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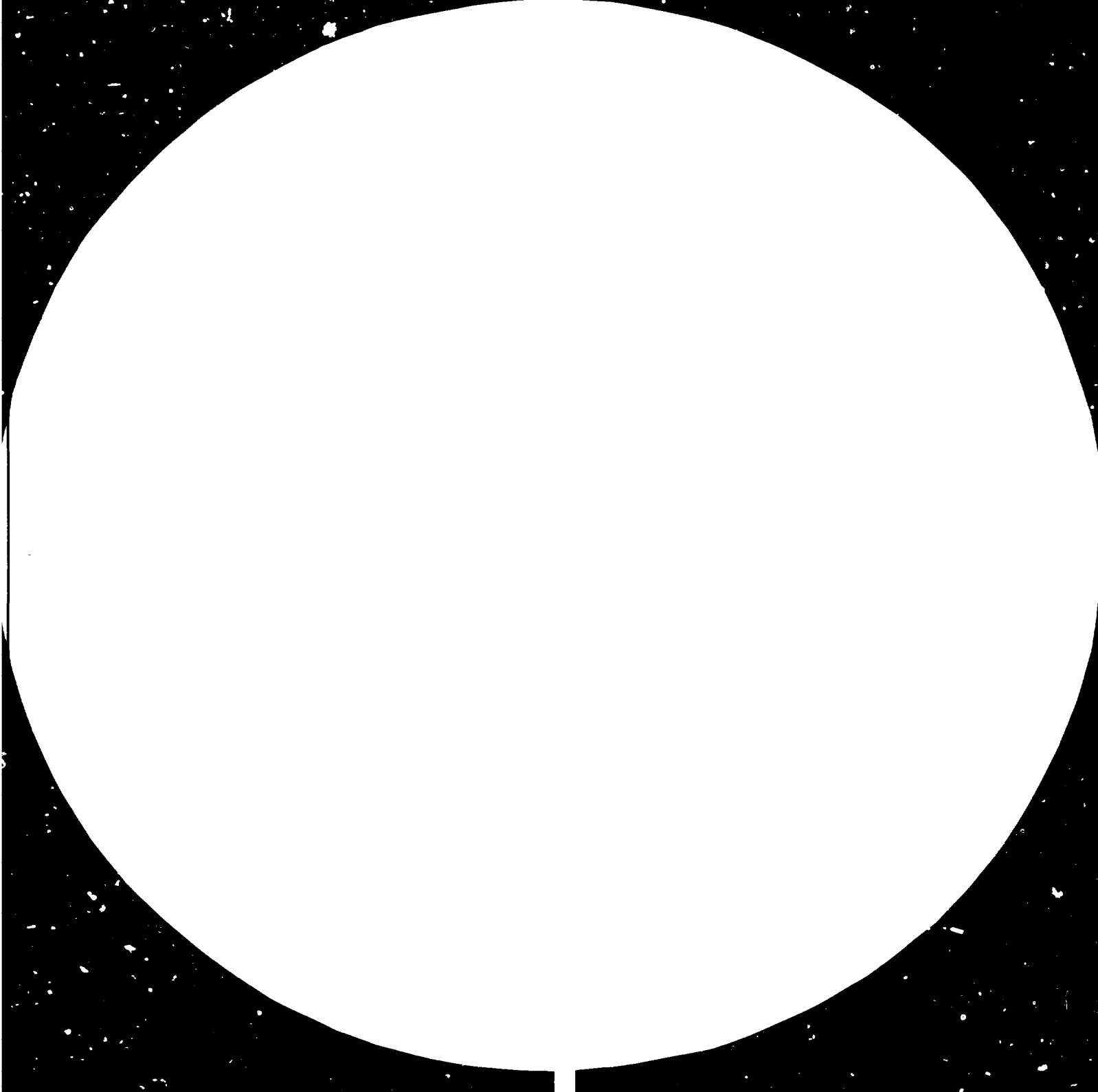
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REPORT ON THE SEMINAR ON FURNITURE AND JOINERY INDUSTRIES \*

Held in Lahti, Finland 4 to 23 August 1980

by

Antoine V. Bassili  
Senior Industrial Development Officer  
Agro Industries Branch  
Division of Industrial Operations

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1. Purpose of the mission:

A staff member of the Agro Industries Branch, of the Division of Industrial Operations, Mr. Antoine V. Bassili, went to Finland to attend and help conduct the ninth UNIDO Seminar on Furniture and Joinery Industries which was held in Lahti, Finland, from 4 to 23 August 1980.

2. Attendance:

UNIDO had selected 30 participants to attend the Seminar. A total of 29 candidates attended the Seminar at UNIDO's expense, the candidate from Egypt did not attend, and no notification reached UNIDO. One more person, Miss Heng Li Huan from Singapore, attended the Seminar at her own expense. The list of participants is given in Annex I (UNIDO Document ID/WG.323/10). All the participants arrived on the day preceding the opening day as foreseen.

3. Participants:

The group was homogenous and as good as any of the previous years. All the participants except two - or possibly three - were of a high technical level. (This opinion was shared by the Finnish Director of the Seminar, Mr. Petka Paavola).

All participants were keen on getting as much information as possible out of the lecturers, visits and demonstrations and did so continuously. None had any difficulty in expressing himself in English.

This is the ninth such Seminar that UNIDO has organized in collaboration with the Government of Finland, and we have by now a clear idea of the level of participants to be expected in any country. If the Seminar will be held again next year - and I strongly believe it should - then we are confident that our selection criteria will be further refined leading to an even better group of participants, provided



that governments will nominate the right sort of candidates, i.e. people from industry holding responsible managerial positions.

The response UNIDO has received for the nine Seminars is such that it can be repeated for more than three years merely by inviting only those participants nominated in the first nine Seminars who would have qualified if more places were available. In the nine Seminars held so far 235 participants and observers have attended but a total of 316 would have qualified out of the 592 nominated. Details are given in Annex II. This year, participants from 22 countries attended the Seminar. In the nine Seminars held so far, participants from 54 different countries have attended.

We have noted that as the Seminar (and UNIDO) is becoming better known by the furniture industries of the developing countries some governments have increasingly nominated industrialists, and persons capable of making a direct impact upon their return, and have refrained from nominating teachers or researchers (or bureaucrats) while others have continued to nominate civil servants. Because of the good response we have had so far, we were able to restrict our selection to the former category who would stand to benefit far more from attending the Seminar.

#### 4. Programme of the Seminar:

The programme of the Seminar is given in Annex III. It consisted of 59 hours (56%) of lectures, 9 hours (8%) of demonstrations in the Laboratories of the Lahti Institute of Technology, 22 hours (21%) of plant visits, 3 hours (4%) on background information, opening ceremonies and administrative matters, 7 hours (7%) of panel discussions and 12 hours (11%) of presentation of Seminar assignments.

The lectures were all of the appropriate standard. whenever appropriate they were complemented with practical demonstrations in the laboratories of the Lahti Institute of Technology. On the last day, a possibility was given to participants to visit factories

of particular importance to them. They could choose any two from among the following:

- Production of rigid plastic shells for upholstery (5)  
(Kosofinn Oy) <sup>1/</sup>
- Production of plywood (W. Schaumann Oy) (3)
- Production of metal components for furniture (Mantere) (4)
- Manufacturer of equipment for wood based panels (Raute) (6)
- Manufacture of prefabricated wooden houses (Rauma Repola) (3)
- Showroom of a woodworking machinery importer (Penope Oy) (7)

The majority of the participants (18) however chose to attend a three hour demonstration of surface finishing for small plants, given by Mr. Kaarlo Ilonen at the Vocational Training School.

The author gave a one hour lecture one evening on the work of UNIDO (with special reference to the wood-processing industries) and a two hour lecture on selection of woodworking machines for developing countries. Both lectures were well received. Two films, on quality control of furniture and selection of material for upholstery, were obtained and shown to participants. Both were highly appreciated. A set of slides on a solar kiln developed in Costa Rica was shown, and a lecture, based on a publication describing it, was given.

