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AUGUST 1990



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TIMBER AND WOODWORKING

PULP AND PAPER

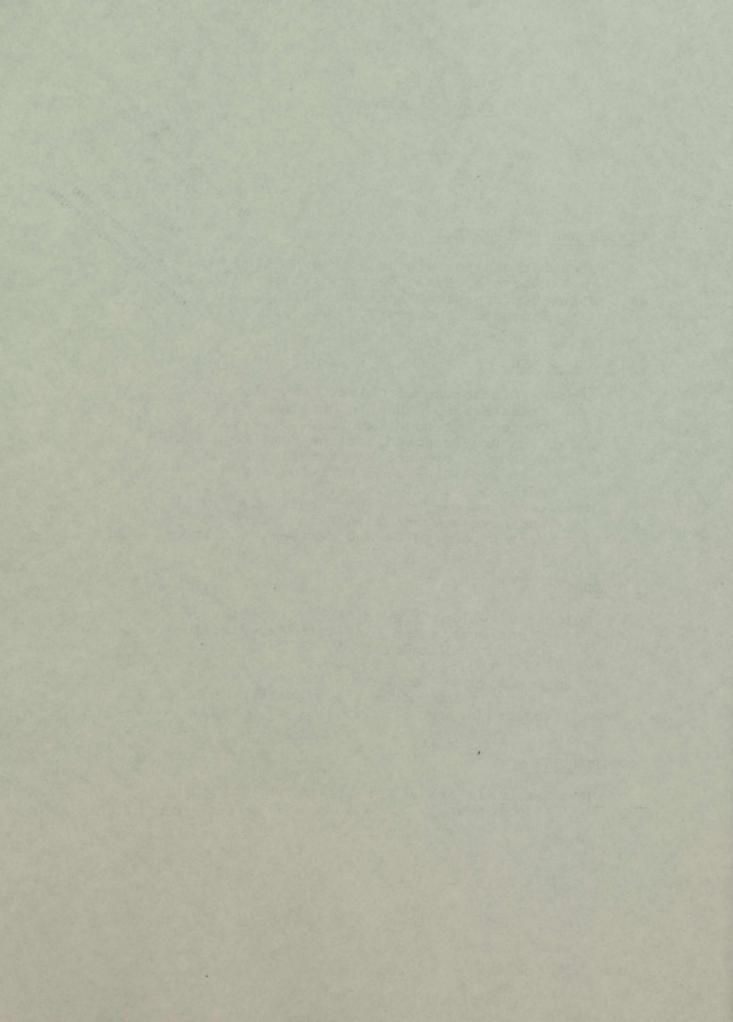
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TIMBER AND WOODWORKING

Preparations for Winter at the Felling Sites: Report by First Deputy Minister

Once again, summer is giving way to winter, or more precisely, to preparing for it. With the transition to a market-type economy, managers will have much greater opportunities for economic manoeuvre and for competent, efficient and commercial utilization of timber. First, however, it must be harvested and extracted from the felling areas. The fourth quarter of this year and the first quarter of next is the most suitable period in which to do this. How will the workers of the sector cope with the cold weather which is just around the corner? Our correspondent met with N.S. Lyashchuk, First Deputy Minister of the USSR Timber Industry. Here are some of his comments on the evolving situation.

"Many years of experience show that during the periods October-December and January-March less than 70 percent of the annual felling assignment is normally extracted. An example of the opposite kind, however, is afforded by the "Omsklesprom" Association. There, up to 80-85 percent of the planned yearly volume is brought to the lower landings in sub-zero weather. During the remaining months, being sure that the plan will be fulfilled, they are able to concentrate their efforts on solving essential administrative problems.

What is it that is helping the Omsk people? Above all else the prompt and qualitative preparation for winter. They concentrate on the essentials: the forest lands are selected in good time; reserves of machinery, spare parts and gasolene are assembled; skilled workers are trained; seasonal roads put through, etc. Only on such a basis is it possible to work productively and make full use of available machinery. Currently, the associations in the Tyumen, Tomsk and Kostroma regions are similarly getting ready for winter. There are, however many associations where a slipshod attitude prevails towards this vitally important task. They include "Dal'lesprom", "Amurlesprom", "Primorsklesprom" and "Komilesprom". It is true that they are swamped with various kinds of papers, instructions and directives, not to mention the numerous conferences and working sessions. But all this verbosity is no substitute for real work.

While we at the Ministry have no intention of issuing orders to production units in the field, we are surprised at the position taken by a number of their "commanders", who are becoming their own worst enemies. Perhaps they fail to see that it is exceedingly difficult to make up for winter arrears in the summer: roads have lost their bearing capacity, the pace of work has slowed, employees are going on vacation and workers' collectives are adopting a resolution calling for a five-day rather than a six-day working week.

Despite the fact that in the current year we have introduced additional material incentives to accelerate production in te summer months, no particular enthusiasm is manifest. At the time of writing the sector is behind on the extraction plan by approximately two million m³.

