

6. The environmental reform in mill towns

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6.1 Transnationalisation of a border town

The early history of Svetogorsk

In mill towns, local situations differ considerably from the conditions in the rural forest environments investigated above. We will explore two mill towns, Svetogorsk (Leningrad Oblast) and Sokol (Vologda Oblast), in detail, and point out similarities and differences in their socio-economic conditions and relations to environmental issues. The first, Svetogorsk, provides an example of the transnationalisation of a mill town. It has grown around a pulp and paper mill which was one of the most modern during the Soviet era, and has been one of the most successful in terms of modernisation projects and stability at the turn of century. The town is located about 200 kilometres northwest of St. Petersburg, close to the border between the Russian Federation and Finland (European Union), in a border zone where the movement of people is restricted. This gives the local circumstances a character that differs from many other mill towns in Russia as, throughout its history, the locality has been influenced by both the East and the West. Since the 19th century, the Svetogorsk mills have been controlled by businessmen with connections to St. Petersburg: a company originally Norwegian, a Finnish state-owned company, the Soviet state, and a Swedish company, before the latest phase, beginning in 1998, when it was purchased by International Paper Ltd. (USA), the world's largest forest industry company, measured by annual turnover at that time.

In the following, we will provide a chronological description and analysis of the restructuring processes at the Svetogorsk mills and the surrounding community. We will pay special attention to the development of the mill's environmental performances and the debates concerning these issues. We will compare

the ways in which two topics, pollution and forest issues, have entered into the debate. Although the environmental effects of the forest industry are a very significant part of its operations both in raw-material supply and the output end of production, we will show that there are significant differences in how these topics have been discussed and who the actors participating in the debate have been. Debates over different environmental issues have involved rather separate actor groups: while in water and air quality issues scientific experts and organisations have been actively involved, in the debates on forest policies and biodiversity conservation the debate and collaboration have largely occurred between firms and environmental activists. We will explore these actors and analyse their relations to the Svetogorsk mill's environmental issues.⁵

Since its origin and during its various phases of transformation Svetogorsk (Enso in Finnish) has been constructed and developed according to the needs of industrial pulp and paper production (see also Kotilainen 2004b; Bolotova & Vorobiov 2002). The history of the town as a forest industry locality dates back to the late 19th century (Ahvenainen, 1992, pp. 201-204; Hoving, 1961, pp. 184-201). The first mill was established by a Finnish businessman, Carl August Standerskjöld, jr. The growing metropolis of St. Petersburg provided an especially significant market area for paper producers in the Grand Duchy of Finland, including the mill in Enso (Svetogorsk), since it was part of the Russian empire. A few years after Finland's independence (1917) the company, renamed Enso-Gutzeit, came under the ownership of the Finnish state. The Second World War resulted in profound changes in local circumstances and outward relations. The border between Finland and the Soviet Union was shifted westwards, and, being located in the ceded area, the Enso mills were taken over by the Soviet Union. Consequently, the population of the locality also changed totally. New inhabitants from other parts of the Soviet Union settled in the locality and it was renamed Svetogorsk. Due to its location extremely close to the state border, the locality became part of the isolated border zone. It became isolated not only from the West but to a large extent also from the East, as the border location caused intensive security measures in the area. Brednikova (2000) describes the

⁵ The study is based on both secondary and primary data. The secondary material consists of local and regional newspapers in Svetogorsk and the Leningrad Oblast, internet sources, previous scientific research, archives and statistics. A major part of the secondary material was collected during field work in Svetogorsk in April 2001 (see also Bolotova & Vorobiov 2002). The primary data includes six focused interviews (2 with experts, 1 with a representative of the ecological administration of the Vyborg district, 3 with the leading workers of OAO Svetogorsk) carried out during the summer of 2003. Three interviews (2 with activists of large NGOs and 1 with the representative of local administration) carried out in 2002 as well as an interview undertaken by Maria Tysiachniouk with the coordinator of the forest certification of WWF's office in Moscow in 2003 were also utilised. We have visited the locality several times between 1999 and 2005, participated in local seminars in Svetogorsk and Imatra, and had opportunities for non-structured interviews and discussions with officials and experts on the state of restructuring and the environment in Svetogorsk.

Soviet experience of the state border as the boundary of the world: hardly anybody had even seen the border, which led to its mystification.

Since the Second World War, Svetogorsk began to be developed as a part of the forest industry location strategies of the Soviet Union. The vicinity of the border had an impact on the investments made to the locality, because the mills and the community became part of the bilateral clearing trade system between Finland and the Soviet Union. Generally, in the Soviet pulp and paper industry machines were to a large extent imported to the country, partly because the forest complex was controlled by several ministries which rendered machine development difficult, and partly because cash was not needed in trading with several countries, for instance, with Finland (see Eronen 1984; 1999). From the early 1970s through the 1980s bilateral projects were carried out in Svetogorsk seeking to renovate and expand pulp and paper production and, consequently, Finnish expertise and technology entered Svetogorsk. The construction projects during the bilateral era had a significant impact on the mills, and partly also on infrastructure in the locality, as the combine became equipped with the Finnish, Western, technology which prepared the plant for the transnationalisation of the 1990s.

According to Soviet standards, the Svetogorsk mill was a large enterprise during the perestroika period of the late 1980s. In 1990 its staff amounted to 5700 persons, who annually produced 160 thousand tonnes of printing paper, 70 thousand tonnes of cable paper, 40 thousand tonnes of sanitary tissue, and 14 thousand tonnes of fibreboard (Kommersant-Spb 2000). In the late 1980s the Soviet government decided to give each paper-producing enterprise more decision-making power concerning their production and marketing products (Lilja et al. 1994). However, this did not bring the enterprises the advantages that were sought. While gaining a certain degree of autonomy, the mills did not have the necessary capacity to perform in the expected and planned way. Production at the Svetogorsk mill had already been reduced in the late 1980s because the machinery was badly in need of improvement and modernisation (Lilja et al. 1994). This was not exceptional among Russian pulp and paper producers, because the Soviet industrial system virtually stopped operating, commodity markets collapsed, and paper machines were regularly shut down because of a lack of chemicals and wood (SR 21.3.1992).

