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EXTRACTS FROM THE SOVIET PRESS ON USSR FORESTRY
AND FOREST-BASED INDUSTRIES
FEBRUARY - MARCH 1989

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TIMBER AND WOODWORKING

Recovery and Recycling of Wood Wastes - a Call for Action to Redress the Timber Deficit

If we summarize in monetary terms our day-to-day misfortunes -- the undersupply of the national economy and the population with timber and the products that are made from it, and also the losses occasioned by unused deliveries for export -- an impressive figure is obtained: 230 million roubles for every million cubic metres of unsatisfied demand. That's how much the economy loses on account of the careless use of forest resources!

The intention is that by the year 2005, 23 per cent more wood will be extracted from the taiga than is the case today. But this increase will not be sufficient to eliminate the deficit. We must therefore seek a solution through the introduction of improved forest product consumption patterns, increases in the durability of articles made from wood, and enhanced standards of the equipment and technology used to extract and process the timber. For this is already the means whereby efficient use is made of each cubic metre of raw material. At present, 95 million cubic metres of wood are going for fuel. There is not another country in the world which would permit itself such extravagance. Mandatory impregnation of forest products with preservatives has yet to be introduced in our country, even though we are well aware that subsequent to such treatment, planks and square timber would last four to five times longer. Data collected by specialists of the All-Union Research Institute of Economy, Management, Production and Information in the Timber, Pulp-and-Paper and Woodworking Industry (VNIPIEIllesprom) indicate that we are losing 20 million cubic metres of forest products annually through decay. Why is this resource not being utilized? It is because the

pricing policy currently in effect does not favour doing so, nor are there sufficient chemicals and equipment.

A very important approach to economizing on raw material is the production of progressive forest products: wooden board, packaging board, container board, plywood. Last year these products amounted to only 22 per cent of the total volume of resources. In developed countries this index is already as high as 60 percent. Wood boards are especially economical and efficient. The output of one cubic metre of wood particle board entails the consumption of 1.7 to 1.8 cubic metres of wastes. However a cubic metre of board replaces 1.5 cubic metres of sawn products and 0.35 cubic metres of plywood in furniture production. In construction activity an even greater saving is achieved: by using a cubic metres of board we economize on two cubic metres of lumber.

Does this mean that there is to be an immediate acceleration in board production growth rates? Yes, it is planned to double the output of them by 1995, bringing the total to 13.2 million cubic metres. Plans have been made to re-equip the board-production sector: to modernize the existing PB-25 and PB-35 mills, and generate new capacities by installing new equipment at PB-30 and PB-110. Ways have been found to increase the output of wood fiberboard, which is highly efficient in the area of resource-saving technology.

Plywood currently occupies a special place among progressive materials made of wood. In the United States, for example, up to 18 million cubic metres are produced annually. In our country, annual production runs to 2.5 million. In consuming 2.8 cubic metres of raw material for each cubic metre of

plywood, we are substituting for 3.2 cubic metres of coniferous sawtimber or 5 cubic metres of roundwood. This forms the basis of a major new programme that has been devised for increasing the production of a very necessary commodity.

Much has been written recently about the problems facing the pulp-and-paper industry. Actually, we are still a long way behind the advanced countries when it comes to papermaking. Our industry is just now being assigned the task of increasing the per capita consumption of paper to 80 kilogrammes by the year 2005 (in 1990 it will be 41 kg). For the most part, this increase will come about through more efficient processing of raw materials, rather than an expansion of timber fellings. If we increase the capacities for paperboard production, then during the period up to 2005 we shall be able to save some 120 million cubic metres of high-quality timber which is currently being used to produce wood packing material. The introduction of new production processes in the pulp-and-paper industry will greatly increase the consumption of shade intolerant hardwood species - by up to 21 per cent by 1995 and by up to 30 per cent by 2005.

I could be wrong -- for such a growth in production would be unthinkable without an increase in the consumption of ligneous raw material. There is not question that it is not only the raw material that is needed, but also the modernization of plants and the building of new enterprises. But above all else it is necessary to weigh each cubic metre on the scales. At present, we are faced with a situation in which, due to the lack of sophisticated wood calculation facilities, both in the logging camps and woodworking enterprises, tens of thousands of people

are engaged in measuring the wood manually. Moreover, by using outdated methods, they are allowing major inaccuracies to go unnoticed.

Even the very approach to the evaluation procedure needs to be reviewed. It's high time to get away from the term "wastes". Today, not only chips, but also wood culls, half logs, batten, scobs and even bark constitute a valuable raw material for those enterprises concerned with the all-round chemical processing of wood. For it is being used very inefficiently.

At present, only 19 per cent of the output of Soviet pulp-and-paper mills is derived from "wastes". In Canada, the percentage is 44.3, in the USA - it is 39.1, and in Sweden - 29.5. An unused resource? Unquestionably. In board production in the USSR, secondary raw material accounts for 40 to 50 per cent, whereas in the advanced countries the proportion is 80 to 85 per cent. Even the raw material which we often list in the 'used' column is only partially reaching the production lines. Not infrequently, valuable lumpy wastes from sawmilling and woodworking end up in the furnace. The mills in Siberia and the Far East are particularly wasteful.

Let us continue the comparison: in the USSR Ministry of the Timber Industry, from every 1000 cubic metres of sawn up raw material we are manufacturing only 100 cubic metres of chips for industrial use. In the USA this index equals 280 cubic metres.

The problem of converting the wood residues left at the felling sites into pulp chips remains unresolved. It is not only the loggers who are answerable for this. It is also attributable to our

machine builders, who are not producing the special equipment whereby broken ends and top-and-lop could be utilized commercially. We lack the facilities for transporting chips from the taiga. I refer particularly to the Gatchina-based plant of the USSR Ministry of Chemical Machine Building, which undertook to supply URP-1 units. But in the end its enthusiasm didn't run to more than six of them.

Another failing is that the broad-leaved species are being poorly utilized. In the woodlands these mature and overmature stands comprise 4.8 billion cubic metres. With the exception of the Ukraine, Byelorussia and the Baltic region, they are reluctant to take "foliage" from the taiga. This especially the case in Siberia and the Far East. In the European part of the country alone, 39 million cubic metres of it are being incompletely utilized every year. At the same time, of every 103 million cubic metres extracted, only 70 are being sent for processing. Included in this figure are about 30 million cubic metres for sawmill products and packaging; 8.3 for the pulp-and-paper mills; 11.5 for board production; and 8 million cubic metres for production of plywood and matches.

If the wood from broad-leaved trees is unsuitable for lumber why isn't it being used for decorative purposes in housing? All the inside doors of houses, for example, could be made from it. In panel houses, it is permissible to manufacture up to 60 per cent of the components from "foliage". But alas! we know all this and are doing virtually nothing.

What is needed is an immediate change in the "psychology" of our attitude towards secondary raw material. Today, it is worth its weight in gold. In

nature, there are no wastes. There is, however, our poor management, which can no longer be tolerated.

(Article signed by D. Lipman, Head of the Main Scientific-Technical Administration of the USSR Ministry of the Timber Industry)

Lesnaya promyshlennost'
February 7, 1989
Page 1 (Slightly abridged)

Wood Wastes - Facts and Figures

77 million cubic metres of wood wastes are generated annually at enterprises throughout the country;

35 million of these cubic metres are used in production;

9.5 million cubic metres of wastes are transported to dumps and burned there;

20 million cubic metres of timber are lost to the forest sector through rotting;

1.7 cubic metres of wood wastes are needed to produce one cubic metres of wood particle board;

1 cubic metre of wood particle board replaces 1.5 cubic metres of sawn products in furniture making;

1 cubic metre of boards used in building projects economizes 2 cubic metres of lumber.

Lesnaya promyshlennost'
February 7, 1989
Page 2 (Slightly abridged)

The Timber Deficit - Improved Resource Management the Key

Despite the fact that enormous felling volumes are being achieved in our green ocean of taiga, our country is continually experiencing a timber deficit of approximately 25 million cubic metres. In this year alone, under optimal conditions the economy could obtain an additional 10 million cubic metres of forest products, and our foreign trading partners - a minimum of 7 million. Even at the forest sector's own enterprises the requisite stocks of sawlogs and pulpwood are lacking and the requirement for packaging material remains unsatisfied.

What course should the timber industry steer to ensure that the State is supplied with all of the timber and forest products it needs? Dramatically increase fellings? Speed up the construction of new enterprises? Intensively exhaust the forest wealth of Siberia and the Far East?

There is one other approach which happens to be the most correct: introduce resource-saving technologies on a wide scale and make fuller and more efficient use of secondary ligneous raw materials. For at present, even by the most modest estimates, some 12 million cubic metres of wood wastes obtained

at the enterprises are not being used in production and an even larger quantity of felled timber is being consumed as fuel.

We are talking about "foliage", the top and lop in the felling areas, prunings, and the lumpy and soft wastes from sawmilling and woodworking operations. If these resources were diverted instead into the pulp production process or to board mills, and if, instead of natural wood we were to use plywood and paperboard, it would not be necessary to cut down our forests indiscriminately. They could be preserved for generations to come and there would be a marked improvement in the ecological situation.

Lesnaya promyshlennost'

February 7, 1989

Page 2 (Full text)

Strike Action Contemplated in Buryat Republic to Protest the Timber Deficit

The Workers' Council of the "Buryatmebel" Woodworking and Furniture Manufacturing Association (BWFMA) has just held a special session in which the wood supply situation was discussed. The following resolution was adopted after almost five hours of debate: 'Unless there is a change in the attitude of "Zabaikalles" and its timber industry enterprises towards the supplying of "Buryatmebel", the Council will call upon the collectives in the woodworking shops to stop work.'

What was it that compelled the Workers' Council to use the language of ultimatum in dealing with the higher authorities? A catastrophic

situation: in the struggle for their legal rights the workers had exhausted all of the avenues provided by the law.

The fact is that one of the largest woodworking enterprises in Buryatiya has already been operating on starvation rations for five years. The problem is not only not being resolved, it is getting worse. Last year the BWFMA was undersupplied by more than 32,800 cubic meters of long logs as against a planned figure of 310,000, and this year the deficit has already reached 13,000 cubic metres - almost 30 per cent of the deliveries scheduled. Moreover, there has been a sharp deterioration in the quality of the raw material: instead of the planned 60 per cent yield of sawtimber they are managing to obtain no more than 45 per cent.

In literally all sawmilling and woodworking items the State order is not being met. Contracts for deliveries are being disrupted, including shipments for export. As a result, the industrial development, material incentives and social amenities funds are not being built up and people are not being paid on time.

It stands to reason that there is an objective basis for this dramatic situation. Since January 1, 1988 the Ministry of the Timber Industry and the "Zabaikalles" Association have been forbidden to engage in principal fellings in the protected zone of Lake Baikal. In one stroke, the loggers of Buryatiya have been deprived of almost 550,000 cubic metres of allowable cut. Nevertheless, subjective elements are playing an even greater part. They consist in the sluggishness of both the administrative command system and the methods resorted to by the management of "Zabaikalles" and some of the Ministry's sub-divisions.

At the session of the Workers' Council in which the strike resolution was adopted, V. Ya. Kokin, the logging association's general director, refused to give any guarantees of an improvement in the supplying of "Buryatmebel'". He claimed that the Ministry of the Timber Industry is not in favour of a cut in the State order for the association. This enraged the workers even more.

Despite the fact that during the past year there have been numerous attempts - both in our newspaper and in "Pravda Buryatii" - to generate action on the problems facing BWFMA' and even though the timber supply question has been discussed several times at sessions of the Council of Ministers of the Buryat ASSR and within the Party apparatus, the situation, as already mentioned, has not only failed to improve, but has become even worse.