To return to the discussion about preparations for the coming winter, we have reached agreement with the associations in the field on the recommended volumes of the main activities and providing them with technico-economic support. Here are the principal figures:

It is planned to do the following:

- Fulfill enhanced production volumes - 50 million m³ of timber haulage and 46.3 million m³ of merchantable timber production in the fourth quarter of 1990, the corresponding figures for the first quarter of 1991 being 90 million and 64.5 million m³ respectively;

- Promptly secure an allowable cut for the enterprises and prepare it for exploitation on December 1 in a volume of about 120 million m³; make ready in a serviceable condition the following principal kinds of timber harvesting machines: 19,000 skidder mechanisms, 6,000 end-loaders, 13,000 log trucks;

- Stockpile about 31 million m³ of long logs along timber haulage roads by the beginning of winter;

- Ensure that maintenance engineers are trained for multiple snift operation of logging equipment in order that unitised machines for harvesting and skidding of timber can operate in two to three shifts; for this purpose we shall need 13,500 fellers, 24,000 tractor operators, 34,000 log-truck drivers, 9,000 end-loader operators, 5,600 felling machine operators and 7,000 delimber operators;

- Make ready 57,000 kilometres of winter trucking roads;

- Prior to September 15, prepare the housing accommodation for normal use during the autumn and winter season.

It is important not to give in to caprices of the weather such as frosts and suddent thaws. We should keep in mind the bitter experience of the first quarter of this year, when sudden and protracted thaws accompanied by rain during February and March ruined the winter timber roads and made it difficult to maintain access routes in the Gor'kii, Leningrad, Novgorod, Vologda, Kostroma and various other oblasts. Under these conditions nothing was done in regard to grading the routes, draining off floodwaters, etc. We must learn from these mistakes.

Valid complaints about deliveries of logging machinery should be forwarded to the Ioshkar-Ola Timber Industry Mechanical Engineering Plant, the "Kommunar" plant at Perm and the Altaiskoe tractor plant. The latter enterprise has let us down particularly badly in supplying us with skidding tractors in only 37 (:) percent of the requirement. How much longer can we put up with the irresponsible performance of sub-contracting plants?

On the other hand, at a number of sites our producers too are paying scant attention to the organizing of felling operations. For instance, in the first quarter the plant for skidding was disrupted by the "Arkhangelsklesprom" and "Komilesprom" associations, notwithstanding the fact that TDT-55 tractors were in operation there, the requirement for which has been almost fully met.

Again and again we appeal to the railway workers, especially those of the Northern and Sverdlovsk main lines. Of course we understand their difficulties but we still ask them to improve the deliveries of empty freight cars. For in the three of the the largest associations -"Komilesprom", "Sverdlesprom" and "Tyumenlesprom" - the stockpiles of timber are currently almost as large as they were in May! The timber is spoiling and rotting, and the lower landings cannot be prepared for winter."

> Lesnaya gazeta 21 August 1990 Page 2 (abridged)

Joint Venture With Japan Established at Lidoga on the Amur

In the village of Lidoga on the Amur River, the first joint venture involving the Soviet far eastern timber sector and Japanese firms has been established. It is to be known as the "Lidoga enterprise". This marks the first step towards cooperation in timber processing in the entire history of the relations between our far eastern timber exporters and a neighbouring country.

Lesnaya gazeta 14 August 1990 Page 1 (full text)

PULP AND PAPER

Combines in Archangel Oblast Struggling to Break Free of the Ministry and Earn Currency Through Exports

Newspapers and magazines have recently been subjected to a form of censorship much more rigid than that which was abolished by the Law on the Press. I am speaking about the paper shortage.

The "paper famine" has forced some publications to reduce the number of pages and their circulations and the size of their runs and also to publish intermittently, all of which, albeit unintentionally, infringes upon our right to receive rapid, reliable information through the mass media. Also placed in jeopardy is another right proclaimed by the Law on the Press: the right of a Soviet citizen to establish his own publication. Just try to start your own newspaper in a country where the per capita production of paper amounts to 37 kilogrammes, including packaging and carboard! In comparison, with our Finnish neighbours this index is 254 kg, which is not only sufficient for their own needs but also for sales to other countries, including ourselves. But the most striking thing about this is that both countries are in the same starting position for paper production: both the USSR and Finland produce on average 9,000,000 tonnes of pulp annually. What is happening to our raw material?

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More than a quarter of the USSR's pulp production is concentrated in the Archangel Oblast. There, on the banks of the Severnaya Dvina the notorious Solombala, Archangel and Kotlas pulp and paper combines (PPCs) belch forth their wastes. If I were to define the status of this region in one word I would call it a colony.

Deeply etched in our memories - straight from school - is the definition of a colony as a country where the local inhabitants, through their own labour, ravage the natural resources of their land for the enrichment of those who have come to own them. The Archangel Oblast is richer in timber reserves than the Finns, but how they operate here and for whose benefit we shall see presently.

It is already more than half a century since the start-up of the oldest of the combines - the one at Solombala - which assumed the thankless role in the economy of being a supplier of semi-manufactured goods. At first, the pulp was sent to paper mills within the country but after the setting up of the Council for Mutual Economic Assistance (CMEA) the northern combines switched over to being suppliers of raw material to the Eastern European countries. Up to 70 percent of the pulp produced at the Solombala PPC is exported. The Kotlas Combine exports half of its output. And in the town of Novodvinsk - the site of the Archangel PPC - with the assistance of Bulgarian specialists a bleached sulphate pulp mill with a capacity of 250,000 tonnes a year was brought on stream in 1976, especially to supply that country on the shores of the Black Sea with a product in short supply.

