingdom.¹ In addition, Finland also topped the United Nations World Water Assessment Programme in 2003² and the World Economic Forum's Environmental Sustainability Index in 2005.³

1.2 The purpose of this information note is to provide Members of the Panel on Environmental Affairs with background information on total water management in Finland, in terms of its integrated water resources management, institutional arrangements, regulatory framework, environmental permits system, economic instruments employed, environmental education and co-operation with neighbouring countries.

2. Integrated water resources management

2.1 According to Finland's Ministry of the Environment, "*integrated water resources management and high standards of water protection based on the ecosystem approach are necessities in Finland*". Integrated water resources management is defined as a process which promotes the co-ordinated development and management of water, land and related resources in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.⁴

¹ The Water Poverty Index classifies 147 countries according to five criteria designed for measuring availability and management of water resources. These five criteria are (i) availability of surface and ground water, (ii) access to water for human use, (iii) people's capacity to afford and manage water supplies, (iv) uses of water for domestic, industrial and environmental purposes, and (v) environmental management.

² In the 2003 United Nations World Water Assessment Programme, various water quality indicator values were assessed in 122 countries.

³ The 2005 Environmental Sustainability Index was compiled to assess countries' performances in environmental protection and sustainability.

⁴ See Global Water Partnership (2000).

2.2 Under the integrated water resources management framework, Finland's water policy involves wide-ranging co-operation with various stakeholders and active participation from local people. These arrangements ensure the maximum commitment of various stakeholders in the water protection programme.

2.3 Since the early 1970s, the Finnish government has developed three national programmes setting out long-term goals and proactive strategies as well as quantitative targets for water protection in Finland. The latest national programme, adopted in 1998, contained objectives and targets up to 2005. The Ministry of the Environment is preparing the national water protection programme for 2015, which is expected to be ready by end-2006.

3. Institutional arrangements

3.1 Finland has established extensive institutional structures at the central, regional and local levels for total water management. At the central level, the Ministry of the Environment is responsible for water protection and environmental policies, whereas the Ministry of Agriculture and Forestry is in charge of managing water resources. These two ministries also supervise the Finnish Environment Institute, a national advisory body established to provide information and solutions to support ecologically sustainable development in Finland.

3.2 At the regional level, water and sewerage utilities are regulated and monitored by 13 regional environmental centres. These regional centres are also responsible for regional planning, monitoring and providing guidance in water issues within their jurisdictions. At the local level, municipalities are tasked with the provision of water and sewerage services in their respective administrative areas in accordance with the relevant legislation.

4. Legislative framework

4.1 Finland has put in place a comprehensive legislative framework for total water management. Finnish regulations and laws relating to water and sewerage services can be categorized into four main areas:

- (a) water services legislation governing the supply and distribution of water, and the collection and treatment of waste water;
- (b) health protection legislation governing the quality of drinking water;
- (c) water and environmental protection legislation preventing pollution and controlling the use of water resources and structures built along waterways; and

- (d) legislation implementing directives issued by the European Union on total water management.

5. Environmental permits system

5.1 According to Finland's environmental protection legislation, permits are required for activities that may lead to pollution of the air and water or contamination of the soil. Environmental permits are issued based on case-by-case assessment and the use of best available technologies by the applicants to prevent or reduce environmental impacts. According to the Organisation for Economic Co-operation and Development⁵, Finland's environmental permits system has helped the country achieve substantial progress in reducing discharges from the most important polluters (e.g. municipalities and industries).

6. Economic instruments employed

6.1 The Finnish government has introduced several economic instruments to complement the existing environmental regulatory framework. For example, the Agri-Environmental Programme (1995-1999) and the Horizontal Rural Development Programme (2000-2006) provide environmental subsidies to farmers for implementing measures that can reduce phosphorus and nitrogen load on watercourses.

6.2 The Finnish government has provided economic incentives, such as interest subsidies and financial assistance, for investment in water supply and sewage in both rural and urban communities. In addition, the "water user pays principle" is implemented in Finland, under which water utilities collect a fee from water consumption and waste water treatment.

7. Environmental education

7.1 In Finland, various government authorities have participated in the promotion of education and training on sustainable development. For example, the Ministry of the Environment and the Finnish Environment Institute jointly produce environmental information for educational purposes and support environmental awareness activities. Both the Ministry of Education and the National Board of Education also promote integration of sustainable development into the curricula and teaching at all levels and for all types of education. Furthermore, sustainability has been an integral element in all supplementary training provided for teachers.

⁵ See Organisation for Economic Co-operation and Development (2000).

8. Co-operation with neighbouring countries

8.1 Finland lies on the Baltic Sea, bordering on Russia, Sweden and Norway with border rivers running along many stretches of the frontiers. The reduction and prevention of polluted discharges from neighbouring countries are particularly important to water management in Finland, especially the reduction of effluents from St. Petersburg in Russia which have led to eutrophication⁶ in the Gulf of Finland.

8.2 Finland has signed agreements with its neighbouring countries to ensure proper management of transboundary watercourses. In addition, it has provided environmental assistance to Russia and some other Baltic states, including financial aid for rehabilitation of wastewater treatment plants and training of environmental authorities in water protection.

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22 April 2006
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⁶ Eutrophication is a pollution problem where organic or mineral nutrient in a lake is so rich that the resultant growth and decay of algae and other plants deplete the oxygen content significantly and kill the animal life.

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