

Review of BEAC “hot spot” projects

The BEAC Working Group on Environment at its meeting in March 2004 requested NEFCO to prepare an overview of the current status of the environmental “Hot Spot” projects in the Russian part of the Barents Region identified in the NEFCO/AMAP Report on Proposals for Environmentally Sound Investment Projects, August 2003.

The basic purpose of the review is on one hand to compile information on relevant activities that are ongoing or under preparation in respect of the hot spot projects, and on the other hand to present an outline for a short to medium term program of action that would promote concerted action among all stakeholders towards implementation of the projects.

It should be noted that the review has been compiled by NEFCO on the basis of available information. It has not been possible to carry out a profound investigation of every project and thus the report may contain some shortcomings or inconsistencies. It is of particular importance to recognize that the recommendations for action, which are set into a time perspective, are based on NEFCO’s deliberations and may therefore not reflect the opinion of project owners and/or federal, regional and local authorities. NEFCO has, however, sought to weigh in various considerations, including the desirability of a reasonable balance among regions and sectors and in respect of time, as it is necessary to have a phased approach. Local priorities will naturally play a decisive role in the final priority setting.

A clear distinction prevails between the private sector projects on one hand and public sector projects on the other. The private sector projects are typically connected to large enterprises in the pulp & paper or mineral sectors. Such enterprises by and large have possibilities to undertake measures also in the environmental sphere, particularly when cleaner production and other win-win solutions are available. It should also be recognized that many of these enterprises are actually in the midst of, or embarking on, investment programs that will, alongside enhanced productivity, improve their environmental standing. Easier access to domestic and international credit, and in some cases capital market, financing create better opportunities for investments. These enterprises should therefore be encouraged and persuaded to push forward, using both the carrot of the marketplace (requiring improved environmental performance) and the stick of environmental supervision, control and penalties by the relevant regional and federal authorities.

It should be noted that in some cases it has been difficult to obtain information on the activities and plans of the private enterprises. Ongoing or planned activities, although positive in themselves from an environmental perspective, may not necessarily correspond to the priorities identified as hot spots. It is therefore proposed that as a following step a series of discussions be arranged with these enterprises in order to identify present and planned actions and investments, and to focus on the importance of the environmental aspects brought to attention in the NEFCO/AMAP report. Cleaner production and

certification programs can play a valuable part in the process of improving the environmental awareness and preparedness on corporate level.

Public sector projects again are largely constrained by the lack of resources and in some instances a weak institutional capacity. Projects that need financing from budgetary sources have to compete with other needed public expenditure while revenue generation from tariffs for environmentally related services is still generally on a too low level to pay for investments in rehabilitation and upgrading. Adequate preparation and planning is therefore of paramount importance in order to economize on scarce resources and often a step-by-step approach, extended over several years, will have to be adopted when implementing concrete measures.

Well-structured pilot projects can play a valuable role in providing effective models for cost effective solutions and assist in the gradual introduction of tariff structures that support improved cost recovery, by showing that customers will obtain better value for money through an improved service quality. A prerequisite for such public sector investments is, however, that the regional and municipal authorities are prepared, to the extent necessary, to prioritise the projects through the allocation of budgetary resources, introduction of gradual tariff adjustment policies and authorization of borrowings as well as issuance of guarantees within the boundaries of prevailing legislation. The political and administrative decisions will have to be supported by adequate project preparation involving sector and project specific studies. Foreign technical assistance and investment financing can play an important catalytic role in this context.

The results of the review are presented in a diagram, in which the 42 hot spots are placed into a time scale comprising three intervals: (i) Projects that are already under implementation or where it is likely that actions are about to start; (ii) Projects where action, often in the form of project preparation in the first instance, should preferably be started within 1-2 years; and (iii) Projects where action can be expected to start within 3-5 years (it is not realistic to seek to determine a more precise breakdown at this stage, as the pace of individual projects depend on many, still unknown, factors). This is naturally a rough categorization with artificial borderlines, where some projects could well fit into more than one category. It is also important to recognize that the indicative timeframe refers to the starting point of actions. In many cases projects will require several years before they are completed.