"The people have lost all faith in the value of written instructions," says the Chairman of the Workers' Collective, V.N. Matyukhin. "Skilled workers are beginning to be laid off. In the past year more than 80 employees have moved into other industries. This sad process is continuing to this day. In January and February even the most stable of our comrades began to leave the woodworking shops. In a word, they had been pushed to the limit."

Last Tuesday, the association's trade union committee, in defending the interests of its enterprise's workers, appealed to the collective to stop work. This decision was supported by the Oblast council of the trade unions. It is difficult to say how all this will end. One thing is clear: the ultimatum presented by the "Buryatmebel'" collective

is further serious evidence of the misfortune being heaped upon us by a bureaucracy concerned solely with its own interests.

Lesnaya promyshlennost'
March 30, 1989
Page 1 (Slightly abridged)

New Developments in Fire Control and Prevention

(Interview with the Chief of the All-Union Research Institute for Fire Prevention, (VNIPO MVD SSSR) Major-General of the Interior Service Dmitrii Ivanovich Yurchenko, USSR Ministry of Internal Affairs)

Q. "Dmitrii Ivanovich, what new developments are there in the area of preventing and extinguishing fires at enterprises of the wood-chemistry complex?

A. "Unfortunately, the present situation is that our main efforts are directed towards extinguishing fires that have already broken out, whereas what is needed is to concentrate on prevention. I will therefore begin by dealing specifically with developments along these lines. One of them is a simulation model of the processes involved in the genesis, spread and extinguishing of a fire.

"We are about to build a production enterprise. We feed into a computer all the data from the specifications and on the equipment being installed. The machine keeps count of everything: possible kinds of fires, the materials used for building and production, the number of people working

in each shop and mill, the time that would be required to evacuate them, and much else, and then it provides the answer: either the particular plan conforms to fire safety requirements, or it indicates the modifications that will have to be incorporated.

"Also attracting interest is a special device which makes it possible to investigate in a laboratory setting, with high accuracy and a low input of labour, the cellulose, polymer and ligneous and other non-metallic materials employed in building and production. In speaking about the fireproofing of building structures mention must be made of the special coatings which have been developed for them at our research institute (VNI IPO). Mark VPD, for example, is used to obtain a sharp reduction in the combustibility of wood and of articles made of it.

In 1988 there were:

- More than 1000 fires at enterprises of the USSR Ministry of the Timber Industry, with resulting losses valued in excess of 10 million roubles. About 70 people lost their lives.

- "Krasnoyarsklesprom" - fires at the Novoeniseisk woodworking combine and at the "Krasnoyarskmebel'" furniture manufacturing combine resulted in losses of 3,500,000 and 44,000 roubles.

- "Arkhangel'sklesprom" - losses from fires at the Solombala woodworking combine exceeded 780,000, and at the Omega logging enterprise -- 29,000 roubles.

- "Primorsklesprom" - at the Sakhalin furniture combine, flames destroyed a furniture shop valued at 53,000 roubles.

- "Uzbekmebel'" - an outbreak of fire in an upholstered furniture shop of the Yangiyul' furniture factory resulted in losses of 413,000 roubles.

"Today, at the various enterprises of the timber, woodworking and pulp-and-paper industry it is becoming increasingly common to find an automated system controlling a technological process. If a fire-safety sub-system developed by our co-workers were to be linked up to it, the possibility of a fire originating due to malfunction of the technology would be almost reduced to zero.

"But if we look even further into the future, we shall soon be able to arrive at a fire within the ten minutes or so before it begins. For example, someone who is in a place where smoking is prohibited has only to strike a match and the fire alarm will begin to sound. This is already happening, it's not just in the imagination."

Q. "I understand what you're saying: get to the fire before it originates. This is certainly an attractive prospect. Even so, it is something that lies in the future. But if a fire breaks out today, how are the firemen equipped to deal with it?"

A. "First of all, mention must be made of a special heat-shielding battle-dress developed at the institute, which withstands temperatures of up to 1500 degrees. The best of the well known foreign-made "battle-dresses", by way of comparison, will withstand about 1200 degrees. The

heat-shielding suits are comfortable to wear, strong, and resistant not only to fire but also to dangerous substances. It is possible to work in them, even in a heavily gasified environment.

"New fire extinguishers have begun to appear on the market. Of these, I would especially like to mention the OSP-4 model, which differs from its "cohorts" in that provision has been made in its design for a unique nozzle, one that makes it possible to extinguish a fire, using either a liquid or a mixture of air and power-driven foam. In general, however, there are no domestically produced analogues of the foam fire-extinguisher, designed for the extinguishing of fires at an elevated pressure of an oxygen-rich atmosphere.

"We number among the most important problems the development of dependable, efficient equipment for combatting fires in Siberia, the North and the Soviet Far East, which is where the principal reserves of standing timber are located, as well as in a large number of major enterprises of the timber industry. One unit which may find an extensive application in the wood chemistry complex is the "Polyus" (Pole) foam generator, designed to provide foam with a low, medium and high degree of aeration. It is already being used successfully for putting out fires in such enterprises as wood-particle board and wood fiberboard plants, furniture factories and match factories.

"At lower landings and in the timber yards and finished products warehouses of timber industry complexes there is a need for powerful extinguisher systems which can ensure the extinction of any fire that has started, using for this purpose workers and professional personnel trained in on-site fire

protection. We are suggesting to the directors of timber industry enterprises that the unit they should use is the powerful GMN-250S water jet. In its operating principle it is analogous to a gun barrel, but in its tactical parameters it is far superior to the latter: in the unit incorporating a pumping station and a system of pipelines it ensures the delivery of water jets at the rate of more than 400 litres per second at distances of up to 130 metres.

The Sverdlovsk fire laboratory, jointly with our institute, performed engineering and full-scale on-site studies of the water jet at the Sosva Woodworking Combine. These yielded good results. The efficiency with which the system is activated makes it possible to localize and eliminate a fire with a minimum of delay, a single jet ensuring protection over an area of about five hectares. With the object of preventing fires in hot, dry weather the system can be used for drenching stacks of wood and the area comprising the timber yard.

Among the models that appear promising it is desirable to mention a track-mounted multifunctional fire-extinguishing unit. Operating autonomously, it is "armed" with 10 tonnes of water, two tonnes of polymerized resin, 200 litres of hardener and a tonne of foam-generator. The pump of the "fire tank" delivers up to 70 litres of fire-extinguishing solution per second: one barrel "shoots" water, the second - rapidly hardening foam. Being situated within the machine, which means that they are well shielded from thermal radiation, the barrels can be remotely controlled.

More effective still is a pulsed unit, which after taking aim on the target, "fires" one-second bursts of a tonne of water over a distance of 250

metres. Such a salvo will "kill" a flash fire at the instant it breaks out. There are two variants of the unit: a stationary and a self-propelled model."

Q. "At the outset of our conversation you spoke about collaboration with the many research institutes serving industrial sectors. Are ours among them?"

A. "At VNIIDREV for example (All-Union Research Institute for the Woodworking Industry), a technology has been developed for producing fire-resistant wood fibreboards in a phosphate binder. This makes it possible to obtain soft, non-compressed and compressed boards of five types, ranging from 3 to 50 mm in thickness and consisting of both flat and raised varieties. The technology of manufacturing wood fibreboards which are classed as almost non-inflammable material has been introduced as a pilot project at the Balabanov experimental plant. This institute has also been responsible for the development of difficultly strippable compounds. These not only protect wood from catching fire but also from destruction by biological agents.

A major fire prevention study is being conducted at the Central Research and Design Institute of the Wood-Chemistry Industry (TsNIILKhI), where materials are being tested for combustibility and explosion hazards.

As for the remaining institutes, there is no close contact between us and them. We would, however, very much like to correct this. Take for example, the Krasnoyarsk - based All-Union Research Institute for Forest Fire Prevention (VNIIPOMleskhoz), which is engaged in the development of ways and means of protecting forests against fires. A contract between them and us has been

concluded but it deals with virtually one topic only. Given our greater expertise in this area, we might be able to help them in the development of individual protective measures, procedures necessitating only a small degree of mechanization, and in the solution of other problems. I hope that our contacts will be strengthened in the near future."

Lesnaya promyshlennost'

February 2, 1989

Page 2 (Full text)

Experiment in Chip Production at Two Enterprises in Southern USSR

Almost four years have elapsed since the Central Committee of the CPSU officially approved an experiment organized by the workers' collectives at enterprises of the "Yugmebel'" and "Tsentromebel'" All-Union industrial associations and the "Kievdrev" production association. The experiment pertained to the extensive involvement in the economic turnover of secondary ligneous raw material and the wastes from logging and woodworking. This has been more than enough time for the experiment to become widely replicated. It is nevertheless important to note that even to this day, this useful beginning continues to be mainly the lot of associations which stand out as initiators. In other words, the experience is being gained by experiment. In order that it should not go unproven, we are showing how things stand today in regard to the involvement of secondary resources in the "Yugmebel'" (Southern Furniture Manufacturing) Association and in the enterprises of Azerbaidzhan.

* * *

The Golden Chip

(a) "Yugmebel'"

It is no secret that the southern regions of the country cannot boast of a dependable source of raw materials. There, it is not cubic metres of timber which are recorded, but cubic centimetres. This problem has become particularly acute with the growth in the production of wood particle board. There has been an increase in the demand for industrial raw material delivered by rail from the Urals and Siberia. However, the shortage of railway flat cars, the vast haulage distances and disruptions of planned deliveries have continually resulted in stoppages in the supply of raw material to the southern woodworking enterprises.

It became necessary to seek a way out of this constant source of anxiety. This meant taking a new look at the involvement of waste products of individual enterprises in the industrial conversion process. First and foremost, it entailed establishing within the enterprises sub-divisions that would concentrate on the collection and conversion of secondary ligneous raw material into specially made chips for production of wood particle board. It was solely due to this that in 1980, 130,000 cubic metres of wastes were involved in board production. In due course, the enterprises went over to a virtually waste-free technology. In 1987, 406,000 cubic metres of raw material, which several years earlier would simply have been thrown onto the scrap heap and burned, were already being reprocessed. Today, in our association the ligneous wastes component of industrial raw material averages 41 per cent. At the best enterprises, such as "Apsheronsk", "Druzhba" and "Yug", it has reached 65-68 per cent.

While these are excellent indices, the raw material supply problem continued to be just as acute. It was decided to arrange for the collection of wood wastes at enterprises of all of the ministries and departments in the region. It turned out that there was a large number of them: 230 in all. Moreover, unused resources of local forestry organizations were identified. Based on the results of the investigation, a programme for the collection and processing of wastes was drawn up for the period up to the year 2000, which was coordinated with the territorial administration of Gosnab (State Committee for Material and Technical Supply). On the instructions of the Rostov Oblast' Committee of the CPSU, the Oblast' Executive Committee ratified firm quotas for deliveries of wastes for industrial processing. Similar decisions were taken by the Councils of Ministers of the Severo-Osetinskaya, Checheno-Ingushskaya and Kabardino-Balkarskaya ASSRs, and the Stavropol' and Krasnodar Krai Executive Committees.

The difficulties were many. The directors of the enterprises belonging to the other departments vacillated interminably. Nevertheless, the Party and governmental bodies helped us enormously.

I would not want our colleagues to form the impression that this whole project had been dictated from above, when in reality the problems between managers are resolved by a phone call from the district committee. By no means did the association assume responsibility for extending every kind of assistance to the enterprises of the other departments in the matter of waste collection and processing. In all, 19 mobile and 16 stationary chippers were set aside for leasing or were sold.