Under those rather complex economic conditions, the ownership of the mill first changed in the post-Soviet era, in 1992. The employees of the enterprise became owners of 51 percent of the shares, and the remainder of the shares were held by the State Committee for Property (Kommersant-SPb 2000). The business environment of the forest industry, however, became increasingly more difficult. Prices continued to rise in Russia, which also meant higher prices for timber and chemicals, and, accordingly, for pulp and paper industry products.

Therefore, publishing houses were unable to buy paper, and the company could not pay for delivered timber (SR 5.9.1992). Although there were attempts to export some of the products, it was impossible to deliver paper to the international market because of its low quality (SR 13.6.1992).

Conditions stabilised to some extent in 1993. The company managers were able to arrange delivery of chemicals and roundwood. The problem with sales was partially solved when orders for some of the products were received. The modernisation of machinery started when an automatic line for cutting and packing paper was launched. During this difficult period the Svetogorsk mill received some support from the state. It was granted the status of special exporter, which gave the company an opportunity to trade directly with its Western partners. In addition, state customs duties, to be paid by the enterprise, were reduced by half. As a result, about half of the mill's production was exported and the question of increasing the quality of products became especially acute.

During these years significant changes took place in the mill's external relations. In 1993, the enterprise started actively developing contacts with a number of Western companies who were interested in the mill. In particular, the management of the enterprise signed a cooperative agreement with the Swedish company Tetra Pak, which led to changes in production. After the agreement the production of cardboard for liquid dairy products was launched (SR No.5 1993). In addition, in 1993 the mill started to cooperate with the Herlitz International Trading Company (HIT). The managers of the mill and the representatives of HIT and Tetra Laval (the parent concern of Tetra Pak) signed a cooperation agreement stating that HIT would buy paper from Svetogorsk. HIT also promised to help finance the purchases of raw material and chemicals necessary for paper production. Tetra Laval, in turn, took responsibility for supervising quality control in the paper production process (SR 25.6.1993).

Despite this promising start, the profitability of the mill did not improve much. An overuse of energy resulted in increased production costs. Only part of the planned output could be produced. The mill produced, for example, only 70 percent of the planned amount of paper, and only 45 percent of the anticipated market pulp; the quality of production also remained low (SR 21.8.1993). Development in the industry showed no signs of recovery in 1994 and production volumes continued to decline. The Svetogorsk mill was no exception and it was forced to frequently suspend its operations. Problems were caused by a shortage of oil and roundwood (SR 1.4.1995). Difficulties in roundwood deliveries were made even more severe by increasing railway tariffs, which made the cost of timber transportation five-fold more expensive during 1994 (SR 27.8.1994).

As a result, the problems of the enterprise increased, and the mill remained unprofitable and inefficient. The enterprise worked at 50-60 percent of it expected productivity (SR 1.4.1995). Generally, the first half of the 1990s was a

complicated period for the Russian industry as a whole (see chapter 3), and an industrial downtrend was observed all over the country. Prices of energy and timber and tariffs for rail transportation continued to rise. In order to survive in these circumstances, the managers of the Svetogorsk mill put a great deal of energy into the development of barter trade and tried to re-profile the enterprise. Another strategy of the enterprise was to seek contacts with Western companies and attempt to attract investments for the modernisation of production.

The transnational era

Despite the decline in production, the Svetogorsk mill's cooperation with foreign companies intensified in the mid-1990s. Foreign investments enabled the reconstruction of the mill's machinery. The next significant step took place at the end of 1994 as Tetra Pak financed an investment to reconstruct one paper machine. The capacity of the paper machine increased and it started to produce cardboard for packing liquid foodstuffs. As a result of the investment, part of the mill's shares passed to Tetra Laval, and by August 1995, it owned the majority of the shares. At that time, the workers owned less than ten percent of the shares, two-three percent were in the hands of various organisations and a number was under the control of the Fund for Property. The implementation of an extensive investment programme started and in 1995 Tetra Laval spent 57 million US dollars to modernise the mill and pay off debts to creditors (SR 7.1.1995; SR 16.11.1996).

The Swedish owners wanted to profoundly reorganise the production system. The plan to rearrange the timber purchase system was one of the most important tasks of the programme. The aim was to create new infrastructure for the continuous supply of roundwood which required the purchase of more efficient and ecologically less harmful harvesters and the training of forestry workers capable of working with Scandinavian felling methods. One of the aims was to introduce forest planting, which would allow the company to shorten the distance of roundwood transportation and lower the expenses for its purchase (SR 7.1.1995). As a result, as early as August 1995, the Tetra Laval Svetogorsk itself felled about 30 percent of the roundwood required in production.

The peak of investments was reached in late 1995 and early 1996. Considerable efforts were made to modernise recovery boilers and convert the district heating system from oil to natural gas. The use of gas reduced expenditures for energy and also improved environmental conditions. Other important improvements in the sphere of environmental protection concerned the reorientation of acetate cellulose production, modernisation of the chlorine workshop and the cessation of elemental chlorine use (SR 11.11.1996). The Ministry of the Envi-

ronment of Finland economically assisted the implementation of the project on elemental chlorine-free bleaching. The investments were successful: production volumes increased, expenses declined, the quality of products and the state of the environment improved; in other words, technological modernisation took place in Svetogorsk (cf. chapter 2.1.). But the restructuring also had negative effects on the local community. The Swedish owners intended to make production more efficient, which caused layoffs. As a result of the reorganisation about 2000 workers were discharged (Vuoksa 1998).

In 1996, the share of exported production increased to 60 percent. This was partly a result of problems in domestic markets, because many Russian clients could not pay for delivered products. It was also a result of the recurrent fall of prices on the domestic market. Despite the improvement of the situation at the enterprise, years 1995 - 1997 were still unprofitable for the company because of the fall in paper market prices.

