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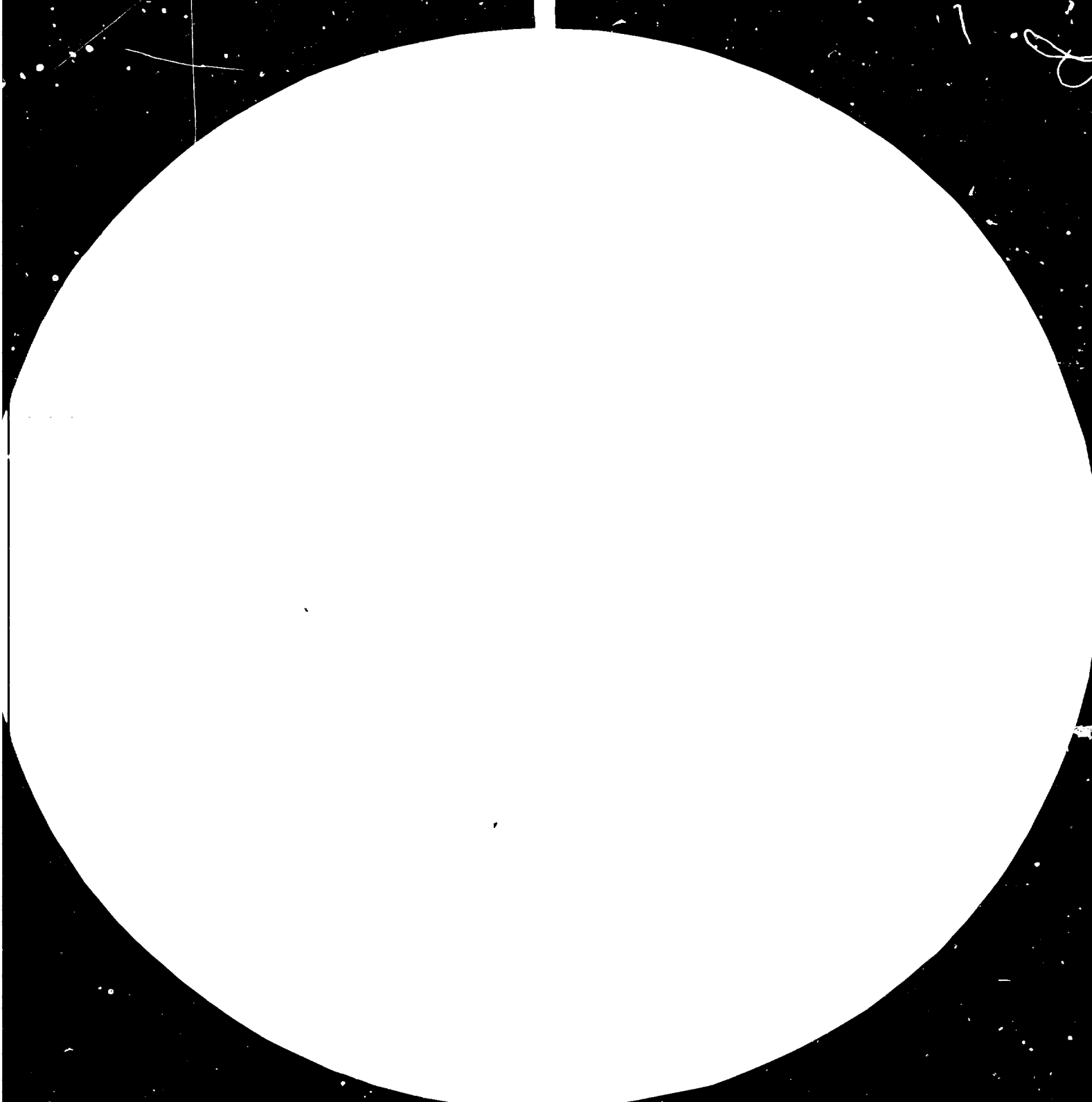
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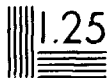
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Resolution Test Chart
1.0 1.1 1.25 1.4 1.6 1.8 2.0 2.2 2.5

Resolution Test Chart

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REPORT ON THE
TECHNICAL COURSE ON CRITERIA FOR THE
SELECTION OF WOODWORKING MACHINES *

Milan, Italy, from 5 to 21 May
1980

by

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Senior Industrial Development Officer
Agro Industries Section
Industrial Operations Division

000130

June 1980

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1. Purpose of mission:

A staff member of the Agro Industries section of the Industrial Operations Division, Antoine V. Bassili, went to Milan, Italy from 2 to 23 May 1980 to attend and help conduct the third UNIDO Technical Course on Criteria for the Selection of Woodworking Machines.

2. Preliminary preparations:

This was the third such course which UNIDO organized on collaboration with the Italian Woodworking Machinery and Machine Tools Manufacturers Association (ACIMALL) convened in conjunction with the International Exhibition for Woodworking Machinery and Tools (INTERBIMALL) held in Milan in the month of May of even years. (The previous two courses were organized in 1976 in conjunction with the fifth INTERBIMALL and in 1978 in conjunction with the sixth INTERBIMALL Exhibition). These courses were financed from the voluntary contributions of the Government of Italy to UNIDO.

The decision to repeat the course was taken soon after it was completed in the spring of 1978, and, in the summer of 1979 UNIDO ascertained the interest of ACIMALL to provide technical and logistic support. This was confirmed and a project document prepared and submitted to the Programming Committee for its approval on 31 August 1979. Unfortunately, because of the move to the Vienna International Centre, the project was approved by the Programming Committee only on 25 October 1979, and transmitted to the Italian authorities for their approval. This approval only reached UNIDO on 17 January 1980 and resulted in a PAD for the total cost (amounting to US\$ 135,000) being issued on 29 January 1980. There was no way by which the date of the course could be postponed since, by its very concept, it had to be held at the time of the INTERBIMALL Exhibition. This gave the organizers (both UNIDO and ACIMALL) only three months to complete the cycle which normally

takes six to eight months. The Agro Industries Section had of course the possibility to refuse to implement the project with so short a lead time, but abstained from doing so because, on the one hand, of the very acute need for such courses in all developing countries irrespective of their state of development, and, on the other, the difficulty of re-activating such a course once a break occurs and the momentum of continuity is lost.

Cabled invitations were sent out by the Training Section on 29 January 1980 and this was confirmed by a letter to the Resident Representative on 30 January 1980. A total of 76 countries were invited to nominate candidates. The list is given in Annex I. The closing date for the submission of nominations was 11 April 1980. This left only 14 working days between the closing date and the start of the course, a time grossly too short to ensure normal arrangements being made. Notwithstanding the short notice given to governments and the consequent inability by UNIDO to make the course known to potentially interested candidates from developing countries through its direct contacts with them or its field project personnel, a total of 68 names were submitted to UNIDO by the respective governments. At the time the evaluations were made only 43 completed nomination forms had reached us. The candidates were notified of their acceptance, about ten days before the start of the course, which, needless to say, greatly reduced the time they had to make necessary arrangements at their end and resulted in the late arrival (by one or two days) of quite a few among them. The exact arrival dates of the various participants can be found in the Daily Subsistence Roster submitted with the accounts.

