



FOREST ECONOMICS DEPARTMENT

NEWSLETTER

Editors: Michael Jones and David Cope

Finnish Forest Research Institute, Helsinki, Finland

Kaisaniemenkatu 1, 00100 Helsinki 10

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DEPARTMENTAL PERSONNEL

Head of Department:

Prof. Lauri Heikinheimo

Prof. of Business Economics (acting):

Prof. Lorenzo Runeberg (plastics and wood)

Prof. Emeritus:

Prof. N.A. Osara (Finland's forestry in the world economy)

Research specialist (acting):

Dr. Esko Salo (removal measurement)

Senior research scholarship:

Dr. Matti Palo (forecasting and optimization models)

Researchers:

David Cope (outdoor recreation)

Matti Heikinheimo (standard of living of forest workers)

Jan Heino (social benefits of forests)

Terho Huttunen (wood consumption)

Jouko Hämäläinen (economics of thinning)

Buddhi Jha (Finnish scholarship)

Dr. Michael Jones (land tenure)

Heikki Juslin (consumer behaviour)

Pertti Mikkola (waste wood)

Tatu Ollikainen (capital-equipment costs; fertilization)

Simo Penttilä (nursery economics)

Aarne Reunala (structural change in forest ownership)

Sampsa Sivonen (regeneration economics)

Hannu Vehviläinen (forest labour)

Assistant researchers:

Olli Nissilä (forecasting, optimization, recycling)

Ilpo Tikkanen (promotion of private forestry)

Eeva Virta (assisting Prof. Heikinheimo)

Extra-departmental researchers:

Prof. Seppo Ervasti (forest balance)

Dr. Veli-Pekka Järveläinen (silvicultural behaviour of forest workers)

Heikki Kunnas (forestry in national accounting)

Olli Saastamoinen (social benefits of forests)

Research secretary:

Marja Harmanen

Research assistants, typists and others:

Erkki Berg, Juhani Hongisto, Aune Kankkunen, Anita Korvenranta, Maija Kuusi-järvi, Seija Malinen, Asko Niemi, Rakel Seppälä, Anna-Leena Simula, Brita Sjöstrand, Maija-Liisa Soveri, Kaija Westin

Colloquium

The next meeting of the Departmental colloquium will be at 14.15 on 31st January in the Department's conference room. Prof. Robert Brown from Michigan Technological University in Houghton, Michigan will be leading the discussion. He is an ecologist and is spending a year in Finland on a Fulbright fellowship. The discussion topic will be the biochemical ecology of plants, with particular reference to reindeer lichens. Prof. Brown prepared a short summary of his comments for the Newsletter as follows.

Biochemical Ecology of Plants

We all realize that interchange of biochemical substances takes place in parasitism of plants. The exchange is mostly one way - from host to parasite. As we look at various plants living together, it soon becomes apparent that there is no dividing line between parasitism and symbiosis, but rather representatives of "parasitism" in any degree from no relationship through symbiosis to obligate parasitism can be found. Even cases of mutual antagonism and autotoxicity are sometimes shown. The exchange of biochemicals varies in as many ways as do the relationships just described.

But biochemical relationships go beyond the intimate associations of plants with each other. Materials are washed or leached from leaves of plants by rain into the soil where they may be picked up by the roots of other plants. In addition, biochemical substances are released from the roots of plants and are picked up by other plants. They also may be exchanged through root grafts or, more commonly, through mycorrhizal fungi which are symbionts with several plants.

These biochemical exchanges may be of benefit, of no consequence, or of detriment to the species involved. Considerable research has been done with agricultural crop relationships but little has been done in the more complex forest biochemical relationships. It has been well shown, for example, that many weeds actually stunt the growth of crop plants more by biochemicals released than by competition for light or water or minerals. This biochemical competition may be direct (e.g. a chemical released by species A inhibits species B) or indirect (e.g. a chemical released by species C inhibits nitrogen fixing bacteria associated with plant D and thus inhibits plant D).

My reason for being here in Finland is the study of the last type of relationship. My research indicates that materials released by reindeer lichens inhibit the formation of mycorrhizae on pines and thus inhibit growth of these trees. Other plants may have somewhat similar or quite different influences upon the mycorrhizae.

I believe that it is essential that we find out all types of biochemical relationships, and the chemicals involved, in order that we may better understand forest-tree growth and then apply our knowledge to practical forestry situations.

Forest Economics Outside Finland, IV

As a result of the XVth Congress of the International Union of Forest Research Organizations held in Florida in March 1971, a series of new working groups are in the process of being formed. For those interested, some details of three new working groups are presented below. Membership in IUFRO is not required. Each group will be composed of two types of members: active and interested. As each group is in the formative stages, topic ideas and suggestions concerning the method of approach are welcome. Contact should be taken directly with the leader or deputy leader.

