



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 AND RESEARCH GROUPS

Head of Department: Lauri Heikinheimo, MMT
Professor Emeritus: Nils. A. Osara, MMT

GENERAL ECONOMICS

Head: Lauri Heikinheimo, MMT, Prof.

1. FOREST BALANCE

(Seppo Ervasti, Prof.)
Esko Salo, MMT
Terho Huttunen, MH
Juhani Hongisto
Stig-Olof Lillqvist
Mikko Tervo
Erkki Raittila

2.1. SOCIAL ECONOMICS I

Michael Jones, Ph. D.
(Heikki Kunnas, YKK)
Hannu Vehviläinen, MH
Matti Heikinheimo, MH
Eeva Virta, MH
Buddhi Jha, B. Sc.
Brita Sjöstrand

2.2. SOCIAL ECONOMICS II

(Veli-Pekka Järveläinen, MMT)
Aarne Reunala, MH
Ilpo Tikkanen, MH
Jan Heino, MH
David Cope, A. B.
Olli Saastamoinen, MH, VTK
Aune Kankkunen
Asko Niemi

3. ADMINISTRATION

Marja Harmanen
Maija-Liisa Soveri
Maija Kuusijärvi
Rakel Seppälä
Anita Korvenranta
Kaija Westin

BUSINESS ECONOMICS

Acting Head: Lorenzo Runeberg, MMT, P.of.

4. BUSINESS ECONOMICS

Jouko Hämäläinen, MH, Ekon.
Sampsä Sivonen, MH
Simo Penttilä, MH
Tatu Ollikainen, MH
Kari Keipi, MH, MMK

5. MARKETING

Matti Palo, MMT
Heikki Juslin, MH, MMK
Anna-Leena Simula
Antero Mäkinen

Colloquium: Aspects of peatland forestry in Finland

The next meeting of the colloquium will be on Monday, 20th March, at 14.15 in the Department's conference room. Seppo Kaunisto, from the Institute's Department of Peatland Forestry, will introduce the topic.

There are about 10.5 million ha of peat soils in Finland, comprising about one-third of the country's total area. So far, approximately 0.7 million ha have been drained for agriculture and about 3.5 million ha for forestry. The estimated total forest drainage area is around 6.0 million ha, while 3.5-4.0 million ha will be left undrained. The area drained annually reached its peak in the early 1970s, with over 300 000 ha per year. From now on, new drainage will decrease, and will come to an end in the 1980s. However, supplementary drainage, maintenance of drains and repeated drainage at the end of the rotation period will be necessary for as long forest is grown on peat soils. A recent development is the emphasis on the recreational use as well as the conservation of peatland, and large areas are being preserved for these purposes.

Departmental research, 1971-72

A complete list of the Department's publications in 1971 (including mimeographed material and newspaper articles), with English translations of titles supplied where necessary, is appended to this issue of the Newsletter. Also included is a list of the projects in the Department's research programme at the present time. The departmental personnel and research groups are shown on the front cover.

Degree abbreviations:

- MH = Metsänhoitaja (Bachelor of Forestry), University of Helsinki.
- MMK = Maatalous- ja metsätieteiden kandidaatti (Master of Agriculture and Forestry), University of Helsinki.
- MMT = Maatalous- ja metsätieteiden tohtori (Doctor of Agriculture and Forestry), University of Helsinki.
- Ekon. = Ekonomi (Bachelor of Economics), Helsinki School of Economics.
- VTK = Valtiotieteiden kandidaatti (Master of Political Science), University of Helsinki.
- YKK = Yhteiskuntatieteiden kandidaatti (Master of Social Sciences), University of Tampere.

Ph.D. = Doctor of Philosophy, University of London.

A.B. = Bachelor of Arts, Earlham College (Indiana, U.S.A.).

B.Sc. = Bachelor of Science, Patna University (India).