Paradoxically, the Russian economic crisis in 1998 helped the forest industry to get out of the decline. The price for paper rose due to the strengthening of the US dollar. As clients began to take notice of Russian producers, the Svetogorsk mill was in a favourable position. The reconstruction of the enterprise enabled it to produce paper which was compatible with the products of Western companies. The quality of Svetogorsk products was high but the price was low. The investments and reconstruction of the mill continued, and one of the key investment concerning the further development of the mill was the installation of a production line for office paper (SR 13.5.1998).

Tetra Laval announced in November 1998 that it had sold its entire holdings in OAO Svetogorsk to the American company International Paper Ltd (IP). At that time IP was the world's largest forest industry company in terms of turnover and pulp and paper board production capacity; in 2005 it ranked second to Stora Enso (Finnish Forest Industries Federation 2000; 2005). IP was originally established in 1898 in New York and has constantly expanded its operations to all continents (IP 2002a; IP 2002b; see also Kotilainen 2004b). The company's spatial expansion began in the late 1950s and 1960s and reached Eastern Europe in 1992 when IP bought a paper mill in Poland. The next step was to enter Russia through Svetogorsk. Among other things, IP's corporate strategy emphasises low-cost production (IP 2002b), to which the company's Svetogorsk location is well suited. The Svetogorsk mill is part of the company's European Papers group, which also has paper mills in France, the United Kingdom and Poland. The target area of the products is the Russian markets and Central and Northern Europe as well (IP 2002a).

As the new owner of the enterprise, IP undertook obligations for delivering cardboard for Tetra Laval (Finmarket 1999). At that time, the production of sanitary tissue was arranged through a separate enterprise, Svetogorsk Tissue

Ltd., which was bought by a Swedish company, SCA. Immediately in 1999, International Paper began its own investment programme. One of the paper machines was reconstructed and a new paper production line was instituted in the same year (Delovoy Peterburg 2000). Furthermore, International Paper Svetogorsk presented a new office paper line; its capacity for producing high quality A4 paper ranked second in the world (Vyborgskye Vedomosti 1999). At the same time, the enterprise negotiated with the regional government concerning the right to cut part of the required roundwood itself. The mill applied to the Committee of the Timber Industry for the right to fell up to 100 000 cubic metres of timber annually, which was about eight percent of its requirements (Finmarket 1999). The output of the mill was increased by 77 percent in 1999, the growth continued in 2000, and annual production reached 319 thousand tonnes of pulp, 203 thousand tonnes of paper and 65 thousand tonnes of cardboard (Rosbalt News Agency 2001). Investments have continued, and in 2001 new plans to invest in hardwood pulp production were published (Drevesina 2001). In addition, the new investment programme included the construction of a power station and an increase of the forest rented by the company (Rosbalt News Agency 2001). Long-range plans also envisioned the establishment of woodworking production in Svetogorsk and, thus, the building of a sawmill is one potential investments (Interview 7).

As mentioned in chapter 3, there have been differences in the attitudes of regional governments towards investments from outside the regions. The positive attitude of regional authorities in the Leningrad Oblast towards direct foreign investments affected the willingness of IP to invest in Svetogorsk. According to the regional law on “investment activity”, the Svetogorsk mill was exempted from taxes to the oblast in order to compensate for their investments. Therefore, the enterprise had the opportunity to invest all the profits into developing the mill (Peterburgskiy Chaspik 2001). In addition to the investment climate in the region, the transnational history of Svetogorsk in part also explains IP’s relative success. The bilateral projects coordinated by the nation-state system were followed by a transnationalisation of the industrial and economic networks in the 1990s. This extension was made possible by the technological capacities that had been embedded in the locality during its previous phases. The long trajectories that led to the current situation contributed to the connectedness of the Svetogorsk mill to certain transnational networks. Based on the analysis of the history of the mill presented in this chapter, it can be concluded that while the fall in the level of production in 1991-1994 was connected to the general economic crisis in Russia, the growth in output since 1996 reflects not only the changes in the general economic situation in the country, but also the efficiency of reorganising production by the Swedish, and later American, companies.

Tetra Laval had originally entered Russia by recognising the advantages that the proximity of the Svetogorsk mills to Finland and the European Union would provide. The closeness of the state boundary provided at least two benefits that increased the company's interest in Svetogorsk compared to other localities (see Kortelainen & Kotilainen 2001; Bolotova & Vorobiov 2002). First, it was easier to recruit foreign managers and experts by offering them the possibility of living on the Finnish side of the border and commuting daily. Second, the company had good access to maintenance services and processing chemicals delivered from Finland. Thus, in a border location the company sought to combine Western factors (technology) with Russian factors (salary level and taxes). However, during the period of American ownership changes were introduced to these policies. An increasing number of American experts were first hired at the mill while the contacts with Finnish and Swedish experts diminished. In the long run, the number of personnel commuting across the border decreased and by 2005 their number had declined to 25.

Although the mill was going through major transformations in the 1990s, the number of inhabitants remained very stable, at around 15 000 in the town of Svetogorsk (Goskomstat Rossii 1997; Goskomstat Rossii 2000). The town remained very much dependent on its pulp and paper mill as, according to statistics, 3200 of the 3400 industrial jobs were at the mill in 1999. The volume of industrial production ranked second highest in the Leningrad Oblast in 1999, although most districts had a much larger population. Average monthly wages in Svetogorsk were about 1.5 times that of the surrounding Vyborg district, and only one district in the Leningrad Oblast, Kirishskii, with heavy industrial production, had higher average salary levels (Goskomstat Rossii 2000). However, restructuring at the Svetogorsk mill was large-scale if measured by the number of jobs. In 1989 the combine employed 7200 persons; in ten years the drop was more than 50 percent (Lilja et al. 1989; Bolotova and Vorobiov 2002). This dramatic change is explained not only by more efficiently organised production but also by the municipalisation of social assets, as direct foreign investment had increased the pressure to loosen the ties between the mills and the local municipal administration. However, although the mills and the town had been separated since 1997, the enterprise continued to provide heating for the local apartments and it also supports social projects such as health care and sports activities.