IUFRO Division 4	Planning, economics, management and policy
Subject Group 3	Managerial economics
Working Party 2	Planning systems

No specific terms of reference have been laid down and the method of working is open to suggestion. It has been proposed to hold a joint conference with the planning and control working party of Division 3 (Forest operations and techniques). Stig Andersson of Sweden and Hans Höfle of W. Germany are in charge of this group. In addition, it has been suggested that the working party co-operate with the group concerned with decision theory, which is headed by Gerard Schreuder and Allen Lundgren of the USA.

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IUFRO Division 4	Planning, economics, management and policy
Subject Group 3	Managerial economics
Working Party 3	Decision theory

From discussion it may be possible to arrive at one or two topics of common interest. It would also be possible to work separately on papers of individual interest. A suggestion has been made to make the compilation of a world-wide annotated bibliography on decision theory a major task of this working party.

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IUFRO Division 4	Planning, economics, management and policy
Subject Group 4	Economics at national and international level
Working Party 1	Evaluation of the contribution of forestry to economic development

The growing involvement of foresters and others in matters of economic and social development in developing countries hopefully will make it possible to form a group concerned with reviews and analyses of the actual and potential contribution of forestry (including forest products and other relevant industries) in these countries. The concern is that the topics chosen for study should as far as possible be of relevance to decision makers, whether in forest services, other government institutions, private or other enterprises, or international agencies, and take account

of and generally be aware of the social and institutional aspects of economic change and growth.

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International activities

Scotland. Michael Jones attended the Institute of British Geographers annual conference from 4-7 January. This year the conference was held in Aberdeen.

Nigeria. As a follow up to his trip to Nigeria in April 1971, Prof. Osara has just completed a 10-day visit there. His trip, from 17-26 January, was in connection with a possible programme of Finnish development aid for Nigeria's forestry and forest industry.

Norway. On 21st January, Michael Jones was in Vollebekk at the Department of Land Reallocation and Consolidation of the Norwegian College of Agriculture. The purpose of his visit was to give a seminar (in Swedish) with the title "Land partition on emergent land in western Finland."

Switzerland. From 10-14 January, the Timber Committee of the Economic Commission for Europe sponsored a symposium on Wood as a Competitive and Versatile Material. Prof. Runeberg on January 10th presented a paper to the symposium. It is summarized below.

Wood and Plastics, a General Review

World production of plastics has now reached 30 million tons and the rate of growth represents a doubling of production every 5 years. As far as forest products are concerned, the infiltration of this new material has had both competitive and cooperative effects. The raw-material base of the plastics industry must be considered a safe one, and several trends seem to favour synthetic industries. A virtually unbroken decrease in the price of plastics means that timber's future price level is unlikely to act as a brake on the infiltration of plastics. The competitive aspects are therefore important.

The logical conclusion is "if you can't beat them, join them" and combinations of wood and plastics can in fact be seen in several spheres. For all panels, the change-over to plastic adhesives and plastic coating has resulted in increased utilization possibilities. The share of exterior grades in Finland's plywood exports, for example, has increased during the last decade from 4 % to 30 %. On the basis of weight, plywood now contains 4 % plastic while chipboard contains 7 %.

Wood-plastic composites constitute another important combination category. The main product is parquet blocks with a layer of wood-plastic composite glued to an underlay of untreated wood. The price of wood-plastic composites is about three times that of timber. The market potential of this new product is difficult to estimate, but a theoretical maximum can perhaps be arrived at by considering 100 000 m² per million inhabitants as a reasonable average for developed countries. Other wood-plastic composites are skis, furniture, tool handles, golf clubs and bowling alleys. The development of this sector is at present

relatively slow, with the result that it is hardly likely to affect European imports of tropical timber during the 1970s.

Looser forms of co-operation between plastics and timber also occur. Plastic protective covers for packaged lots of sawn timber are becoming increasingly common and clearly raise the quality of the product in the importing countries.

Of basic importance for the future of forest products is the question of the respective development trends of competitive and co-operative plastics. An investigation covering the whole Finnish forest industry indicated that the share of competitive plastics has grown in the last 5 years. If, however, the products of forest industry's own plastics undertakings are included with the co-operative plastics, then the latter's share of all plastics used in the forest industries has increased from 48 % in 1967 to 62 % in 1971. A significant integration of the forest and plastics industries can thus be pointed to.