UNIDO had selected 30 participants to attend the course. Three (from Guinea) did not attend because the Government withdrew their candidature 48 hours before the start of the course, and the two participants from Ghana also did not attend and no explanation as to their not turning up has ever reached UNIDO. On the other hand, the Algerian authorities were extremely keen that one of their technicians

attend the course in spite of the fact that the nomination forms had not reached UNIDO. Because of their insistence, the Training Section in UNIDO decided to allow him to attend and pay the per diem for his attendance provided that his travel was paid for by the Algerian authorities. Consequently, 26 participants attended the course at the expense of UNIDO. A further four (two from Paraguay, and one from India - recommended by ACIMALL - and one from Angola - recommended by the authorities of the Milan Fair) attended the course at no cost to UNIDO and participated in the discussions. The list of participants, observances, lecturers and consultants is given in Annex II (UNIDO document ID/WG. 320/2)

3. Participants:

Bearing in mind that the participants came from countries at very different levels of development, they could be considered to have been a homogenous group. This view was shared also by the participants themselves (see evaluation hereunder). It must also be remembered that the course was conducted in Italian with simultaneous interpretation in French and English. Consequently, in their discussions instances occurred where difficulties of communication between French and English speaking participants arose, but these were always overcome through the assistance of other participants, seminar assistants, or the author. All were very keen on getting as much information as possible out of the lecturers, visits and the UNIDO consultants, and did so continuously. None had any difficulty in expressing himself in English or French, except one participant from Uruguay whose Italian nevertheless was fluent.

This was the third such course that UNIDO had organized in collaboration with the Government of Italy, and by now we have a clearer idea of the level of participants to be expected from any one country. If this course was to be held again in conjunction with the next INTERBIMALL exhibition in 1982 - and the author strongly believes it should - then he is confident that the selection criteria will

be further refined leading to an even better group of participants provided that the Governments will nominate candidates with industrial experience or with exposure to industry and that the letters of invitation are sent sufficiently early.

The response that UNIDO has received for the three courses held so far is such that it can be repeated merely by inviting only those participants already nominated who would have qualified had more places been available. In the three courses held so far, 78 participants (plus 9 observers) have attended, but a total of 116 would have qualified out of the 192 nominated. Details are given in Annex III.

Bearing in mind the lateness of the issuance of the letters of invitation, the response that UNIDO has received for this course is such that it should be repeated, and, if at all possible, the number of participants should be increased from 30 to 50, thus enabling better distribution of participants in the assignment work, or even splitting larger groups into two - one French and one English speaking.

4. Programme of the course:

The programme of the course is given in Annex IV. It consisted of 46 hours (43%) of lectures; 8 hours (7%) of plant visits; 7 hours (6%) of background information, opening ceremonies and administrative matters; 32 hours (29%) of visits to the fair and preparation of assignment work and 16 hours (15%) of presentation of seminar assignments. In the calculation of the time spent for assignment work, the figure indicated above relates only to the normal working hours. Because of the fact that all concerned participants, UNIDO consultants, and UNIDO staff member, resided in the same hotel, and that this hotel was not in the centre of the city but very close to the Milan Fair grounds the participants put considerable hours every evening to prepare for these assignments. Some of these meetings lasted to the small hours of the night.

Two afternoons were allocated to factory visits. For each afternoon participants were offered the opportunity to choose from among two options and these visits included the production of particle board, surface improved panels, plywood, blockboard, veneer peeling and slicing, and a furniture plant.

The author gave a two hour lecture on methodology for the selection of woodworking machines. This was very well received and the participants listed it among the most popular and useful lecture they had.

5. Documentation:

It had been the author's intention to send to each participant the text of the lectures at the time he was notified of his acceptance; but, because of the late notification on the one hand, and because of the fact that these were not ready in time, a reproduction of the edited text that will be sent to the printers was used at the course. (This document will be issued as ID/247.) ^{1/}

The French version consisted of the unedited text of the lectures given two years ago. These lectures were complemented by some new texts, which were reproduced at the last minute either by UNIDO in Vienna, or by ACIMALL in Milan, and handed out to the participants without their being processed as UNIDO documents. It is intended that these will be issued subsequent to the course in the ID/WG.320 series. Due to lack of time the Note for Participants and the Background Information on Assignment Work were not translated into French and the author had to make an oral translation for the benefit of the French speaking participants in explaining the assignment work. Each participant also received four of the UNIOD guides to sources of information (on furniture and joinery; woodworking

^{1/} This was in fact a blessing in disguise since it allowed the lecturers to review once again the final texts of their lectures and minor errors have been located and corrected. It also permitted the editorial control section of UNIDO to circulate a questionnaire for the users of this publication to obtain their views on the contents and its relevance. As a result of this questionnaire it was decided to incorporate a glossary into the document.

machinery; panels, pulp and paper from agricultural residues; and industrial maintenance and repair - UNIDO/LIB/SER.D/4 Rev. 1, 31, 35 and 36 respectively), as well as the reports of the technical meetings UNIDO had in the past on Selection of woodworking machines (ID/133) and Wood processing for developing countries (ID/180) as well as the Manual on low cost automation for furniture and joinery industries (ID/154) in the language most appropriate to them, and a list of the studies available in the FAO portfolio of small scale forest industries for developing countries. They also received copies of the UNIDO portfolio of wood technologies (ID/240 Rev. 1), the ACIMALI catalogue, the INTERBIMALL catalogue and the recently published revised EUMABOIS decimal classification for woodworking machines.

Each participant also had to prepare a country paper which will be reproduced and serve as background material subsequent to the course.

6. Course library:

It was intended to take a course library to Milan but because of the delay in obtaining the documents from Italy on the one hand, and obtaining copies of the lecture texts through the UNIDO editorial control and documents reproduction service on the other, these documents could not be shipped by surface (postal) service and had to be airfreighted at the last minute. Consequently the funds originally earmarked for the transport of the library had to be used to this end and no library was available for the participants.

7. Assignment work:

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

- (1) Selection of equipment for sawmills (12);
- (2) Selection of equipment for plywood and veneer production (11);
- (3) Selection of equipment for the production of flush doors (5);
- (4) Selection of equipment for the production of louvered windows (3);

- (5) Selection of equipment for the production of kitchen furniture (7);
- (6) Selection of equipment for the production of solid wood school desks (5);
- (7) Selection of equipment for the production of upholstered chairs (2);
- (8) Selection of lumber kilns for furniture and joinery products (6);
- (9) Selection of equipment for forestry (4); and
- (10) Selection of equipment for the production of parquet (3).

The number in brackets indicates the number of participants in each group and also reflects their interests in the various topics. Details on the topics, objectives and methodology are given in Annex V. A discussion leader was nominated for each group to co-ordinate the work and present the conclusions. The two UNIDO consultants also guided the work of the groups, Mr. Brion being responsible for assisting groups 1, 2, 8, 9 and 10, while Mr. Paavola supervised the work of groups 3 to 7, the author guiding the work of the French-speaking participants of all the groups.

Each group was allocated some two hours to present its conclusions, and full use was made by almost all groups of the excellent audio visual facilities available. Their presentations of the various groups are evaluated under section 10 of this report.

8. UNIDO Consultancy Service at INTEREIMALL:

Over and above the Course, UNIDO also had a stand (in a portion of the Exhibition where all the professional associations were located) to provide free and impartial consultancy services to visitors from developing countries.

This stand was manned by two consultants, Messrs. Horatio P. Brion (Philippines) and Pekka J. Paavola (Finland) specially recruited by UNIDO for the purpose, and also at times by the author.