Along with the transnationalisation of production, there were also efforts to increase local self-government in Svetogorsk (see Eskelinen & Kotilainen 2006). The town became a municipal entity in 1995 and boundaries with the surrounding Vyborg district were established in 1998. The motivation can be traced in keeping taxes from the foreign-owned firm at the local scale and drawing economic benefits from local cross-border cooperation. This cooperation has

been driven by a local political-economic endeavour for territorialising a cross-border cooperation region and has included local activities which materialised through EU TACIS programmes, such as the construction of the customs and border control offices on the Russian side of the border, as well as municipal and civic cross-border activities driven by the efforts of a limited number of persons. The concept of “Twin City” was adopted in the late 1990s for the purposes of marketing the opportunities provided by the localities on both sides of the border, Imatra and Svetogorsk, but, thus far, the results for promoting novel economic activities have remained almost non-existent.

Environmental investments

In the 1970s the modernisation of the mill was initiated by the Soviet state and aimed at increasing the volumes of production. No special commitment for improving the state of the environment around the mill was announced, although some measures for decreasing pollution were provided. The most important environmental investment was the purification plant built to biologically clean the mill’s waste water. According to interviewees, it represented the best available technology of that time and still functions today (Interview 8). In this respect Svetogorsk was not an exception because the construction of cleaning facilities was carried out in many other pulp and paper mill localities as well (see chapter 6.2). Thus, a nation-wide governmental programme for the decrease of industrial pollution was implemented, although the term “environmental policy” did not yet exist in its present form.

Despite the biological purification system, the environmental impacts of the mill were not resolved as a whole because at the same time a new acetate cellulose plant with sulphite bleaching was built as well. In recent decades, a gradual transition from the production of sulphite cellulose to the sulphate method has been occurring around the world and most of sulphite production units have been closed. In Eastern Europe the method is still used. Although the shift has occurred due to economic reasons, it has decreased waste water loads markedly. The sulphite method results in the greatest load on the environment, because of the high content of chemical substances in its emissions. In terms of emissions into the air, and especially the smell of smoke, it is not as bad as sulphate technology.

The use of chemicals in the sulphate method has been under a constant process of development. According to the mill management it is possible to return up to 90 percent of the chemicals in a good sulphate production. In sulphite production a large quantity of lye is obtained, which cannot be regenerated. Part of the organic matter (22-24%) contained in lye could be used for the production

of sulphite alcohol or yeast, for which there were yeast shops at the mill, while the remaining part has been either discharged into water or transformed into lignosulphonate, which has been used by other industries. However, the demand for this product has been said to be unstable (Interview 3).

In the early 1990s, questions about ecological conditions were not seen as very vital to either the Svetogorsk pulp and paper mill or the Russian forest industry as a whole, because enterprises were trying to survive the crisis. In the mid-1990s the Svetogorsk mills still were the worst polluter of River Vuoksi (Vuoksa) in comparison to pulp mills upstream on the Finnish side of the border that had improved their purification methods in the 1990s (Drabkova et al. 1996). Things started changing in Svetogorsk when Tetra Laval purchased the mill and the Swedish managers started investing in modernising the environmental protection systems. According to the informants at the mill, these environmental investments were clearly initiated by the enterprise. Interviewees stated that in order to be competitive in the Western European market, the company had to improve their image as a “socially responsible unit of the society in which it lives” (Interview 8). This argument was quite new in Russia because in the Western discourse the argument was considered to imply certain nature-conservation procedures as well. The new owners immediately started evaluating the ecological risks and means for reducing them, because they were primarily seen as economic threats to business (Interview 8).

The Swedish company acquired the mill in a state of decline. Initially they “suffered enormous losses ... each week Tetra-Laval transferred millions of dollars for financing. This apparently lasted for several months” (Interview 2). Therefore, a crisis manager whose task it was to decrease the losses and consider a strategy for the development of the enterprise was assigned to the mill. The solution to conduct major improvements, including those related to environmental protection, was apparently accepted. First, the reconstruction of chlorine production and the bleaching system was carried out in 1996. The purpose was “to increase the capacity of chlorine dioxide production and to stop using molecular chlorine” (SR 2.9.2000). Bleaching without the application of molecular chlorine is widely used in the Western European and North American forest industry but the Svetogorsk mill was the first such enterprise in Russia. The means for realising this project were provided by the Finnish Ministry of the Environment. The old chlorine workshop was closed and employee access to the building was forbidden.

A second step in environmental protection was taken when the acetate pulp and yeast departments were closed in 1997. This was done in spite of the fact that the equipment in that shop was relatively new. The reasons for the closure were clearly environmental. Not all at the mill were satisfied and the closure caused a small conflict between the mill managers and the workers in these

departments, who began to protest against the closure. The chairmen of the local trade-union committees published an open letter to the management in a local newspaper. The answer by the general manager of the Svetogorsk mill at that time, Lennart Westberg, shows the new managerial strategy:

The authors of the letter complain about closing the acetate workshop. We must remember, however, what damage this workshop could do to nature, how many complaints and how much criticism its emissions have caused. We were obliged to close this workshop, otherwise the whole mill would have been closed. Today Greens, including the well-known Greenpeace, exert strict control over pulp and paper enterprises. Their propaganda can make customers and clients turn away from an enterprise. We have many examples from the Western experience (SR 15.10.1997) (Translated from Russian).

The citation clearly indicates how much attention the managers of the mill paid to environmental issues. For Swedish managers, the ecological movement, the “Greens” and Greenpeace, were significant critical actors promoting the “ecologisation” of production. The main argument was that the “Greens” were able to influence consumers and customers through criticism or propaganda, creating either “environment-friendly” or “harmful” images of enterprises (chapter 5.1.).