As the European timber balance is already markedly negative, it seems that cooperation between the two industries on the widest possible scale represents a natural development. The demand for timber is growing faster than timber output can be increased, and this justifies the use of the raw-material base provided by plastics. The future motto of forestry and forest industry should be "we believe in wood combined with plastics".

New publications

- Heino, Jan. Föryngring med rollplantor. (Regeneration with roll-plants). Skogen, 59:1. Uppsala, 1972.
- " Virkesproduktion - friluftsliv i Oslomarka. (Timber production - outdoor recreation in Oslomarka). Skogsbruket, 42:1. Helsinki, 1972.
- Jones, Michael. Landhöjningen och bebyggelse i Maxmonejden intill 1700-talet. (Land uplift and settlement in the Maxmo district until the 18th century). Historisk Tidskrift för Finland, 56:4. Helsingfors, 1971.
- Hämäläinen, Jouko. Pankkitalletukset ja valtion obligaatit metsänomistajan sijoitusvaihtoehtoina. Summary: Bank deposits and government bonds as investment alternatives for a forest owner. Liiketaloudellinen Aikakauskirja (The Finnish Journal of Business Economics), 20:4. Helsinki, 1971.
- Metsänviljelykustannusten toimikunnan mietintö. Summary: Report of the committee on on the costs of forest planting and seeding. Folia Forestalia, 109. Helsinki, 1971.
- Palo, Matti. Valtion metsäteollisuus- ja metsätalousyritysten koordinointi. Summary: Coordination of State-owned forestry and forest-industry firms in Finland. Folia Forestalia, 126. Helsinki, 1971.
- Simula, Markku. An econometric model of the sales of printing and writing paper. Folia Forestalia, 124. Helsinki, 1971.
- Suomen Virallinen Tilasto - Official Statistics of Finland. XVII A:3. Metsätaloustilastollinen vuosikirja 1970. Yearbook of forest statistics 1970. Folia Forestalia, 130. Helsinki, 1971.

Lectures and seminars

Heikki Juslin gave a talk entitled "Marketing research at the academic level: Choice of building materials for owner-occupied houses" on 27th December. He was speaking at the Helsinki Hotel to a meeting of the Finnish sub-division of the European Association for Industrial Marketing Research.

David Cope has begun a series of informal discussion sessions with the people at Tapio, the Finnish Central Forestry Board. The first meeting was on 20th January and subsequent sessions will be held approximately every three weeks. The aim of the meetings is to provide the Tapio personnel with a chance to improve their spoken English by means of informal discussion on topics dealing with forestry and their work.

Hannu Vehviläinen on 24th January attended a one-day seminar at Työterveyslaitos (the Work-Health Institute). The seminar dealt with ergonomic problems in the mechanization of forest work.

Nils Osara will be given a lecture in the large lecture hall of Porthania at 19.00 on Friday, 28th January. His lecture, "Forest and woodworking industries; role and possibilities," is part of a series of general lectures arranged by Helsinki University, which this term deals with the topic, "What is the future for the developing countries?"

Heikki Juslin is keeping himself busy these days. On 4th February he will be discussing "Goal-oriented planning of teaching programmes" at a seminar on "The development of teaching for the forest examination" to be held in Tvärminne. Then on 15th and 16th February he will be in Tammela at the Forest Ranger School. He will be talking about "The concept of attitude, attitude organization and attitude change" on the 15th and the "Propensity of private forest owners to sell timber" on the 16th.

Personnel changes

Helena Päivinen left the Department at the end of December to begin a course at the Helsinki Secretarial School, the Finnish-language one that Marja Harmanen attended. On her last day here, she agreed to join Buddhi for lunch - they went to Porthania (the cheapest of the Helsinki University cafeterias). Unfortunately for Buddhi, however, she never did yield to his request for a chance to dance with her.

Markku Aho has finished his work for Matti Palo and is now on his own, to find another job and spend more time on his studies.

Simon Parr has brought to a close the English-language work he was doing in the Department during the four months Mike Jones held a research scholarship from the Ministry of Education.

Eeva Virta joined the Department in the beginning of January to assist Prof. Heikinheimo with various of his research projects. She has recently returned from Berkeley, California where she spent 1 1/2 years as a housewife while her husband, Jouko, was studying at the University of California. Her first task is to compile additional information about the MERA plan. The World Bank has requested further details about the programme before it makes a decision on Finland's application for a loan.

Anita Korvenranta began work in the Department on 1972 January. She fills the secretarial vacancy created when Helena left.

Olli Saastamoinen, who works for Prof. Riihinen in the Department of National Economics of Forestry at Helsinki University, has become an extra-departmental member of the team dealing with the social benefits of forests. Olli for the past two years has been studying the land-use alternatives for forestry, recreation and reindeer husbandry in the Saariselkä-Itäkaira region of Lapland.