Current research in the Department of Forest Economics

(Supplement to Folia Forestalia, 87)

Project	Project title	Personnel	Date of start	Planned completion date
1.02	Wood consumption, total drain and forest balance in Finland, 1970-1972	Terho Hut-tunen		Continuous
1.03	Share of forest waste wood in total cut	Pertti Mikkola	1966	1972
1.07	Methods used to calculate forest drain in European countries	Esko Salo	1970	1973
1.10	Small sawmills in Finland, 1972	Terho Hut-tunen, Seppo Ervasti	1971	1973
1.11	Calculation of sample size needed for determination of total drain: preliminary investigation for 1975	Esko Salo	1972	1972
1.12 a)	Removal and flow of commercial roundwood by districts in 1970	Matti Palo, Esko Pälä	1971	1973
b)	Accuracy of seasonal statistics on roundwood removal for sale, 1965-1971	Matti Palo, Esko Pakkanen	1971	1972
2.01	Stumpage-price formation	Sampsa Sivonen	1965	1972
2.04	Standard of living of forest workers	Matti Heikinheimo, Aarne Reunala, Lauri Heikinheimo, Martti Lehtinen	1967	1972
2.10	Location of the dwellings of forest workers	Eero Väänänen	1963	1972
2.11 a)	Fragmentation and rationalization of rural land tenure in Finland	Michael Jones	1969	1972
b)	Human responses to land emergence in Finland	Michael Jones	1966	1972
2.12 a)	The forest owner as a grower and seller of timber	Veli-Pekka Järveläinen	1970	1972
b)	Forestry behaviour of non-farm forest owners	Ilpo Tikkanen	1972	1974

2.13	Changes in the structure of forest ownership	Aarne Reunala	1970	1972
2.14	Multiple use of forests			
a)	Land-use alternatives in the Saariselkä-Itäkaira area	Olli Saastamoinen	1969	1972
b)	Relationships between wood production and outdoor recreation	Jan Heino	1971	1973
c)	Recreational development of the Pallastunturi area	David Cope	1970	1972
2.15	Working conditions and earnings of forest-machine operators	Hannu Vehviläinen	1970	1972
2.16	Capital-equipment costs of the forest industry in Finland	Tatu Ollikainen	1971	1972
2.17	The rural labour force in the Finnish development areas	Hannu Vehviläinen	1972	1973
2.18	A stumpage model	Lauri Heikinheimo, Eeva Virta	1972	1973
3.01	Optimization of cutting	Jouko Hämäläinen	1967	1972
3.02	Valuation of forest-owning industrial enterprises	Jouko Hämäläinen	1966	1973
3.04	Profitability of forest planting and seeding	Sampsa Sivonen	1969	1972
3.05	Economic comparison of forest regeneration methods	Sampsa Sivonen	1969	1972
3.08	a) Profitability of forest fertilization in the Nordic countries	Kari Keipi	1971	1972
b)	Forest-fertilization costs	Tatu Ollikainen	1972	1972
3.09	Budgeting of logging	Kari Keipi	1971	1973
3.10	Costs of forest planting and seeding	Simo Penttilä	1971	1973
3.12	Economic and ecological aspects of recycling paper	Matti Palo	1971	1972
4.06	a) The use of plastics in panel products and wood-plastics composites in Finland	Lorenzo Runeberg	1971	1972
b)	The impact of plastics on European forest industries	Lorenzo Runeberg	1970	1973
4.08	The development of world forestry and forest industries seen from the Finnish point of view	N.A. Osara	1968	1972
4.09	Models for short-term forecasting of roundwood removals for sale	Matti Palo	1970	1973

4.11	The family-house builder's choice of building materials	Heikki Juslin	1969	1972
4.12	Attitudes to wood and wood-based products of the family-house builder	Heikki Juslin	1972	1974