#### 5. Documentation:

The participants were given the revised and edited text of a selection of the lectures presented at the first two Seminars (UNIDO document ID/108/ Rev. 1) totalling over 380 printed pages. These were complemented by the text of lectures not yet in this UNIDO publication which were handed out to them (for details see below).

Each participant had to prepare a country paper, which will be reproduced and serve as background material. Other background material consisted of seven of UNIDO's guides to sources of information (UNIDO LIB/SER.D/4, 6, 9, 18, 31, 35, and 37), a study on the production of wooden houses (ID/61), one

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<sup>1/</sup> Numbers in brackets refer to number of participants.

on low-cost automation ID/154), thirteen relevant studies prepared for the Technical Meeting on the Selection of Woodworking Machines (ID/WG.151/4-9, 14, 25, 27, 30-32, and 37), the report of that meeting (ID/133), nine relevant studies prepared for the Workshop on Woodworking (ID/200/1, 3-8, 9 and 11) and the UNIDO Portfolio of Wood Processing Technologies (IOD/240/Rev. 1) and texts of the lectures given not included in ID/108 Rev. 1 (namely ID/WG.256/26, ID/WG.302/1 and 3 and ID/WG.323/1 and 2). Also given to the participants were the UNIDO publications "Production Technology for the Use of Wood in Housing Under Conditions Prevailing in Developing Countries" (ID/10), "Wood as a Packaging Material in Developing Countries" (ID/72) and "Production of Panels from Agricultural Residues" (ID/79).

The following books were also purchased out of UNIDO funds and distributed to the participants:

- 1) Dry Kiln Operators' Manual, (United States Department of Agriculture - Agriculture Handbook No. 188);
- 2) Wood Finishing, Robert W. Collier (Pergamon Press);
- 3) Furniture Literature, Patricia Bristow (Furniture Industry Research Association);
- 4) Method Study in the Furniture Industry, Richard P. Glossop (Pergamon Press);
- 5) Health and Safety at Work No. 41 - Safety in the Use of Woodworking Machines (Department of Employment, H.M.S.O.), London;
- 6) Production Planning and Control (National Economic Development Office, H.M.S.O.), London.

6. Seminar Library:

Some relevant books, catalogues of equipment, etc. were shipped by UNIDO to Lahti and use was also made of the books in English at the Lahti Institute of Technology's Library, and those purchased for the Seminar from the Ministry for Foreign Affairs' funds and a "Seminar Library" operated during the entire Seminar. Participants made full use of it, mainly through browsing through the books and catalogues during teh breaks, but some participants borrowed books regularly.

Photocopies of articles of special interest to the various participants were made available upon request. Interest was also shown in the UNIDO portfolio of wood processing technologies, the aims of which were explained to participants.

7. Seminar Assignments:

At the beginning of the Seminar, the participants were requested to indicate their interest in the following main fields:

(1) Product development and technical product design	(5)
(2) Value analysis	(8)
(3) Production planning	(10)
(4) Quality control operations	(2)
(5) Design of jigs	(3)
(6) Plant layout	(15)
(7) Selection of machines	(6)
(8) Low-cost automation	(3)
(9) Tool and machine maintenance	(0)

- (10) Marketing (3)
- (11) Monitoring the performance of a dehumidifier type kiln (6)

The number in brackets indicates the number of participants in each group and also reflects their relative interest in the various topics. One or two discussion leaders were nominated for each group to co-ordinate the work and present the conclusions except in the cases of production planning for which six participants were selected. Each group was allocated about one to one and a half hours to do so.

The assignment on value analysis was extremely well prepared by the group, who not only prepared a full set of overhead projector transparencies, but actually made a full scale model of the chair as modified by them in corrugated board to show better the changes they proposed. This presentation was followed by a lively discussion.

For that on quality control operations, the group explained in detail what the procedures for determining quality control should be, but did not go into the design of the jigs.

The topic on design of jigs was fully covered and innovative suggestions made.

The presentation on export marketing was sound. That on marketing for the local market was below expectation.

For the assignment on plant layout, the group worked out the proposed layout for a plant producing furniture in Singapore. The group leader, a graduate industrial engineer, went into topics other than direct plant layout, but his presentation was excellent and kept the group interested.

From the presentation by the group covering production planning, it was obvious that they fully understood the process, but they did not go to the depth and thoroughness of the group of last year.

Participants interested in product development and technical product design actually designed a complete set of furniture for a hotel suite. The designs presented were of acceptable quality, but they did not go to the depth of similar presentations some years ago.

The presentation by the group covering selection of machines was up to the expected standard.

That covering low-cost automation was among the best presented this year.

Finally, one group monitored the performance of a dehumidifier type kiln drying 5 m<sup>3</sup> of steamed unedged beech. Their thorough work and presentation resulted in opening the eyes of all concerned on the merits and limitations of this type of equipment.

Audio visual aids were used extensively in the presentations, and the author brought back most of the overhead projector films.

Work on the assignments started early and was keenly pursued - even during week ends - by all concerned and the standard was quite high.

In preparing the assignments numerous discussions were held among the participants. In all cases audience participation and discussions were keen. It was obvious from the presentations that the participants had put long hours into preparing their assignment work.

Further details on the topics of the assignments are given in Annex IV.

8. Administrative matters:

Local arrangements: The Finnish organizers maintained high standards and had thought of practically everything in advance. Everything was efficiently carried out.

Financial matters: Because of the increase in air fares between the time when the project was approved and the time the Seminar was held, funds allocated for travel were insufficient to grant each participant the voucher (MCO) for 10 kgs excess baggage for the return trip.

The financing of the Seminar was secured from UNIDO Regular Programme funds. The UNIDO contribution totalled US\$ 80,650. It covered the cost of transport for 29 participants, course teaching material and the travel and per diem of the UNIDO staff member as well as other miscellaneous costs.

Furthermore, an observer, from Singapore attended the Seminar at no cost either to the Government of Finland or to UNIDO.

The Government of Finland's contribution totalled FM 226,000 (US\$ 61,920 approximately). The detailed breakdown of both budgets is given in Annex V.

The increase of the UNIDO budget over that of last year was 35.5 percent, and that of the Government of Finland's budget was 11.9 percent (on the costs expressed in Finnish marks) and 18.0 percent (on the current values expressed in US\$), whereas the respective shares of the Government of Finland and UNIDO were 46.9 and 53.1 percent respectively in 1979, the corresponding figures for 1980 were 43.4 and 56.6 percent respectively.

Documentation: UNIDO documents were shipped in advance and arrived in time for the Seminar. Books to complement these were ordered (and arrived) in time, except for one (on kiln drying of timber) that was out of print. A replacement was ordered as soon as UNIDO was notified of this, and arrived during the Seminar.

As soon as the candidates had been selected and even before they were formally notified, the author arranged that a copy of the document containing the vast majority of the lectures (document ID/108 Rev.1) be pouched to them to enable them to study it before their arrival in Finland and thus allow more time for discussions.

These documents actually left Vienna on 17 July 1980 but upon checking with the participants upon their arrival the participants from the following countries had not received them at the time of their departure, i.e. about 16 days later: Argentina, Bangladesh

Colombia, Jordan, Singapore, Thailand. This meant that since some 10 of the 30 participants were not familiar with the texts, they were thus presented at greater length than it was hoped to be able to do, resulting in less time being left for discussions.

Travel arrangements: a tentative reservation was made in time for all participants to arrive on the same flight and proceed to Lahti directly - as in previous years, and all except one participant arrived in time to take the special bus to Lahti.

Due to an apparent misunderstanding by the UNDP office in Amman, the participant from Jordan was only issued a ticket covering Amman/Frankfurt and return. He had to purchase, from his own funds, the portion Frankfurt/Helsinki return, and UNIDO arranged with the Seminar Director that this sum be paid to him in Finland and then billed to UNIDO.