"This kind of division of labour has converted us into a raw materials appendage attended by low-profitability production and a very serious ecological situation," said A. Lichutin, First Deputy Chairman of the Oblast Executive Committee and head of the Main Economic and Planning Directorate. A ton of pulp is worth about 70 dollars on the European market but this currency is unavailable to Archangel Oblast exporters. After several years of heated discussions about expanding the independence of pulp and paper combines the Ministry of the Timber Industry has made things slightly easier for them in the field of production, but, as before, trade in their products - the key to market relations - remains in its hands. Today, there is a new intermediary between the combines and foreign consumers of their pulp: the "Exportles" directorate.

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"This directorate, despite what is specified in the agreement with it, conceals from us information on the state of the external market and terms of contracts with foreign partners", says N. L'vov, Director of the Solombala PPC. "We have no idea to whom and for how much our pulp is being sent. The plans for deliveries are being corrected virtually every day: today we are to ship to Eastern Europe, tomorrow to the capitalist countries, and the day after, make a rush for the domestic market. How am I to know what the prospects for deliveries are, and in which direction we are moving?"

The grudge borne by the Director of the Solombala Combine towards "Exportles" is understandable. But let us try to analyse the situation calmly: could a monopolist operate differently in the current sitation? Privatization of the economy of the Eastern European countries has sounded the death knell for the interlocking state of the market for member countries of the CMEA, or to be more precise, for intra-bloc distribution, with a collective unit of settlement, the transferable rouble. At the same time, long-term agreements on reciprocal deliveries have remained in force. In this contradictory situation it would have been logical to give the immediate producers (in our case, the pulp and paper combines) the opportunity to make direct contacts with foreign consumers of their output. Even though they have tried to find a path to a mutually advantageous arrangement, the Ministry of the Timber Industry has remained true to monopolist tradition, which is being perceived today as a bull in a china shop.

"We have received more than two million roubles in CMEA currency", L'vov continued. "But what is the good of it? Even those who used it to pay for our pulp are insisting that we pay for their commodities only in dollars. Once again we have been working for a pinch of snuff. But for how long can we pretend to be benefactors? For we are in the process of becoming extinct!"

Precisely what he meant by this remark is difficult to say. For at Solombala, production machinery installed half a century ago functions to this day. The walls of the digesters have been worn thin. Is this dangerous? "Accidents do happen", L'vov replied evasively. While the Kotlas and Archangel combines are of more recent origin, there too the industrial plant has long been in need of replacement.

The directors of the combines spoke with envy about what they had seen in Finland: "The condition of the machinery at the pulp and paper mill is in our view, excellent. Even so, the managers took us to a site where a new plant is being assembled. It is to come on stream in a year's time and the old one will be closed down. This is normal with them - to regularly renovate production. With us, the eternal refit is the norm".

The Archangel PPC is considered to be the best in the sector. There was a reference to this on the radio on the day of my arrival at the Combine. But if this is the best we have, then how have we managed to survive? In order to keep going, here they have to maintain a vast mechanical repairs establishment and an enormous staff of maintenance people, who are constantly breathing new life into decrepit equipment. Surely it isn't because of these expenditures that the cost of production has almost reached the price charged within the Union, and that sulphide pulp in general has become a losing proposition for the Combine? Since we have been talking about the cost of manufacturing the pulp, it follows that we should add on to the estimates the poisoning of the air at Archangel, Novodvinsk and Kotlas, which is well above the maximum permissible concentrations and catches one in the throat. Similarly, we have to add on the polluting of the Severnaya Dvina with phenols and other poisonous effluents, so much so that physicians are insistent in warning people not to bathe in that river. Is it only in these units that we measure this "cost"? For which foreign currency will substitute for the lost health of the northerners?

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The decrepit combines have become the source of another very serious, death dealing hazard. Compare the following figures: in the West, enterprises of the pulp and paper industry use less than 20 cubic metres of water per ton of output. Enterprises in the Archangel Oblast, on the other hand, have a water-retention index of more than 100 cubic metres. But what is it that has brought them to an impasse? It must be the government's monopoly - I can find no other answer.

A good 80 percent of the production plant at the pulp and paper combines has been assembled from imported materials. Our industry has not produced and is not producing to this day machinery suitable for this sector. For renovation and repairs, of course, currency is needed, and in large amounts. But in the past year alone they have begun to release to the combines up to 25 percent of the revenue earned by them. But even this niggardly amount doesn't reach them in full. A quarter of it is withheld by the Ministry for its own centralised fund and a further 5 percent is the mandatory deduction for the Oblast Executive Committee.

For example, a sum of 1,500,000 roubles worth of freely convertible currency has been credited to the Solombala PPC in this way. The Combine has given half of it to a foreign trading enterprise for the purchase of spare parts from western firms. The remainder has been devoured by the domestic market, for there, if materials are in short supply it isn't roubles they want to hear about, but dollars. This one and a half million roubles have been just sufficient to keep the Combine from going under. The cost of total modernization of production is approximately 300 million. The appetites of the other two combines - also starving to be rebuilt - are just as large. It is true that, beginning in the New Year, reciprocal settlements with Eastern European countries will be made in convertible currency only. This will improve the position of the PPC's, although perhaps only marginally, since no provision has been made for an increase in the amounts of money allocated to the workers' collectives from currency earned by them. So where is all this money to be found? Here are some recipes culled from my Archangel notebook.

The Deputy General Director of the "Arkhangel'sklesprom" Association, A. Kalinin: "We need to increase the standard deductions in foreign currency: up to three-quarters for pulp and paper products. There should be no allocations for the USSR Ministry of the Timber Industry (Minlesprom)."