Also, nine specialized groups furnished with 67 motorized chip-haulers for transporting the wastes were formed.

Although the system that had evolved for the collecting and processing of secondary ligneous raw material became yet another heavy burden for the enterprises of "Yugmebel'", in economic terms it proved itself a thousand times over. The plants for the production of wood particle board were assured of a continuous supply of raw material. The resulting elimination of shipments of round wood freed a substantial quantity of rolling stock. The figures of greatest interest today are as follows: a thousand cubic metres of lumpy wood wastes priced at 5,500 roubles result in the production of 600 cubic metres of wood particle board, out of which a million roubles worth of furniture is manufactured.

(b) Azerbaidzhan Timber Industry

After intently studying the experiment conducted by our neighbours in regard to the use of secondary resources, in 1985 the Ministry of the Timber Industry of the Azerbaidzhanian SSR began to establish at its own enterprises sub-divisions for the production of industrial chips from lumpy wastes. The results were felt immediately. As early as 1987 a total of 27,156 cubic metres of raw material were recovered for production. Prior to that time they would have been burned. The plan for the collection and processing of wastes by our enterprises was fulfilled to the extent of 110 per cent.

But unfortunately, this is only one side of the coin. Operating on Azerbaidzhanian territory are 136 enterprises of other ministries and departments which are also engaged in the processing of forest products. Of the 26,000 cubic metres of chips expected from these enterprises, we received in 1987 little more than 2,000.

The time has come for Gossnab (State Committee for Material and Technical Supply) of the Azerbaidzhanian SSR to use sanctions against the enterprises disrupting deliveries. It is necessary to take back from them the corresponding funds allocated for forest products.

Lesnaya promyshlennost'

February 7, 1989

Page 2 (Slightly abridged)

Sea Buckthorn Being Harvested Commercially in Armenia

The first large batch of sea buckthorn juice has been produced by the Vartashen' juicing plant. The main supplier of the raw material is the local forest farm (leskhoz). More than a hundred tonnes of berries were collected in the forests and in the bottom lands of the mountain streams. This figure may be almost tripled, thanks to the initiative of the workers at the plant, who decided independently to organize the harvesting of the indigenous sea buckthorn.

The fact that the berries are being used in the preserving industry's production line comes as no surprise. What is astonishing is that the sea buckthorn thickets, as before, are being farmed out

to others! Why is this? Why are the foresters themselves refusing to produce from this gift of Nature a variety of substances, besides juice: jam, kissel, purée, oil? And finally, why are the toilers of the forest heading for the procurement offices? The explanation is simple. The consumers' cooperative societies are paying to the procurement agents one rouble and 50 kopecks for a kilogramme of sea buckthorn, while the purchase price at the forest farms is between 70 and 90 kopecks.

Reserves of sea buckthorn exist in almost 17 districts where there are leskhozy. In the river valleys there are more than 300 hectares of pure sea buckthorn thickets, which could yield about 400 tonnes of fruit annually. A case can be made for rebuilding the fruit processing plant of the Shchekino leskhoz and establishing a resource base to serve it.

Lesnaya promyshlennost'

February 23, 1989

Page 3 (Full text)

PULP AND PAPER

Founding of Soviet-Finnish Joint Enterprise to Facilitate Modernization of Pulp and Paper Mills

Yesterday, the founding documents for the setting up of a Soviet-Finnish joint enterprise to be known as "Rekon" were signed at the USSR Ministry of the Timber Industry.

The "Tsentrobumprom" Scientific-Production Association and the "Finnstroi" Company became the founders of the enterprise. Its field of activity will be the rendering of various planning services relating to the rebuilding and modernization of enterprises in the pulp-and-paper industry that are within the jurisdiction of "Tsentrobumprom". Their rebuilding and technical reequipping will be based on the latest advances in this sector and involve the introduction of ecologically clean technologies. It is envisaged that eventually the range of services rendered by the joint enterprise will be extended to other Soviet and Finnish installations and to third countries. The proportion of capital contributed by the Soviet side is 51 per cent, with 49 per cent coming from the Finns. The new enterprise is to be located in Moscow.

"Tsentrobumprom" is a large association, within which there are 41 enterprises of the pulp-and-paper industry and a scientific research centre. Its annual turnover is about three billion roubles.

The joint-stock company "Finnstroi" specializes in the export of services, chiefly to the Soviet Union. During the seventeen years of its

activity the firm has concluded contracts with Soviet organizations that have a total value of about two billion roubles. The firm participated in the building of the Svetogorsk woodworking combine, the Kostomuksha mineral enrichment combine and town, and the Noril'sk milk plant.

In July 1988 the first joint construction enterprise, "Lentek", was founded in Leningrad by the "Sevzapmebel'" (Northerwestern Furniture) Scientific-Production Association, on an equal footing with "Finnstroj".

Lesnaya promyshlennost'

March 11, 1989

Page 1 (Slightly abridged)

Modernization of Papermaking Machines at Kondopoga

Officials of the "Kondopogabumprom" Production Association recently concluded a contract with firms in Austria and the United Kingdom for deliveries of sub-assemblies and parts to be used in the modernization of papermaking machines. With the help of the foreign partners, the mesh and press components and some other units will be replaced on "the seven". This will enable the speed to be increased from 820 to 1,350 metres per minute. After the rebuilding work, 160,000 tonnes of paper with a weight of not more than 45 grammes will be manufactured on a machine annually.

There will also be a substantial increase in the speed of the eighth papermaking machine. Thanks to the rebuilding, its speed will reach 1,250 metres per minute.

It is planned to bring the ninth, Soviet-made papermaking machine to a speed of 950 metres per minute. Its modernization will be accomplished with help from Soviet machine builders. Thus, the Kondopogans are sharply increasing the output of newsprint, which will make for an increase in the runs of newspapers.

Lesnaya Promyshlennost'

March 7, 1989

Page 2 (Full Text)

Vishera Pulp-and-Paper Mill Close to Bankruptcy

In the not too distant future the firstborn of the domestic paper industry - the "Badge of Honour" Vishera Pulp-and-Paper Mill - will apparently be declaring bankruptcy. Last year, the under-fulfillment of the plan for profits came to more than 230,000 roubles, besides which the output of first-grade merchandise is continuing to decline.

The mill has been in operation since 1931. In almost six decades there has not been a single total modernization and renovation. Replacement of individual sub-assemblies and a partial change in the production cycle have given only temporary respite and are more in the nature of a patching up of the holes in a somewhat tattered and outmoded dress.

The three 200-cubic metre capacity digesters installed in the cooking area are inadequate for the planned pulp production volumes. "Secondary Non-Ferrous Metals" have long been shedding tears over them. The people establishing the plan for the mill are well aware that under optimal conditions, 40,000 tonnes of pulp per year can be cooked. Even though this is maximal, the "elderly boilers" have been overloaded by 6,700 tonnes in 1986, 7,300 tonnes in 1987, 7,500 tonnes in 1988 and 8,000 tonnes in the current year and will be as much again in the final year of the Five-Year Plan.

If it were only the boilers that the Uralians were worried about! The grading and bleaching of the pulp haven't changed since the thirties, and the wire table, drier section and calenders on the paper machine are worn out. The end is also approaching for the supercalender. In all likelihood it is only because of loyalty to the plant that it is called "super". Statistics indicate that the wear factor of the mill equipment is 0.64.

The crisis situation has, of course, been some time in the making. Attempts were made to reequip and modernize production. Pursuant to Order No. 232 issued by the former Minlesbumprom (Ministry of the Timber and Paper Industry) on October 9, 1970, major overhauls were planned for paper machine No. 1. They managed to replace only a part of the assemblies; for the remainder, financing was discontinued. Three years later the Uralgiprobum Institute (Urals State Institute for the Planning and Projection of Enterprises in the Paper Industry) drew up the engineering and economic substantiating documentation for the rebuilding and expansion of the plant but nothing came of the calculations. The same result attended the efforts of planners in 1982, although they are thought to have been paid for in full.

Currently, purification plants are being built on the enterprise's territory at an estimated cost of 25 million roubles. Subsequent to the commissioning of the expensive ecological plant the mill will become a planned loser.

In this critical situation, what should be done is to retain for the enterprise the entire 100 per cent of the depreciation deduction rather than the 20 per cent that had been previously set. This

could breathe new life into the aging enterprise. The Visherites are working hard, living and building. In other words, they are not giving up. Although quite a lot has been done in the last few years, there is one other statistic which could throw everything out: every second mill worker is on the waiting list for an apartment or improved housing.

In the past year, enterprises of the pulp-and-paper and wood chemistry industry cost the sector 2.9 million roubles in losses. After only two years it is planned to make the bankrupt enterprises solvent again. Won't the list of debtors of the Visher pulp-and-paper mill have become even longer by then? It needs immediate assistance from the local Councils of People's Deputies and the USSR Ministry of the Timber Industry. What is more, even the Visherites themselves could do quite a lot by entering into a leasing arrangement and setting up cooperatives.

Lesnaya promyshlennost'

March 25, 1989

(Page 2 (Full text))

Oxygen-Bleaching of Pulp Introduced at Bratsk Timber Industry Complex

Bratsk wood chemists have obtained the first line of oxygen-bleached pulp. This has paved the way for a substantial reduction in the use of chemicals, chiefly chlorine, in the production process. Although oxygen bleaching of cellulose is a well established process in wood chemistry, it is unfortunate that such a long period elapsed before it was authorized for use at Bratsk.

A group of specialists from the Siberian Research Institute of Pulp and Paperboard, in collaboration with production personnel, had already performed a full range of checks on the technology of this method. These showed that it possessed a number of advantages. But it was not until the demands of the local Soviet for ecological discipline became strong enough that the administration of the complex was forced to deal in earnest with the introduction of oxygen bleaching.

According to the specialists' calculations, the new method of bleaching will enable the Bratsk Timber Industry Complex to curtail the use of chlorine by 25 per cent. This could well lead to a reduction of atmospheric pollution in one of the most ecologically threatened areas of the country.

Lesnaya promyshlennost'

February 7, 1989

Page 1 (Full text)

FORESTRY

The Karelian Forest Complex - the First Year Under Perestroika

The forest complex of Karelia is the result of a long and agonizing process. How many obstacles were placed in its path by the various agencies before anything was agreed to!

At first, it comprised only a few logging enterprises and large forest farms; later, sawmills, wood chemistry establishments and medium-sized forest farms were added, and ultimately all the construction, trading and pulp-and-paper enterprises. Thus, it was only in 1988 that the Karelian forest complex came in to its own, which is why the administrative staff was then reduced by 334 persons and more than 850,000 roubles in wages were saved.

There can be no question that it is very difficult to operate under conditions of continual perestroika. People on the move have to turn away from narrow bureaucratic attitudes and habits; they must learn to think and act on the basis of common interests, end results, long-term prospects and sustained forest use. Some managers have been unable to adapt. They strove to cling to the old management methods, so much so that the collectives of the enterprises were obliged to dispense with their services. It was in the middle of last year that the first general director of the "Karellesprom" Territorial Association, V.S. Posnov, was elected.

WHEN FORCES ARE UNITED

The past year has proved to be difficult for the forest complex of Karelia. Life really put its strength and viability to the test. On the one hand, it rained continuously all fall and there were no frosts so that owing to the lack of roads the move to the winter felling sites was delayed. On the other hand, the auxiliary industries let them down. The enterprises experienced a continual acute shortage of railway cars, diesel fuel and gasoline, integrated logging technology and building materials.