It provided advice on an ad hoc basis to technical enquiries made by visitors to the exhibition, and information on UNIDO's activities

in general. The stand, provided fully furnished - including a telephone - free of charge by the organisers of INTERBIMALL, was large and communicated with that of FAO. It was also used by the participants in the Course in their assignment work as a meeting place to exchange views.

This was the first time that UNIDO had a Consultancy Service at INTERBIMALL (such a service had been provided in 1977 at the LIGNA Fair in Hannover, and in 1979 at the INTERZUM Fair in Cologne, and the LIGNA Fair in Hannover). There is no doubt as to the usefulness of such a service, not only to provide the ad hoc advice to visitors from developing countries, but to complement the lectures by providing technical advice and information to the participants of the course at a time when the lecturers are not available to do so (since the vast majority are busy at their companies' stands in the exhibition). The Consultants also guided the participants in preparing their assignment work in the evenings and nights at the Hotel. This tutoring also complemented successfully the formal lectures, and resulted in presentations of the assignment work that were of a higher level.

Posters informing visitors to the Exhibition of the free UNIDO Technical Consultancy Service were placed at the three main entrances to INTERBIMALL.

Records of enquiries received were kept on sheets to facilitate follow-up, (for a sample sheet see Annex VI), and follow-up action taken by the author upon his return to Vienna.

UNIDO's Consultancy Service stand also attracted the attention of potential candidates for our Roster of Experts and Consulting firms, and for the UNIDO Portfolio of wood processing technologies (UNIDO/IOD/240 Rev.1).

Information on UNIDO's work in general, and in the wood processing industries' sector in particular, was made available to the general public through printed brochures obtained from the Public Information Services Section.

The number of technical enquiries received was not large, but it must be remembered that visitors to such Exhibitions are still not used to UNIDO providing such a service, and consequently did not avail themselves of it. In assessing the usefulness of such a service the assistance provided to the participants and the provision of information about UNIDO and its work must be considered.

9. Administrative matters:

The management and staff of ACIMALL, INTERBIMALL and Palazzo Africa (of the Ente Autonoma della Fiera di Milano) were extremely helpful and had thought of practically everything in advance. When emergencies did occur - such as the accidental scalding of a participant - they immediately took all the measures to provide the necessary assistance. The course was quite advanced when it was realized (by pure chance) that all the participants, consultants and the UNIDO staff member had to register with the police in person, and that hotel registration was not sufficient. Arrangements had to be made at short notice to take all concerned, in small groups to reduce wasted time, to the Department for foreigners at the Questura. Subsequent to the course, the author discovered that this could have been made by the Milan Fair authorities.

The hotel selected (Hotel Astoria, Viale Murillo) was both well situated with respect to the Fiera di Milano, and well within the limits imposed by the per diem allocation. Excellent arrangements were made at both airports in Milan to ensure that participants could reach the hotel without trouble. Not only did ACIMALL make all the arrangements for the UNIDO reception, but, on realizing that the sum was not sufficient for a reception, they financed the additional funds needed to cover the costs for a buffet dinner at a first class hotel (Grand Hotel Fiera di Milano) for the participants, lecturers, and other persons associated with the course.

Because of delays in the receipt of the funds to pay the per diem and other local costs ^{1/}, ACIMALL actually advanced the sum and was reimbursed over one month after the payments were made.

ACIMALL also financed two sightseeing trips for the participants: one half day trip on Saturday 10 May when major touristic attractions of the city of Milan were seen, and a full day trip on Sunday 11 May, when the participants were taken to see the Maggiore, Varese and Como lakes. This was highly appreciated by all concerned.

The Ente Autonoma della Fiera di Milano put at the disposal of the Course the conference facilities of Palazzo Africa. These are as good as any in the VIC, the conference room having a seating capacity of some 70 persons at tables and another 70-100 on chairs behind each row. Facilities for simultaneous interpretation in six languages exist as do all the necessary visual aids: overhead projectors, slide projectors of various sizes, cinema projectors of various sizes and epidiascopes.

ACIMALL once again assumed the responsibility of recruiting the interpreters for the Course, and these were of an internationally recognized standard.

The financing of the course was secured from the Italian Contribution to the UNIDF (project no. US/INT/79/213.). A sum of US\$ 135.000 was allocated to that effect. The detailed breakdown of the course's budget is given in Annex VII. (The increase over the 1978 course was 64 percent, and over that held in 1976 84 percent). The sharp increase in costs compared to the 1978 course is mainly due to the

^{1/} UNIDO instructed the CABV to transfer the sum of Lit. 57 million on 14 April 1980, i.e. well in advance of the course. These only reached ACIMALL's account on 16 June 1980.

steep rise in cost of travel and per diem of the participants (from US\$ 54.960 budgeted for the 1978 course to US\$ 92.400, i.e. an increase of 68 percent). Another reason for the increase is the inclusion, in 1980, of a new activity: the Technical Consultancy service at the Exhibition, for which a sum of US\$ 7.800 was budgeted. (This represented 6 percent of total costs).

In spite of the short time available for organizing the course, the author wishes to put on record the assistance he received from the Training Section of IOD and the Documents Reproduction Unit of the Conference Services Division. On several occasions they had to provide services at very short notice.

10. Press coverage:

Both UNIDO and the press service of ACIMALL and INTERBIMALL issued press releases describing the course and consultancy service.

Copies of press clippings will be sent to UNIDO's Information Services by Mr. F. Ziberna of the press service of ACIMALL.

During the Exhibition the following journalists from the specialized press have visited the UNIDO stand and have obtained information on UNIDO's work in the wood processing industries field from the author:

Allan Alnegard, of AB Svensk Trävarutrdning, Stockholm, Sweden;
Hugh R. Fraser, Editor, World Wood, Harrow, Great Britain;
Fermin Gallego Serra, Manager DTMM, (Derivados, Tecnicas, materiales y Maquinaria de la Madera), Barcelone, Spain;
Ward C. Williams, European Editor, Timber Trades Journal, London, Great Britain.

11. Evaluations:

UNIDO's forms for the evaluation of the course were handed out to all the participants on 19 May, and 23 forms, duly completed were returned by the end of the course. The replies were compiled and

the detailed compilation is given in Annex VIII. The author was given these forms by the Training Section in English, French and Spanish. He did not realize at the time of handing these forms out that the English text was somewhat different from the French and Spanish one, consequently, the replies are not all comparable.

By and large the assessment by the participants was positive. They complained mainly about the shortness of the notice given to them, but were satisfied with the "product mix" of the course, its level and contents.

By and large the lectures were of acceptable standard. Some, such as the ones on sawmilling equipment, by Mr. Froidure, Mr. Giordano's on properties of timber species, the one on the methodology for the selection of woodworking machines, and the one on production of joinery and furniture by Messrs. Speranza and Schiavo were exactly what we had intended them to be, namely that they covered the various options available and discussed pros and cons of each option. Other lecturers, such as for instance those that covered plywood production, veneer production, and particle board production in fact only highlighted the process and went into depth to explain certain recent developments which by and large were too sophisticated for use in many of the participants' home countries. This shortcoming, however, was more than compensated by the advice available to the participants during their preparation of the assignment work. This advice was given by the two UNIDO consultants and the author of this report.

The organizers are to be commended for the choice of the four plants visited since the veneer production unit offered a complete range of all the production possibilities and equipment, the furniture plant - which could have been a highly sophisticated unit - was one producing at a level of technology and in series small enough to make it applicable to the developing countries, whereas the other two were also quite appropriate.