The Head of the Main Planning and Economics Directorate of the Archangel Oblast Executive Committee, A. Lichutin: "We are planning a series of shops to produce paper and paperboard. These products are worth much more than pulp and it is more advantageous to sell them. We can obtain the foreign currency needed for building these shops by selling a part of the pulp to foreign countries."

The Chief Engineer of the Archangel PPC, V. Il'in. "A machine for producing pulp is almost a copy of a papermaking machine. We can quickly tool up for the production of paper. We have reached agreement with foreign firms concerning deliveries of plant. In exchange for pulp we have an unused reserve of capacity for digesting 30,000 tonnes of pulp. We knocked on doors at <u>Minlesprom</u> for the necessary authorization and they replied "Impossible". "Why," we asked. "There isn't enough pulp in the country and you want to hand over the increase to the West". So we retorted that this was just the time for them to set up a line of credit in currency for the Combine. "We can't - there is no currency", was their reply.

The recipes, as we see, all amount to the same thing: to be free to dispose of one's own output. The pulp producing colony will cease to be such only when it finds this freedom. Your order - our labour. We produce - you pay. Without middlemen, in accordance with the terms of the contract and to our mutual advantage.

According to estimates by specialists, the shortage of paper in the country due to planning is about 100,000 tonnes. The Archangel PPC alone would be able to cover a good third of this shortage if it were to find this freedom.

Minister of the Timber Industry V. Mel'nikov, in an interview with one of the newspapers, said: "We need to build some new enterprises, as is being done worldwide, so as not to overload the environment. It is important to upgrade to ecologically acceptable norms and resolve problems relating to purification plants." This was said in the days when the Archangel pulp producers had unsuccessfully sought permission from the timber department to adopt an entrepreneurial approach. The path between its verbal approval and realization in the marketplace is fraught with difficulty. It is very difficult, for on this path lies the need for the department to give up its monopoly, which is the same as absolute power.

Izvestiya 5 August 1990 Page 2 (slightly abridged)

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Joint Venture Proposed for the Komi Republic: a Shop to Produce Raw Material for Pulp from Low-Grade Softwood and Hardwood

The Knyazhpogostskii Timber Combine in the Komi ASSR was recently visited by a group of businessmen from the Federal Republic of Germany which consisted of representatives of the "Siemens" concern Karl Heinz Gruber and the "Sundsdefibrator" Company Boris Beck. Talks about collaboration were held with the directors of the "Ust'-Vymles" administration and the Knyazhpogostskii Timber Combine.

The two sides considered the possibility of building a shop at the Knyazhpogostskii Timber Combine which would produce raw material from low-grade coniferous and broad-leaved species of trees to be used in the milling of pulp. The annual capacity of the shop is to be 50,000 to 60,000 tons and the cost of a ton of raw material - 500 roubles. It is proposed to begin building the shop in 1991 and complete the task a year and half later.

Construction will be financed by "Siemens" with delivery of the equipment for assembly to be guaranteed by the "Sundsdefibrator" Company. Sweden will supply the equipment and Belgium will ensure that the output is sold.

"The most important thing of all", said one participant in the discussion - Nikolai Nikolaevich Balin, Chairman of the State Committee for Nature Conservation in the Komi ASSR - "is that the ecological cleanness of the project is guaranteed to the maximum extent possible".

> Lesnaya gazeta 16 August 1990 Page 1 (full text)

New Agency to Oversee Reconstruction of Mill and Development of Infrastructure to Meet Expanding Demand for Computer Paper

In the northeastern part of the Perm' Oblast there is a remarkably beautiful area (raion) which is known as Krasnovishera. Its fate has been harsh and complex, for this was a forced labour camp during the Stalin era.

Later, enterprises of the USSR Ministry of the Timber Industry became established here, after ceding their industrial area of operations to <u>Glavspetsles</u> (Main administration for Special Logging Camps). Traces of its overlordship, as noted in a document issued by the district Council of People's Deputies, are to be seen in the fact that "a whole complex of unfavourable social, economic, demographic and moral and psychological consequences affecting the interests of the population, had come into being".

So, once again it was decided that the enterprises of the Ministry of Internal Affairs (MVD) must leave the place. Two important circumstances contributed to this.

One is that in the late nineteen twenties prison labour was used to build a paper mill there. By taking advantage of the crystal clear Visheran water and the excellent small spruce in the area, the mill was capable of producing the high-quality paper on which in the preceding decades books written by our Party bosses were printed. Since then the mill has become very run down, both materially and morally. To this day it has no purification plants, flakes of foam are to be seen floating downstream from it, with clumps of "pulp-derived" slime turning up in fishermen's nets.

The second circumstance consists in the fact that our country, which in due course, embarked on a life and death struggle involving cybernetics, has now fallen catastrophically behind in the computerization of all

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aspects of its life. Not only are we experiencing a severe shortage of computers. The same is true of the paper used for their print-outs. This is special paper, the demand for which will soon amount to millions of tonnes.

In an attempt to achieve a break-through in what for us is a new area but for the rest of the world is now commonplace, an inter-sector governmental association known as "Prominform" was created.

To start with, certain of the existing papermaking capacities were called upon to adapt to the new kind of production. Thus, the collectives of two enterprises were "liberated" from the USSR Ministry of the Timber Industry: the Perm' Pulp and Paper Combine and the Vishera Pulp and Paper Mill.