It was originally intended that each participant will be given an MCO for 10 kgs excess baggage from Helsinki to his home town to enable them to take with them the documentation. Due to the increase in air fares, the total budget allocation for travel barely covered the cost of the air fares proper, and it was not possible to issue this MCO. Arrangements were made for documents to be posted by the participants prior to their departure from Lahti.

The participant from Kenya handed over to the author his air ticket with the return coupons (Helsinki/Frankfurt/Nairobi) unutilized, since he will be attending another course in Finland and his return ticket will be financed by the Finnish authorities, as agreed with UNDP in Nairobi. This ticket was passed on to Financial Services for reimbursement by UNIDO.

9. Press coverage:

The Finnish press gave ample coverage to the Seminar on the opening day the local paper having an article and a photo, and again on the last day.



Copies of press clippings were sent to UNIDO's Information Services.

10. Evaluation:

UNIDO's forms for the evaluation of the Seminar (entitled "Evaluation of in-plant group training programmes") were handed over to all the 29 participants on 18 August and collected, duly filled out by them on 21 August. The replies were compiled and the detailed compilation is given in Annex VI. It is quite clear from the replies that the course's contents meets the needs of the participants, that of the group selected was homogenous, and that that the local arrangements were deemed by all to be satisfactory. It must also be pointed out here that the positive attitude of the management of the factories (both during panel discussions and during the visits) were greatly appreciated by all the participants.

During the meeting he had with Mr. David Johansson, Assistant Director of the Department for Economic Co-operation with developing countries (see item 4 of "12. Other business" below), on 21 August 1980, the author mentioned the desire of UNIDO to see this course repeated over the next few years and that an agreement to that effect could be reached with the Finnish authorities.

11. Assessment of the Programme:

All lectures were of the expected standard and depth. As in every year, those given by Mr. P. Paavola were the most popular; this being due to his experience as a teacher, his knowledge of conditions in developing countries, and the interest he shows in making the course a success.

Its success rests to a large extent on his efforts, by the time taken by persons from industry to participate as lecturers, members of panels, and to open their factories.

Another very popular lecture was that on Value Analysis given by Mr. Arto Juva.

The lecture on low-cost automation was an eye-opener to many participants.

Once again the demonstration on simple surface finishing was so popular that it may be justifiable to include it for all participants, if time permits it. Some participants who selected it felt however that the demonstration was too basic.

All administrative arrangements were excellent.

12. Other matters:

1. The author discussed with the participants from Colombia, China, Malta, Jordan, Singapore and the Philippines possible assistance UNIDO could provide to their furniture industry.

2. On 7 August the author travelled to Helsinki to meet with Mr. Markku Laamanen of the Department for Economic Co-operation with Developing Countries, Ministry for Foreign Affairs. The follow-up to the Meeting to Promote Co-operation between Finland and Selected Developing Countries in the Development of the Metal Working and Wood Processing Industries; held in Helsinki from 21 to 25 May 1979 (Project Reference No.: US/RAS/78/254/ Rev. 1) was discussed.

A separate note for the file was prepared on this meeting.

3. Mr. Vesi-Mies Vesihäisi, of Messrs. Jaakko Pöyry Oy, was briefed by the author on 19 August prior to leading the team that will undertake a feasibility study for a door and furniture factory for Messrs. Vintawood in the Philippines.

A separate note for the file was prepared.

4. The author discussed with Mr. Paavola, the Seminar Director, and one of the lecturers (Mr. Arto Juva) the need for a course to complement the present seminar, which would cover purely management considerations. Certain topics would be deleted from the present seminar, since it was felt by both the participants and the organizers that the programme had become over the years too hectic.

Mr. Juva suggested that this idea be discussed with some of his colleagues in the "Helsinki Consultants" Management Consulting Firm. A meeting was arranged and he and Mr. Paavola on 19 August met with Messrs. Reino Routamo, Juhani Salovaara and Pekka Mannio of the Helsinki Management Consulting Company. The idea was explained to them and they agreed with the usefulness of such a course and to assist in preparing material to give lectures and to conduct discussions if requested to do so. It was agreed therefore to bring up the matter at the forthcoming meeting with officials from the Ministry for Foreign Affairs.

A tentative outline for a three week course was handed over by the author, and Messrs. Juva and his colleagues subsequently made certain suggestions. These have been incorporated in the proposed programme given in Annex VII.

5. The author attended a meeting on 21 August 1980 at the Ministry for Foreign Affairs of Finland which was convened by Mr. David Johansson, Assistant Director at the Department for Economic Co-operation for Development. Ms. Taina Teraväinen, Head of the Education Section; Ms. Carita Wikström, the programme Officer-in-Charge of the seminar and Mr. Pekka Paavola, Director of the seminar also attended.

The seminar was reviewed, the author stated that UNIDO was very satisfied with the impact it had made, its usefulness and its popularity. He felt that in view of the above facts it was time to abandon, after 9 years, programming it on an ad hoc basis, and repeating it on a longer-term basis. This would enable further improvements such as introduction of video-tape audio visual methods for certain lectures, updating the UNIDO publication, improving the library, etc.

It was his considered opinion that the time had come to develop a new course covering production management aspects in the furniture industry, which would complement the present one, and which could primarily be aimed at the 235 former participants of the present course. Such a course had been discussed with some Finnish management consultants and met with their approval (see the "Helsinki Consultants" mentioned above).

Another alternative would be to repeat the present seminar two times a year, so as to cater to the specific needs of the less developed countries of Africa. In this respect he mentioned that two African participants at this year's seminar were definitely below the expected standard. This second alternative, however, was less appealing than the course on production management since courses for participants from the lesser developed countries could be held at the country level to better fulfill specific needs of these countries or regions.

Finally he drew the attention of the officials in the Ministry that the recent rapid increase in air fares resulted in an increased share in UNCTAD's contribution to the seminar and hoped that means will be found to increase Finland's participation in covering its cost.

Mr. Paavola stated that he too wished to see the present seminar held on a more permanent basis. He had been responsible for its organization for eight of the nine times it was held, and during that time he has had six part-time secretaries and five assistants.

He was confident that the Lahti Institute of Technology was interested in expanding this type of international activity, but stated that any proposals for new activities should be made by the Ministry for Foreign Affairs through the administrative channels.

The idea of having two courses simultaneously was easy to realize and might result in better results for both courses since the participants (who would be living together) would be a more varied group. Management problems were major stumbling blocks for small industries in developing countries.

Mr. Johansson stated that the Ministry would also like to see the activities develop on a continuous basis and would consider the above proposals. He asked how much lead time was necessary to develop a new course, and the author and Mr. Paavola stated that ten months were desirable, but eight could suffice..

Ms. Teraväiran enquired about whether or not the ITC and PRODEC were ever considered.

Mr. Paavola stated that a design-oriented product adaptation course was discussed with ITC, and, if it will be implemented, PRODEC would be involved. The Lahti Institute of Technology has an expansion plan, and part of it would be a training section for industrialists from developing countries.

It was agreed that UNIDO would communicate to the Ministry for Foreign Affairs its proposal for a course on Production Management.

13. Acknowledgements:

The author hereby wishes to express his gratitude to Mr. Pekka Paavola, the Director, Mr. Reino Hyvarinen, the Administrative Officer, Ms. Auli Rytöksöki, the Interpreter and Ms. Arja Musu, Secretary of the seminar, for all the assistance given to him during the seminar and the great pains they went through to assure its success; to all the members of the Steering Committee of the Lahti Institute of Technology. Lecturers, managers of plants - who opened their doors to participants, answered numerous questions and provided excellent hospitality - who are too numerous to be listed individually, must find in these lines his thanks for the considerable time and efforts they contributed to assure the seminar's success.