MERA-Loan Information Committee

A committee to provide information in connection with Finland's application to the World Bank for a loan to finance the MERA forest-improvement programme was set up by the government on 15th February. The chairman is Rolf Kullberg, from the Ministry of Finance's Department of Economic Research, and the administrative secretary Ilkka J. Autio, from the same ministry's Budget Department. Other members are Seppo Ervasti (Department of Forest-Products Marketing, Helsinki University, also connected with our Department), Lauri Heikinheimo (from our Department), Kullervo Kuusela (from the Forest Research Institute's Department of Inventory and Yield), Kalle Kauttu (Department of Private Forests at the National Board of Forestry), Veikko Palosuo and Tatu Möttölä (Central Forestry Board Tapio), Olavi Linnamies and Juhani Numminen (Central Association of Finnish Woodworking Industries), Elina Rutanen (Central Organization of Agricultural Producers), Annikki Saarela (Ministry of Finance's General Department) and Hjalte Sederlöf (Bank of Finland). Assisting the committee as experts are Yrjö Hassi (Forestry Section of the Central Organization of Agricultural Producers) and Paavo Kotkanen (Ministry of Agriculture and Forestry). The committee has appointed three secretaries: Sampsa Sivonen, from our Department, as research secretary on the forestry side, and Ilkka Puro and Erkki Tassia from the Ministry of Finance. Michael Jones has been appointed English-language editor. The committee has to submit its reports to the Finnish Cabinet by the end of March.

Recent publications

- Aho, Markku. Käymmekö eespäin? (Are we progressing?). Metsänhoitaja, 21:8. Helsinki, 1971.
- Palo, Matti. Metsällisten projektien verkkosuunnittelu. Summary: Planning forestry projects by means of network analysis. Folia Forestalia, 133. Helsinki, 1971.
- Reunala, Aarne. Kestävä pohja horjuu. (The stable foundation is rocking). Metsänhoitaja, 21:8. Helsinki, 1971.

Forthcoming lectures

Finnish Geographical Society. Michael Jones will be giving a lecture entitled "Legal geography as a potential research field" to the Finnish Geographical Society in the Scientific Societies' Building (Snellmaninkatu 9-11) at 19.00 on March 21st. Non-geographers are also welcome to attend.

International visits

Lorenzo Runeberg will be leaving at the end of March on a one-month trip to collect information on the use of plastics in the European forest industries and the influence of plastics on the European wood balance. His trip will take him to West Germany, France and England.

Items received

From the Southern Forest Economics Workers, U.S.A.: So Few News, 4:1 (February, 1972). Mimeographed. Raleigh, N.C. 1972.

Personnel changes

Olli Saastamoinen, who has been an extra-departmental researcher since the beginning of the year, joined us as a full-time employee on March 1st. His project on land-use alternatives in the Saariselkä-Itäkaira area of north-eastern Finland was started at the Department of National Economics of Forestry at Helsinki University in 1969, and now forms a part of the Department's research programme on the multiple use of forests.

Kari Keipi, who left the Department last June to do his military service, is now officially a member of the Department again, beginning on March 1st. As he does not complete his service until May, he has official leave of absence until then.

Erkki Raittila is also back for two or three weeks, starting on March 13th, to help Terho Huttunen with the calculations for the study of small sawmills in Finland in 1972 (not 1971 as incorrectly stated in the last Newsletter). Erkki will return again in the summer for about three months to carry out interviews for the same study.

Sports news

The Institute fielded two teams in the annual ski-ing competition between forestry organizations in Helsinki, held at Luukka on 2nd March. Each team consisted of one man older than 45, two younger men and one woman. Matti Heikinheimo and Matti Palo took part from our Department. The Institute's teams came respectively 3rd and 9th. Ten teams took part in the competition in all.

Several members of the Department have been testing their physical fitness according to Kenneth E. Cooper's Aerobik test, mentioned in the last Newsletter. Lasse Heikinheimo has improved from grade II (poor) to grade IV (good), running 2.1 km in 12 minutes. Matti Palo and Matti Heikinheimo are in grade V (excellent), having each run 3 km in 12 minutes, and Antero Mäkinen is in grade IV.