The latter, as we know, is an old mill. To adapt it to the needs of the day, a radical reconstruction is needed and better still, complete replacement of the worn out production technology by attracting for this purpose, western firms operating on shareholder principles. But such firms are unwilling to enter into long-term cooperation in the absence of a guarantee that the renovated pulp and paper mill will have a stable supply of raw material. Such a guarantee can only be given by leasing the living Krasnovisheran forest.

What happened is that on 28 June 1990 an agreement was concluded between the Krasnovishera Executive Committee of the Council of People's Deputies and "Prominform". I consider this to be extremely important. For the area (raion), which had previously had no prospects for expanded reproduction and normal socioeconomic developmenmt, is now enjoying both of these. The point is that hundreds of other forested areas of Russia are currently being denied the opportunity of "expanded reproduction and normal socioeconomic development".

On what basis did the contracting parties reach an understanding? In the last few years alone, 600 families who are descendents of loggers have left the district. The author is well acquainted with some of them. They are fine people and excellent workers. From what were they fleeing? From housing that is damaged and only 20 percent habitable; its replacement is not even envisaged by the year 2000. From the lack of roads, schools, hospitals and kindergartens, and from the denuded shelves of retail shops. There is no hope that all this will change for the better. The loggers of the Ministry of Internal Affairs (MVD) are themselves up to their ears in debt. The pocket of the district council is also empty. Indeed, how could it be otherwise, given that on May 1 of this year the shortfall in the local budget for forest revenues amounted to 109,000 roubles and arrears in payments from income were 28,900 roubles? There can be no doubt that there is progressive impoverishment of the municipal authorities, and this at a time when the forest wealth of the district is being systematically plundered on a vast scale!

Even though "Prominform" knows which outfit will take possession it is nevertheless appropriating to its own balance sheet the logging camps and forest-based enterprises that are there.

The <u>Ispolkom</u> (Executive Committee) must do the following: assemble in the <u>kulak</u> all of the existing construction capacities and promote the creation of new ones, following which it must direct all this to a programme of socio-economic renovation of the logging camps and enterprises... these have already become part of "Prominform".

"Prominform" is in the process of issuing shares.

The Ispolkom is facilitating the accumulation of unused financial resources of the other enterprises, institutions and organizations of the raion and its fellow citizens for the acquisition of these shares. "Prominform" is guaranteeing that the shares are neither fraudulent nor a method of extracting funds from simple folk. To this end, it must make arrangements by 1991 for the secondary integrated conversion of timber and forest wastes, thereby raising the merchantability of each cubic metre, which will result in an increase in profit and a strengthening of the dependability of its shares.

In the days when the points in the agreement were still being pondered by S.S. Romanov, Chairman of the Board of "Prominform" and I.A. Segal', Chairman of the <u>Raiispolkom</u>, I managed to make an overflight of forest lands leased for logging. Alas, they were in considerable disarray, which was not only due to human activity. Over vast areas overmature coniferous trees had fallen and were rotting. In these places a mixed forest with a high content of birch had become established. But the Vishera Pulp and Paper Mill for the sake of which the contract was being drawn up is not equipped for processing hardwood. In the absence of a dependable consumer, "foliage" has become the scourge of the entire Urals region. What then, had to be done?

By 1995 "Prominform" must ensure that there is balanced consumption of hardwood and softwood. It should be mentioned that no one has previously succeeded in doing this. Nor has anyone made a serious attempt at it.

What else is there to say that might appeal to the interested reader of this piece?

"Prominform" must build the roads, bridges and other installations in the area, without which a modern social infrastructure will not be developed. The people brought here will not be living in barracks (these will be demolished during the period 1991-1995, together with the panelled housing), but in decent homes. For this purpose it must "change over to building cottage-type accommodation in the logging camps which is fully serviced (with piped in water, sewage systems, heating and natural gas) and consist of long-lasting materials, such as brick and pre-stressed concrete."

The Ispolkom, for its part, must promptly make available the necessary land for the construction of the cottages.

It goes without saying that if all this is undertaken with a view to ensuring that the paper mill has a dependable supply of raw material, it also will undergo major changes. Pollution of the Vishera with its effluents will cease. The production plant will be reequipped, there will be a substantial increase in the output of pulp (up to 120,000 tons in five years time), of paper for computers (up to 110,000 tons), of self-copying paper (up to 60,000 tons) and technical information carriers (up to 40,000 tons a year). With this combined output the Perm Oblast will be the first to be self-sufficient.

Yes, this is similar to the present perestroika in the forestry sector. The boss of the forest has turned out to be the people, the interests of the boss have been clarified and a genuine attempt is being made to define the form of its interaction with the forest users so as to further the interests of both parties. Leasing for full value must become the guarantor of success. And it will be so, I have no doubt about this.

(From our special correspondent in Perm, D. Rizov) <u>Lesnaya gazeta</u> 23 August 1990 Page 2 (slightly abridged) 23 August 1990 Page 2 (slightly abridged)

FORESTRY

Selective Felling Proves Vastly Superior to Clear Cutting in Long-Term Experiment Conducted Clandestinely in Tatar Republic

For several days the Sabinka timber industry enterprise served as host to loggers from the Perm, Kirov, Yaroslavl', Gor'kii, Ivanovo and Smolensk oblasts, as well as to specialists from forest institutes and experimental forestry stations. They studied the experience gained by the Sabinka people, who have achieved an increment in wood volume averaging from 3.2 to 5.0 cubic metres per hectare, and in some sites, of up to 10-12 cubic metres. Moreover, the growing stock per hectare has risen from 109 to 162 cubic metres. Today, 40 per cent of the stands are coniferous. Until comparatively recently they were five times fewer in number.