ANNEX I

Seminar on Furniture and Joinery Industries  
Lahti, Finland, 3 to 24 August 1980

LIST OF PARTICIPANTS AND OBSERVERS

PARTICIPANTS

<u>NAME</u>	<u>FUNCTION</u>	<u>MAILING ADDRESS</u>
<u>ARGENTINA</u>		
Mr. Ricardo del ALAMO	General Manager Comindex S.R.L.	Chiciana 1025 2000 Rosario (S.F.)
<u>BANGLADESH</u>		
Mr. Salehuddin MASOCH	General Manager Star Particle Board Mills (BCIC Unit)	Amin Court (3rd floor) Motijheel C-A. Dacca-2
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<u>CHINA, PEOPLE'S REPUBLIC OF</u>		
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Mr. Claudio BELLON	Director of Operations ICE Muebles Ltda.	Apartado 16616 Bogota
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<u>CUBA</u>		
Mr. Efrain Marcos ORANAS LOPEZ	Production Sub-Director of Furniture Industry Ministry of Light Industry	Empedrado y Aguiar C. Habana
<u>CYPRUS</u>		
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Mr. Felipe Miguel CANARIATI JACAYAN BO-11117	Plant Manager Muebles Contessa	P.O. Box 165 San Pedro Sula

<u>NAME</u>	<u>FUNCTION</u>	<u>MAILING ADDRESS</u>
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<u>JORDAN</u>		
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<u>KENYA</u>		
Mr. Henry Wacharia MUNYEMU	Wooden Prefabricated Houses Manager Forest Industrial Training Centre	P.O. Box 145 Nakuru
<u>MALTA</u>		
Mr. Joseph Mary MALLIA	Managing Director G & M Furniture Ltd.	Rut & Cordin Ind. Estate Rutment Area Cordin
<u>MAURITIUS</u>		
Mr. Aravind Kumar RAMNARAIN	Architect DECORA Ltd	Circonsance Saint Pierre
<u>PHILIPPINES</u>		
Mr. Alfonso Nakpil DE LANGE	President Designs Ligna Inc.	Showrooms Bldg. Makati Commercial Center Metro-Manila
Mr. Toni C. LO	President Luzon Rattan Industries, Inc.	210 Nicanor Garcia Street Bel-Air Makati Metro-Manila
Mr. Rodolfo Navarro NAVARRO	President Polymart Inc.	Magallanes Commercial Center Makati Metro-Manila
<u>SIERRA LEONE</u>		
Mr. Henry Patrick SONGO	Assistant Superintendent Sierra Leone Forest Industries Corp.	Keneba
<u>SINGAPORE</u>		
Mr. LIM Cheok Sin	Managing Director Wood Products (S) Pte. Ltd.	No. 9, Block 1016 Eunos Ave. 5 Singapore 1410

<u>NAME</u>	<u>FUNCTION</u>	<u>MAILING ADDRESS</u>
Mr. Peter TAN Boon Kim	Manager (Furniture Division) Khiam Kee Sawmill Co Pte Ltd	5, Jalan Papan Jurong Town Singapore 2261
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<u>SWAZILAND</u>		
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Mr. Ephraim M. KISANGA	Foreman (Machine Shop) Kilimanjaro Timber Utilisation Co.	P.O. Box 10 Moshi
Mr. Gerson S. MSAKI	Foreman (Furniture Factory) Kilimanjaro Timber Utilisation Co.	P.O. Box 10 Moshi
<u>THAILAND</u>		
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ANNEX II

RESPONSE BY MEMBER STATES TO INVITATIONS TO PARTICIPATE IN  
THE FURNITURE AND JOINERY SEMINARS

	1971	1972	1973	1974	1975	1977 <sup>1/</sup>	1978	1979	1980	TOTAL
Number of countries invited by UNIDO to nominate candidates	47	42	40	47	53	57	54	58	60	n.a. <sup>2/</sup>
Number of participants nominated by the Governments	51 <sup>3/</sup>	56	66	61	59	102	65	82	80	592
Number of participants who would qualify to attend	33	43	44	45	36	38	30	39	38	316
Number of participants who actually attended	19	25	27 <sup>4/</sup>	25	26 <sup>5/</sup>	30	22	31 <sup>6/</sup>	30 <sup>7/</sup>	235

1/ No Seminar was held in 1976.

2/ Most countries were invited to nominate participants for all nine seminars.

3/ Excluding 13 participants from European countries not acceptable to Finland.

4/ Including two participants attending at their own cost.

5/ Including three participants attending at their own cost.

6/ Including two participants attending under a fellowship of project DP/CMR/77/006.

7/ Including one participant attending at her own cost.

UNIDO SEMINAR ON FURNITURE AND JOINERY INDUSTRIES  
Lahti Institute of Technology  
c/o Landen teknillinen oppilaitos  
Stahlberginkatu 10  
15110 Lahti li

Telephones:  
Seminar Office 37 002  
L.I.T. 46 811

ANNEX III

PROGRAMME OF THE SEMINAR

4 - 24 AUGUST 1980

Monday, 4 August

- 9.00 - 9.30 Opening Addresses  
Hotel Seurahuone
- Mr. David Johansson  
Assistant Director  
Department of International Development Co-  
operation, Ministry for Foreign Affairs of Finland
- Mr. Oiva Linnavirta  
Chairman of the City Council  
City of Lahti
- Mr. Antoine V. Bassili  
Officer-in-Charge of the Seminar  
UNIDO
- Mr. Pekka Paavola  
Director of the Seminar, Lahti Institute  
of Technology
- 9.30 - 11.00 Introduction of Participants
- 11.00 - 12.15 Information on Finnish Furniture and Joinery  
Industries  
Mr. Christer Antell
- 12.05 - 13.15 Lunch at Hotel Seurahuone
- 13.30 - 15.30 Visit to Muurame Oy Furniture Factory  
Salpakangas
- 15.30 - 17.30 Medical Check-up
- 19.00 - 21.00 Reception of the Ministry for Foreign Affairs  
Hotel Seurahuone

Tuesday, 5 August

- 8.30 - 11.30 Properties and Use of Glues in Furniture and  
Joinery Industries  
Mr. Jaakko Meriluoto
- 13.00 - 14.00 Properties and Use of Glues ... (continued)
- 14.00 - 16.00 Wood-based Panels  
Mr. Pekka Paavola, LIT and Mr. Jaakko Meriluoto
- 16.00 - 16.30 Information on Lahti by Representative of Lahti  
Tourist Office
- 16.30 - 17.00 Information on Seminar Assignments  
Mr. Antoine V. Bassili, UNIDO Representative

Wednesday, 6 August

- 8.30 - 11.30 Solid Wood as Raw Material for Furniture and  
Joinery Industries, Mr. Pekka Paavola
- 13.00 - 15.00 Visit to Sotka Furniture Factory, Lahti
- 15.30 - 17.30 Kiln-drying  
- Introduction  
- Demonstration  
Mr. Osmo Moilanen, LIT

Thursday, 7 August

- 8.30 - 11.30 Technical Product Design  
Mr. Pekka Paavola, LIT
- 13.00 - 16.00 Visit to Lahden Puutyö Oy Furniture Factory  
Lahti
- 16.00 - 17.00 Technical Product Design (continued)
- 19.00 - Sauna and High Tea, Muikkula Summer Hotel

Friday, 8 August

- 8.30 - 9.30 Decorative Plastic Laminates  
Mr. Rauno Rautiainen, G.A. Serlachius Oy
- 9.30 - 11.30 Polyurethane in Furniture Industry  
Mr. Pentti Heinänen
- 13.00 - 16.30 Product Development  
Mr. Ahti Keronen, Oy Polardesign Inc.