Nevertheless, "Karellesprom" finished the year quite well. It redistributed manpower and resources and developed ways for the collectives to come to each other's assistance. The association overcame many difficulties and crossed new frontiers. In particular, it managed to increase the volume of output and sales of finished products to the level of former years, despite the overall decrease in logging volumes by 377,000 cubic meters, and to raise labor productivity by 6%. Deliveries of export lumber, paper bags, parquet and paper were increased.

The most important indices of the State plan were met. Consumers received in full the standardised houses, garden sheds, furniture, rosin, skis, toys, cardboard, newsprint, consumer goods, etc. The increase in output amounted to 26 million roubles.

The economic indices have improved since the creation of the complex and the transition to self-financing. The majority of the enterprises have increased their profitability and the logging enterprises have cut their losses. The association

earned a net profit of 24 million roubles in excess of the planned figure and was able to generate financial incentive funds.

The integrated logging enterprises planted and seeded forests in felled areas on a much larger scale than was achieved on the forest farms of the former Ministry of Forestry of the Karelian ASSR' and established forest seed plantations as an adjunct to natural regeneration. The volume of timber procurement from tending fellings also increased.

At the Muezerskii, Segezha, Kondopoga and other logging enterprises, forest nurseries have been created and extended, permanent crews for tending fellings have been organized, and they have begun to mechanize this kind of forestry work. Things are going particularly well at the Pitkyaranta integrated logging enterprise, where Finnish fellers have contracted to do the tending fellings.

"A forestry management structure has been worked out," relates Yu. A. Ryabinin, the director of the forest conservation department of "Karellesprom". "More than 200 of the old forest districts have been retained at the logging enterprises and about 70 logging unit-forest districts and several integrated logging shops have been newly organized. Senior Forester positions have been introduced in all of the logging unit-forest districts where there are three or more beats. These foresters will also be the deputy heads for forestry at the logging units. All forest conservation is subordinated exclusively to the chief foresters of the integrated logging enterprises."

Since The "Karellesprom" Association is responsible for overall administration, included within its structure are Departments of Forestry and Forest Resource Bases, Reforestation and Forest Reclamation, and Forest Conservation and Protection. There is also a soil chemistry laboratory and one forest seed station.

Production capacities have continued to grow. In one year, the association has constructed and commissioned 330 kilometers of logging roads, several semi-automatic lines, heated garages and workshops, biological purification works at the "Pitkyaranta" pulp mill and an evaporator plant at Segezha. Work is under way to expand the production of cabinet furniture. The construction of a shop for the manufacture of wood particle board is in progress at the Medvezh'egorsk rosin extraction plant.

Since the birth of the complex, things have started to improve in the social sphere. Inasmuch as "Karellesprom" has organized the production of carbolite, reinforced concrete, lumber and wooden house components, the programs for the construction and repair of residential and community buildings have begun to overlap. They have been able to erect 1,300 square metres of housing over and above the yearly plan. Equipping of apartments with communal facilities has been stepped up. Another 1,500 apartments have been supplied with gas.

New public buildings and works have appeared. For instance, a 100-bed public health clinic was placed at the disposal of the "Segezhabumprom" Association's workers as well as a quality hospital formerly part of the "Pitkyaranta" pulp mill. Kindergartens for 440 children have been built. The Pyal'ma integrated logging enterprise has

erected a 624-place model school, while the Porosozero logging enterprise has built a brick cafeteria. The Kem' sawmill has reconstructed its community sports complex.

The collective of the Lakhkolambi integrated logging enterprise has especially distinguished itself. In accomplished three annual plans for housing construction, gave the young people a sports complex at Lakhkolambi and is getting ready to hand over a swimming pool at Naisten''yarvi. Much building activity is also going on at the Suoyarvi, Porosozero, Krivetsk, Kalevala and other logging enterprises.

The leasing contract is developing everywhere. It has already been introduced at tending fellings and principal fellings, in the manufacture of cardboard boxes and the processing of industrial waste, as well as in civil and industrial construction.

ORDER HAS BEEN RESTORED

Of course, all these positive changes did not come about by themselves. They are the fruit of strenuous efforts, the unification of manpower and resources at forest settlements and the elimination of administrative compartmentalism at enterprises and organizations. Today, all the collectives are concerned about end results and the needs of sub-contractors, as they strive to solve the problems of the day in unison.

Take the forest farm. Under the Forestry Ministry of the Karelian ASSR it led a pitiful existence, being quite incapable of expanding its

plantings. Every year, general reforestation tasks fell through. Its entire forest protection service was constantly occupied in timber extraction.

The integrated logging enterprises were quickly able to restore order here. Tending fellings were handed over in toto to specialized crews and the foresters are now solely occupied with their own duties. Any attempt to divert them to other work is severely dealt with, even to the point of dismissals.

The complexes are performing forest reforestation work at the optimum times silviculturally, in full volume and to a high standard of quality. On the one hand, this is because they are working for themselves, and on the other, because the facilities for doing the work have become available. As logging is sharply curtailed in the spring owing to the lack of roads, it is possible to freely divert workers to silvicultural operations. Last year, for example, "Karellesprom" directed 300 tractors, 150 trucks and about 3,000 workers to planting and sowing activity. Nothing like this could ever have been attempted by the former Ministry of Forestry. Under it, sowing continued from spring until late fall, and still the tasks were aborted.

The other forestry indices are also growing. The volumes of logging road construction have increased 1.3-fold in comparison with 1985, and 1.2 times more marketable timber is being obtained from tending fellings. The Petrozavodsk repair works of "Karellesprom" has begun to manufacture such forestry machinery as mounted disc scarifiers, ploughs, seed drills, and tree planters.

The complexes have major plans for the future. By the year 2000 it is intended to complete the formation of a forest seed base to meet the yearly demand for seeds, to change over for the most part to forest planting activity and provide for the cultivation of planting stock with improved hereditary properties. Work has been stepped up to ensure the accelerated growing of spruce through the rehabilitation of two-storeyed spruce and deciduous stands.

Thanks to the redistribution of responsibilities and unification with the logging units, the foresters no longer have to worry about workers, housing, food, buses, tractors, timber transports and wood processing. Everywhere the wages of the forest protection workers have increased and additional privileges have been granted.

The coupes marked out for felling are of a higher standard now and are delivered in a tidy state.

The loggers also are finding it easier to solve their problems. Thanks to help extended by the foresters, coupe development procedures have been left intact. The sub-contractors are more ready to help the logging enterprises with men and equipment at the time of the winter felling and timber floating activity. Here, the degree of self-interest in timber procurement is obvious. The problems of supplying paper makers and wood processors with timber are being solved along practical lines.

Natural resources are being utilized more efficiently. In the complexes there is no longer any sign of the bonfires that used to be started in the forests and at the lower landings to burn up the tree tops, the stumps, and the broken and dead standing

trees. The bulk of the logging debris is being processed for special purpose chips. More mushrooms, berries and forage are being harvested. Unity of effort is the watchword.

Both the State and the people have gained from the formation of the integrated logging enterprises. With the emergence of a common boss in the logging camps, the tiny, squalid lower landings, garages, and repair and auxiliary shops, where for the most part they wielded axes and hooks, have been closed down.

The standard of management of the shops and sections has been improved by getting rid of the offices and transferring the specialists to production. Of these there were many. Almost every logging camp maintained staffs to administer forest farms, logging enterprises, wood chemistry enterprises, sawmills, construction units, forest reclamation stations and other organizations. As a result, there was considerable overlapping of responsibilities, which made little sense.

Consider the social sphere. Formerly, each enterprise fashioned its own primitive houses and clubs, schools, kindergartens and cafeterias. Due to the lack of manpower and resources the construction of housing and community projects miscarried, streets and grounds as well as buildings were in poor shape. Remoteness hindered the creation of community facilities - water supply, sewerage, central heating.

Now all the logging enterprises have a fair chance of developing centres of population from identical general plans, doing away entirely with the erection of shoddy homes. Any complex today is able to maintain a major subsidiary industry. And this is

already happening. In 1989, the forest complex of Karelia is intending to produce and sell to its own workers 3,500 tonnes of milk, 756 tonnes of meat, 300 tonnes of vegetables and 10,000 suckling pigs, which would not have happened previously.

"There is more order now everywhere in the forest. A solid vista and a precise goal have emerged in the workers' collectives," says V.I. Frolov, the deputy general director of "Karellesprom". "This has already had positive results. Labour mobility has been reduced by 3.2 percent in comparison with 1985 and is now barely more than 8 percent. Renovation of productive capacities is done on a planned basis. The advantages of integrated management are obvious".

With the creation of the territorial timber industry complex the work of our enterprises has stabilized and their economic indicators have improved. "The integrated enterprises are now able to concentrate resources on the enhancement of scientific-and-technical progress," declared N.Ya. Kir'yanov, secretary of the Karelian Oblast Committee of the Party, at a conference on problems facing the integrated forest enterprises of the European Urals zone.

THE PROBLEMS AWAIT SOLUTION

Does this mean that everything is fine at "Karellesprom"? Not at all. Everywhere you can find a mass of shortcomings. After all, this is a new approach which is only in the formative stage. This has an effect on the work of the enterprises. Last year, the Karelian loggers ruined plans for the production of commercial timber and lumber, paper

bags, and contractual deliveries. The pace of resin production has fallen off and much profit has been lost.

As before, overcutting of the planned coupe is apparent. Although it has been reduced over the year by 1.2 million cubic meters, this runs counter to the integrated management of industry and is undermining sustained utilization of the forest. What is more, the stable supply of raw materials to the sawmills and woodworking enterprises of the "Kondopogabumprom" and "Segezhabumprom" associations and the "Pitkyaranta" pulp mill is placed in jeopardy.

Are the loggers to blame for this? What is the way out of the situation? How can the planned coupe be adhered to without disrupting deliveries of timber to processors?

Several approaches are possible here. In the first place, the specialists say, we must put an end to the export of 1.5 million cubic metres of timber outside Karelia. All the wood must be processed here. This would be advantageous in every way. Less railway transport would be required to ship the finished products, and losses of raw material in the form of waste would be curtailed. They would be successfully converted on the spot to special purpose chips. Unfortunately, the USSR State Planning Commission does not recognize sensible arguments; it will have it no other way but to ship unprocessed logs all over the country.

A second way would be to increase tending fellings in young and ripening forests, to fill the gaps at the expense of their timber resources. According to forest management data, fellings need to be done yearly over an area of 39,440 hectares and up to one million cubic meters of timber produced.

Finally, a mass of branches, fragments, trees of small diameter and dead standing trees is still being lost in the plots during logging. Even if one reckons 5 cubic meters per hectare, as scientists assert, this means that the "Karellesprom" Association is underharvesting about 2 million cubic meters a year.

Today, however, it is by no means simple to harvest these volumes. At the logging enterprises there is an acute shortage of bulldozers, dump trucks, excavators and special wheeled technology for the collection of slash and the performance of selective fellings. The entire timber industry of Karelia is supported by the wretched and technically imperfect TDT-55 tractor from the Onega factory, which even 25 years ago was acknowledged to be unsuitable for work in the forest. It is cumbersome, unreliable, lacking in power and harmful to the environment.

At every tier of government they know about this; there is talk about technical backwardness at all levels, but still the situation does not change. Yet ten years ago Finnish firms had already built wheeled units to harvest and process timber from intermediate fellings, and had put them to use splendidly in the tracts of the Pitkyaranta integrated logging enterprise in Karelia. In the Soviet Union however, we neither devise such machinery ourselves nor buy it abroad in sufficient numbers. The specialists' estimates show, however, that each imported set of machines pays for itself in two years.