The first day's lectures outlining the situation of the wood processing industries' sector in Italy, the trade in imported exotic wood products, and the woodworking machinery industry in Italy, were very well presented and led to a very fruitful discussion. This discussion broke the ice and assured a very lively discussion from the beginning of the course through all the lectures.

As stated above, the participants went to great pains to prepare their assignment work. The following presentations were of an unexpectedly high level and indicated a thorough preparation by members of the group:

- Selection of equipment for the production of plywood and sliced veneer.
- Selection of equipment for the production of kitchen furniture.
- Selection of equipment for the production of flush doors.
- Selection of equipment for the production of upholstered furniture.

The presentation on sawmilling related to the specific problems of only one country, and no alternatives or comparisons were given. That on selection of equipment for kiln drying was a very thorough study of de-humidifier kilns, but did not cover the recently developed system of drying under vacuum. The presentation of the assignment work on parquet was thorough, but it covered only one alternative. That on forestry equipment was hampered by the few items of this equipment exhibited.

Finally, the presentations on selection of equipment for louvered windows and school furniture were not up to the expected standards - mainly because economic considerations in operating the equipment selected were not taken into account.

An informal assessment of the course as a whole was made by the Director (Prof. Giordano), the author and the participants. The author and Professor Giordano explained to them the difficulties they encountered in organizing the course. Their suggestions were that:

- participants should get the lecture material beforehand,
- lecturers should not read their texts and devote more time to identifying criteria for the selection of the machines, and not, as was the case for a couple of lectures, describe recent developments (and highly sophisticated ones at that!),
- in selecting group leaders of assignment work an attempt should be made to assure that there would be no difficulties in communication due to knowledge of language,
- more factories should be visited, and the visits should be spaced.

12. Conclusions and recommendations:

Based on the above evaluation the author is convinced that the course is an extremely useful one and should be repeated in the future at the next (and subsequent) INTERBIMALL exhibition(s).

He recommends that, in drawing up the programme, the following points be considered:

1. The project should be approved financially not later than August 1981, to enable UNIDO and ACIMALL to invite the respective countries in time. Approval in principle should be obtained about one year before the course is due to take place. Annex IX gives the proposed time schedule for the present course, the actual times when the action was taken (because of delays in approving the project) and a tentative schedule in case the course is repeated in 1982.
2. As many as possible of the lectures being published in the compilation of lectures given in the first two courses (ID/247) should be used. This would reduce costs of translation of the lectures and fees paid to the lecturers.
3. The publication referred to above (ID/247) should be translated in French as soon as possible for use at next course.
4. Documentation should be sent to the participants as soon

they are notified of their acceptance, so that they may study it and prepare queries. More time could also be devoted to discussions, if, instead of reading their texts, the lecturers could assume that these have been read and highlight the text and then devote the time saved to discussions.

5. More use should be made by most lecturers of audio visual aids (slides, overhead projectors, etc.). Lecturers could compile sets of slides to show the various options available and show them in conjunction with their presentation.

6. In view of the good response received to all three courses (see Annex III) the author recommends that it be repeated in 1982 with 50 instead of 30 participants. This will permit to have larger groups in the assignment work, with two groups per topic, one being a French speaking group and the other an English speaking group.

7. Additional funds should be budgeted in the next course for the UNJDO appointed consultants. The funds earmarked to this effect in 1980 did not permit the recruitment of the third consultant (in wood based panels) originally foreseen.

13. Other matters:

A. Discussions with Mr. Michele FRANCHI, President of the Ente Autonomia della Fiera di Milano:

The author met with Mr. Franchi on 6 May 1980, and Mr. Franchi stressed how happy he was that UNIDO convened the course at the Milan Fair. He stressed that UNIDO would be welcome to also hold other courses in conjunction with any of the 58 special exhibitions held yearly in the Fair's grounds.

B. Discussions with Mr. Claudio Celata, of ASSOCOMAPLAST (Associazione Nazionale Costruttori di Macchine per Materie Plastiche e Gomma):

Mr. Celata was introduced to the author by Mr. Zanibon on 8 May 1980. He indicated his association's readiness to conduct, together with UNIDO similar course(s) in any field related to plastics and rubber production. The author promised to transmit this offer to the Chemical Industries and the Training Sections of UNIDO. Their address is:

Via Pagliano 11,
20149 Milano
Telex 335093

C. Discussions with Dr. Rodrigo Rodriguez, Vice President of Fedelegno-Arredo:

The author met with Mr. Rodriguez on the first day. He also expressed his association's desire to hold similar courses with UNIDO. The author promised to bear this in mind and to communicate to them in due course a proposal for a course if and when an opportunity arises. (Such a course could be arranged in conjunction with the Furniture Fair in Milan, which is held in September of every year).

14. Acknowledgements:

The author hereby wishes to express his gratitude to Dr. Lazzaro Cremona, President of ACIMALL and INTERBIMALL, Dr. Paolo Zanibon, Director General of ACIMALL, Prof. Guiglelmo Giordano, Director of the Course, and to all the staff of ACIMALL, who went to great pains to assure its success. Special thanks should go among them to Dr. Laura Bianchi, Ing. Dino Russo and Miss Rita Azzoli, who worked long hours to assure its success. The author also wishes to thank the head of ACIMALL's press service, Mr. Fabio Ziberna, for the excellent coverage (both before and during the course) of UNIDO activities at

INTERBIMALL, as well as to the interpreters who often worked long after the scheduled hours to translate lively discussions. Special thanks are also due to Dr. Aldo Marchich and the staff of Palazzo Africa for their efficient and courteous collaboration. Finally, lecturers, managers of plants - who opened their doors to the 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 course's success.

The author also wishes to place on record the excellent work done by the two consultants, Messrs. Horatio P. Brion and Pekka J. Paavola, not only during the Exhibition hours, but also late in the evenings. The guidance they gave to the various teams resulted in a higher level of presentations of the assignment work.

A N N E X I

List of countries invited

Afghanistan	Haiti
Algeria	Honduras
Angola	India
Bangladesh	Indonesia
Bolivia	Iraq
Botswana	Ivory Coast
Burma	Jamaica
Burundi	Kenya
Central African Republic	Lao People's Democratic Republic
Chile	Liberia
China	Madagascar
Colombia	Malawi
Congo	Malaysia
Costa Rica	Mali
Cuba	Mauritania
Cyprus	Morocco
Egypt	Mozambique
El Salvador	Nicaragua
Equatorial Guinea	Nigeria
Ethiopia	Pakistan
Fiji	Panama
Gabon	Papua New Guinea
Gambia	Paraguay
Ghana	Peru
Guatemala	Philippines
Guinea	Republic of Korea
Guinea-Bissau	Rwanda
Guyana	Senegal

Sri Lanka

Sudan

Swaziland

Syrian Arab Republic

Thailand

Tunisia

Turkey

Uganda

United Republic of Cameroon

United Republic of Tanzania

Uruguay

Venezuela

Zaire

Zambia

ANNEX II

LIST AND ADDRESSES OF PARTICIPANTS
OBSERVERS, LECTURERS AND CONSULTANTS

PARTICIPANTS

<u>NAME</u>	<u>FUNCTION</u>	<u>MAILING ADDRESS</u>
<u>Afghanistan</u>		
Mr. TOURA	Director of Planning Department of Afghan Capital Enterprises	Afghan Carpentry Enterprise Kabul
<u>Algeria</u>		
Mr. Mahmoudi BELARIBI	Responsable commercial	Ministère de l'Industrie Lourde SONACOME Réseau Equipements Industriels Avenue de l'A.L.N. Cinq Maisons El-HARRACH
<u>Bangladesh</u>		
Mr. Mofazzal Hossain CHOWDHRY	Asst. Supdt. (Production)	M/S Star Particle Board Mills P.O. - Madanpur Naraynganj Dacca
<u>Bolivia</u>		
Mr. Roberto Felipe MORENO	General Manager "Amoblart"	Av. San Martín 145 Cochalacemba