The term "peredovik" (progressive worker) is not very popular these days. In actual fact, however, despite the existence of this extremely fitting notion, what we shall be discussing is not peredoviki but people with initiative who are enterprising, honest and have a stubborn streak of character.

Already thirty years have elapsed since the foresters of the Sabinka timber industry enterprise (<u>lespromkhoz</u>) started to do non-clear cutting of timber. Every year they selectively remove by this method 70 to 80 thousand cubic metres of timber in an area of more than a thousand hectares of stands. Yet with, the passing of the years the Sabinka workers' forested hectare does not become sparse. On the contrary, it becomes more plentiful. Sylviculturists claim that if things continue this way, in 15 to 20 years each forest-covered hectare will be accumulating 250 cubic metres of timber, which is one and half times more than prior to going over to non-clear felling. This is the inexhaustibility of the forest, which has long been the dream of many.

They began practically at zero. Prior to the war there were mainly spruce and fir trees here, but by 1960 of the areas containing a predominance of these species a mere 8 percent remained. This kind of wood is greatly in demand. Are we to expect that a forest made by human hands will continue to rise when it has already reached maturity? After almost 80 years of hard work? But what if we fell the remaining forest selectively, that is, take the mature trees from it will while leaving the underwood standing? In that event the forest will also be preserved and we shall be able to utilize it continuously.

This was precisely the technology that was proposed three decades ago by the Tatary Experimental Forestry Station (EFS) when working uneven-aged stands of birch-spruce, spruce-birch, lime-spruce etc. As the forester-scientists had tested the new idea in the Udmurtian forests, the Sabinka <u>lespromkhoz</u> bodly accepted their advice. Its director N. Minnikhanov suggested that the co-workers of the EFS should conduct an experiment in one of the plots of the 239th compartment of the Meshebashskii forest district. Five hectares of aspen-birch stands with an admixture of lime and an unevenly aged understorey of spruce and fir were marked out there.

To begin with, Nurgalei Minnikhanov himself walked around the plots that had been marked out for felling. If he were to discover where the undergrowth had been beaten down it would not look well for the machinery maintenance engineer. But the director was in a hurry to transfer the new technology for laying out felling areas to the other compartments, to take it to the neighbouring Sabashskoye forest district. Indeed, 'it was there that selective fellings had their start. Selection of trees in the felling areas was done from an admixture of broadleaved and spruce stands, and also in pure stands of birch and lime. Whereas in 1962 the Sabinka workers selectively harvested a mere 2,400 cubic metres of timber, in the following year the total was 7,900 and a year later, 11,300 cubic metres.

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The road to the new method of doing fellings would seem to have been plain sailing. However the Ministry of Forestry (Minleskhoz) of the Tatar ASSR objected to the new technology. "Fell everything in succession and plant a more productive new forest", was the order that came down from Minleskhoz.

Minnikhanov made it appear that he was complying with the order but himself marked out a coupe for non-clear fellings. The next check was made and again there was unpleasantness. The checks usually ended in penalties being awarded to Minnikhanov.

I am not going to give a detailed account of all of the upheavals year after year in the struggle between the old and the new. Let us confine ourselves to the most recent years. In 1985 timber harvesting by the old method was being done on only six hectares, whereas 1,067 hectares were being selectively harvested. The selective felling technology yielded 70,000 cubic metres to the Sabinka people.

"It would seem that in that year the Ministry stopped noticing our 'misdemeanours'" said Minnikhanov with a smile.

Time flies. Some managers are replaced by others. The Sabinka enterprise was fortunate. Its new director - Rais Minnikhanov - is the son of the former one. He had started out in the same Meshebashskii felling district in which the new technology for developing felling sites had first seen the light of day.

Let us take a closer look at it.

Before proceeding to the plot where selective felling is to be done the forester and the forest rangers do a species analysis of the stocks of mature and ripening timber, and also of the underwood. It is on the basis of these studies that the decision is made as to the species with which to begin harvesting. "Is it after this that permission is given to begin the fellings"? I asked the forest ranger M. Garafutdinov. "Oh no'" he exclaimed. "Every tree that is to be felled with be stamped and have a mandatory blaze on it. Only then is the flowsheet developed for felling the trees, skidding and removing them."

Whereupon the ranger laid out on the table the flowsheet for the selective fellings. At first glance the working arrangements are similar to those used in clear cutting. Felling is done by gasolene-driven power saw and a low stump is left. Skidding is by tractors over a distance of up to 300 metres, with preservation of the regrowth etc. But a technology such as this is only partly suitable when felling selectively, when doing only the first, opening felling. Indeed, the work in connection with non-clear felling is only carried out after a committee has selected the trees and the plots have been divided into sections. It takes place in the following manner.