12-MINUTE TEST (Cooper's test)

Distances, running and walking, in kms covered in 12 minutes

<u>Fitness Category</u>	<u>Age (Yrs.)</u>			
	<u>Under 30</u>	<u>30-39</u>	<u>40-49</u>	<u>50+</u>
I. Very Poor men	1.6	1.5	1.4	1.3
women	1.5	1.4	1.2	1.1
II. Poor men	1.6-2.0	1.5-1.8	1.4-1.7	1.3-1.6
women	1.5-1.8	1.4-1.7	1.2-1.5	1.1-1.4
III. Fair men	2.0-2.4	1.9-2.2	1.7-2.1	1.6-2.0
women	1.9-2.2	1.7-2.0	1.5-1.8	1.4-1.7
IV. Good men	2.4-2.8	2.3-2.6	2.1-2.5	2.0-2.4
women	2.2-2.6	2.0-2.5	1.9-2.3	1.7-2.2
V. Excellent men	2.8+	2.6+	2.5+	2.4+
women	2.6+	2.5+	2.3+	2.2+

Working Saturday

Saturday, 8th April, will be a working-day to make up for the holiday on Easter Monday.

Departmental news

Tammela. Heikki Juslin was again at the Forest Ranger School in Tammela on 14th and 15th March. As in February, his topics were "The concept of attitude, attitude organization and attitude change" and "The propensity of private forest owners to sell timber".

Chile. Tatu Ollikainen has been accepted for the position of associate expert in the field of forest-industries statistics by the FAO/ECLA/UNIDO Forest Industries Advisory Group for Latin America. He will be leaving at the beginning of June to take up his new position in Santiago, Chile. His duties will consist of assisting the Group's Pulp and Paper Industries Expert in the preparation of annual pulp and paper capacity surveys, and in the collection of statistics on production, trade and raw-material resources. The project forms part of the UN Development Programme of Technical Assistance, and the appointment is initially for two years, with the possibility of extension. As an associate expert, Tatu will receive his salary from the Finnish government. The Advisory Group was established in 1955 and, under the technical supervision of the FAO Forestry Department and in collaboration with the ECLA Industrial Development Division, advises governments, financial organizations and private companies in matters concerning the development of forest industries in Latin America. The Group also collects production, consumption and trade statistics in forest products, ^{and} prepares surveys on specific matters in the field of forest industries and their development.

Sympathy

It was a great shock to the whole Department to hear of the death of Aarne Reunala's wife. We extend our deepest sympathy to Aarne and his young daughter.

Publications of the Forest Economics Department in 1971

- AHO, MARKKU. Me ja meidän organisaatiomme (Our organization and us). Metsänhoitaja, 21:6. Helsinki, 1971.
- " Käymmekö eespäin ? (Are we progressing ?). Metsänhoitaja, 21:8. Helsinki, 1971.
- HEIKINHEIMO, LAURI. Koulutuksen tasot ja linjat (Educational standards and trends). Metsänhoitaja, 21:1. Helsinki, 1971.
- " Eino Saari in memoriam. Metsä ja Puu, 1971:5. Helsinki, 1971.
- " Planning and programming for wood production. Forestry Studies Congress, 21.9.1971. Mimeographed. Tuomarniemi, 1971.
- " Planning for the supply of labour. Planning Center for International Development in Forestry and the Wood-using Industries. Mimeographed. Kotka, 1971.
- " Metsätyövoima muuttuvassa yhteiskunnassa (The forestry labour force in a changing society). Puunkorjuun rationalisointipäivät Jyväskylässä 18. - 19.11.1971. Metsäteho, 18.11.1971. Mimeographed. Jyväskylä, 1971.
- " Vaihtoehtolaskelmien peruskäsitteet ja -menetelmät koko kansantalouden kannalta. (The basic concepts and methods of choosing among alternatives from the viewpoint of the national economy). Suomen Metsänhoitajaliitto Jatkokurssi, XI/1971. Mimeographed. Helsinki, 1971.
- HUTTUNEN, TERHO. Puunkäyttötutkimukset - mitä ne ovat ? (Research into wood consumption - what is it ?) Metsäliiton Viesti, 22:3. Helsinki, 1971.
- " Who's who in the Nordic Forest Economics Seminar. Published by the Forest Economics Institutions in Denmark, Finland, Norway and Sweden. Helsinki, 1971.
- " Suomen puunkäyttö, poistuma ja metsätaso vuosina 1969-71. Summary: Wood consumption, total drain and forest balance in Finland in 1969-71. Folia Forestalia, 127. Helsinki, 1971.
- HÄMÄLÄINEN, JOUKO. Pankkitalletukset ja valtion obligatiot metsänomistajan sijoitusvaihtoehtoina. Summary: Bank deposits and government bonds as investment alternatives for a forest owner. Liiketaloudellinen Aikakauskirja, 20:4. The Finnish Journal of Business Economics. Helsinki, 1971.
- " Vaihtoehtolaskelmien peruskäsitteet ja -menetelmät yrityksen näkökulmasta (The basic concepts and methods of choosing among alternatives seen from the point of view of an enterprise). Suomen Metsänhoitajaliitto. Jatkokurssi, XI-XII/1971. Mimeographed. Helsinki, 1971.
- JONES, MICHAEL. Landhöjningen i Zachris Topelius ögon (Land uplift through the eyes of Zachris Topelius). Österbotten 1971. Skrifter utgivna av Svensk-Öst erbottniska Samfundet, 26- Årsbok, 16. Vasa, 1971.
- " Landhöjning 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.