Chile

Mr. Sergio Enrique DELANO Abbot	Product Manager	Industrias Delano S.A. Vicuna Mackenna 2361 P.O.Box 9726 Santiago
Mr. Kurt A. SEIDER	Gerente de Producción	Industria Maderera Klingenberg S.A. P.O.Box 9828 Santiago

China

Mr. CHEN Xuhe	Assistant research fellow	Chinese Academy of Forestry Beijing
Mr. ZHU Huanming	Assistant Research fellow	Chinese Academy of Forestry Beijing

Congo

Mr. Michel N'ZALI	Responsable des unités de transformation	Ministère de L'Economie Rurale Société Nationale d'Exploitation de Bois (SNEB) B.P. 1198 Pointe Noire
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Costa Rica

Mr. Roger Solano GARRO	Engineer	Instituto Tecnológico de Costa Rica Apartado 159 Cartago
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Egypt

Mr. Mohamed HASSANEIN	Chief of Maintenance Department	Egyptian Woodworking Co. 5 Talaat Harb Street Cairo
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Guyana

Mr. Carlton Francis COLLINS	General Manager	Guyana Timbers Ltd. P.O.Box 421 Georgetown
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Honduras

Mr. German Leonel GUILLEN-BELLINO	Forestry and Logging Manager	Corfino S.A. P.O.Box 1613 Tegucigalpa DC
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Indonesia

Mr. Bambang DURAKJAK	Vice President/Director	P.T. Sarmiento Parakantja Timber Skyline Building 12th Floor Jl. M.H. Thamrin - 9 Jakarta
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Mr. Basa Parlaungan SIHOMBING	President Director	P.T. Bamasco Jalan Kebon Sirih, 48 Jakarta
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Ivory Coast

Mr. Nandjo Kouakou APPIA	Technicien des Métiers du Bois	OPEL 08 B.P. 868 Abidjan 08
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Mr. Galé Albert SERY	Direction Générale Activités Industrielles	Ministère de l'Economie des Finances et du Plan B.P. V 65 Abidjan
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Mr. N'Goran YAO	Chargé de Mission	Ministère des Eaux et Forêts B.P. V 94 Abidjan
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Jamaica

Mr. Lloyd Ayrton DAVIS	Head, Furniture Laboratory	Jamaican Bureau of Standards 6 Winchester Road. Kingston 10
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Peru

Mr. Mauro RIOS	Gerente General Maderas Remanufac- turadas S.A.	Rio de La Plata 480 San Isidoro
	Presidente del Directorio Transformadora de Madera S.A.	Av. Arenales 1868 Lince Lima

Tanzania

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Mrs. Gladness Elineema MTANGO	Industrial Economist	Wood Industry Corp. P.O.Box 9160 Dar es-Salaam

Thailand

Mrs. Nuanwan THIRAWAT	Chief Furniture Industry Development Center	Industrial Services Institute Soi Kluaynamthai Rama 4 Rd Bangkok 11
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Uruguay

Mr. Hector Carlos FAROPPA	Adscrito a la Direccion	Yaravi S.A. Cambay 2816 Montevideo
Mr. Zdravko STIPANICIC	Tecnico Industrial (S.A.M.I.C.)	S.A.M.I.L. C.C. 361 Montevideo
Mr. Jean Canning TISSIERRE	Gerente	Wicker S.R.L. Av. Grad. Rivera 2268 bis Montevideo

OBSERVERS

<u>NAME</u>	<u>FUNCTION</u>	<u>MAILING ADDRESS</u>
<u>Angola</u>		
Mr. Mbumba TSHIKU	Promoteur Commercial	Ministère Angolais Du Commerce Extérieur Directica Nationale de Politique Commerciale Luanda
<u>India</u>		
Mr. Mohammad T. VAGH	Production Manager	Hunsur Plywood Works Hunsur Karnataka State
<u>Paraguay</u>		
Mr. Walter AFONSO FILHO	Director	Agro Industrial Kanendiyu S.A. Oficina Central Comandante Franco 168 Asuncion
Mr. Delson Mestre PASCHOAL	Director	Agro Industrial Karambey S.A. Av. Mariscal López 1187 Asuncion

LECTURERS

NAME

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Ing. Gianfranco MELLONI	Via G. Remi, 35100 Padova Italy
Ing. Enrico MINARELLI	Via Dalmonte, 5 40026 Imola Bologna Italy
Ing. Gabriele MARTELLI	c/o Cefla S.r.L. Via Selice, 102 40026 Imola Bologna Italy
Ing. Alberto MOTTADELLI	Via Stefano da Seregno, 31 20038 Seregno Milano Italy
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Dr. Rodrigo RODRIQUEZ	c/o Federlegno-Arredo Via Mascheroni, 19 20100 Milano Italy
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NAME

MAILING ADDRESS

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Udine
Italy

UNIDO CONSULTANTS

<u>NAME</u>	<u>FUNCTION</u>	<u>MAILING ADDRESS</u>
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Mr. Pekka J. PAAVOLA	Head Wood Technology Department Lahti Institute of Technology	Stahlberginkatu 10 15110 Lahti, 11 Finland

ANNEX III
RESPONSE OF MEMBER STATES TO INVITATIONS

	1976	1978	1980	TOTAL
Number of countries invited by IBRD to nominate candidates	42	29	76	n.a. ^{1/}
Number of participants nominated by the Governments	82	47	68	192
Number of participants who would qualify to attend	53	31	32	116
Number of participants who actually attended	35 ^{2/}	22	30 ^{3/}	87 ^{4/}

^{1/} Host countries were invited to nominate participants for all three courses.

^{2/} Including three participants attending at their own cost.

^{3/} Including four participants attending at their own cost.

^{4/} Total of seven participants attended all three courses at their own cost.

ANNEX IV

THIRD TECHNICAL COURSE ON THE CRITERIA FOR THE
SELECTION OF WOODWORKING MACHINES
Milan, Italy from 5 to 21 May 1980

P R O G R A M M E

Sunday, 4 May 1980

Arrival of participants in Milan.

Monday, 5 May 1980

- 0930 Registration of the participants and observers.
- 1000 Opening ceremony.
- Welcoming addresses by:
- Mr. Dionigi PAVESI, Vice President of the Ente Autonoma della Fiera di Milano (on behalf of Comm. Michele Guido FRANCHI, President of E.A. Fiera di Milano).
 - Mr. Lazzaro CREMONA, President of ACIMALL and INTERBIMALL.
 - Mr. Antoine V. BASSILI, UNIDO Representative (on behalf of Dr. Abdel Rahman KHANE, Executive Director of UNIDO).
- 1100 Lecture on "The Evolution of the Italian woodprocessing and furniture manufacturing industries and their progress in introducing modern technologies", by Dr. Rodrigo RODRIGUEZ, Vice President of FEDELEGNO-ARREDO.
- 1200 Lecture on "The Increasing importance of tropical timber for the Italian wood processing industry", by Mr. Armando GARDINO, President, Italian Federation of Timber Importers.
- 1300 Lunch

- 1430 Wood Characteristics influencing equipment selection and machine operations", by Mr. Guglielmo Giordano, Italian Federation of Timber Importers.
- 1900 Reception given by ACIMALL/INTERBIMALL.