Thirdly, many improvements occurred as side-effects of technological investments carried out predominantly for other than environmental purposes. Modernisation of various production facilities resulted in improvements in environmental protection. An especially important change occurred when the old oil heating system was changed to a new one burning natural gas in 1997. The change of fuel significantly affected the state of the environment, “because sulphur emissions were simply catastrophic before that” (Interview 8). As a result, the consumption of oil was considerably reduced and, accordingly, the sulphur dioxide emissions dropped by 70 percent. The mill’s share of producing its own electric power grew from 24 to 50 percent of the consumption. Over the same period, a project was started seeking to reduce water consumption in production by developing a water supply circulation system (SR 23.5.1998). Furthermore, the washing installations were modernised, which reduced organic waste water emissions (Interview 3). A parallel measure was taken, the soda recovery boiler was renovated as well, and filters were completely replaced decreasing emissions into the air, especially dust and sulphate (Interview 8).

The American owners continued the environmental investments after the next change of ownership. First, the biological water purification system was modernised. The bleaching system was further developed so that the volume of

chemicals (e.g. chlorine) could be reduced (Interview 8). As a result, it was reported that the discharge of effluents was reduced by half:

(We) modernised sand filters, completely restored the aeration system, and the following step was the construction of a multi-fuel boiler, which not only allowed us to burn withdrawals from our basic production, but (also) surplus silt, which is formed during the cleaning of drains ... which we earlier simply exported to the dump (Interview 8).

Both environmental experts and authorities confirm that at present the Svetogorsk mill has considerably decreased the load on the surrounding waters. The representatives of the enterprise also highlight their successful environmental performances and stress that this is quite exceptional in contemporary Russia. (Interview 3). The improvement in water quality was concretely visible in the recovery of the fish population:

When you ask fishermen, they will say to you that yes, the situation is totally different now, we have already trapped fish in the River Vuoksa, it is possible to compare (the situation with the previous situation) ... with that volume, at which (the mill) works today. And that crayfish appears in the river, this is also a very good index, the last time I remember this was in the beginning of the 1970s, when I myself was a child... these are objective factors, by which the improvement in the life in the town of Svetogorsk can be estimated. (Interview 8)

International markets and the activities of Swedish and American companies were not the only sources of transnational influence on the environment in Svetogorsk. Finnish authorities were another significant external actor, both criticising and assisting in the ecological reform at the mill. The Finnish state and regional environmental and municipal authorities have been interested in reducing the quantity of emissions from the Svetogorsk mill. The reason for this interest has been the borderland location of Svetogorsk. The Ministry of the Environment of Finland allocated 4.7 million Finnish marks (about 800 000 euros) for reconstructing one recovery boiler in 1997, which reduced harmful emissions into the air (SR 20.4.1996). Svetogorsk has also been included in Finnish studies on sulphur combines of the pulp and paper industry (Haahtela et al. 1998). Air quality is also observed by authorities in Imatra, a town on the Finnish side of the border (Imatran kaupunki 2004). These observations began during the last phases of the Soviet Union, and the first report including Svetogorsk was published in 1990. Today, these measurements are based on the Finnish legislation, but in this case they have been extended to Russian territory. The observations

have also witnessed improvements and showed decreasing sulphur emissions from the Svetogorsk mills in recent years.

Finland's membership in the European Union since 1995 has affected the possibilities of carrying out cross-border environmental monitoring. There have been European Union Tacis projects concerning the monitoring of water quality on the Russian side in the areas close to the Finnish-Russian (European Union-Russian Federation) border (e.g. Vivatvuoksia 2003), and the Finnish regional environmental authorities have played a central role in these projects.

Mill's relations with authorities

Obviously, environmental authorities are potential critics of industry regarding its environmental emissions (chapter 2.3.). Interviews in Svetogorsk revealed that the relations between the enterprise and environmental authorities are rather conflictual. First, the rigidity of environmental law was considered a problem. The chief executive officer of the Svetogorsk mill saw the large number of indices that are regulated by law and controlled by the environmental authorities to be problematic (Interview 9). Furthermore, the so-called "ecological payments" are considered to sometimes cause more problems than improvements (chapter 4.1.). For example, relatively high payments are made by the enterprises if a plot of land in one category is transformed into another. Recently, the Svetogorsk mill was confronted by this rule while planning the construction of a new site for solid wastes from the mill as well as everyday garbage from the municipality. "The ecological payment for a site up to 20 hectares is today 2.5 million dollars" (Interview 8).

The managers describe environmental authorities as a hindering factor for environmental protection. For instance, they were very much perturbed by the fate of the ongoing investment programme, since it was uncertain whether all of the planned changes would be approved by the controlling authorities. It is worth quoting at length the response of the Svetogorsk mill's general manager to the question of how the environmental authorities explain their disapproval. The answer vividly characterises the relations between environmental authorities and business enterprises in today's Russia:

The point is that until no one comes and says 'I want to improve this index', it is thought to be more or less acceptable, possible to live with. When you come and say that we are ready to improve this index so many times, or (to bring it) to a certain level, everybody says 'that's not enough!' And discussions about the fact that the technology, which would enable us to make the improvement, at the moment simply does

not exist, is not perceived as correct at the level of inspections, ministries and the like ... The basic dilemma is that all controlling organs are forced, to the certain degree, to reconcile themselves with today's situation, whether it's good or bad, and enterprises, unfortunately, are not motivated to carry out modernisation. This is not reflected in the financial state of the enterprise, and it does not decrease, but rather increases ecological risks. When you apply for approval for any project, you show the ecological situation in more detail and say 'I am ready to improve it', but they tell you 'no, it is bad, and you must make it even better'. And this can last for years..." (Interview 8).

In order to illustrate the unreasonableness of the existing legislation the director of the Svetogorsk mill gave two examples. First, sometimes "output water ... must be (cleaner) than input water." For example, the authorities require the company to monitor the output magnesium although it does not exist in production. On the Finnish side of the border in Imatra, less than 10 kilometres upstream from Svetogorsk, there is a metallurgical plant which used to cause problems by dumping heavy metals into the river. Heavy metals were visible in the monitoring of the Svetogorsk mill, and the Russian authorities believed the mill was responsible for these emissions. This has changed in recent years since the Finnish plant reduced its heavy metal emissions (Interview 8).