After marking out the felling area a skidding track is cut through all or half of its length, but not exceeding 600-700 metres. All of the trees are felled to a width of four metres on the skidding track. Collecting sites are established at intervals of 300 metres and it is from there that the long logs are shipped. The felling procedure is such that without leaving the track, the skidder is able to hook the fallen tree onto the pull rope at a distance of 20 metres and tighten it by the butt end to the load tailplate. Thereafter, skidding of trees to the collection area takes place only along this track. This means the skidder does not even turn around in the track: for the next group of trees it moves in reverse, so as to cause less disturbance to the rooting system and preserve the regrowth. With the first stage of the non-clear fellings all of the diseased and damaged trees are removed from the plot. This is tree doctoring. That is why during the initial stage 100 and more cubic metres of timber are harvested per hectare through removal of all of the trees in the skidding track, picking up windfalls and doing sanitary fellings.

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After five or six years a forest will have grown at this site, whereupon the specialists will opt for a secondary selective felling. This time they take the dominant species in the plot (spruce, birch or lime), which results in a further 30 to 40 cubic metres being skidded along the previously formed tracks to the collecting sites. And following the third visit - in five to six years - a hectare of regrown forest yields a further 20 to 30 cubic metres of good quality timber. During a complete cycle of selective fellings the enterprise obtains about 100 cubic metres of merchantable timber.

The selective felling process, however, does not end here. This is because the forest is continuing to mature in the felling areas. Selections of mature trees belonging to the dominant species are made during three visits. Once again 30 to 40 cubic metres are removed from a hectare. But next to receive attention is the alternation of species, which will require similar fellings. In short, a full species alternation occurs over a 45-year period during selective fellings, and since in an average year the foresters pick up 2.8 cubic metres from a hectare, and the increment here during the same period will be 5 to 6, by the time the whole cycle of selective shelterwood fellings is completed, a growing stock of 200 cubic metres per hectare will have been created. This is one and a half times greater than during the initial fellings.

Everyone voted in favour of the highly progressive felling technology in the mixed, unevenly aged forests of the Sabinka <u>lespromkhoz</u>: the foresters, fellers and woodworkers. For several years now they have not experienced any problems in supplying the enterprise's processing shops with raw material. From year to year the output of timber-based products is increasing. During the next couple of years they are bent on achieving a sales and production figure of up to six million roubles. This is three times more than what was achieved prior to the introduction of non-clear fellings. Moreover, the necessity of doing tree planting over large areas has fallen off. Today, nature is doing this for us: it is selecting the species and determining the spacing of the seeds at the most suitable and fertile site for growth. In this way, strong, healthy and well-proportioned trees are rising beneath the canopy...

> From V. Novikov, our special correspondent in the Tatar ASSR

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Tomorrow Will Be Too Late - Minister of Forestry Discusses the Situation in Belorussiya

Forestry in our republic has not escaped the reverses being experienced across the Union. Intensive fellings during the post-war years and "years of stagnation", together with unlawful overfellings of the allowable cut which continued until very recently, have led to a dangerous imbalance in the age structure of the Belorussian forests. The share of mature and overmature forests has declined to 2.4 percent of the total area. Furthermore, a substantial part of the territory is in the zone of radioactive contamination caused by the Chernobyl catastrophe. Meanwhile, the administrative-command system, compounded with a spurious official enthusiasm, has given rise to a false notion in the minds of people in contact with production that we have access to enormous forest resources. Such notions were further strengthened by the incorrect calculations of economists. So what is the end result of all this? The following figures give some idea of where we stand. Whereas for the

country as a whole there are 2.9 hectares of forest for each inhabitant, here in the Belorussian Republic we have only 0.7 hectares. To this sad list must be added the alarming range of acknowledged ecological damage. Every year, without sufficient grounds for doing so, all the new forests of the general forest lands administered by the State are confiscated for municipal and agricultural building purposes. Foremost among these are forests classed with Group 1 and fulfilling important nature conservation and reforestation functions.

At the start of the current year the Collegium of our Ministry adopted the Draft Plan for the Development of the Forestry Sector in the Belorussian SSR to the Year 2005. In essence, it deals with the development of integrated forest use. Having regard to existing State legislative documents and those being prepared for approval by the parliaments of the country and the republic, our strategy is as follows. In order to satisfy in full the requirements of the economy and the population for forest products, a radical change of policy in forest management and regeneration is needed, which means giving priority to this activity of Oblast forestry associations and forestry enterprises.

Year after year we talk about the need for the forests to be under a single manager, but even today the sector controls only four-fifths of the total forest lands. Hundreds of thousands of hectares are under the jurisdiction of collective farms, other ministries and departments which are unconcerned about the state of the plantations and look upon the forest through the eyes of the consumer. Is this wise? I recall how actively the management of the agricultural industry opposed the transfer to the State-Administered General Forest Lands of the forests designated for use by collective farms. In many oblasts, however, this transfer did take place and convincingly demonstrated that concentrating forest lands within the jurisdication of a single State agency made for a more rational utilization of the forest resources.

What needs to be discussed today is not simply the quantitative regeneration of forest resources. Any forest worker, and indeed, others too, will speak regretfully about the groves of shipbuilding timber, the oaks, and the majestic spruce forests along river banks which have disappeared during the past decade. Success in reforestation depends directly on problems of seed production. We have worked for the concentration of seed nurseries and their enlargement. Formerly, there were nurseries in just about every forest district and operations there were conducted by what were truly grandfather's methods. Today this work is centered right at the forestry farms and is under the control of qualified engineers. In the new nurseries many processes are mechanized, and both domestically produced and imported equipment has been purchased. However, you don't solve the problem of obtaining sufficient amounts of high-quality seeding and planting material solely by saturating an enterprise with machinery. This is why in a number of places we have embarked on the establishment of breeding centres and hothouse-nursery complexes. Within 10 to 15 years forest genetics centres such as these will yield at least half of the total amount of planting material.