Tuesday, 6 May 1980

- 0900 Lecture on the "General criteria for the selection of machines", by Mr. Gian Luigi DELLA TORRE.
- 1130 Lecture on the "Selection of sawmilling equipment", by Mr. Jacques FROIDURE.
- 1430 Continuation of Mr. Froidure's lecture.
- 1530 Lecture on "Methodology for the purchase of woodworking machines", by Mr. Antoine V. BASSILI.
- 1700 Introduction to assignment work.

Wednesday, 7 May 1980

- 0900 Lecture on "Safety rules for the installation and maintenance of electrical equipment", by Mr. Gian Pietro CANEVARI.
- 1100 Lecture on "Power-supply and power-supply maintenance in wood processing industries", by Mr. Alberto MOTTADELLI
- 1430 Lecture on "Kiln drying of sawn lumber", by Mr. Rodolfo CIVIDINI.
- 1700 Distribution of assignment work.

Thursday, 8 May 1980

- 0900 Lecture on "Tools for machining wood", by Mr. Gian Franco MELLONI.
- 1100 Lecture on "Consultancy on equipment for tool maintenance, by Messrs. Roberto RUZZENENTI and Mario PARETTI.

1430 Lecture on "Preservation of wood products", by Mr. Guglielmo GIORDANO

Friday, 9 May 1980

0900 Lecture on "Wood based panels: comparison of various types of panels; general considerations and guidelines for selection of machines, equipment and plant", by Mr. Mario BERMANI.

1030 Lecture on "Production lines for plywood and veneer", by Mr. Aristide COLOMBO.

1430 Lecture on "Production of Sliced veneer" by Mr. Ezio MABINI.

1600 Lecture on "Selection of equipment for panel surface improvement", by Mr. Taddeo SLODYK.

Saturday, 10 May 1980

Sightseeing and shopping in Milan.

Sunday, 11 May 1980

Sightseeing in Lakes area.

Monday, 12 May 1980

0900 Lecture on "Economic aspects in the selection of plant and machines for the production of particle boards", by Mr. Taddeo SLODYK.

1100 Lecture on "Painting and varnishing of wood and its derivatives" by Mr. Gabriele MARTELLI.

1330 Visits to:

- (a) SAFFA S.p.A. Somalia Lodigiana (Producers of block-board, plywood, particle board).
- (b) Medaspan and Costapan (Producers of particle board and surface improved particle board)

Tuesday, 13 May 1980

- 0900 Lecture on "Technology and machinery for the production of casegood furniture", by Mr. Aldo SCHIAVO
- 1100 Lecture on "Production of chairs and other wood components", by Mr. Angelo SPERANZA.
- 1400 Visits to:
- (a) BOFFI Lentate Sull Seveso
(Reproduction furniture)
 - (b) DUBINI Emilio e Lino S.n.C.
Mariano Comense
(Production of sliced and peeled veneers)

Wednesday, 14 May 1980

- 0900 Lecture on "Mechanization of forest operations", by Mr. Elvio GARELLO
- 1100 Lecture on "Selection of forestry equipment", by Mr. Xavier de MEGILLE.
- 1430 Lecture on "Industrial production of doors, windows and frames", by Mr. Enrico Minarelli.
- 1600 Lecture on "Utilization of wood-waste", by Mr. Guglielmo GIORDANO
- 1700 Information on the Exhibitions INTERBIMALL and SASMIL by Mr. F. ZIBERNA

Thursday, 15 May 1980

- all day Visit to the Exhibitions and compilation of data for assignment work.

Friday, 16 May 1980

- all day ditto

Saturday, 17 May 1980

all day Ditto

Sunday, 18 May 1980

all day Ditto

Monday, 19 May 1980

all day Presentation of assignment work.

Tuesday, 20 May 1980

all day Presentation of assignment work.

Wednesday, 21 May 1980

0900-1100 Presentation of assignment work.

1100 Closing statements by:

Mr. Guglielmo Giordano, Course Director

Mr. Paulo ZANIBON, Director, ACIMALL

Mr. Antoine V. BASSILI, UNIDO Representative.

2000 Reception given by UNIDO

Thursday 22 May 1980

Departure of participants for their home countries.

ANNEX V

NOTE TO THE PARTICIPANTS

Assignment Work

Objectives

The organizers of the course attach great importance to this component of the programme. They feel that through the preparation and presentation of assignment work the participants will be able to better benefit of the course since they will participate, in small groups, in the solution of problems according to conditions prevailing in their own countries. Such work will also facilitate the exchange of views and experiences between the participants.

Methodology

Early in the course participants will be asked to indicate their interest in at least two and not more than four of the following topics:

1. Selection of equipment for sawmills;
2. Selection of equipment for plywood and veneer production;
3. Selection of equipment for the production of flush doors;
4. Selection of equipment for the production of louvered windows;
5. Selection of equipment for the production of kitchen furniture;
6. Selection of equipment for the production of solid wood school desks;
7. Selection of equipment for the production of upholstered chairs;
8. Selection of appropriate lumber kilns for furniture and joinery products;
9. Selection of equipment for forestry use;
10. Selection of equipment for production of parquet.

Details of the technical specifications of each product must be drafted by participants.

Groups will be formed and group leaders nominated. On the last two days of the Technical Course each group will be given two hours to present its work. They will be requested to determine the type of equipment they recommend for the production process, prepare a layout of the machines they have selected and then explain in detail the criteria they have adopted to select each and every item of equipment.

Participants will have to visit the INTERBIMALL exhibition to obtain technical and economic data on the various types of machines available on the market.

The UNIDO staff and the experts of the Consultancy Service Centre will be available throughout the duration of the Fair to guide the groups in their work. They will also have the possibility of discussing technical problems with the various lecturers.

In presenting their group's work, group leaders are encouraged to make full use of the audio-visual material.

Technical specifications and capacities of the products for the assignment work:

Topic 1: Selection of equipment for sawmills:

Prepare a layout and select equipment for a sawmill to saw tropical sawlogs with the following specifications:

Annual capacity:	10.000 m ³ logs
Length of logs:	max. 6 meters
	min. 2 meters
Diameters of logs:	max. 120 cm
	average 80 cm

Specification of end product: standard sizes required by the European market.

25 percent of the production is to be kiln dried to 12 percent m.c. Emphasis should be placed on achieving a high yield and utilizing wastes.

Tentative cost of equipment US\$ 80.000.

Topic 2: Selection of equipment for plywood and veneer production:

Prepare a layout and select equipment for a plywood and sliced veneer plant with the following specifications.

Annual capacity:	10.000 m ³ plywood sheets 4' x 8' to 12 mm thick, average thickness 6 mm
of which	2.000 m ³ 4' x 8' x 4mm with sliced veneer faces plys 1.000.000 m ² sliced veneer up to 3 m long and 0.6 to 0.8 mm thick.
Tentative cost of equipment	US\$ 750.000

Topic 3: Selection of equipment for the production of flush doors:

Prepare a layout and select equipment for plants to produce

- (a) 50 flush doors per day using simple technology, and
- (b) 150 flush doors per day using a more advanced technology; using air dried sawnwood.

The doors are to have wooden strip cores and plywood faces.

Tentative cost of equipment US\$ 50.000 for alternative (a) and US\$ 250.000 for alternative (b).

