PUHDAS ITÄMERI JOHN NURMISEN SÄÄTIÖ

Fund Report

2/2014 (16 September 2014)

Status as of 31 July 2013	€
Donations	MEUR 10.3
Expenditure	MEUR 7.9
Commitments	MEUR 1.5

Objectives of the Clean Baltic Sea projects

The Clean Baltic Sea projects of the John Nurminen Foundation focus on two areas of operation: projects that aim at reducing phosphorus discharges and preventing eutrophication, and the Tanker Safety project, which promotes the safety of oil traffic in the Gulf of Finland. The eutrophication projects are managed by Marjukka Porvari, and the Tanker Safety project by Pekka Laaksonen. All in all, the projects and their support activities employ ten people, three of them part-time.

The target of the eutrophication projects is to reduce the annual phosphorus load to the Baltic Sea by a total of 2,500 tonnes. Eutrophication projects are currently ongoing at 11 project targets, and at eight sites the projects have already been completed. Moreover, the John Nurminen Foundation has provided technical expertise to two project sites, thereby contributing to the reduction of phosphorus discharges.

The Tanker Safety project reduces the risk of major oil tanker accidents in the Gulf of Finland significantly through the development and deployment of the ENSI navigation service. The service improves information exchange between the vessel's bridge and marine traffic operators, and improves the preconditions of forecasting traffic control. Marine traffic control receives information on the vessels' precise route plans, and the tankers receive valuable route-specific navigation information via the ENSI portal. The Finnish Transport Agency is the project's main partner.

Eutrophication projects

This summer, the impact of the eutrophication projects could be witnessed in the unprecedented clarity of the waters in the Gulf of Finland. According to the Finnish Environment Institute (SYKE), in July – August average chlorophyll levels – which correspond to the volumes of algal blooms – at the eastern observation sites of the Gulf of Finland were lower than at any other time in the 2000s. The two measures that have contributed the most to this achievement are the improved nutrient removal from the wastewaters of St. Petersburg, and the cessation of phosphorus discharges from the Kingisepp gypsum pile.

Investment plans and investment contracts, concluded between the Foundation and water utilities for the construction of phosphorus removal systems at the wastewater treatment plants of Gatchina

and Vyborg in North-Western Russia have now been completed. The Gatchina project has been officially registered by the Russian authorities, allowing equipment to be delivered free of customs and taxes. The supplier of the first equipment delivery, consisting of equipment for chemical phosphorus removal, has been selected through a bidding contest. The target is to deliver the equipment to Gatchina during the autumn of 2014. The Vyborg project has been delayed due to personnel and organisational changes at the Vyborg water utility, and the breakdown of a sewage header pipe. In February 2014, a new header pipe was inaugurated in Vyborg, enabling the phosphorus removal project to move forward. The project is in the process of applying for registration by the Russian authorities, which is needed for equipment imports. The Foundation is responsible for equipment procurement in Vyborg and Gatchina, while the water utilities take care of installation and construction costs. With the implementation of these projects, the annual phosphorus load entering the Gulf of Finland from Gatchina is reduced by 30 tonnes, and that from Vyborg by 20 tonnes.

The two Clean Baltic Sea projects, PURE and PRESTO, through which the Foundation carries out investments that improve the efficiency of nutrient removal, are partially financed by the EU's Baltic Sea Region Programme. After the closure of the PURE project (Project on Urban Reduction of Eutrophication), the Foundation continues to cooperate with the Brest water utility in order to improve the management system of the phosphorus removal process.

The PRESTO project (Project on Reduction of Eutrophication of the Sea Today) invests in improving the efficiency of nutrient removal in the three Belarusian cities of Grodno, Vitebsk and Molodechno. Construction and equipment installation commenced at the treatment plants in the autumn of 2013, and was completed in late August 2014. Preliminary evaluations indicate that the PRESTO investments will reduce the phosphorus load entering the waterways from these wastewater treatment plants by as much as 500 tonnes.

The total budget of the PRESTO project is €4.55 million, of which investment to wastewater treatment plants accounts for €2 million. EU's Baltic Sea Region Programme funds the majority of the project, bearing 75-90% of the project partners' project costs (depending on the country where the partner operates). Moreover, the Finnish Ministry of the Environment supports Finnish project partners with a sum that covers the majority of their own costs.