- JONES, MICHAEL. Tillandning, ägotvister och fritidsbebyggelse i Vasa skärgård (Emergent land, ownership disputes and recreational development in the Vasa archipelago). Nordenskiöld-Samfundets Tidskrift, 31, Helsingfors, 1971.
- " Modern Denmark in historical perspective. Terra, 83:2. Helsinki, 1971. (Book review).
- JONES, MICHAEL, & DAVID COPE (editors). Forest Economics Department Newsletter, 14 (20.1.1971), 15 (11.2.1971), 16 (4.3.1971), 17 (25.3.1971), 18 (21.4.1971), 19 (5.5.1971), 20 (8.9.1971), 21 (7.10.1971), 22 (11.11.1971), 23 (9.12.1971) Mimeographed. Helsinki, 1971.
- JÄRVELÄINEN, VELI-PEKKA. Factors influencing silvicultural activity. A study of the influence of attitudes, individual farm backgrounds, and regional conditions on the silvicultural activity of forest owners in Karstula and Jämsä, Finland. Tiivistelmä: Metsänhoidolliseen toimintaan vaikuttavat tekijät. Tutkimus asenteiden, tilakohtaisten taustaedellytysten ja alueellisten edellytysten vaikutuksesta metsänomistajan metsänhoidolliseen toimintaan Karstulassa ja Jämsässä. Communacationes Instituti Forestalis Fenniae, 73:2. Helsinki, 1971. (Doctoral dissertation).
- " Vähäsen faktorianalyysistä. Summary: Some aspects concerning the use of factor analysis. Silva Fennica, 5:3. Helsinki, 1971.
- JUSLIN, HEIKKI. Perheenjäsenten roolit rakennusmateriaalien valinnassa (The roles of family members in the choice of building materials). Sahamies, 23:4. Helsinki, 1971.
- " Kaupallisen metsätutkinnon opetuksen yleinen rakenne (The general structure of teaching for the Commercial Forest Examination). Metsäylioppilas, 1971:3. Helsinki, 1971.
- KEIPI, KARI. Lannoitus ja puun laatu (Fertilization and wood quality). Suomen Puutalous, 1971:4. Helsinki, 1971.
- KUNNAS, HEIKKI. Forestry in national accounts. Tiivistelmä: Metsätalouden kansantulo-osuuden laskenta. Folia Forestalia, 121. Helsinki, 1971.
- KUOKKANEN, PENTTI. Tuotevalinta taimitarhoilla (Product selection in forest nurseries). Metsä ja Puu, 1971:1. Helsinki, 1971.
- " Metsänviljelytaimien kasvatuskustannukset vuosina 1969 ja 1972. Summary: Costs of growing forest-tree seedlings in nurseries in 1969 and 1972. Folia Forestalia, 122. Helsinki 1971
- METSÄNTUTKIMUSLAITOS. Metsäekonomian tutkimusosasto 1970-1976 (The Forest Economics Department 1970-1976). Mimeographed. Helsinki, 1971.
- METSÄNVILJELYKUSTANNUSTEN TOIMIKUNNAN MIETINTÖ. Summary: Report of the Committee on the Costs of Forest Planting and Seeding. Folia Forestalia, 130. Komiteamietintö, 1970: B 91. (Committee work by Lauri Heikinheimo, Tapio Korpela, Kullervo Kuusela, T.A. Ranta, Esa Timonen, Pekka Witikkala, Tatu Möttölä and Sampsa Sivonen). Helsinki, 1971.