The Council of Ministers of the Karelian ASSR is doing the integrated logging enterprises a bad turn, and undermining the basis of their

long-term existence. It is forcing them to fell more than the planned coupe and giving away their concessions to independent loggers, while at the same time the timber in unassigned forest tracts is dying from old age. Here is what N.I. Ryabinin, the director of the forestry department of "Karellesprom", has to say about it.

"Last year, our association was unable to dispose of 420,000 cubic meters of quotas for fellings in forests of the second group, while the rest of the loggers had no problem at all. The enterprises of the local and fuel industry felled only some 25,000 of the 5,127,000 cubic metres in the concessions assigned to them, and they are using only 3-5 percent. On the other hand, they are intensively harvesting the timber in the forest tracts of the Suoyarvi, Medvezh'egorsk, Kondopoga, Kalevala, and Segezha logging enterprises and the Kem' and Pudozh integrated timber floating enterprises, who by now have nothing to cut. The Lakhdenpokh'ya and Olonets integrated logging enterprises are disturbed about the selection of coupes; the Olonets enterprise overcuts any calculated norms while nearby, unassigned forests are standing and perishing on the stump. Does this make sense?"

"It is high time for the logging units of the fuel industry to be transferred to the "Karellesprom" Association," reckons Yu. N. Spiridonov, the director of the Suoyarvi integrated logging enterprise. "This will make it possible to use the timber which they procure more sensibly, with no losses of waste products allowed. Fewer State funds will be expended, since the last dwarf industries in the logging camps will be eliminated. In addition, the forests assigned to them would also

be more productively exploited. It makes no sense to maintain the primitive systems of the independent loggers alongside the commercial logging enterprises."

To date, the Ministry of Forestry of the Russian SFSR and the USSR State Committee for Forestry have not consented to the transfer of the three remaining forest farms to "Karellesprom". It was these farms that provided the initial support for the entire Forestry Ministry of the Karelian ASSR, and for the subsequent creation of the dwarf association. And although it drags out a miserable existence, they refuse to abandon it, preferring to preserve it for the sake of entrenched departmental interests in Karelia. This can only be called "antiperestroika" behavior.

The old documents of the former State Committee for Forestry (USSR Gosleskhoz) remain in force. Without any justification whatsoever they regulate the work of the enterprises and are frequently a striking illustration of bureaucratic red tape. They include, in particular, the instructions on the re-registration of timber resource bases from one logging enterprise to another, methods of marking out coupes, collecting the stumpage, etc. They even put the private loggers in a better position than the State logging enterprises. Suffice it to say that the transfer of a forest resource base within the association takes two years of red tape and costs 10,000-20,000 roubles.

Certainly, both "Karellesprom" and the Ministry need to restructure themselves more quickly. They still substitute command methods for economic methods of administration, virtually ignoring both the Law on State Enterprises and the views of the councils of workers' collectives. All

kinds of pressure tactics are used to tie up the enterprises hand and foot, to subordinate their will to diktat. I do not know a single case where the workers' collective has been successful in defending a sensible, economically and technically sound plan. As for the profit it would bring it in; they seize it without offering any explanation.

The integrated enterprises are a step forward in the development of the sector and our economy. However, without support, help and sensible management they will be unable quickly to stand on their own feet and to cross new frontiers. We must take their interests into account and support the new approach in word and deed.

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March 23, 1989

Page 2 (Slightly abridged)

Some Thoughts on the Restructuring of Forestry

(Interview with Academician A.S. Isaev,
Chairman of the USSR State Committee for Forestry)

Q. "Aleksandr Sergeevich, in the course of a speech delivered a year ago at the All-Union Conference on Problems of Forest Utilization, as Chairman of the State Committee on Forestry you delineated a rather broad circle of problems which will have to be solved by forestry in conditions of perestroika."

A. "I anticipate the question: what have we been able to accomplish in the past year? Well, in the first place it was necessary to create a new

headquarters structure for the sector. We decided to organize functional subdivisions which would be responsible for specific subject areas in the forest industry. The first of these is reforestation, where many problems have accumulated by this time. The second area which we consider very important is economics. The problem consists of fitting the existing forestry systems into the new management mechanism dictated by perestroika: the transition to self-financing and the introduction of such forms as leasing and cooperatives. We had to come to grips with the development of a normative base, and with the problems of financing forestry production.

Serious attention was given to such important areas as forest utilization and State monitoring of both the condition of the forests and utilization of the stands.

We may conclude that the structure of the Committee is largely in place. Each subject area is headed by prominent specialists and scientists, all as a rule with experience in organizational work".

Q. "In the decree of the Central Committee of the CPSU and the USSR Council of Ministers on improving the management of the forest complex, emphasis was placed on the leading role of economic methods and procedures in forest management. This year marks the beginning of the change over to self-financing by the enterprises of the sector. Our editors are receiving letters from all over the country indicating that this undertaking is running into major difficulties."

A. "The most restrictive factor here is the continuing absence of a solid legal foundation on which to base perestroika in forestry. The decree

envisaged, for example, the drawing up of such important documents as the Statutes on State forestry inspection and State forest conservation, as well as the Statute on the leasing of forests. We also had to prepare materials relating to the transition of the sector to self-financing in 1989. Even though all of these documents were drafted within the stipulated time frame by last fall, they have still to be ratified by the higher authorities.

The cornerstone of the transition of forestry to self-financing is the identification of sources of financing. Until now, financing has been handled on the residual principle and has not provided for the efficient management of forestry production, particularly reforestation and fire prevention. Financing was put together differently in the different regions of the country and was far from being scientifically substantiated.

When we analyzed our current needs for forestry, so as to provide for the normal course of reforestation and forest conservation and protection, it became clear that financing of the order of 400 million roubles would be needed for operating expenses. This, I must stress, is for forestry production. It is easier to put commercial production on a self-financing basis, since it deals with a product - timber. All that is required is to make more efficient use of this product.

In forestry production we do not have a final product in the form of a developed stand, since a mature forest takes many decades to grow. We therefore proposed that we assess particular operations where there is an end result. For example, until now work has been assessed mainly on the basis of the number of plantations established

and the number of plantings. Nobody paid for the final product: for the plantings transferred to the forested area. We are suggesting a different approach: it is precisely for the transfer of plantings to the forested area or the establishment of valuable stands that payment should be made. This will radically change the assessment of all reforestation work.

But sources of financing will be essential if we are to put this into practice. A real forest will not grow out of the 60 roubles which are allotted in some regions for a hectare of plantings. For this amount of money you can create only the appearance of work. This is simply burying money in the ground.

But the financing problems remain unresolved. Our proposals, as I have already said, are still under discussion."

Q. "Aleksandr Sergeevich, we all know that the Government's financial situation is not without its difficulties. Where is forestry to get the almost half a billion roubles that it needs?"

A. "In essence, we will earn this money. The world over, the stumpage fee, being the statutory price of standing timber, is considered to be fair compensation for the socially necessary expenditures on reforestation and forest management. It must be returned to forestry and we shall be fully able to get by on these moneys, especially since it is being proposed that the stumpage fee be increased by a factor of 1.8, although this is many times less than in other developed countries.

However, the Ministry of Finance says no, these moneys will go into the budget, or if the worst comes to the worst, they will go to finance unprofitable logging enterprises.

There is one other problem, which we cannot solve without incurring losses in forestry. The transition to the new system of management presupposes an increase in wages. Where is this to come from? Either from an increase in profits or from a reduction in the number of workers. Forest protection, which accounts for an enormous category of forest workers, does not generate a direct profit. Since we have not received any government subsidies, we have to "opt" for a reduction in numbers. We are thereby literally "deforesting" our lands, mainly the taiga regions. We are relinquishing control over vast expanses of forest, since the reduction will have been achieved at the expense of foresters, forest wardens and plantation engineers, that is, of the very people who are directly engaged in the cultivation, protection and conservation of the forest.

We believe that the management mechanism which we have developed and which is still under discussion at the USSR State Planning Committee (Gosplan) will ensure a transition to the new system of financing and profit and loss accounting and will enable the sector to manage forestry efficiently. This mechanism is now being worked out at nearly 200 of our enterprises."

Q. "There is a rather widely held view, which is also current among economists, that forestry can develop as a result of the profits derived from the utilization of timber and from other forest uses."

A. "This approach is essentially incorrect. As soon as it begins to take hold, there will be a shift in the direction of a consumer attitude to the forest. Such is already the psychology of the manager. The pursuit of immediate profit leads to neglect of the long-term goals of forestry. We have ample examples of this.

I maintain that the State has an obligation to seek funds for the conduct of forestry, for reforestation, conservation and protection of the forest. As I said earlier, this problem can be solved through the stumpage price. This makes it all the more important to keep in mind the exacerbated ecological problems. If we think only of the immediate profit, neglecting the interests of tomorrow, we shall simply eat up our forest capital and will be held responsible for this by our descendents".

Q. "But do you not think that we have already done quite enough to ensure that our descendants will not have reason to be grateful to us?"

A. "Yes, the problem of forest utilization in the country has become extremely acute due to some sort of fatal shortage of timber products. An intensive felling of the best stands is being done. This is the result of imperfect planning, and a desire to obtain more and cheaper timber in accessible regions. This practice has come down to us from the early thirties, when the principle of sustained yield was denounced as anathema in that it was not in accord with the program of accelerated industrialization of the country. Our misfortune and our culpability lies in the fact that until now the planning of logging has been based not on the availability of forest resources, but on existing

logging capacities. Logging enterprises are not being rebased to where there are still supplies of timber, virtually no new enterprises are being created in heavily forested areas, and there is a lack of machinery for selective and maintenance fellings."

Q. "Hence the overfellings?"

A. "In some countries, overfelling of a planned coupe is considered a crime against the State. What do we see here? In 20 years, about 700 million cubic meters of timber have been felled in the European part of the country. This is five times the planned coupe. Forests in Karelia, in the Kirov, Kostroma, Vologda, Perm' and Sverdlovsk Oblasts, and those near railways in Arkhangel'sk Oblast and in the Komi ASSR, have been exhausted. But the Ministry of the Timber Industry and USSR Gosplan are demanding that the State Committee for Forestry once again permit overfelling of the planned "conifer" coupe there by up to 17.4 million cubic metres. But if the Ministry of the Timber Industry is really in such a tight spot, if some time is required for the transition to sustained forest use, then a government decision will be needed to determine this overfelling and simultaneously to indicate specific measures to correct this abnormal situation in the shortest possible time, instead of continuing forever to justify overfelling by the dubious, unscientific computations which are still used by USSR Gosplan." (To our great regret, by the time this conversation had gone to press, the Council of Ministers of the Russian SFSR had approved this overfelling in consultation with the Oblast Executive Committees. - Ed.)

Q. "And what is the State Committee for Forestry doing to bring order into forest utilization?"

A. "First of all, it is necessary to have objective information on the state of our forests. We created the All-Union Scientific Research Information Centre known as "Forest Resources of the USSR". By combining this centre with "Lesproekt" (All-Union Association for Aerial Photography, Forest Resource Inventory and Forest Regulation) and Soyuzgiproleskhoz (All-Union Institute for Planning and Research in Forestry), we shall be in a better position to use information and scientific data for the improvement of forest inventory and control.

The forest management plan must include a maximum of silvicultural, forest biological and economic data. On this plan will depend the effectiveness of the entire management activity of the enterprise. It must utilize forest resources scientifically. At such time as the forest management plan shall contain a commercial-financial estimate of the allowable cut, calculated structurally, financially and spatially, and it forms the basis of a Five- or Ten-Year Plan, let us say, then the very possibility of burdening enterprises with an obligation to produce assortments which do not exist in the stands and in volumes which they cannot meet or which contradict the rules of forest utilization, will be eliminated.