In the best forest districts a wealth of experience has been gained in transferring plantings to forested areas. The survival rate of forest plantings has reached 95 percent and more in the Gantsevichi, Vileisk and Stolbtsy forestry farms. When plantings are in progress emphasis is placed on the growing of such productive species as pine, the proportion of which amounts to more than two-thirds of the total area, and also spruce.

Reforestation is inextricably linked with the calibre of forest conservation and protection. The sector is sustaining substantial losses on account of virtually uncontrolled, high-volume drainage and road construction activities. It is painful to see large forests strewn with felling debris, quarries situated within the forests and ruined young stands. The miniscule fines bring no tangible result. We must put some teeth into the Law. During the last decade there has been a marked worsening of the hydrological regimen, an increased concentration of nitrogen in the soil and frequent acid rain. Today, there can be no question that there is a complex interaction between the various factors causing a decrease in increment and even the death of forests. With a view to devising ways of combatting forest pests and diseases, specialists of the Belorussian Forestry Research Institute and other scientific institutions have been engaged in developing the Sanitary State of the Forests" automated data base and making arrangements for monitoring the forests. If only this work would progress more quickly!

Whether or not the intentions and fine concepts are realized, there remains the unalterable truth: everything depends on who is working in the forests. Much was said about this at the Belorussian congress of foresters which took place in June. There were serious grounds for such a discussion. For parallel with the many-sided forestry structure industrial production is developing rapidly. At first, this type of activity was instituted on the forest farms with a modest goal in mind: to bolster the small budgetary appropriations. However, industrial production at our enterprises has now become just about the principal activity. For the truth is that not a single research institute has thought to set a sensible limit to the growth of industry on forest farms, or for that matter, validated the optimal ratio between forestry activity and production. This is why on the forest farms, both foresters and woodsmen are being wrenched away from what constitutes the purpose and content of their labour and converted into loggers of all ranks. What is our position on this? We maintain that the forest conservation workers should be returned to the forest compartments and that they should direct their efforts to reforesting, protecting and saving the forest.

At the State Planning Commission (Gosplan) of the Belorussian SSR the idea has been mooted that all industrial timber harvesting should be ceded by the Ministry of the Timber Industry to the Ministry of Forestry.

While this is an attractive idea, what would it mean in practice? An even greater burden would be shouldered by the forester, who would thereby become the sole obstacle on the road to overfellings and plunder of our forest wealth. But not one economically developed country has chosen such a method: neither Sweden nor Canada, the USA or Finland. There, harvesting of timber is carried out by specialised concerns and companies. Here, we have already had the experience of the production association. It is little more than a year since a whole series of krais and oblasts in the Russian Federation were required to place before the Soviet Government the matter of separating the forest farms (leskhoz) and timber industry enterprises (lespromkhoz), which were merged in 1988. Why do we need to repeat an experience which we already know from bitter lessons to have been a mistake?

The situation arising from the Chernobyl' disaster has become more complicated. A fifth of the total area of the general forest lands administered by the State has become polluted by radionuclides. This amounts to hundreds of thousands of forested hectares. Even though thousands of workers in the forest protection service are offering their services, in many of the <u>leskhozy</u> there has been no curtailment of industrial production. It is high time we resolved the question of setting up a unified radiological service which would coordinate the securing of safe working conditions, housing construction and reequipping with materials. We have brought all of this to the attention of the Belorussian Council of Ministers and the USSR State Committee for Forests (<u>Goskomles SSSR</u>), but unfortunately these authorities are slow to reply.

In conclusion, a few words about the shortage of commercially valuable timber. Our sawtimber is seven to eight times cheaper than in the developed countries. There is not enough of it, so by every kind of truth and untruth the departments are striving to achieve overfellings of allowable cuts. It is time that we finally brought this under strict control For this reason the ministry has placed a proposal before the USSR State Committee for Forests for a reduction in the size of the fellings for principal use from 6.2 to 5.6 million cubic metres beginning in 1991. Concern for the forest must be given priority, not only in words but also in deeds. And this must be achieved today, for tommorrow will be too late.

> Author G. Markovskii, Minister of Forestry. Belorussian SSR

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ENVIRONMENT

New National Park at Terskii on the White Sea Littoral

The "Terskii Coast" National Park - display boards announcing this will soon be appearing in the coastal forests on the shores of the White Sea, which washes the Murmansk Oblast. The founding of the first national park on the Kola Peninsula is a great victory for the local inhabitants. They have long and persistently argued at all levels the natural uniqueness of this corner of the Far North.

The Terskii coast is a unique place where there are many natural and cultural monuments couched in picturesque surroundings. Fast-moving alpine streams and bright blue lakes are to be seen amidst centuries old pine forests and mountain crags, as well as various wild animals, including salmon fish. Here too there are deposits of amethyst and silver, ancient human halting places and antiquated villages. Terskii's skilled woodworkers are renowned for their craftsmanship, The decision to open the "Terskii Coast" National Park was taken by the Murmansk Oblast Executive Committee and the State Planning Commission of the RSFSR. The RSFSR Ministry of Forestry has been entrusted with the task of planning and survey work on its territory during the period 1991-1992 and with developing and working out the regime of management. In this way, yet another corner of primordial nature will be preserved and people will be able to enjoy for centuries the unique habitat of the White Sea Coast.

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