Although category (i) in this presentation refers to ongoing projects, this does not imply, with a few exceptions, that these projects would be completed or even that all necessary resources would have been secured to enable their implementation. Most projects have been placed in this category as an indication and recognition of actions taken by various parties in order to start a process towards implementation. This means that also the majority of projects in category (i) will still require mobilization of additional resources. In some cases technical assistance for project development is called upon while other projects have reached a point where the emphasis is on investment financing.

The focus in the BEAC cooperation should therefore at this stage be on categories (i) and (ii). These projects require prioritisation and swift allocation of necessary resources in order to establish and sustain a process aimed at eliminating the environmental threats from the hot spots. The emphasis should initially lie on preparatory studies and project development, particularly of course for the projects in category (ii).

In summary action is required in two respects in particular. On one hand it is important to establish a dialogue with the production enterprises appearing in the hot spot list in an effort to influence their investment plans. On the other hand there is a need for sector and project specific studies to be commissioned in order to start a process towards project implementation. BEAC members and other relevant parties should be encouraged to consider allocating resources for project preparation.

The review suggests that project preparation should start as soon as practically possible for the following projects (the numbering according to the List of hot spot projects in the NEFCO/AMAP report p. 81):

M6-1 and M6-2	(Murmanskaya poultry farm and Prigorodny pig farm)
M6-3	(Murmansk drinking water)
M7	(Drinking water in Zelenoborsky-1)
K3 and K6	(Water supply and sewage treatment in smaller towns)
K4 and K5	(Petrozavodsk water and wastewater)
K8 and K9	(Waste handling)
A2	(Arkhangelsk Heat and Power Plant)
A6 and A8	(Toxic waste and spent motor oil)
A9	(Dioxin pollution from timber industry)
N2 and N3	(Water supply and sewage treatment in smaller towns)
Ko1	(Green House Gas emissions in Vorkuta)
Ko6 and Ko8	(Waste management and coal-mining waste handling)

As resources inevitably are scarce it may prove difficult to advance on so wide a front. It may therefore be necessary to adopt a phased approach taking only some projects at the time. Furthermore, as it can be seen two areas are predominant in the project list; water & sewage treatment and waste management. It could be considered to group several projects together in order to gain synergies from project/program preparation.

Proposed scheduling of commencing implementation measures in relation to environmental "Hot Spot" projects in the Russian part of the Barents Region (as identified in the NEFCO/AMAP Report on Proposals for Environmentally Sound Investment Projects, August 2003)

	Activities started or expected to be started imminently	Year 1-2	Subsequent
Murmansk Region	<p>M6-4 Lake Bolshoye water quality). A NEFCO financed project is being prepared for the Murmansk waste incineration plant.</p> <p>M2 (Severonickel). Various improvements have been carried out. For further action the compatibility with and inclusion of the environmental hot spot priorities should be discussed.</p> <p>M3 (Apatit) and M 5 (Kovdor). Discussions should be initiated to determine possibilities for investment programs.</p> <p>M6-3 (Murmanskvodokanal). Early action has been supported by NEFCO and the Nordic Council of Ministers. Previous studies should be updated and a priority investment program developed.</p>	<p>M6-1 (Murmanskaya poultry farm) and M6-2 (Prigorodny pig farm). Current business and investment plans should be assessed. Possibly the earlier cleaner production initiative for M6-1, prepared by Norway and NEFCO, could be considered anew.</p> <p>M7 (Drinking water in Zelenoborsky -1). A study on possible solutions for water supply improvement should be carried out.</p> <p>M9 (Scrapped ships). Local experts have carried out an inventory. An action plan should be developed together with all relevant parties including owners of the scrapped vessels.</p>	<p>M1 (Pechenganikel water discharges). A follow-up project to the ongoing program for the reduction of airborne emissions could be considered.</p> <p>M4 (Apatity HPP). A priority investment program should be prepared.</p> <p>M10 (Neutralization of oil-containing waste). The proposed project should be reviewed in context with other options.</p> <p>M8 (Mercury containing lamps). A modernisation project for the enterprise Ecord should be prepared.</p>