Saturday, 9 August

- 10.00 - 11.30 Visit to Asko Showroom, Lahti
- 11.45 - 13.00 Reception by the Lahti City Authorities
- 13.00 - 15.00 Tour of Lahti

Sunday, 10 August

- 10.30 - 15.00 Tour of Hollola

Monday, 11 August

- 8.30 - 11.30 Furniture Technology  
Mr. Pekka Paavola, LIT
- 13.00 - 14.30 Visit to Sopenkorpi Furniture Factory, Lahti
- 15.00 - 18.00 Demonstration of Machining Jigs in Laboratory  
Messrs. Paavola, Marttinen, LIT, and Ilonen
- 19.00 -  
Sauna and High Tea, Mukkula Summer Hotel  
Project in Mozambique (Design Centre)  
Mr. Ahti Taskinen

Tuesday, 12 August

- 8.30 - 10.30 Furniture Technology  
Mr. Pekka Paavola, LIT
- 10.30 - 11.30 Demonstration of Assembly Jigs in the Laboratory  
Mr. Pekka Paavola and Mr. Eino Marttinen
- 13.00 - 17.00 Value Analysis (Including Case Study)  
Mr. Arto Juva, AJ-Consultants Oy
- 17.00 - 19.00 Selection of Woodworking Machinery  
Mr. Antoine V. Bassili, UNIDO

Wednesday, 13 August

- 8.30 - 10.30 Production Economics  
Mr. Juoko Vuorinen
- 10.30 - 11.30 Upholstered Furniture Technology  
Mr. Arto Juva, AJ-Consultants Oy
- 13.00 - 14.00 Upholstered Furniture Technology (continued)

- 14.00 - 15.30 Visit to Lahden Teränteos Oy, Lahti  
(Tool Maintenance)
- 15.30 - 17.00 Tool Maintenance  
Mr. Pertti Salmela, Isku Oy
- 17.00 - 18.00 Activities of UNIDO  
Mr. Antoine V. Bassili, UNIDO

Thursday, 14 August

- 8.30 - 11.30 Low-cost Automation (Including Demonstration)  
Mr. Osmo Moilanen, LIT
- 13.00 - 16.00 Visit to Varjonen Puunjalostus Oy Furniture  
Factory, Uusikylä
- 16.00 - 18.00 Low-cost Automation (continued)

Friday, 15 August

- 8.30 - 9.30 Project Planning  
Mr. Arto Juva, AJ-Consultants Oy
- 9.30 - 11.30 Plant Layout  
Mr. Pekka Paavola, LIT
- 13.00 - 15.00 Visit to Isku Oy Particle Board Factory, Lahti
- 15.00 - 17.00 Plant Layout (continued)

Saturday, 16 August

- 8.30 - Preparation of Seminar Assignments

Sunday, 17 August

Free Day

Monday, 18 August

- 8.30 - 11.30 Visit to Metsäliiton Teollisuus Oy  
Joinery Factory, Vääksy
- 13.00 - 16.30 Marketing of Furniture and Problems of Export  
Trade - Panel Discussion of Experts
- 19.00 - From Folkloric to Modern Finnish Design,  
Slide Show - Mr. Ilmari Tapiovaara
- Sauna and High Tea

Tuesday, 19 August

- 8.30 - 10.30 Quality Control of Inputs and Finished Products and Film Show  
Mr. Pekka Paavola, LIT
- 10.30 - 11.30 Furniture Design  
Mr. Ahti Taskinen
- 13.00 - 16.00 Furniture Design and Dimensioning for Serial Production  
Mr. Mauri Laatikainen, Lahti Institute of Industrial Design
- 16.00 - 17.45 Packaging for Export, Slide Show  
Mr. Pekka Paavola, LIT

Wednesday, 20 August

- 8.30 - 11.00 Visit to Peem Oy Furniture Factory, Lahti
- 13.00 - 16.30 Furniture Production  
Panel Discussion
- 16.30 - 17.30 Demonstration of Bending of Furniture by Radio Frequency Heating  
Mr. Eino Marttinen, LIT

Thursday, 21 August

- 8.30 - 11.30 Factory Visits for Small Groups According to Individual Wishes
- 13.30 - 18.00 Presentation of Seminar Assignments

Friday, 22 August

- 8.30 - 11.30 Presentation of Seminar Assignments
- 13.00 - 17.00 Presentation of Seminar Assignments (continued)
- 20:00 - Reception of UNIDO  
Mukkuia Summer Hotel

Saturday, 23 August

- 8.30 - Departure for Helsinki
- 14.00 - 16.00 Tour of Helsinki

ANNEX IV

TOPICS FOR SEMINAR ASSIGNMENTS

1. Product Development:

Design of a hotel room: The design should be for a hotel room for a tourist resort. It should be producible by the furniture industry in developing countries, and, if possible, incorporate native culture - not another room of a chain of international hotels. It should use as little as possible fancy products not existing in developing countries. Production drawings of the furniture, cutting specifications of the inputs and if possible colour schemes should be prepared. Care should be taken not to waste material.

2. Value Analysis:

An existing chair should be re-designed using value analysis methods, taking into account cost, ergonomic and aesthetic values, production methods, etc.

3. Production Planning:

Plan the Production for 500 chest of drawers, 1000 tables and 4000 chairs (serial production) to be manufactured in the factory with the given plant layout. The bottlenecks in the production are to be determined and the flow of every component through the plant shown. Manufacturing sequence cards are to be completed. Scheduling of production is to be determined and total time needed to produce all the items determined.

4. Quality Control Operations:

The quality control procedures to be introduced in the serial production of a chest of drawers should be determined and the instructions to the operations (including design of jigs, gauges, etc.) drawn up.

5. Design of Jigs:

The jigs necessary for the production in series of a chair using simple

machines should be designed giving detailed drawings, material specifications, etc., enabling their production.

6. Plant Layout:

Plan the layout for extensions and/or improvements of a given existing plant of one of the participants.

Care should be taken in assessing the number and type of machines, the storage facilities between the machines, the safety and social requirements, etc.

7. Selection of Machinery:

The following matters should be covered and discussed:

- The types of machinery most useful to producers in developing countries,
- the identification of the criteria to be used in selecting them,
- the prerequisites for mechanisation, low-cost automation and the introduction of a new technology in a factory,
- the merits of new versus second hand machinery.

8. Low-cost Automation:

The following topics should be covered for processes used in the furniture industry:

- when to automate
- what to automate
- how to automate

Furthermore the requirements in compressed air of the machines installed in a given plant (using the layout provided) are to be calculated, and the plan of the compressed air lines be determined, giving also the specifications of these lines and that of the necessary compressor(s).

9. Tool and Machine Maintenance:

The methodology for introducing preventive maintenance in a plant is to be outlined, covering:



- the importance of maintenance,
- the problems of purchasing and storage of spare parts,
- the determination of maintenance schedules in machines.

Also cover checking the accuracy of re-conditioned machines.

With respect to tool maintenance, cover the determination of need to sharpen tools and saws, how it is to be done, what care should one introduce in the storage of tools and their handling.

The need and advantages of central maintenance contracts as against a "do-it-yourself" approach for each plant are to be discussed.

#### 10. Marketing:

Local marketing: The following problems are to be discussed:

- marketing channels,
- quality labels and guarantees,
- marketing policy and range of products,
- product life.

Export marketing: Cover the following topics:

- ways to enter a foreign market (enumerating alternative channels),
- need for market surveys importance of packaging, etc.
- exports through local associations and marketing channels,
- participation in fairs and other promotional activities.

#### 11. Monitoring the Performance of a Dehumidifier Type Kiln:

The group will monitor the drying of a load of sawn timber in the Institute's dehumidifier type kiln. They shall report on the kiln's performance and compare it to other types of kilns.