Second, the Russian legislation on the discharge of effluents monitors the concentration of harmful substances in the water (mg/l), but not the number of discharges per tonne of production. This law is easy to evade and enterprises, according to the mill manager, actually are encouraged to do this. It is easy for the company to bring extra water to the release and to dilute waste water. This leads to inefficient production and environmental protection because companies are not interested in economising water use and authorities are not concerned with the volume of production (Interview 8).

The arguments of the mill's management are indirectly confirmed by an interview with a representative of the regional nature-conservation administration. For example, the interview does not mention the fact that, according to administrative code, any arrival of the controlling authorities to an enterprise indicates that there must be an violation of regulations, and the visit must result in the imposition of a penalty. The informant was asked "and if there are no disturbances in an enterprise?" and replied, "in my opinion that has not yet happened" (Interview 4).

The obstacles to the interaction between firms and environmental authorities and feelings of unfair environmental legislation are partly explained by the unwillingness of the authorities to enter into a dialogue, as well as the fact that their administrative culture derives from the Soviet period. In the Soviet Union

the authorities were the only real force acting in the country, as the nature conservation movement provided “a little corner of freedom” (Weiner 1999). Industry had no possibilities to plan its development independently, and it was alienated even from the material values it produced, since planning and distribution were rigidly centralised. Authorities had great power over the industry. The representatives of the mill management indicate that this attitude of the authorities still continues today (Interview 8). The attitudes of the industry, on the contrary, have changed. Business enterprises which today operate in export markets possess material resources, feel their economic force, and no longer want to attempt to justify their actions to an authority from a subordinate position. The conflict between the industry and environmental authorities can partly be explained as a power struggle between the two. From the point of view of business, constructive dialogue with the authority will be possible,

as soon as this prejudice ends, and we are able to talk with the official ... in normal professional language, because ... our specialists are not less professional than the specialists who sit in the Neva-Ladoga [environmental administration], in GUPR (Regional Central Administration of Natural Resources), in the Ministry for Natural Resources. So why is there no dialogue between... technocrats? (Interview 8).

The recent restructuring of the nature-conservation administration (as presented in chapter 4.1.) has also complicated the interaction between business firms and environmental authorities. The process initiated by the restructuring that began in 2000 was still observable a few years later. According to the Svetogorsk mill’s general director the reorganisation led, firstly, to obscuring the division of responsibilities between the inspecting organisations. Secondly, it resulted in lengthening of the time required for approval of licences, permits and projects. Thirdly, the reorganisation caused a loss of responsible people in the controlling organisations:

It cannot be perfectly understood who is responsible ... previous procedures have been lost ... and new ones have not been created ... If (a plant) must obtain a licence, no responsible person can be found, and you may have to get through to the minister. (Interview 8)

The rotation of personnel was included in the restructuring of environmental administration in order to decrease the possibility of corruption (see Nystén-Haarala 2005). From the perspective of enterprises this rotation has complicated the relations to the state authorities, as it was easier to conduct a dialogue with

the people who had worked in one and the same governmental office for several years. This is noted by the following interviewee:

People were permanent, which is also important. Not because we made some relations special, but because people began to understand ... the (overall) situation in Svetogorsk ... If you come to a person, who has no idea at all what is a 'Svetogorsk', and you simply say that it is a pulp and paper mill ... Many inspectors can't even conceive what has been done, how, why, and what more could be done, which is most important. (Interview 8)

In the opinion of the enterprise representatives, the concentration of different controlling authorities in one administrative unit is not a drawback as such. The misfortune is that as a result of rotation, fewer professional people are now working in key posts. From the point of view of business, the reorganisation weakened the things that were good in environmental administration. One aspect seems to concern the rescaling of authoritative power (chapter 2.2.):

And the good thing was that we could go to the Neva-Ladoga inspection and reach a solution at their level. Today, this solution is different, it is also necessary to go to someone at a higher level, who is no longer so professionally competent. The people who worked here before for a very long period of time knew so much more. (Interview 8)

The managers of the Svetogorsk mill stated that they are seriously attempting to improve their relations with the environmental authorities. In their attempts to create a constructive dialogue the mill's managers believe it is very important to create personal contacts with certain competent and powerful persons within the administration. The requirement for collaboration with the business sector is that the officials in charge should be experts in the environmental issues related to pulp and paper (Interview 8). Collaboration with the Neva-Ladoga basin administration and fish protection authorities in the Vyborg district was mentioned as positive examples of dialogue with authorities. One important official from the Ministry for Natural Resources was mentioned, because he has created a Consultational Council for the ministry from the representatives of industrial sectors. He is cited as "the first official I have met, who attempts to talk with any businesses in a human manner ... But this is rather an exception than a rule" (Interview 8).

Contrary to the relations with environmental authorities, the relations of the Svetogorsk mill with the Svetogorsk municipal authorities have been relatively close in recent years. The municipality has shown strong interest in the devel-

opment of the town's dominant enterprise. OAO Svetogorsk is the only important taxpayer to municipality and its direct and indirect contribution to the local budget ensures the maintenance of social security, education and public health (Interview 1). The investment programmes and expansion plans naturally interested the administration, since they promised new jobs and increased tax revenue, so they helped as much as they could (Interview 6). Sometimes the local authority served as a buffer in the relations with higher levels of authority:

The solution to many questions depends on the government of the Leningrad Oblast. And the mayor of Svetogorsk, for his part, has arranged meetings at some committees of the regional government. Or, let us say, we write a letter requesting that some question be resolved, the administration signs it, which also represents a petition for the resolution of this question. (Interview 6)

In November 2002 a new, very well equipped, medical and sanitary centre was opened at the mill, and it is used for providing medical services for the employees and other local inhabitants. Local administration also made a small contribution to the project which permitted approval to occur more rapidly, without the usual delays (Interview 6). The administration has also actively taken part in helping the mill to solve the question of building the new site for solid waste:

(We) have not been able (to solve it) for three years, because final permission has not been given, or would have required such an unrealistic sum of money. (Interview 8)

The management of the mill considers that an "ecological payment" should not be required from them, because they interpret the new dump as "a purely social project". It does not create any economic benefit to the company, but was planned to improve the situation in the town of Svetogorsk (Interview 8). The local administration also supports the idea that it is necessary to have a new site for waste, which would be more distant from the town. The old dump is located inside the town boundaries, and waste is gathered there from both the residential area and the production process. The town administration has participated in meetings and has written a letter emphasising the importance and necessity of the new dump in conjunction with the enterprise (Interview 6).