In short, "Lesproekt" is being integrated into the forest resource management and control system. A data bank is being created both for individual enterprises and for the country as a whole. The forest management program will be computerized, so that any required information can be accessed quickly and efficiently.

A data bank is also being planned for use in evaluating and predicting the ecological situation. We shall go out to the international forest resource ecology center and thereby access the global forest ecology information system.

Q. "Aleksandr Sergeevich, last year the draft of a statute on forest leasing in the USSR was submitted for public discussion. Our readers are interested in what has happened to this draft."

A. "Back in September, the draft underwent further polishing after taking into account various comments and proposals and was then submitted to the USSR Council of Ministers. I consider that the lease is the cornerstone of modern forest utilization but it is running into resistance, especially from the USSR Ministry of the Timber Industry. Why? Apparently because in leasing, it will be necessary to conclude an agreement for receipt of the forest land and to pay for the utilization of the forest. The main reason why we have a shortage of forest products is because the forest is being exploited virtually free. Hence the squandering. Every third log is lost either at the coupe or en route or in processing. Leasing will put an end to this poor management. It is directed not at the obtaining of profits, as some believe or give the appearance of believing, but at the maximal utilization of forest resources, at competent, scientifically based forest management. The genuine manager has nothing to fear from the lease, since it is the lessee who must bear the cost of various kinds of underproduction. If you have overfelled the allowable cut you will have to pay five times over. If you don't harvest the fruits, mushrooms and berries according to the average norms, then you pay. And some do not like

this, because they have got used to taking from the forest and discarding in the forest without a reckoning.

We hope that the forest lease will appear as an integral part when the All-Union law on leasing comes out.

We now have an enormous number of forest users, including the so-called private loggers. Many consider themselves favourites in the forest, and you cannot bring order here by administrative means. We must convert them to lessees, push the economic levers and institute control by the rouble."

Q. "We are receiving letters from integrated enterprises, and these letters do not make us happy. The authors report that a shift towards logging has taken place at the complexes which have been created and that the needs of forestry have been pushed to the background."

A. "The fundamental feature of the integrated forest enterprise is sustained forest use. The allowable cut must be directed at this. Maintenance fellings must be done in the volume foreseen by competent forest management with complete utilization of the timber obtained. The areas cut must be regenerated with quality plantings and the harvesting of minor products must be developed. These are the essential elements of integrated enterprises. But according to our data, it is mainly felling which is now being done there.

We transferred about 200 forestry enterprises to the USSR Ministry of the Timber Industry. However, the loggers are asking for new leskhozs/forest farms/and lespromkhozs/logging

enterprises/, pointing to the shortage of resources, even though the allowable cut is being underfelled by 70 million cubic metres in the areas which they have already received.

In the form in which it now functions, the timber industry will never meet the country's need for wood. Its structure, management mechanism, equipping, technical policy and training of personnel are all directed at clear felling of large tracts. But such tracts are becoming fewer and fewer and there are now practically none left. We must change the strategy and tactics of logging. The Finns work the forest three times over, but they also take twice as much timber per hectare as we do. And their labor productivity is five times greater than ours.

Machinery for intermediate forest utilization must be devised. An enormous problem is arising in the European part of the country. A coniferous storey is forming under the larch canopy. This is the basis of the future coniferous forests in this enormous territory. Selective cutting of the deciduous canopy must be done, but suitable machines are lacking. You cannot get in there with a monster like the LP-19.

Mechanization of forestry has been neglected in the extreme. A radical solution must be found for this problem. A wheeled tractor must be built that has a set of mechanisms which would make it possible among other things to do the work of intermediate felling without damaging the soil. We have an agreement with the machine builders to design and build such a tractor. But this program must be implemented as quickly as possible."

Q. "And from where will the finances come for these purposes?"

A. "From payments for forest resources, secondary processing of all unmarketable timber at integrated enterprises, and development of the harvesting of minor forest products.

We need this money not only for technical re-equipment, but also for development of the social infrastructure. Today, there is no sector in the country which is in a less favoured position in this respect than forestry. Judge for yourselves: availability of housing is 40%, public health clinics 17%, kindergartens and day care centres 29%, pioneer camps 25%. Eighty two roubles are allotted for the social needs of a single worker in the sector. By comparison, this indicator is 633 roubles for geologists and 1,840 roubles in the Ministry of the Gas Industry.

The figures simply cannot be compared. It is time to put an end to this age old injustice.

All these problems are reflected in the Draft Concept of the Effects of Perestroika in Soviet Forestry to the year 2005. An enormous task lies ahead but we are obliged to carry it out."

Q. "One last question. In the draft of the general principles of restructuring of economic management and the social sphere in the Union republics it is stated that this will call for a refinement of the functions of a number of Union departments, including the USSR State Committee for Forestry. What is your opinion on this score?"

A. "The expansion of sovereign rights, self-management and self-financing will undoubtedly enhance the responsibility of the union republics for efficient resource utilization. But it is extremely important here to determine the competence of the USSR in the disposal and use of natural resources of national importance. For this is exactly what the total area of land and water in the charge of the State forestry service is.

The State Committee for Forestry must reserve the right both to manage this area and determine the extent of forest utilization, having regard to the make up and condition of the stands and their ecological role in the various regions, and to supervise State monitoring of the condition, utilization, reproduction, conservation and protection of forests.

The State must assume responsibility for the strategic direction of the development of forestry, the working out of long-term concepts, the provision of scientific support, and the training of forestry specialists. In addition, the USSR State Committee for Forestry must continue to fulfill the functions of distributing the State order and planning All-Union measures that will ensure efficient forest utilization.

All this will in no way infringe on the rights of the union republics, who will retain control over direct economic activity in the forest, and be responsible for directing the whole complex of productive work, both in relation to the conduct of forestry and the social development of enterprises.

It must be stressed that putting the forestry lands at the complete disposal of the union republics runs counter to the Leninist principle of the indivisibility of the forests and the exclusive federal ownership of them. The manifestation of regionalist egotism in relation to the forest is intolerable."

Lesnaya promyshlennost'

March 30, 1989

Pages 1 and 2 (Full text)

Details of Reforestation and Other Matters Discussed
at RSFSR Forestry Collegium

On February 25 an expanded session of the collegium of the RSFSR Ministry of Forestry was convened. Progress in the socioeconomic sphere in 1988 and during the three years of the Five-Year Plan was examined, as well as tasks relating to the further consolidation of perestroika in the forest sector. Throughout the whole of the previous week the directors of the Oblast' forestry associations and the ministries of the autonomous republics conducted training sessions and "round tables", where up to the minute problems relating to the planning, direction and organization of production were examined, as well as various aspects of sector economics. Today, and this was repeatedly stressed in the speeches, the attention of a wide section of the public is focussing on the growing ecological importance of the forests, and on activities pertaining to the conservation and augmentation of forest resources.

It was pointed out in a speech by RSFSR Minister of Forestry N.M. Prilepo that the reorganization of the administrative structure and the transfer, in the main, to a two-tier system of administration is not merely a formal change of "image". The number of administrative employees has been cut by 52.7 per cent within the ministry itself, and by 30 per cent at the Oblast and republican levels. Altogether, 1156 people have been let go.

Today, about 10,000 individuals are members of crews operating under the profit-and-loss accounting system, and about 5,000 more are participating in collective contracts on ranger stations and in workshops.

The year 1988 is the only occasion during the last five years that a State inventory of the forests has been conducted. During this period the area of forest-covered forestry lands increased by 4.6 million hectares.

Note to reader:

It is recommended that this article be compared with an article reporting on an expanded session of the collegium of the USSR Ministry of the Timber Industry (January 24, 1989). The latter was summarized in "Extracts from the Soviet Press on USSR Forestry and Forest-Based Industries" for December 1988 and January 1989 (INI F10/88).

However, in regions such as the Ivanovo, Kuibyshev, Chelyabinsk and Amur Oblasts, and the Mari, Mordovian and Tatar ASSRs, the foresters have not only failed to improve the Goslesfond (total area of land and

water in the charge of the State forestry service), but have allowed it to deteriorate seriously. Numerous checks have revealed that frequently, all of the tasks connected with a lesfond inventory are performed in offices, without taking into account the data collected on-location. At many ranger stations and forest concerns, even day to day changes are not being entered in forest management records and in the lesfond inventory ledgers. Here is a typical example: last year, a group of rangers who had completed a course of professional upgrading at a forestry training institute were asked, "Who knows the results of the lesfond inventory and what the dynamics of change are likely to be in the long term?" The majority of the more than 100 specialists were unable to answer these questions. At the same time, it is obvious that an objective assessment of the results of the work is only possible when the inventory has been competently performed and analyzed.

Forestry is being confronted with new problems as a result of the worsening ecological situation in the basin of Lake Baikal. In the on-shore zone of the lake, principal fellings have ceased, the stock of supplies and machinery has been built-up, and the fire-fighting service has been strengthened. The only possible explanation for the flagrant violations being countenanced in the Buryat ASSR by loggers of the USSR Ministry of the Timber Industry and the RSFSR Ministry of the Fuel Industry is that the requirements of the foresters are not sufficiently exacting. The management problems in the cedar forests* and on the shores of Baikal and Ladoga are now very acute and to take a "casual" approach to them is totally unacceptable.

* Possibly a reference to Pinus sibirica Rupr., = Sibirskii Kedr (Tr.)

Problems in the area of improvement fellings are slowly being resolved. The ban on the use of "chemistry" has presented the foresters with major problems. The main emphasis today is on mechanization and the use of roll-type brush shredders for release of planted stock. Good results (more than 300 to 400 hectares per roller) were achieved in 1988 in the Kaluga, Smolensk, Yaroslavl' Ulyanovsk, Gor'kii and Udmurt associations, and in the Tatarian and Bashkirian Ministries of Forestry. By no means everywhere, however, does this apply to mechanization problems. This equipment is being poorly used in the Krasnoyarsk Krai and the Irkutsk and Tomsk Oblasts, while in Mordovia it has been largely responsible for failures of forest plantings over an area of 26,400 hectares. This exceeds the area of the forest plantings established during the last five years.

For the Ministry as a whole, during the three years of the Five-Year Plan, reforestation has encompassed an area of 970,000 hectares (100.8 per cent of the plan); more than 100,000 hectares of forest plantations have been established through the use of mechanization; and almost 1,300,000 saplings have been upgraded to the category of economically valuable stands (101 per cent of the plan). Now that the enterprises are free to choose for themselves the methods of reforestation, and the sowing and planting volumes are no longer set by a Goszakaz (State order), in the provinces a decrease in planting volumes is only justifiable when there is the certainty that mutual assistance will result in the formation of a stand that is at least as valuable as when artificial regeneration is practised.

The current trend towards a reduction in the volumes of plantings transferred to the forested area is inadvisable. Whereas in 1986 some 490,000 hectares were transferred, in 1988 the total was only 285,000. During the last two years, more than 13,000 hectares of plantings have been written off by the Ministry of Forestry of the Bashkir ASSR and by the Altai Association. Also, heavy planting failures were allowed to occur last year by the foresters of the Kostroma, Lipetsk, Kurganskaya, Novosibirsk and Tyumen' Oblasts, and in the Krasnoyarsk Krai.