ANNEX V

SEMINAR BUDGET

A. Contribution of the Government of Finland:

		FIM	US\$
11	Participants' travelling	8,000	2,191.78
12	Lecturers' travelling	2,500	684.93
13	Other travels (Paavola e.g.)	5,000	1,369.86
21	Housing/Mukkula	36,000	9,863.01
22	Meals	53,760	14,728.77
23	Hotel in Helsinki	3,000	821.92
31	Planning team	3,000	821.92
32	Seminar Director	10,000	2,739.73
33	Seminar Assistant	4,500	1,232.88
34	Secretary	11,264	3,086.03
35	Bookkeeping	1,282	351.23
36	Lecturers	20,000	5,479.45
37	Interpreter	5,500	1,506.85
38	Demonstrations	1,000	273.97
39	Setting (lab, jigs, etc.)	6,000	1,643.84
310	Construction of jigs	2,000	547.95
311	Special costs (social security etc.)	4,526	1,240.00
41	Files	1,000	273.97
42	Reproducing, photocopies	3,000	821.92
43	Literature	5,000	1,369.86
44	Other materials	3,000	821.92
51	Health	4,500	1,232.88
52	Insurance	3,000	821.92
53	Reception	4,500	1,232.88
54	Office	4,000	1,095.89
55	Miscellaneous	2,668	730.96
60	Out of Pocket expenses 30 x 600	18,000	4,931.51
		<u>226,000</u>	<u>61,917.81</u>
		=====	=====

B. UNIDO Contribution:

	US\$
16-00 <u>Headquarters Staff</u>	
16-12 Travel and per diem of a UNIDO staff member	2,980
30-00 <u>Training</u>	
35-00 Return air economy travel (30 participants)	75,250 <sup>1/</sup>
40-00 <u>Equipment</u>	
Purchase of training material	1,500
50-00 <u>Miscellaneous</u>	
Sundries (transport of documents to Finland, etc.)	420
Hospitality	500
99-99 <u>total</u>	80,650

N.B. To this sum must be added:

Salary of a professional staff member for 3 weeks in Finland	p.m.
Reproduction of documents	p.m.
Supply of UNIDO publications	p.m.
Administrative support	p.m.

<sup>1/</sup> Originally, only US\$ 66,000 were allocated for this budget line, but this had to be increased by some US\$ 9,250 (14 percent) to cover increases in air fares which occurred in spring 1980.

Annex VI

EVALUATION - GROUP TRAINING PROGRAMMES

Name of participant: -- Home country: --  
 Programme: Seminar on Furniture and Joinery Host country: Finland  
 Industries, Lahti, Finland Year 1980

I. PRE-COURSE INFORMATION:

1. How was the introductory information you received in your home country about: (please mark an x in the suitable column)

	Sufficient	Not Sufficient	Missing
Aim of the training	24	3	1
Content of programme	17	5	4
Level of the programme	19	4	3

What, if any, other information do you feel should have been included:

Literature on the lectures before the Seminar (1)

Final information delivered 2 days before departure (1)

Include programme in aide-mémoire (1)

2. How many weeks before the beginning of the training programme did you receive the following information:

Information about the Programme:

1 week 1 2 weeks 6 3 weeks 3 4 weeks 2 5 weeks 3 6 weeks 6

8 weeks 3 10 weeks 3 12 weeks 1

Being accepted to the programme

1 week 3 1 1/2 weeks 1 2 weeks 7 3 weeks 14 4 weeks 4

Comments:

Communication problems between UNDP and my headoffice (1)

Information should be available throughout the year at UNDP. (1)

Got my ticket on the last day. (1)

Too short (1)

Time was adequate (1)

Information about UNIDO courses remains in the capital city of our country. It is never diffused to provincial towns. (1)

Send programme outline to reach us two weeks before. (1)

The local UNoffice should have more authority concerning travel. (1)

II. PROGRAMME CONTENT AND ORGANIZATION:

3. What is your opinion of the total duration of the course:

Too long  Just right  Too short

If not "just right", what, in your opinion, would be the most suitable duration for the course?

2 weeks  4 weeks  6 weeks  8 weeks  9 weeks

Please comment:

Two weeks sufficient for necessary training. (1)

Many subjects useful, duration too short. (1)

Limit groups to 7-8. (1)

The object lesson (?) was not sufficient. (1)

Most of the subjects are new to us. (1)

Limit factory visits. Fully automated plants irrelevant to our conditions. (1)

Extend by one week to reduce number of lectures per day. (1)

4. State your opinion about the daily schedule:

Too heavy  Just right  Too light

Comments:

Two days at end for visits to factories chosen by us. (1)

Have lectures in mornings and visits afternoons. (1)

Some of the lectures are unnecessary (1)

Timetable very congested. (1)

Factory owners cannot be away so long. (1)

Took good advantage every day (I came here to learn). (1)

Schedule OK but too much time wasted waiting for bus. (1)

Too full (12 hours / day). (1)

Many subjects useful, duration too short. (1)

Afternoons too long. (1)

Programme for 12 and 13 August too intensive (other days OK). (1)

5. Would you suggest any changes in the general nature of the training programme?

Information after each factory visit on basic machinery needed to start such a factory's production. (1)

6 week course for 15 persons. Avoid getting two from a country. Rotate countries. Participants should be strictly selected. (1)

Comments on participants should be made by themselves and submitted to their governments. (1)

Some lectures boring. (1)

No, complaints I have are minor and cannot be pinpointed. (1)

No change (8)

Shorter lectures. (1)

Some lectures too basic (1)

Lab. demonstrations tool and machine maintenance. (1)

More object (?) introductions. (1)

Smaller groups doing the assignment under more direct supervision. (1)

Should be supplemented by a more specialized two week programme (1)

Concentrate more on practical problems we face. (1)

Reduce number of visits by whole group. Use time saved to spend more time on fewer factories (smaller number of participants) i.e. more intensive and less extensive visits. (1)

Visits to factories should be in smaller groups (10)

Less intensive programme on first three and last three days. (1)

6. Do you feel that the training corresponded to your professional needs?

To a very large extent (5)

To a large extent (10)

To a sufficient extent (10)

To a small extent (1)

To a very small extent (2)

Please comment: Most topics covered during my training elsewhere and during my working career.

Short period of learning (1)

Gained a lot from seminar. (1)

Very short period (1)

Learnt important technical subjects, books and documents received useful.(1)

It has made me aware of several technical aspects. (1)

Send us the books before. (1)

7. Please give your opinion about the study visits (if any):

Very satisfactory

Impressive (1)

Metsallitto was the best (1)

Satisfactory (1)

Most valuable part of the programme since it complements lectures (2)

Excellent (2)

Very interesting (1)

Need briefing on plant layout before visit (1)

Good (1)

Very good (2)

Very useful (2)

Most beneficial (2)

Beautiful (1)

Comprehensive and detailed. (1)

Please suggest other study visits that might have been valuable:

Organize such seminars at country level and send good lecturers. (1)

Other wood industries: boats, houseware, toys, coffins. (1)

Machine maintenance and tool maintenance. (1)

Testing laboratory (1)

Fittings factory. (1)

Medium sized factories with less expensive machines (2)

Making of glue and cellulose (1)

To make glue, screws, paint with wire nails. (1)

To a forest (1)

Visit to metal hospital furniture plant (1)

Visit to synthetic leather factory (1)

Longer visits. (1)

Visit to neighbouring country to study export marketing. (1)

8. What do you think of the general level of the training?

Much too high	<input type="text" value="1"/>
Too high	<input type="text" value="3"/>
Adequate	<input type="text" value="22"/>
Too low	<input type="text" value="2"/>
Much too low	<input type="text" value="1"/>

Comments:

Not suitable for managers, OK for artisans. (1)

Surface finishing demonstration too low. (1)

Too low for some. (1)

Lectures complemented by books. (1)

9. Which subjects of the programme did you find most valuable?

(please state reason, for example new subject, my speciality, relevant to my work, new information, etc.)

Item 9 continued on following page.

<u>Subject</u>	<u>Reason</u>
1. Value analysis (10) <sup>1/</sup>	Content and presentation good (1) <sup>2/</sup> New Subject (5) Good (1) Relevant to my work (1)
2. Panel discussions (1)	Experience of panel members (1)
3. Design of jigs (5)	New subject (1) Relevant to my work (1) New information (1)
4. Selection of machines (2)	Important (1)
5. Production economics (2)	New information (1)
6. Demonstration of jigs (5)	Relevant to my work (3) New information (1)
7. Factory visits (2)	New information (1)
8. Plant layout (4)	Relevant to my work (4)
9. Furniture Technology (10)	New subject (1) Relevant to my work (4) Good (1) New information (1)
10. Product development (6)	Starting point of manufacture (2) New information (1)
11. Use of glues (4)	Relevant to my work (2)
12. Low-cost automation (7)	New information (2) Relevant to my work (4)
13. Polyurethane (1)	New information (1)
14. Kiln drying (1)	New information (1)
15. Technical product design (4)	New information (1) Relevant to my work (1)
16. Finishing (1)	Specialized machines (1)
17. Radio frequency (1)	New information (1)
18. Talks by designers (2)	New subject (1) Very thought provoking (1)
19. Factory visits (1)	
20. Wood based panels (1)	Relevant to my work (1)
21. Quality control (4)	Relevant to my work (2)
22. Marketing (2)	Relevant to my work (1)
23. Wood as a raw material (2)	Relevant to my work (1)

- <sup>1/</sup> Number reflects the number of times that the subject was mentioned in the individual replies of the participants.
- <sup>2/</sup> Number refers to the number of times that the reason was mentioned in the individual replies of the participants.