However, in spite of some positive examples of interaction between the mill and the authorities, it is possible to draw the conclusion, from the perspective of the enterprise, that systematic ecological policy in Russia is absent, regional legislation concerning environmental protection has not been written, and a stable constructive dialogue between authorities and the business is not ongoing.

This does not provide much evidence of institutional modernisation in Russia (see chapter 2.1).

Changes in the mill's forest policy and the relations with NGOs

The relations of the Svetogorsk mill to NGOs present a rather different story. These relations started developing around 1997-1998 in the period when the mill was the property of Tetra-Laval. Environmental organisations established communication with the mill through a few managers working with raw-material procurement. In particular, the NGOs established relations with the director of the department of wood procurement. These managers arranged meetings, first, with the Swedish and, later, with the American executive directors. In these meetings old-growth-forest issues were discussed both in a general sense and especially in regard to the mill (Interview 2).

At that time, international NGOs had initiated protest campaigns in the Central European and Scandinavian countries against Western firms' purchases of wood originating from old-growth forests in the border regions of Northwest Russia (chapter 5.1.). Many firms started making efforts to improve their environmental images. Although Tetra-Laval or IP were not themselves directly involved in these campaigns, they became interested in avoiding conflicts in such a complex region as the Russian Northwest. Therefore, the company saw consultation with environmental organisations as useful for carrying out logging without protests by environmentalists. Environmentalists argue that the fierce conflicts awakened companies to the fact that confrontations were useless for all parties (Interview 2).

The environmentalists, after fixing collaboration with Tetra-Laval, were afraid that a change from the Swedes to the Americans in the mill's management would be a backlash against the ecology and the trust achieved between the parties (Interview 2). The interviewed environmental activists saw the West European, especially Scandinavian, countries as the most ecologically responsible societies, so they thought that "the American sharp-toothed shark of capitalism" would not be as positive towards environmental protection as the Swedes (Interview 2). Therefore, it was a positive surprise for the NGOs that despite the change in ownership, environmental policy at the mill did not change. In the opinion of environmentalists, the Svetogorsk mill has conducted serious work in the field of forest policy and, for example, at present can monitor the districts in which the wood coming to the mill has been cut, as well as the legality of the logging methods (Interview 2). Collaboration with NGOs has been intensive and, for example, a report written by A. Grigoryev (2001) from the Socio-

Ecological Union concerning the social and ecological problems in the Russian forest sector resulting from illegal logging and other disturbances in forest use was translated into English by IP at Svetogorsk (Interview 5; Tysiachniouk & Reisman 2002).

On this basis, a significant change in the Svetogorsk mill's forest policy took place in the late 1990s. In December 1998, the mill declared it had stopped cutting trees in forests defined as old-growth. The management made this decision after acquainting themselves with a map provided by Greenpeace in cooperation with the Biodiversity Conservation Centre concerning the location of the last old-growth forests in northern Russia (see chapter 4.2). One of the mill managers said in an interview that "our commitment to production not using ancient forests would have been impossible without the information provided by Greenpeace" (Common Dreams News Wire 1998). This comment shows the readiness of the company management to take environmental organisations seriously and utilise the information provided by them.

Another step towards a mutual understanding with ecological organisations was made by the management in March 2001. A meeting was held with representatives from Greenpeace Russia, the Socio-Ecological Union, International Paper and Ilim Pulp Enterprise. Among other issues, the development of various certification systems and the prospects for old-growth forests were discussed. The new forest policy also shows a tendency to go beyond what legal regulations and the environmental and forest administrations require:

Our economic activity will correspond to all legislative and normative-legal requirements as well as to voluntary methods of sustainable forest use. We constantly study the affect of our activity on the environment and undertake all necessary measures for decreasing the negative consequences ... We require of our suppliers ... a deferential attitude to the forest ecological policy of the company and observance of its principles ... We will help them in improving their operational methods and in fulfilling the requirements of our policy. We will not buy wood prepared by methods which contradict our forest ecological policy. We will constantly verify the origin of the wood supplied to us. (OAO Svetogorsk 2003) (Translated from Russian)

Naturally, to declare an ecological forest policy was easier than to concretely implement its principles in the Russian conditions. In the Soviet era, the mill managers had nothing to do with forests and forestry. The mill was not considered a forest user, and they were never forest tenants. The deliveries of wood were monitored exclusively by the system of Gosplan. After beginning to operate in free markets, it became obvious that the enterprise must also start leasing

forests and begin to monitor the origin of the wood. The whole spectrum of questions was completely new not only to the Svetogorsk managers but to the other enterprises in Russia as well (Interview 7). As a result,

we spent almost two years proving that we are forest users. At first, they did not give us any forest, now they do. We are not referred to as forest users, but as forest processors ... it had already been strictly organised in the Soviet Union: a lumbering enterprise simply got its orders: 'dispatch this there, that there'. The pulp and paper combine just obtains [wood]. (Interview 7)

Although the Svetogorsk mill does not seek to be completely self-sufficient regarding wood, it now has a long-term lease on sections of forest stock in the Leningrad and Novgorod Oblasts, modernised lumber technology as well as having retrained lumbermen. As a sign of success in forest policy that pleases environmental organisations, the Svetogorsk mill's forest environmental policy has been ranked in the highest category in WWF Russia's list of "responsible timber producers" (chapter 4.2.), despite IP not having adopted the Forest Stewardship Council certification system promoted by WWF.