- NUMMINEN, JUHANI. Puulevyjen käyttö Uudenmaan talousalueella v. 1967 valmistuneissa rakennuksissa. Summary: The use of wood-based panels in buildings completed in 1967 in the Uusimaa Economic Region. Folia Forestalia 123. Helsinki, 1971
- OSARA, N.A. Metsähallinnon uudistaminen (The reorganization of forest administration) Metsäylioppilas, 1971:1. Helsinki, 1971.
- OSARA, N.A. & KORJA, PENTTI. Nigeria: forest industries development plan. A proposal for a study project. Ministry for Foreign Affairs in Finland, Bureau of Technical Assistance. Mimeographed. Helsinki, 1971.
- PALO, MATTI. A systems-oriented frame model for planning research projects in forestry. Tiivistelmä: Metsällisen tutkimusprojektin suunnittelun systemiteoreettinen kehysmalli. Communications Instituti Forestalis Fenniae, 72:4. Helsinki, 1971.
- " Raakapuun ostajien luettelointi jälleen käynnistetty. (Listing of roundwood buyers recommenced). Metsälehti, 1971: 9. Helsinki, 1971. (Newspaper article).
- " Metsätalouden tavoiteongelma (Dynamics of goal-setting in forestry). Metsä ja Puu, 1971:9. Helsinki, 1971.
- " Valtion metsäteollisuus- ja metsätalousyritysten koordinointi Summary: Coordination of State-owned forestry and forestry-industry firms in Finland. Folia Forestalia, 126. Helsinki, 1971.
- " Metsällisten projektien verkkosuunnittelu. Summary: Planning forestry projects by means of network analysis. Folia Forestalia, 133. Helsinki, 1971.
- PALO, MATTI, & JAN HEINO. Metsäseutujen kaavoitusongelmien ratkaisumallit (Problems in combining regional planning and forestry). Metsä ja Puu, 1971:9. Helsinki, 1971.
- REUNALA, AARNE. Ammattikunta ja yhteiskunta (Profession and society). Metsänhoitaja, 21:5. Helsinki, 1971.
- " Mitä tiedämme metsänomistuksen rakennemuutoksesta (What we know about the structural change in forest ownership). TEHO, 1971:10. Helsinki, 1971.
- " Kestävä pohja horjuu (The stable foundation is rocking). Metsänhoitaja, 21:8. Helsinki, 1971.
- " Metsänomistusrakenteen muuttuminen ja sen vaikutus harjoitettavaan metsäpolitiikkaan. (Changes in the structure of forest ownership and its influence on the carrying-out of forest policy). Metsäpolitiikan seminaari, 13. - 16.4.1971, Viikki. Mimeographed. Helsinki, 1971.
- " Metsänomistuksen rakennemuutos ja sen merkitys. (Structural change in forest ownership and its significance). Metsäyömiesten täysistunto, 10.9.1971. Mimeographed. Joensuu, 1971.
- " Human resources in developing forestry production. Forestry Studies Congress, 21.9.1971. Mimeographed. Tuomarniemi, 1971.