In 1988 a total of 85,100 hectares were established. These included 51,000 hectares of plantings in gullies, ravines, sands and other unsuitable places, established pursuant to a State order (goszakaz) and amounting to 100.2 per cent of the tasks assigned. Failures to cope with the State order were reported by the Krasnodar, Kuibyshev, Kemerovo and Chita associations, where business contacts between the foresters and customers are lacking. The foresters in the Omsk Oblast' performed poorly. There, 51 per cent of the erosion-control stands and 43 per cent of the even-aged field shelterbelts failed.

In the past year progress was made on the change over to the new conditions of remuneration for labour. As of January 1, 1989 a total of 1,060 enterprises were operating in accordance with this principle, or 70 per cent of the overall number. One of the levers by which productivity is enhanced and the economic and financial condition made more healthy is the leasing contract. The performance data of the Taldom logging enterprise in the Moscow Oblast', which has been leased since the second half of 1988, indicate the following: since going over to the new modus operandi, 188 thousand roubles worth of

merchandise over and above the plan was produced there. The enterprise fulfilled the plan for profit by 181.1 per cent, whereas it had formerly been numbered among those expected to incur a loss.

The problem of providing housing for the workers remains acute. Currently, 38,000 individuals are on the waiting list and 52,000 people are living in dilapidated housing.

The Ministry has supported the Draft Concept of the Effects of Perestroika in the Timber Industry up to the Year 2005*, published in this newspaper. It provides the foresters with guidelines for the future. Today, jointly with the USSR State Committee for Forestry (Goskomles SSSR), matters pertaining to (a) the timber insurance and forestry incentive funds being established in a special account of the forestry enterprise (leskhoz) and (b) upgrading the role of the forest management plan, are being closely studied. But the chief requirement continues to be upgrading the role of the foresters in the protection and conservation of the forests, stepping up their productivity, and improving the ecological situation in our country.

Participants in the work of the collegium included the Chairman of the USSR State Committee for Forestry A.I. Isaev, the Chairman of the Central

* Published also in the December 1988 - January 1989 "Extracts from the Soviet Press on USSR Forestry and Forest-Based Industries" (INI F/10/88).

Committee of the Trade Union M.V. Kuleshov, and officials of the CC CPSU, the RSFSR Council of Ministers and the RSFSR Ministry of Finance.

Lesnaya promyshlennost'
February 28, 1989
Pages 1 and 2 (Full text)

Early Start to Spring Planting in Lithuania

They have been planting out trees in Yadvig Paulaiten's Varena forest district for more than sixty years. But even she does not remember this work being started so early. For in the Lithuanian forests this year's season of spring toil has already begun. The first hectares of pines have been planted in the woodlands of the Varena, Dainava and Mertyaiskii forest districts.

Currently, the intention of the Varena forestry association is to plant pines in an area of 517 hectares. Since the Varena foresters are annually planting out more trees than they are felling, the forested area there is increasing. Today, almost two-thirds of the area making up the district is forest-covered.

Lesnaya promyshlennost'
March 21, 1989
Page 3 (Full text)

ENVIRONMENT

Lithuania - Public Incensed Over Pollution

The first mass demonstrations in defence of the environment and human health were organized in Lithuania last summer. The participants in the ecological protest march against selected enterprises (including the Klaipeda Pulp and Paperboard Combine and the Sovetskii and Nemanskii cement and concrete plants - polluters of the unique Kurisches Haff (lagoon)), the "circle of life" formed by the pickets which surrounded the Ignalina nuclear power station for days on end and the ecological demands voiced at meetings all showed that people are no longer prepared to play the role of passive observers in matters affecting each one of them.

From the very first, the local authorities reacted cautiously to the ecological demonstrations. They even attempted to portray the participants of the informal groupings who initiated them as rabble-rousers. Today, however, the indiscriminate dangling of labels doesn't pass muster. If people feel strongly about the uses being made of our national riches, which after all, are a gift of Nature, if they are prepared to "go to battle" in defence of them, it means that after decades of silent obedience the feeling of being in charge has been awakened in people. In this we can only rejoice.

Our "Grigishkes" Association has also become the object of public scrutiny. It hurts when one's own enterprise is put under the microscope. It hurts doubly when it is found guilty and in reality the fault lies elsewhere. Let me explain what happened.

Some time ago, arising from a decree of the USSR Council of Ministers relating to the strengthening of anti-pollution measures in the Baltic Sea basin, the Union-Republic Ministry ratified a programme of action which included, inter alia, the total cessation of the dumping of untreated effluents by 1985. By that time, the association's waste waters were to have been "diverted" to the municipal purification plants operated by Vil'nyus, which means that a pumping station, a conduit and a collector tank were to have been built. But the plan was never implemented. The USSR Ministry of the Timber Industry failed to allocate the funds for the design, construction-and-assembly, and contractual operations.

Today, history is repeating itself. In 1987, USSR Gosplan ratified an "Improved Programme for the Building of Nature Conservation Works at Enterprises of the USSR Ministry of the Timber Industry During the Period 1987 - 1990". According to the programme the construction of the pumping station and conduit from the association's main enterprise to the municipal reservoir must begin in 1989 and be completed in 1990. However, these dates also, which had been approved by USSR Gosplan and coordinated with the Council of Minister of the Lithuanian SSR, are threatened with disruption. The fact is that, of the volume of works planned for the current year, less than half of the 1,300,000 roubles required has been allocated. The decision was taken by the Gosplan of the Republic. Repeated appeals to the Central Committee of the Communist Party of Lithuania, the Council of Ministers of the Republic and the Supreme Soviet of the Lithuanian SSR have been to no avail.

Meanwhile, if the funds for the contracted works are not allocated to our association in full, it will automatically fail to implement the "Improved Programme" and, in accordance with a decision of the Council of Ministers of the Republic, will have to pay up to two million roubles annually in fines. This, in spite of the fact that the proportional share of the "Grigishkes" Production Association in the construction of the Vil'nyus purification plants amounted to 3,800,000 roubles. The funds earned by the collective will be (and already are being) squandered in the form of fines for purposes unknown.

It is strange that sanctions are being used against us for the harm that has been done to the environment, in place of the help that would enable us to implement the measures already planned for improving the ecological situation. For the environment will be no better off as a result of our fines.

Clearly, in the Republic today there is no shortage of urgent and important construction projects. Even so, when from every quarter you hear about the priority being given to ecological problems, it is difficult to come to terms with the situation that has developed.

We also need to consider the political side of the question. In our region, ecologically harmful industries are being intently studied by the community at large and by governmental agencies in the countries of the Baltic basin. Protests against pollution of the environment and the degradation of human habitat are becoming increasingly loud. Many people will be judging the integrity of our words and deeds, and the effectiveness of perestroika, by the status of nature preservation programmes.

Forest Mismanagement and Environmental Pollution in
Arkhangel'sk Oblast - Strong Warning Issued

Enterprises of the "Arkhangel'sklesprom" (Arkhangel'sk Timber Industry) Production Association are allowing serious violations of environmental legislation to occur. This is leading to the exhaustion of forest resources and pollution of the environment. Such is the conclusion that was reached at a board meeting of the RSFSR State Committee on Nature Conservation (Goskompriroda), where the activities of this logging concern were discussed.

Here, the principle of sustained inexhaustible forest use is being systematically violated and the association is being slow to resolve questions relating to the relocation of logging capacities. Whereas in a number of enterprises the designated coupe is at times underutilised by up to 50 per cent, in most of them substantial overcuts are permitted. For the Oblast' as a whole, they amount to 3,700,000 cubic metres of coniferous timber.

A long list of grievances was submitted to the directors of "Arkhangel'sklesprom". Contravention of the "Regulations Governing the Removal of Standing Timber in the Forests of the USSR" and other legislative and normative documents, the leaving of debris in cut-over areas, destruction of the understorey... the list could go on and on.

But the association is not only inflicting harm on the forest resources. Its enterprises are the main polluters of the Oblast's lakes and air space. The pulp-and-paper combines especially are at fault. Last year they discharged 18,000 tonnes of pollutants into the atmosphere of the city of Arkhangel'sk. The figures for Novodvinsk and

Koryazhma are even worse: 92,000 and 44,000 tonnes respectively. The papermakers can hardly expect to be thanked by the townsfolk for this type of activity.

More figures on pollution were cited at the board meeting. It was reported that enterprises of the USSR Ministry of the Timber Industry are dumping 773,000,000 cubic metres of effluents into the lakes and rivers of the Oblast' every year. Not only does this amount to 96 per cent of the total. Some 80 per cent of them are polluted. No matter what they say about the purification plants being unfinished, this is no excuse for those managers who, in their eagerness to come up with a plan, simply forgot about nature conservation. For it is their fault that today, the rivers Puksa, Kodina and Voloshka have become virtual gutters.

The effect of all this is to disrupt implementation of the resolutions "Measures for Strengthening the Protection of the Seas, Rivers And Other Water Bodies in the Arctic Basin Against Pollution" (Central Committee of the CPSU and the Council of Ministers of the USSR) and "The Cessation of Loose Floating on the Rivers And Other Water Bodies of the RSFSR" (Council of Ministers of the RSFSR).

Concrete proposals for correcting the situation that has arisen were set out in a decision of the Collegium of the RSFSR State Committee on Nature Conservation.

The management of "Arkhangel'sklesprom" received the following warning: 'Disruption of the time frames set by government resolutions calling for an end to pollution of the water reservoirs and air space, and any contravention of the environmental

legislation regarding the use and regeneration of forest resources, will result in strict measures being taken, up to and including the shutting down of enterprises.'

That's what they think of the managers of "Arkhangel'sklesprom". But they are not the only ones who are regarded in this way. Their colleagues from the other regions as well are to be held responsible for the present ecological situation.

Lesnaya promyshlennost'
February 25, 1989
Page 3 (Slightly abridged)

Fourth Evaporation Station Goes into Service at Segezha Paper Mill

In the "Segezhabumprom" Association a fourth evaporation station has come on stream. This has delighted all of the citizens, for until now the air at Segezha has been considered the most polluted in Karelia. The new installation will make possible a major refreshing of the air in the town and its environs. Through evaporation there will be a 25-30 per cent reduction in pollution from industrial wastes and a substantial decrease in emissions of harmful gases into the atmosphere.

The station is intended for the recovery of the black sulphite liquors forming during cooking of the pulp and to prepare them for combustion in soda-recovery boilers. The capacity of the unit in terms of water evaporated is 180 tonnes per hour. The overall cost is about 4,000,000 roubles.

The builders and trouble-shooters completed the work within the allotted time-span. Now, it is up to the Segezha papermakers to rapidly phase-in the new equipment and use it to maximum advantage.

Lesnaya promyshlennost'

2 February 1989

Page 1 (Full text)

Research into Safety of Overhead Transmission Lines

The idea of installing ecologically clean overhead electric power transmission lines that would be harmless to man and animals has been theoretically validated by Latvian scientists. Their calculations indicate that the powerful electrical fields generated beneath high voltage lines are capable of neutralizing each other.

Lesnaya promyshlennost'

March 11, 1989

Page 2 (Full text)

Sloka Pulp and Paper Mill (Latvia) Targeted by Environmentalists

Who is guilty of polluting Yurmala?

Every day it is the same thing: pickets in front of the Sloka pulp and paper mill, meetings in the squares of Riga, placards demanding the immediate shutting down of the "chief source of pollution" of the Yurmala resort: the pulp and paper mill, more and more critical articles in the republic's press,

and appeals by the National Front of Latvia and the Baltoslaviv Society to the Union government. The ecology movement is taking on a political hue.

On the other hand, thousands of Sloka workers and member of their families are calling for a return to common sense and for a sober public assessment of the situation, so that passions are not inflamed and people avoid acting on impulse. After all, they have lived and worked here for many years. However, hardly anyone pays attention to their views.