10. Which subjects of the programme did you find least valuable?  
State why (for example too elementary, inadequate instruction,  
irrelevant to my work, etc).

<u>Subject</u>	<u>Reason</u>
Value analysis <sup>1/</sup>	
(2) 1. Low-cost automation	Poorly presented (1) Too theoretical (1)
(3) 2. Use of glues	Inadequate (1) Elementary (1) Poorly presented (1)
(1) 3. Upholstery	Elementary (1)
(2) 4. Furniture design	Discussed Finnish conditions (1)
(3) 5. Tool maintenance	Inadequate (2)
(1) 6. Lectures which were interpreted	Not clear (1)
(4) 7. Plastic laminates	Irrelevant to my work (2) Not clear (1)
(1) 8. Polyurethane	Not clear (1)
(1) 9. Surface finishing	Elementary (1)
(1) 10. Product development	Too long (1)
(4) 11. Upholstered furniture	Inadequate (2) Elementary (2)
(1) 12. Quality control	Inadequate (1)
Nothing (6) <sup>1/</sup>	

11. Were there in your opinion any relevant subjects that were not  
adequately covered in the programme?

Yes 15

No 13

If yes, what did you miss?

- Covered all subjects, but not detailed enough (1)
- A little bit more of everything (1)
- Tool maintenance (2)
- Surface finishing (1)
- Polyurethane (1)
- Production management (1)

- Costing and control (1)
- Inventory control (1)
- Plant layout (to greater depth) (1)
- Production Planning and control (2)
- Machine maintenance (1)
- High frequency (1)
- Lecture on finishing (1)
- Wood preservation (1)
- Medium density fibreboard (1)
- More on design and dimensioning (1)
- Comparison of joint strength (dowel vs other) (1)
- Use of particle board vs plywood (1)

12. Which changes would you have preferred in the methods of instructions?

	no changes	more	less
a) lectures	17	3	6
b) group work	11	9	3
c) demonstrations	7	15	0

Comments:

- Lectures too long (1)
- Limit teams to three persons. (1)
- Lecturers could present subject in more interesting manner. (1)
- Demonstrations not successful. (1)
- Limit teams to 4-5 (1)
- Have instructors in each group (1)
- Methods adequate (1)
- Country papers should be presented and discussed (1)
- Demonstration (with samples) of upholstery materials useful. (1)

13. How did you find the general standard of the instructor with respect of:

	i.) command of English	ii) method of instruction
Very good	10	14
Rather good	7	10
Fair	9	3
Poor	0	0
Very poor	0	0

Please comment:

Some were good (1)

Impressed by clearness of lectures and demonstrations by Mr. Paavola. (1)

Problems in some cases of lecturers understanding our questions. (1)

Participants should contribute more to the discussion with their problems. (1)

Level of instructors varied from very high to less (1)

More lectures like value analysis (participation active) (1)

Even translated lectures were interesting. (1)

14. Did you have sufficient time for professional exchange of views with:

	i) the programme staff	ii) fellow-participants
YES	22	21
No	6	3

15. How much did you benefit from these exchanges of views with:

	i) the programme staff	ii) fellow-participants
Not a great deal	8	3
Much	11	11
Somewhat	8	10
Little	0	3
Not at all	0	0

Please comment

Time constraints (1)

Benefitted from staff on technical matters and from participants socially. (1)

Most of the participants are not dealing with furniture making (?) (1)

Staff members are qualified and interested in discussing with the participants. (1)

Because most of them could not be found after the lectures (1)

More time for meeting programme staff would be useful. (1)

III. RELEVANCE AND APPLICABILITY:

16. Did you find the contents of the programme relevant to conditions in your company (institute)?

To a very great extent (8)

To a great extent (11)

To a sufficient extent (9)

To a small extent (1)

Please state why:

Subjects discussed were relevant to my country. (1)

We have fewer machines and equipment in our factories. (1)

17. Do you feel that by participating in this training programme you have benefitted professionally?

To a very great extent (6)

To a great extent (10)

To a sufficient extent (10)

To a small extent (2)

To a very small extent (1)

Please state why:

Not suitable to managers (1)

Very involved in entire programme (1)

Widened my horizons (1)

I gained new ideas (2)

Short period of studies. (1)

Through technical subjects presented and documents received (1)

Our standards are lower, hence I learnt more than expected. (1)

18. Do you think you will have an opportunity to apply your newly acquired knowledge and experience in your present job?

To a very great extent (6)

To a great extent (12)

To a sufficient extent (9)

To a small extent (2)

To a very small extent (0)

What difficulties, if any, would you expect to meet?

Lack of machine tools and poor knowledge of the workers (2)

Lack of professional engineers. (1)

19. Will you be in a position to transfer your acquired knowledge to others in your home country?

To a very great extent (6)

To a great extent (1)

To a sufficient extent (10)

To a small extent (2)

To a very small extent (0)

20. How will this transfer be done?

a) In day-to-day work to colleagues and subordinates (21)

b) In specific training activities inside present employment (15)

c) In specific training activities outside present employment (8)

What difficulties, if any, would you expect to meet?

Translation of UNIDO documents into native language (1)

Lack of experience (1)

No difficulties (4)

Time and materials (1)

Lack of similar machines (1)

Introduction of techniques needs adaptation (1)

Workers uneducated. (1)

IV.Q SOCIAL ASPECTS OF THE PROGRAMME:

21. Please state your opinion about the leisure time activities organized by the programme staff.

Very good but too long (1)

Satisfactory (4)

Too programmed (1)

Sauna very good (5)

Too little (1)

Ver. good but very short (1)

Good (2)

OK (1)

Efficiently organized (1)

Excellent (1)

Cultural activities (1)

Fairly good (1)

Slide shows good (1)

Very good, thanks (1)

What additional activities would you have appreciated?

- Free weekends (1)
- Trips (1)
- Games and sport (2)
- Party (1)
- Concerts, theater, folklore (1)
- Films or theaters (1)
- No time available because of assignment work (1)
- More visits to places like Hollola (1)
- Field trip during second week end. (1)
- Seeing the production of cellulose and glue (1)
- To receive a diploma (1)
- Would have appreciated it more if we were not assigned to eat at certain restaurants. (1)
- Informal party to introduce participants. (1)

22. Please give any comments you choose on aspects not adequately

Covered by this questionnaire;

- Gained many ideas (1)
- Very satisfied with course (1)
- Course will help me a lot (1)
- Thanks to UNIDO and Government of Finland
- out of pocket allowance not adequate. (1)
- Narrow "variety" of participants (floor supervisors to owners). (1)
- This was not a seminar but a training course. (1)
- Ask questions in this questionnaire
- (a) did you have difficulties in coming?
- (b) How and what did you like in Lahti? (1)
- Accommodation could be better. (1)
- Meals more "interesting" (1)
- Lectures on tool maintenance and upholstery could be improved. (1)
- Well organized but too concentrated. (1)
- Free to have dinner where we want and what we want. (1)
- Free to have lunch and dinner where we want. (1)
- Free to exchange coupons for cash - or be given cash daily. (1)

ANNEX VII

PROPOSAL FOR A SEMINAR ON PRODUCTION  
MANAGEMENT IN THE FURNITURE AND JOINERY INDUSTRY

To be organized by the United Nations Industrial Development Organization  
and the Government of Finland, and to be held in  
Lahti, Finland, from to August 1981

DRAFT AIDE-MEMOIRE

Background and Purpose of the Seminar:

The Seminar, organized by the United Nations Industrial Development Organization (UNIDO), in co-operation with the Government of Finland (Department for International Development Co-operation) is one of UNIDO's training programmes and seminars for higher technical and managerial personnel employed with specific sectors of industries in developing countries.