How can the cooperation between the Svetogorsk mill and NGOs be explained? First, the change of forest policy was linked to ownership changes and the related market effects. IP declared that the new mill would follow general company policy. The introduction of the standards of sustainable forest use became a priority for the mill as the new owner did not want to provide a negative impression of itself at the outset. The company managers did not want either their Russian or Western customers or consumers to perceive the new owner as a "chudo-yudo"⁶, who cuts cheap Russian forests to reap huge profits by selling its products abroad (Interview 7). The company brought with it new initiatives that would take customers expectations in the Western markets into account. In terms of certificates, the company reported to be the first in the Russian forest industry to receive the ISO-14001 in environmental management (see Kotilainen 2004b). For forest management in North America, the company uses the Sustainable Forestry Initiative (SFI) system developed by the American Forest and Paper Association for application on that continent (Sustainable Forestry Initiative 2005). This system competes with the FSC certificate, which WWF has been actively bringing to Russia.

Second, the mutual understanding of the enterprise and the environmental organisations plays out against the background of their sceptical relations towards the authorities, as described above. The opinions of the NGO representa-

⁶ "Chudo-yudo" is a nasty dragon-like creature in traditional Russian folk tales and often represents a foreign enemy who the Russian peasants must fight.

tives on the authorities are expressed rather emotionally and vary from “I do not see any responsible and effective partners among the state structures” to “officials are a deceitful, mean caste... Our chiefs’ distinctive features are dullness, impudence and sheer irresponsibility. They can mess up, mess up, mess up, but they don’t have to answer for it ... ” (Interview 2). Environmental activists feel that authorities do not need and respect them, which makes environmental organisations avoid deeper cooperation with them. In contrast, collaboration with business is seen much more positively and even necessary in order to improve environmental conditions (Interview 2).

In recent years this tendency has become characteristic of the Russian environmental movement. Although many NGOs have continued the necessary collaboration with the authorities since without it their activity would be illegitimate, they have transferred the main focus in cooperation activities to the relations with enterprises. For example, in its earliest activity in Russia, WWF arranged seminars on sustainable forest use for representatives of business and the authorities seeking to promote FSC certification (see chapter 4.2). Having repeatedly encountered the disinterest of the authorities in regard to this, WWF turned its efforts to working with business enterprises. Only those representatives of the authorities who were really interested in certification issues were invited to the meetings (Tysiachniouk & Reisman 2002).

However, environmentalists do not generalise the above characteristics to all firms and authorities. In the same interviews analysed above, on the one hand, completely constructive collaboration with some authorities or their representatives was mentioned but, on the other hand, the complaint was that the number of “responsible” firms is still relatively small. The interviewed environmental activists believe that environmentally responsible businesses of Russian origin are an especially rare phenomenon. Small and medium-sized enterprises in Russia grew in the period of “wild capitalism”, sometimes from criminal roots. These are “mainly bandit companies, which act in the Russian markets” (Interview 2). However, the interviewees saw an emerging tendency where business people, in contrast to government officials, increasingly understood that in order to enter and survive in markets of the “serious countries” they have to learn the rules of the game (Interview 2).

Against this background, both the representatives of the Svetogorsk mill and the NGOs have recognised in each other the skill to listen and an desire to evaluate the situation thoroughly. The NGO activists regard the managers of the Svetogorsk mill as reliable partners, who can be counted on to do “attentively do what they say” (Interview 2). The mill’s managers, in turn, seem to respect NGO activists much more than officials in environmental administration. Characterisations describing environmentalists are quite the opposite of those concerning environmental authorities:

In reality the ‘greens’ are more responsible than any of our officials (in the administration), perhaps because they are more independent. And they actually try to understand what occurs. At least they don’t say: ‘you fools, you are such reptiles’... And we began dialogue. (Interview 8)

The interviewed environmentalists emphasise that the next challenge for forest companies deals with informational openness (Interview 2). The Svetogorsk mill does not get the full acceptance of environmentalists in this respect:

In my view, what they do not have is an active information policy, and this is problematic. According to the information I have, there is a mass of remarkable things ... (in Russia everywhere) people steal, rob, but here - it is clear that they have order. It is national property - so show it! ... Well, you tell the people that what they do is completely normal, but they shy away – ‘well, we are afraid, we can’t in this strange country, there is something there. (Interview 2)

This quotation describes the period when the director and the majority of the management were American at the Svetogorsk mill. The current director is a Russian citizen, a native of the town of Svetogorsk, who has worked at the mill for 16 years. The same relates to the majority of the remaining key personnel at the mill. The change from Americans to Russians in the top-level management made information policy somewhat more open. The experiences of our research team also illustrate the difference in information policy during the terms of the mill’s previous and present chief executives. We tried unsuccessfully at several stages of the research to arrange interviews with the mill’s American top management. Nor were we allowed to either enter the mill or meet the management. However, soon after the Russian chief executive was appointed a member of the research team got the opportunity to interview top management. In his interview the new Russian director spoke in terms of more open relations with the authorities:

the most important thing is transparency, this is the key word everywhere. If there is transparent interaction between the inspectors and the inspected, then everything will be in order. Then there will be no suspicions, no fears, it will be generally understood what is done and why it is done. Unfortunately, today this is not the case. (Interview 8)

However, information policy turned out to be less open than the above citation would suggest. It took one of the members of the research team three months to arrange the interviews. Moreover, management did not in the end permit carrying out all the planned interviews, and did not invite the researcher to the mill area to see the changes in the actual production units. Some representatives of nature-conservation administration refused to be interviewed, and all experts expressed uneasiness about talking with the researcher without the direct permission of the management. The company's local information policy within the town of Svetogorsk has the same deficiencies as does relations with the "external world". The most important local source of information about the activities of the company is the newspaper 'Svetogorskii rabochii' ('The Svetogorsk Worker') (Interview 6). Sometimes the local newspaper "Vuoksa" and the local cable television are used for this purpose; initially both belonged to the enterprise but were recently transferred to the municipality. Even the mill managers admit that informing the inhabitants about problems and achievements at the mill is insufficient and ineffective, and instead of abstract numbers concerning BOD (biological oxygen demand) or COD (chemical oxygen demand), more easily understandable examples should be presented.