	Activities started or expected to be started imminently	Year 1-2	Subsequent
Republic of Karelia	<p>K1 (Kondopoga PPM). A NIB financed project is being prepared. Correlation with the environmental hot spot priorities should be ascertained.</p> <p>K10 (obsolete pesticides). A project financed by Finland is under execution.</p> <p>K4 and K5 (Petrozavodsk water & wastewater). Some measures are being implemented with Finnish assistance. A NEFCO financed project is under preparation. Additional TA will be required for the implementation.</p>	<p>K3 and K 6 (Drinking water and sewage treatment in smaller towns). A comprehensive study should be prepared as a basis for selection of concrete projects.</p> <p>K 8 and K 9 (Waste handling). A sector study should be prepared as a basis for a waste management strategy and an investment program.</p>	<p>K2 (Nadvoitsy aluminium smelter). Earlier investment plans should be reviewed as a basis for an investment program.</p> <p>K 7 (Oil and coal burning boilers). As a follow up to ongoing pilot projects in this sector, financed by NEFCO, additional priority projects should be implemented.</p>

	Activities started or expected to be started imminently	Year 1-2	Subsequent
Arkhangelsk Region	<p>A10 (Obsolete pesticides). Implemented as an ACAP project completed in 2004.</p> <p>A1-1 (Solombala PPM). Cleaner production projects have been implemented. A further investment program is envisaged.</p> <p>A3 (Severodvinsk HPP). An investment project is under preparation (financed by TACIS) with involvement of NEFCO and other financiers to be determined.</p> <p>A4 (Arkhangelsk PPM) and A5 (Kotlas PPM). Both mills have ongoing investment programs, partly financed through World Bank loans, and have implemented cleaner production measures. Compatibility with and integration of the environmental hot spot priorities should be discussed.</p> <p>A7-2 (Survey of Franz Josef Land). An AMAP lead survey is carried out in 2004.</p>	<p>A2 (Arkhangelsk HPP). A concrete investment program should be developed based on a feasibility study.</p> <p>A6 (Toxic waste) and A8 (Spent motor oil). A comprehensive sector study should be prepared as a basis for a hazardous waste management system in the region.</p> <p>A9 (Dioxin pollution from timber industry). Joint action with the ACAP dioxin project is recommended. Cleaner production measures can play a constructive role.</p>	<p>A1-2 (Solombala PPM & Arkhangelsk municipal wastewater). A project following up on the EBRD financed municipal investment program should be prepared.</p> <p>A7-1. (Rehabilitation of military site at Letneozersk). This site should be addressed subsequent to, or possibly as a part of, the proposed NPA-Arctic demonstration project.</p>

	Activities started or expected to be started imminently	Year 1-2	Subsequent
Nenets Autonomous Okrug		N2 (drinking water) and N3 (wastewater). A sector study should be prepared as a first step, identifying priority measures and proposing pilot projects.	N4 (mercury containing lamps). A project could be developed in parallel with M8. N1 (Rehabilitation after well accident). Possibilities to obtain assistance or compensation for remediation work should be assessed.

	Activities started or expected to be started imminently	Year 1-2	Subsequent
Republic of Komi	<p>Ko3 (Neusiedler Syktyvkar PPM). Possible ongoing investment program. Compatibility with and inclusion of the environmental hot spot priorities should be discussed.</p> <p>Ko 7 (Recycling of forestry industry waste). A pilot project for production of pellets may be included in a sector program currently being prepared by NEFCO in collaboration with Norway.</p>	<p>Ko1 (GHG emissions from Vorkuta). Pending Russian ratification of the Kyoto protocol a Joint Implementation project could be developed as a partial source of financing. However, also a comprehensive investment & financing plan will be required.</p> <p>Ko6 (Waste management system) and Ko8 (Coal-mining wastes). A comprehensive sector study should be prepared as a basis for a waste management system in the Republic.</p>	<p>Ko 4 (pilot project for sewage treatment) and Ko 5 (master plan for drinking water supply). A sector study should be prepared as a first step. Experience from projects K3/K6 and N2/N3 should be drawn upon.</p> <p>Ko2 (Air contamination in Vorkuta). A cleaner production program for the industrial and energy plants could create a basis for a long-term action plan.</p>