The following letter was written to the newspaper "Sovetskaya Latvia" by the Chairman of the Workers' Council at the mill.

"We, the workers of the Sloka pulp and paper mill, are concerned about the unrestrained badgering of the workers' collective by the mass information media of the republic and by various special interest groups demanding the closing of our mill. The shortage of accurate information in the press and the lack of a clearly defined position on the part of leadership of the republic with respect to the pulp and paper mill are resulting in the creation of a tendentious public opinion about our enterprise. This is having a disorganizing effect on the collective and is creating fertile soil for various kinds of negative phenomena both at the mill and in attitudes towards it. The time has come to take a final decision."

Yes, of course, the pollution of Yurmala is painful, both for residents of Latvia and for all Soviet citizens. One must therefore weigh carefully the question of who is more correct, and attentively listen to both sides. Otherwise, what is the meaning of this plurality of views?

"What kind of a mood could we have here?", replied machine operator Ya. Valainis when I enquired of him as to the general state of the collective. "It looks as if we shall be left without work. This is my sixteenth year at the mill."

The fact is that the Sloka paper makers are going through a very difficult time. People are already being laid off at the mill, which is known for its splendid working traditions and stable collective of skilled workers. It is mainly the younger workers who are being let go. Suppose they suddenly close down the enterprise. What then, will it be necessary look for somewhere else? Many people are developing a "suitcase" mentality. It began to be thus early last year, when some of the republic's newspapers and activists of special interest groups took critical aim at the Sloka pulp and paper mill. Their position is clear: the cooking of pulp must cease immediately and production be shut down! This was the decision taken at a session of the executive committee of the Yurmala municipal council, and the mill was ordered to implement it by this April. However, at the January session, when the deputies found out that they had exceeded their authority, a correction was made: not to cease but to suspend pulp production from March 31st, 1989.

What does this mean for the enterprise? In the first place, it will be necessary to shut down not only all pulp production, but also most of the shops and sections of the mill. After all, to produce the planned 90,000 tonnes of paper, the mill cooks pulp from locally obtained timber. Twenty five thousand tonnes of bleached pulp are imported from the Russian SFSR just for the manufacture of punched-card paper.

We had to listen to people who are far removed from the problems of our sector. What good is a punched card anyway except to drive in nails? Who needs it? We do not deny that in the computer age punched cards and card readers are already of an earlier day. However, the USSR State Bureau of Statistics continues to be acutely in need of this product, which is delivered to most regions of the country. Incidentally, the output of it has already been reduced from 29,000 to 20,000 tonnes.

The Sloka pulp and paper mill is the only enterprise in the country producing paper cups for ice cream and juices, salt and sugar packaging, and poster and ticket paper. Since January 1st of this year, at the request of the Latvian public pulp production has been cut back by 25%, and four paper-making machines have been shut down. As a result, the output of paper has decreased by 23,600 tonnes. Among the items which have been dropped are the same cups and salt packages, which greatly disturbed the food producers and may soon be felt by the consumer as well.

Yes, Riga is seething. Demonstrators and picketers, fighters "for political and ecological purification" are demanding that the Sloka pulp and paper mill be shut down, perceiving it as the "main enemy" of Yurmala. Notwithstanding the fact that I have often heard such "outpourings" by local residents as "It makes no difference, this mill does not provide anything for Latvia, everything is being exported", let us say frankly: this is far from the truth. The republic's requirement for paper products is 107,000 tonnes. One third of this is covered by Latvian enterprises themselves, with the remainder, amounting to 47 types of products, being imported. This includes all the newsprint and printing paper.

Incidentally, the republic's per capita paper consumption is 42.8 kilograms, as compared to 34 for the country as a whole. For some reason, they do not mention this in the squares and streets of Riga. Nor for that matter, do they refer to the fact that the Sloka mill has been producing pulp since 1898, that is for more than 90 years, and only now for some reason has it been declared "Public Enemy No. 1".

It is true that even earlier, in the seventies, some disturbing criticisms had been printed with respect to Sloka, which were not without substance. At that time, there were still no purification works here, and they did not use the new pulp cooking technology, while the mill boiler-houses were operating on smoky, fuming fuel oil, instead of on gas, as they do today.

I wish that the people protesting the existence of the Sloka pulp and paper mill would understand me correctly. The author of these lines is also opposed to the idea that factory smokestacks should loom near the wonderful sandy beaches and pine forests; that in the water, instead of fish there swim so-called "suspended and biologically active organic substances", so that bathing in the sea has to be forbidden. I agree that a pulp and paper mill does not belong in the neighborhood of one of the finest resorts in the country, any more than a pulp and paper combine belongs on Lake Baikal or the "Hammer and Sickle" metallurgical plant belongs in the center of Moscow, ten minutes walk from Red Square.

However, we must take a sensible approach, having regard to national and economic interests. For example, in order to close down Sloka and transfer production to another site, hundreds of

millions of roubles and several years would be required to reinstate the output of the paper which the country needs so badly. Today, the country has neither the resources nor the time for this. But there are alternatives. We must take a broader more objective view of the situation in Yurmala - not only from departmental or regional perspectives - and avoid making rash decisions.

I should note that not a single neighbouring country in the Baltic basin can do without its own pulp and paper production. Take Denmark, for example, which occupies a much smaller area than Latvia. Three pulp and paper mills and six paper mills are operating there. There are many more such enterprises in Finland, Sweden and Norway. They are by no means getting ready to shut them down after every demonstration.

Moving on then, is it only the pulp and paper mill on the Lielupe that is now "the source of all evil"? After all, dozens of enterprises, beginning with the Elgava "RAF" and the "Latbiofarm" production association at Olaine are situated on the banks of this river and its tributaries. And what of the thousands of tonnes of artificial fertilizers, herbicides and pesticides used by collective and state farms, as well as the other toxins that wash out into the Lielupe from fields and farms? Yes, what are we to say of these, since there are no purification plants in the resort zone or even in Riga itself! Even so eminent an authority as R. Kukaine, Deputy of the Supreme Soviet of the USSR, Academician, and Director of the A. Kirkhinshtein Institute of Microbiology of the Academy of Sciences of the Latvian SSR, who headed a commission to determine the environmental pollution hazard posed by the Sloka mill, has acknowledged that the mill alone

is not to blame, and if we were to permit its closing, then the waters of the Lielupe and the Gulf of Riga would still be polluted. Moreover, the composition of the water in the Baltic Sea as a whole has deteriorated greatly in recent years.

All the same, to what extent is the pulp and paper mill, situated 28 kilometers upstream on the Lielupe, responsible for the poisoning of the Gulf?

In the republic's committee of our trade union, I met with E. Svirst, a scientific co-worker of the above mentioned institute and a Candidate of Medical Sciences. He showed me the conclusion of a report on a special investigation where it is written in black and white that the effluents from the Sloka pulp and paper mill, thanks to reliable purification, do not have an adverse effect on the biological environment, since they do not exceed the maximum permissible concentrations of toxic substances. The industrial and municipal wastes discharged into the Lielupe are another matter, to say nothing of the Daugave!

"You see how I have suffered for this conclusion," Eduard Mikhailovich smiled ruefully, "I have now been forced to resign from the institute.

What do we have here? Is it that a specialist and scientist does not have the right to speak out on a matter which he himself is investigating? It seems that many of our experts, so as not to be held responsible, are preferring to take samples for analysis at Western rather than Soviet research centres. In this way, the question as to the real danger posed by the Sloka effluents remains unexplained for large masses of the public, which is a pity.

I shall make the following comparison. While the boiler-houses of Yurmala are discharging into the air about 1,770 tonnes of hydrogen sulphide per year, in the pulp cooking process no more than 32 tonnes of this substance are escaping into the atmosphere. The pulp and paper mill is dumping into the Lielupe 40 times less purified waste than all of Riga does in the unpurified form.

Of course, such figures do not make pleasant reading. It is high time to come to grips with them. But you can't argue with facts: in terms of statutory norms, the share of the Sloka pulp and paper mill in each kilogram of pollution from the Riga and Yurmala based enterprises is only a few drops.

However, there is no agreement on this score even in scientific circles; not all participants signed the conclusions of the Committee of the Academy of Sciences of the Latvian SSR last summer. The director of the centre for the study and control of environmental contamination, I. Lyul'ko, for example, continued to hold to his own views.

Up to now we have not developed a serious approach to the all round evaluation of the effects of pulp and paper mills and other industrial sites on the pollution of Yurmala. For a conclusion based on one-sided and limited material cannot be a scientific basis for taking such important decisions as the continued operation or closing down of Sloka.

At this same committee, G. Dankfel'd, the chief technologist of the pulp and paper mill, spoke against the hasty and unjustified closing of it. I admit that at first I thought that he had disgraced his bureaucratic uniform, but having been at Sloka

and seeing on the spot how things are going there, I understood: the chief technologist had grounds for doubting the objectivity of the conclusion reached by the academic committee.

One doesn't have to be a specialist to understand and interpret the beneficial changes that have taken place at the pulp and paper mill, chief among which is the ecological awareness of the local papermakers. The enterprise is implementing the ecological program in good time. At what other mill in the republic is more than 25% of the fixed productive capital allocated to nature conservation? While not a penny was spent here on ecology in the tenth Five-Year Plan, 16.8 million roubles were spent in the eleventh and more than 23 million in the current Plan. New shops equipped with ecologically clean equipment and powerful purification plants have been constructed. In July of this year, the paper-making machines will be cleaned locally and removed for settling and recovery of fibre.

"They are portraying us in the republic as soulless monsters: they are saying that for the sake of profit we will ruin the resort seaside," says M. Peskun, the Chief Engineer of the pulp and paper mill. It is precisely for the sake of the ecology that we have incurred multi-million rouble losses - we have reduced the cooking of pulp, discontinued the production of alcohol, and held up the construction of a new yeast shop, into which heaps of money had already been poured. And this in the face of the fact that Latvia is only 70 per cent self-sufficient in its mixed fodder requirement. The criticism which has been directed against our enterprise is thus a two-edged sword: the collective has earned millions of roubles less, while the economy of the republic has suffered heavy losses.

"Mikhail Antonovich," I asked, "surely the preservation of Yarmala, of the amber Riga seaside, is worth all these expenses?"

"Of course it is worth it!", replied the Chief Engineer and added heatedly in the next breath: "In fact, I would be the first to speak out for the closing of Sloka if I were convinced that it is this mill in particular which is irreparably harming the environment. But that is not the case! Incidentally, several years ago, they were also successful in stopping paper production at the Staitsele mill. They said that salmon fingerlings were dying in Salatsa stream. They dismantled the dam and stopped the machines, all to no effect - the fishes were so diseased that they continued to disappear. It turns out that they were looking for the cause in the wrong place. That is why I say: yes, you can shut down the pulp and paper mill, but first prove, not on an emotional level but with scientific facts, that we are really the principal destroyers of the Yurmala resort.

Alas, it is precisely because they have the facts that our scientists and specialists are unable to prove anything to this day, which is why the specialists of the pulp and paper mill have to go abroad - to Scandinavia for scientific expertise.

Meanwhile, meetings and pickets continue to be in evidence on the streets of Riga and Yurmala, along with ultimatums to shut down the Sloka pulp and paper mill. Dozens of the mill workers have given in to the pressure from the irreconcilable protestors and are leaving. All this while the republic's committee on Latvian industry, into whose

jurisdiction the pulp and paper mill has passed,
remains silent and waits to see what Moscow will
decide.

Lesnaya promyshlennost'

March 21, 1989

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