Topic 4: Selection of equipment for the production of louvered windows:

Prepare a layout and select equipment for plants to produce

- (a) 50 louvered windows per day using simple technology, and
- (b) 150 louvered windows per day using a more advanced technology; using air dried sawnwood. Drawings of these windows will be supplied.

Tentative cost of equipment: US\$ 40.000 for alternative (a) and US\$ 100.000 for alternative (b).

Topic 5: Selection of equipment for the production of kitchen furniture:

Prepare a layout and select equipment for a plant to produce modular knock-down kitchen furniture from wood based panels surfaced

with plastic laminates.

Capacity: 10.000 m² (door area) per year
Tentative cost of equipment: US\$ 25.000

Topic 6: Selection of equipment for the production of solid wood school desks:

Prepare a layout and select equipment for a plant to produce 20.000 school desks and 40.000 chairs per annum.

The plant is to use air dried tropical hardwoods and labour intensive methods, if applicable are to be preferred.

Tentative cost of equipment: US\$ 50.000

Topic 7: Selection of equipment for the production of upholstered chairs:

Prepare a layout and select equipment for a plant to produce 10.000 chairs per annum. These are to have upholstered seat and back rests, on bent plywood cores and solid wood elements, laminated if necessary, but not bent. (a photo of the end product will be provided).

Tentative cost of the equipment US\$ 50.000.

Topic 8: Selection of appropriate lumber kilns for furniture and joinery products:

Prepare a list of lumber dimensions and species and select a kiln dryer of 30, 50 or 100 m³ capacity appropriate to your conditions and compare two different systems of kilns.

Topic 9: Selection of equipment for forestry use:

Describe your logging site and select appropriate felling, logging, skidding equipment, compare individual and/or combined equipment for logging, skidding and road building.

Topic 10: Selection of equipment for production of parquet:

Select equipment for a plant to produce 500 m² of traditional
parquet per day

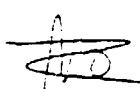
Name and address of company *Chief - MARTINS NWOSEH*
MARTICO SAWMILLS LTD
P. O. Box 49
ASHAKA, BENDEL STATE NIGERIA

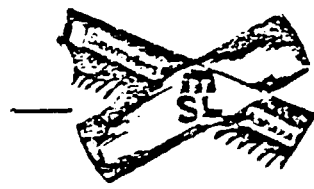
Contacting person, status
CHAIRMAN

Type of company (private, govt. owned)
PRIVATE

End product & annual volume of production
About 1000 cubic feet Saw timber
per day.

Information needed, particular problems
Saw docking Equipment.

Remarks
Referred to:
Vollmer (original) 
BRENT
Suggested other brands
(HARVEY, HUNTER, etc.)



CHIEF MARTINS C. NWOSEH
 CHAIRMAN/MANAGING DIRECTOR

MARTICO SAWMILLS LIMITED
 P. O. Box 49,
 Ashaka,
 Bendel - State
 NIGERIA

PROJECT BUDGET

ANNEX VII

- 41 -

Borne by

A. Travel:			
30 participants at US\$1800 each	\$54,000		
Excess baggage: 30x10xUS\$140	4,200		
Per diem: 30 x 19 x US\$60	34,200		
Sub-total	\$92,400		UNIDF
B. Cost of training; course proper:			
3 International Consultants, fee and travel: 3 x US\$2,000	6,000		UNIDF
Per diem: 3 x 10 x US\$60	1,800		UNIDF
Lecturers: Allowance, expense (accommodation and lunch) 20 x US\$300	6,000		UNIDF
(about 20 hours on existing texts and 13 hours on new texts)			
Simultaneous interpretation: (Italian/French/English)	5,650		UNIDF
Local travel	2,050		UNIDF
Facilities: Rental of premises for two weeks: 1 conference room for 50 persons	5,200		UNIDF
1 office	600		UNIDF
30 INTERBIMALL catalogues for participants p.m			ACIMALL
Sundry stationary, etc.	1,200		UNIDF
Hospitality: reception by UNIDO	600		UNIDO
reception by ACIMALL	p.m		ACIMALL
Documentation: translation of about 200 pages of lectures from Italian into English and French, plus reproduction of these lectures	p.m		ACIMALL
Transportation of documents and course library from Vienna to Milan	550		UNIDO
Sub-total	29,650		
C. Administration costs:			
Salaries: Course Director 2 m/m	2,800		UNIDF
Accommodation for course Director	1,200		UNIDF
Course Secretary	1,500		UNIDF
2 Interpreters - English/French	1,100		UNIDF
Travel: (1) Travel to Vienna by ACIMALL Secretary for finalization of programme (airfare plus 2 days per diem)	550		UNIDF
(2) Travel to Vienna by ACIMALL Secretary to assist in selecting participants (airfare plus 2 days per diem)	550		UNIDF
(3) Travel of UNIDO staff member to conduct the Course, plus excess baggage and 22 days per diem- \$420+140+1320	1,900		UNIDF
Sub-total	9,600		

D.	Miscellaneous	US\$	3,350	UNIDF
E.	Administrative support by UNIDO:			
	Letters of invitation, screening of participants' nominations, issuance of letters of aware, travel accommodations, reviewing text of lectures, plus their reproduction		p.m.	UNIDO
	Total		135,000	UNIDF
	14 % Overhead		19,000	
	<u>Grand Total</u>		<u>154,000</u>	UNIDF

Currency Requirements:

Costs borne from special contribution
of the Government of Italy. to UNIDF \$ 154,000

N.B.

ACIMALL will provide in kind:

- (a) Cost of 30 catalogues for participants
- (b) Reception by ACIMALL
- (c) Documentation - Translation and reproduction of lectures
- (d) Miscellaneous support (secretarial, administrative, etc.)

UNITED NATIONS  NATIONS UNIES
 UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

LERCHENFELDER STRASSE 1. A-1070 VIENNA, AUSTRIA
 P.O. BOX 707. A-1011
 TELEPHONE: 43 600 TELEGRAPHIC ADDRESS: UNIDO TELE: 75612

COMPILATION OF THE REPLIES RECEIVED TO THE
EVALUATION - QUESTIONNAIRE

Name of Participant: Home country:
 Programme: Technical course on criteria for the selection of woodworking machines. Host country: Italy
 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)

	<u>Sufficient</u>	<u>Not sufficient</u>	<u>Missing</u>
Aim of the training	18	6	
Content of the programme	14	6	4
Level of the programme	16	4	4

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

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

Information about the programme 3 weeks 4 4 weeks 3 6 weeks 1 7 weeks 2
 8 weeks 1

Being accepted to the programme 1 week 6 2 weeks 1 5 weeks 1
 Stand by 3 days 1 5 days 2 4 days 1

Comments:

- Acceptance notice too short,
- Information 5 - 6 weeks before,
- Acceptance min. 2 weeks (2),
- Content of programme sent earlier,
- Information received direct from a UNIDO officer.

II. PROGRAMME CONTENT AND ORGANIZATION:

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

Too long 1

Just right 7

Too short 4

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

2 weeks 1 3 weeks 2 4 weeks 2 8 weeks 1

Please comment:

- More time to study lectures and exchange views,
- More than two weeks in too much to be well digested,
- We have no specialists in our country - need longer.

4. State your opinion about the daily schedule: (lectures)

Too heavy 4

Just right 8

Too light

Comments:

- More time needed to study lectures,
- Half day lectures, half day plant visit, 3
- 3 chapters per day. Rest of time for case study.