In May 2012, the Baltic Sea Action Plan Trust Fund granted financing for the Foundation's project with the Udarnik poultry farm, where the goal is to reduce the nutrient loads discharged to the Baltic Sea from the leaking manure pools in the farm's area. An investigation into improving manure treatment at Udarnik, located in the Vyborg region, was completed in the summer of 2012. Udarnik built a new manure pool in the summer of 2012, and has initiated the planning of two new manure pools. The Foundation and the owners of the Udarnik poultry farm have worked together in investigating the options of minimising the risk of leakages to the environment from the old and new manure pools. In the spring of 2014, additional financing was applied for for the purpose of delivering a filtering system that could treat the runoff waters from the manure pools, thus blocking nutrient discharges to the waterways close by. Additional financing was granted in September 2014.

An estimated annual phosphorus discharge of 1,700 tonnes from the Phosphorit fertilizer factory in Kingisepp by the River Luga to the Gulf of Finland was brought under control after experts built a runoff water treatment system in the area in March 2012. In the summer of 2013, the international

consultancy company Atkins was hired to for the purpose of assessing the effectiveness of the treatment system and monitoring the trends in phosphorus discharges. The Foundation monitors the work of Atkins through participation in the practical effort involved and in the steering group to which Atkins reports its results. The samples taken by Atkins indicate that phosphorus levels of the River Luga have stayed at the same low levels that were reached when the water treatment system was commissioned. Monitoring and follow-up of the treatment system and the discharge levels will continue until the autumn of 2014.

The Foundation is currently preparing new projects which aim at reducing eutrophication-inducing nutrient loads; the projects involve improving the efficiency of wastewater treatment in Poland, Belarus, Kaliningrad and the Leningrad region of Russia in particular. Moreover, the Foundation is studying the possibility of initiating a new project in the area of the Archipelago Sea.

Tanker Safety project

The final owner of the ENSI (Enhanced Navigation Support Information) navigation service, developed by the project, is the Finnish Transport Agency, which is also responsible for the implementation and further development of the service. John Nurminen Foundation's role in the project was to lead ENSI specification work, and to bring together various stakeholders in order to accelerate service creation and deployment.

The ENSI service is now the responsibility of the Finnish Transport Agency. In line with the cooperation agreement concluded by the John Nurminen Foundation and the Finnish Transport Agency, the Foundation has participated in ENSI deployment and development by providing the effort of its project manager for the use of the Agency.

In the spring of 2014, significant project milestones included various new vessels being recruited to the service, the release of an advanced version of the ENSI service, and visibility at the IALA (International Association of Marine Aids to Navigation and Lighthouse Authorities) conference. Preparations are also underway for bringing ENSI within the scope of a Pan-European project on e-navigation. The objective here is to develop and internationalise the ENSI onshore network.

Fundraising

The Clean Baltic Sea projects are funded with private donations and public financing. Of the main partners of the Foundation, Bergsrådinnan Sophie von Julins Stiftelse continues to support the Clean Baltic Sea projects. The Horizon campaign, initiated in the spring of 2013, will also continue in 2014.Campaign participants will receive a plate bearing their name in the *Horizon* work of art, erected at Jätkäsaari pier.

By 31 July 2014, funds raised amounted to a total of approximately €10.3 million, of which roughly €7.6 million has been used for project funding. Commitments, i.e. the sum currently reserved for ongoing and planned projects, amount to €1.5 million. The sum reserved for commitments depends on project schedules. According to a decision by the Board of Directors, commitments must not exceed the amount of funds raised.

The status of the Gulf of Finland in the summer of 2014 is an indication of the success of the Foundation's projects. More support is needed for reaching similar results elsewhere in the Baltic Sea. The most efficient way of improving the status of the Archipelago Sea is to focus on the projects in Poland, the Baltic countries, Kaliningrad and Belarus that improve the status of the main basin of the Baltic Sea.

At the moment, funds are being raised for the Eutrophication Projects and for the purpose of identifying various new project targets which can secure the declining trend in nutrient discharges to the Baltic Sea also in the future. The estimated need for funding exceeds €2 million, but the amounts will be more exact after project targets have been identified.

Annamari Arrakoski-Engardt
Secretary General
John Nurminen Foundation