- RUNEBERG, LORENZO. Plastics as a raw-material base for the paper industry in Finland. Tiivistelmä: Muovit paperiteollisuuden raaka-aineena Suomessa. Folia Forestalia, 119. Helsinki, 1971.
- SALO, ESKO. Hakkuupoistuman määrittely metsälöytöksestä. Summary: Determination of drain from fellings by a sample of forest units. Communicationes Instituti Forestalis Fenniae, 72:5. Helsinki, 1971. (Doctoral dissertation).
- " Polttopuun käyttö vähenee (The consumption of fuelwood is decreasing). Metsä ja Puu, 1971: 9. Helsinki, 1971.
- SALO, ESKO, & RISTO SEPPÄLÄ. Kiinteistöjen polttoraakapuun käytön väli-inventointi vuosina 1969/70. Summary: Fuelwood consumption on farms and in buildings, intermediate inventory, 1969/70. Folia Forestalia, 120. Helsinki, 1971.
- SIMULA, MARKKU. An econometric model of the sales of printing and writing paper. Folia Forestalia, 124. Helsinki, 1971.
- SIVONEN, SAMPSA. Havusahapuun kantohinnan pääsuuntainen kehitys Suomessa vuosina 1920-1967 (The development trend of the price of coniferous saw logs in Finland, 1920-67). Folia Forestalia, 130, Liite 5. Helsinki, 1971.
- " Etelä-Suomen hoidettujen männiköiden ja kuusikoiden kehityssarjat ja niiden yhdenmukaisuus (Development series for managed pine and spruce stands in South Finland, and their congruity). Folia Forestalia, 130, Liite 7. Helsinki, 1971.
- " Suomen eteläpuoliskon keskimääräisten nykymetsiköiden kehityssarjojen koostaminen (The compilation of development series for average current stands in southern Finland). Folia Forestalia, 130, Liite 9. Helsinki, 1971.
- " Metsikön keskiläpimittaan perustuva puuston ja poistuman hinnoittelumenetelmä ja siihen perustuvat hakkuutulolaskelmat (Determining the value of the growing stock and removal by means of the mean diameter of the stand, and the cutting-income calculations based on this method). Folia Forestalia, 130, Liite 10. Helsinki, 1971.
- " Metsikön perustamisen vaihtoehtolaskelmat (Economic calculations for choosing methods of forest-stand improvement). Suomen Metsänhoitajaliitto. Jatkokoulutuskurssi, XI-XII/1971. Mimeographed. Helsinki, 1971.
- TAMPEREEN SEUTUKAAVALIITTO. Tampereen seutukaava-alueen metsätalouden työvoiman ennuste. (Forestry labour-force forecast for the Tampere regional-planning area). Julkaisu B 18. (Report by Lauri Heikinheimo and Jan Heino). Mimeographed. Tampere, 1971.
- TIKKANEN, ILPO. Uusia ongelmia edistämistyölle? (Now problems in forestry promotion?). Metsälehti, 1971:22. Helsinki, 1971. (Newspaper article).
- " Metsätalouden edistämistoiminnan kohdistuminen maanviljelijöihin ja metsätilanomistajiin (Forestry promotion among farmers and non-farmer forest owners). Mimeographed. Helsinki, 1971. (Laudatur work for Bachelor of Forestry degree).

- VEHVILÄINEN, HANNU. Metsätyömiesten moottorisahakustannukset 1969-1970. Summary: Power-saw costs of forest workers in 1969-1970. Folia Forestalia, 106. Helsinki, 1971.
- " Metsätyömiesten moottorisahakustannukset 1969-70 (Forest workers' power-saw costs, 1969-70). TEHO, 1971:10. Helsinki, 1971.
- " Ennakkotietoja metsäkoneiden kuljettajien ja käyttäjien ansiotasoa ja olosuhdetutkimuksesta (A preliminary investigation of the working conditions and payment of drivers of forest machinery). Metsäkoneurakoitsija, 1971:9. Helsinki, 1971.
- VIRTA, JOUKO. Yksityismetsänomistajien puunmyyntialttius länsi-Suomessa vuonna 1970. Summary: Timber-sales propensity of private forest owners in western Finland in 1970. Folia Forestalia, 114, Helsinki, 1971.

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