Scholarships

Matti Palo. The Finnish Academy has awarded a one-year Senior Research Scholarship to Matti Palo. The grant began on 1st January. Matti, however, will remain in the Department and continue his various research projects.

Aarne Reunala. In December, two scholarships were awarded to Aarne Reunala. The Niemi Foundation granted him 1000 mk for use in his study of the structural change in forest ownership. The second grant was 1000 mk from the Eino Saari Fund. Aarne is to use this money for a study trip to France. It seems he really is planning to make such a trip - he has French lessons nearly every day in Metsätalo.

Heikki Juslin. The Niemi Foundation has awarded Heikki Juslin 1000 mk, to be used when he begins his new project on the attitude of consumers to wood and wood products.

Matti Heikinheimo. The Niemi Foundation has also awarded Matti Heikinheimo 1000 mk for use in his investigation of the standard of living of forest workers.

Congratulations!!!

Michael Jones, on 17th January, successfully presented his doctoral thesis in an oral examination at University College London. His thesis was in geography and carries the title "Some responses in human geography to land emergence in the Vasa area, Finland." Subject to official confirmation by the University, he is now the relieved possessor of a Ph.D. degree. In honour of this great occasion, it is planned to have a celebration in the Department's conference room beginning at 16.00 on Friday, 4th February. All Departmental personnel are invited.

Ilpo Tikkanen received his Bachelor of Forestry degree on 20th January. His paper for part of the final examination was connected with the work he has been doing together with Aarne Reunala. Its title is "Metsätälouden edistämistoiminnan kohdistuminen maanviljelijöihin ja metsätilanomistajiin" (Promotion of forestry among farmer and non-farmer forest owners).

Professorship

The Institute has now officially **declared open** the post of professor in business economics, which is now being filled provisionally by Lorenzo Runeberg. Applicants have until 16th February to file their names with the Institute.

Bureaucratic entanglements

The tentacles of bureaucracy have been slowly consolidating their grasp on the Finnish State offices for some time now, but the latest advance has come as a surging surprise attack. It was announced in late November by the Finance Ministry that five State

offices, the Forest Research Institute among them, would in January begin using an accounting system for working time. At first, the model forms and the rather ridiculous explanation were not taken seriously. However, as the end of January approaches and the pile of forms, code lists and instructions grows higher it is beginning to appear that the bureaucratic monster is serious. The trouble is that not only is the system confusing in itself, but the whole affair has been handled in such a haphazard and disorganized manner that everyone is completely bewildered. Any system that requires a plan for number of days sick to be given in advance has got to have something wrong with it. Perhaps the best approach is to follow Terho's advice. He has suggested that everyone, instead of filling out the forms daily, do the whole year at once, by preparing the January form in advance and taking 11 copies of it.

Departmental news

Dave Cope did get married on 17th December; Lasse and Mike can both testify to the fact. Now Dave tells us that his parents will be arriving on 1st February and staying for two-and-a-half weeks.

Marja Harmanen has taken Lasse's advice to heart and has begun studying Russian. She has joined the one-year beginners course at the State Teaching Centre.

Lorenzo Runeberg is also studying at the State Teaching Centre. He has enrolled in an advanced French course.

Michael Jones was elected a corresponding member of the Finnish Geographical Society on 17th December. It is thought to be only the second time that an Englishman has been granted honorary membership of the society.

Departmental alumni

Raili Ivanoff, who was a secretarial trainee in the Department from June to December 1970, has completed her course at the Secretarial College of Helsinki. She received very good marks and has found herself a job at the Finnish Standards Association, where she is secretary to the managing director.

Pirjo Saramäki was in Helsinki 24th to 26th January to take the final examination for her Bachelor of Forestry degree. She says that it was successful. Pirjo worked in the Department as an assistant to Esko Salo and Terho Huttunen from April 1970 to November 1971.

Mauri Miettinen has been elected to Parliament as a representative of the Conservative Party. In 1965, when he was a forestry student, he worked as an assistant to Matti Palo for 6 months.

Murphy's Law

In any field of scientific endeavor, anything that can go wrong, will go wrong. Left to themselves, things always go from bad to worse. If there is a possibility of several things going wrong, the one that will go wrong is the one that will do the most damage.

Thanks to the banks

In view of the Institute's perpetual affliction of shortage of funds, we are very grateful to certain Finnish banks for assistance of a practical nature. Since last November, Pestipankki (Post Office Bank) has taken care of the foreign distribution of the Newsletter, which now amounts to 170. Thanks are also due to KOP (Kansallis-Osake-Pankki), which paid for the English test taken by the Department's personnel last October.