UNIDO has initiated these training programmes and seminars in industrialized countries with the objective to provide participants from developing countries with the opportunity to get acquainted with the up-to-date developments in the sector of industry concerned, at the same time to come to an exchange of experience with participants from the same industries from other developing countries. These training programmes are organized in co-operation with competent institutions and enterprises, providing the required training facilities and the services of qualified staff. The present seminar will be carried out by and held at the premises of the Lahti Institute of Technology, Lahti, Finland. It is intended to complement the Seminar on Furniture and Joinery Industry held by UNIDO, in collaboration with the Government of Finland every year.

The present seminar is intended to give the participants an insight into efficient management of plants producing furniture and joinery on an industrial scale. A double purpose will be served: methods for modernization and rationalization of the wood processing sector will be highlighted and secondly, the prerequisites for the establishment of sound management practices for this industry in developing countries will be identified.

Topics to be covered during the Seminar:

The following list of topics has been drawn up in order to give an idea of the contents and practical arrangements of the seminar. In general, lectures will alternate with panel discussions and group work, and efforts will be made to ensure the utility of the programme for all participants. Minor changes may take place during the preparatory stage

- Strategic planning
- Marketing (including export marketing)
- Product development (including adaptation for export)
- Input management (labour, capital, materials, techniques, cost benefit)
- Financial management
- Personnel management
- Production planning and materials management
- Production control
- Industrial engineering
- Value analysis
- Investment calculations and economics of equipment selection
- Management of maintenance

Participants are encouraged to bring with them details of problems they have to face in all the above topics for discussion during the Seminar.

Date and Place:

The Seminar will be held at the Lahti Institute of Technology, Lahti Finland, from to August 1981. Participants are expected to leave their home countries in time to arrive in Helsinki as near as possible before the afternoon of Sunday, August 1981.

Participants:

Twenty fellowships <sup>1/</sup> will be awarded to candidates from Africa, Asia and the Pacific, Latin America and the Middle East. Governments of these countries are invited to nominate up to three candidates who should be

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<sup>1/</sup> Both male and female candidates can be nominated. In this connexion attention is drawn to General Assembly Resolutions 3010 (XXVII) designating 1975 International Women's Year, and 3342 (XXIX) calling for the full integration of women in the development process.



technical managers or persons holding a similar position in secondary wood processing industries (furniture, joinery, etc.). Preference will be given to candidates who have already attended one of the UNIDO Seminars on Furniture and Joinery Industries held in Lahti each year.

UNIDO will, in consultation with the Finnish authorities, select participants from the nominations received taking into account professional qualifications and other relevant considerations.

Participants will attend the seminar in their individual capacity although they have been officially nominated by their respective Governments. They must attend the whole seminar, according to the schedule prepared by the host authorities and comply with the rules and regulations laid down. They are expected to contribute to the seminar whenever possible, e.g. in sub-stantive discussions related to the industries in their countries.

Questionnaire:

... Candidates are requested to complete the attached questionnaire and have it submitted in four copies together with the Fellowship Nomination Form. The information thus provided by the candidates will be required by UNIDO and the Finnish authorities in the selection of participants and in adapting the programme of the seminar, as far as feasible, to the particular interest of those accepted.

Language requirements:

The seminar will be conducted in English; consequently a very good command of the English language is absolutely necessary. Applicants whose mother tongue is not English or who have not completed their academic studies in English, should submit a satisfactory English language certificate (preferably issued by a recognized institution, e.g. British Council) before being considered eligible for participation.

Financial and Administrative Arrangements:

The financial and administrative arrangements will be as follows:

A. UNIDO through a special contribution of the Government of Finland will provide:

- 1) Round-trip economy class air transportation between the airport of departure in the participants's home country and the airport in Helsinki, Finland, in accordance with the existing arrangements between the United Nations and the country receiving technical assistance.
- 2) Training materials.
- 3) Costs for training programme proper.
- 4) Costs for board and lodging.
- 5) Costs for internal travel related to the seminar.

6) An allowance in the equivalent of US\$ 150 to cover out-of-pocket expenses for the total duration of the seminar.

B. The participants' Government or his employer will be required to bear the following costs:

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1) All expenses in the home country incidental to travel abroad, including expenditures for passport, visa, medical examinations, inoculations and other such miscellaneous items as well as internal travel to and from the airport of departure in the home country.

2) Salary and other benefits for the participant during the period of the seminar.

C. UNIDO and the Government of Finland will not assume responsibility for the following expenditures in connexion with the participants' attendance at the Seminar:

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1) Costs incurred by participants with respect to any insurance, medical bills and hospitalization fees.

2) Compensation in the event of death, disability or illness of the participant.

3) Loss of, or damage of personal property of the participant.

4) Purchase of personal belongings and compensation for damage caused to them by climatic or other conditions.

NOTE: Participants are strongly advised not to have family members accompany them, as no accomodation for them will be available.

Before submitting an application, each candidate should be fully aware of the content of this aide-memoire.

Draft Annex to Fellowship Nomination Form

PROPOSED SEMINAR ON MANAGEMENT IN THE FURNITURE AND JOINERY INDUSTRIES

To be organized by the United Nations Industrial Development Organization  
and the Government of Finland, and to be held in  
Lahti, Finland, from to August 1981

Note: The information contained in this questionnaire, to be completed by the candidate, will be used by UNIDO and the Finnish authorities in selecting the candidates and in adapting the programme, as far as feasible, to the particular interests of accepted candidates.

Candidates are requested to complete the questionnaire in type-written form or block letters and submit it in four copies together with the Fellowship Nomination Form.

1. Name of candidate: Country:
2. Name and address (in full) of the company:
3. Field of activity (branch) of the company:
4. Size of the company:  
Actual consumption of main raw materials.  
Range and size of actual production (indicate units per year):  
  
Employees:  
  
Turnover: US\$
5. Does the company export the products in question: yes  no
6. If yes (a) main export countries:  
  
(b) export in percentage of turnover:

7. Range of products manufactured:

Percentage of  
total sales

Sawn wood	.....
Planing and mouldings	.....
Doors and windows	.....
Timber engineering products	.....
Prefab houses	.....
Dimension products (components)	.....
Solid wood furniture (chairs, etc.)	.....
Case goods (panel furniture)	.....
Upholstered furniture	.....
Carved - reproduction - furniture	.....
Packaging materials	.....
Woodware (toys, bowls, carvings, etc.)	.....
Others (specify)	.....

8. Field of responsibility: (mark where appropriate)

Purchase of raw materials	<input type="checkbox"/>
Product development	<input type="checkbox"/>
Production management (e.g. planning and control)	<input type="checkbox"/>
Personnel management	<input type="checkbox"/>
Financial management	<input type="checkbox"/>
Equipment selection	<input type="checkbox"/>
Quality control	<input type="checkbox"/>
Sales and marketing	<input type="checkbox"/>
Others (specify)	<input type="checkbox"/>

9. Fields of interest: (mark at least three and not more than six boxes)

Product development and technical product design	<input type="checkbox"/>
Purchase of raw materials	<input type="checkbox"/>
Production planning and scheduling	<input type="checkbox"/>
Production control	<input type="checkbox"/>
Equipment selection	<input type="checkbox"/>

9. Cont.

Personnel management

Financial management

Inventory control

Product development

Marketing

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

10. Please indicate specific interest among the topics listed on page 2 of the Aide-Memoire.

11. Please indicate exactly your position and responsibilities (through an organizational chart if appropriate).

Signature: .....

Date: .....