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

training programme?

- Send beforehand information on the topics of the lectures.
- None 2
- More plant visits 3
- Lectures should end at 4 p.m. once a week.
- Lectures did not cover adequately with identification of technical criteria but covered such items as how plywood is made, even drying lecture contained 3 systems, not units. Lectures should be more along the lines of Chapter 3.
- Training methods insufficient.

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

- To a very large extent 1
- To a large extent 4
- To a sufficient extent 7
- To a small extent
- To a very small extent

Please comment:

- Since I represent a private company, only a few subjects are connected with my activities.
- More audio-visual aids. - Good methods 4
- Hope to convince people at home to use other criteria than price.
- Better integration of visits with lectures.

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

- As many as possible - More furniture plants.
- Longer visits 3 - Furniture plant visited
- Better preparation of visits (but got lost) similar to those in
- More visits 4 developing countries.
- very useful 2
- Information sheets on visits (same as Lahti) missing.

Would like to see automation

Please suggest other study visits that might have been valuable:

- Wood-cement particle board plants
- Sawmills
- Large scale furniture production 2
- Machine manufacturers 2
- More visits 2

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

- Much too high
- Too high
- Adequate 10
- Too low
- Much too low

Comments:

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.)

	<u>Subject</u>	<u>Reason</u>	
	Wood based panels	Relevant to my work	7
6	Methodology for purchase of woodworking machines	New information	
2	Production of plywood and veneer	My speciality	3
4	Sawmilling	Excellent content	2
2	All were relevant		
	Particle board		
2	Veneer		
2	Plywood		
	Furniture		
	Logging		
2	Panel surface improvement		
	Material for surface finishes		
	Tools for machining wood		
	Properties of wood		

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>	
	Logging	Irrelevant to conditions in my country	4
2	None		
2	Mechanization of forest operations	Too elementary	
2	Selection of forestry equipment		
	Production of doors		

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

Yes 3

No 9

If yes, what did you miss?

Dust extraction (formulae for ducting).

Technical criteria for selection of machines.

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

	<u>no changes</u>	<u>more</u>	<u>less</u>
a) lectures	<input type="text" value="3"/>	<input type="text" value="2"/>	<input type="text" value="5"/>
b) group work	<input type="text" value="6"/>	<input type="text" value="4"/>	<input type="text" value="2"/>
c) demonstrations	<input type="text" value="4"/>	<input type="text" value="6"/>	<input type="text"/>

Comments: - More slides, more slide shows

- More group work means more contacts between the participants.
- Demonstrations might give new ideas.
- More time in factory
- Group work should be more evenly shared out by leaders.
- Lectures should not be read - more discussions.

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

	i) <u>command of English</u>	ii) <u>method of instruction</u>
Very good	<input type="text" value="3"/>	<input type="text" value="2"/>
Rather good	<input type="text" value="3"/>	<input type="text" value="7"/>
Fair	<input type="text" value="2"/>	<input type="text" value="1"/>
Poor	<input type="text" value="2"/>	<input type="text"/>
Very poor	<input type="text"/>	<input type="text"/>

Please comment:

- Lecturers should not read word for word their texts.

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

	i) <u>personnel in the plants</u>	ii) <u>the programme staff</u>	iii) <u>fellow-participants</u>
Yes	<input type="text" value="7"/>	<input type="text" value="20"/>	<input type="text" value="19"/>
No	<input type="text" value="4"/>	<input type="text" value="4"/>	<input type="text" value="5"/>

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

	i) <u>the programme</u> <u>staff</u>	ii) <u>fellow-</u> <u>participants</u>
A great deal	<input type="text" value="2"/>	<input type="text" value="1"/>
Much	<input type="text" value="6"/>	<input type="text" value="3"/>
Somewhat	<input type="text" value="3"/>	<input type="text" value="7"/>
Little	<input type="text" value="1"/>	<input type="text"/>
Not at all	<input type="text"/>	<input type="text" value="1"/>

Please comment:

- Give assignment work earlier.
- Both staff and participants highly qualified.
- Most of the lecturers spoke only Italian.
- Better if participants had access to common room facilities.

I had different problems.

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	<input type="text" value="6"/>	Adequately	<input type="text" value="5"/>
To a great extent	<input type="text" value="4"/>	Only in certain respects	<input type="text" value="4"/>
To a sufficient extent	<input type="text" value="3"/>		
To a small extent	<input type="text" value="2"/>		

Please state why:

Company operates only in logging (Sawmilling).
Technology not appropriate to my country.

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

To a very great extent	<input type="text" value="1"/>
To a great extent	<input type="text" value="8"/>
To a sufficient extent	<input type="text" value="5"/>
To a small extent	<input type="text" value="3"/>
To a very small extent	<input type="text"/>

Please state why:

- Company will establish plywood plant.
- Course was very useful (assignment work)

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
- To a great extent
- To a sufficient extent
- To a small extent
- To a very small extent

What difficulties, if any, would you expect to meet?
- Only few things may be applicable under our conditions.
- Problems of overcoming resistance of top management.
- None.

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

- To a very great extent
- To a great extent
- To a sufficient extent
- To a small extent
- To a very small extent

20. How will this transfer be done?

- a) In day-to-day work to colleagues and subordinates
- b) In specific training activities inside present employment
- c) In specific training activities outside present employment

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

- Adjusting theory to local conditions.
- We have economic problems.
- We have no instruments to transfer the knowledge acquired to others.
- Implementation of plans to establish a Forest Industry Development Unit.
- Overcoming resistance of top management.
- None.
- Group work should comprise groups speaking the same language.
- More stress on identifying criteria.

IV. SOCIAL ASPECTS OF THE PROGRAMME:

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

- Lot of help from the staff.
- Good time
- Everything fine
- Very nice and useful
- Sufficient
- Too little leisure.

4

2

2

What additional activities would you have appreciated?

- Cultural performances.
- More after dinner interaction.

22. Please give any comments you choose on aspects not adequately covered by this questionnaire:

- send book to participants beforehand.
- Lectures in English (if possible) or better interpreters.
- None.
- Organize courses in developing countries.
- Conduct courses concurrently, each in one language.
- Lecture on quality control for woodworking machines (would have benefitted from discussions with Mr. Eldag)
- Product mix. 0.4 theory, 0.4 practical, 0.2 visits.
- Course in Spanish
- more specialization.

II CONCEPT AND ORGANIZATION OF PROGRAMME

2. What is your opinion about the contents of the programme?

Satisfactory Yes 11 No 1

If not satisfactory, please state why:

- lectures too long and too many

3. What is your opinion about the level of the programme?

Too high

Sufficient 11

Too low 2

4. Is, in your opinion, the programme:

Too specialized 1

Too broad (covering too many subjects) 4

Correct in its concept 7

5. What is your opinion about the total duration of the programme?

Much too short

Too short 1

Correct 7

Too long 4

Much too long

If too short or too long what should have been the duration?

10 days 1 2 weeks 3 4 weeks 1

6. Do you consider the size of the total group of participants:

Too large

Adequate 11

Too small 3

7. Give your opinion about the composition of the group of participants (homogeneity as to cultural background, profession, age, etc.). Were there too many under-qualified, or over-qualified participants? Did you personally feel integrated in the group, or, if not, why?

Satisfactory

3

Homogeneous group

4

Heterogenous

Could the c-v of all participants be circulated to all

Level of Latin American higher than that of African 2

8. What is your opinion about the general character of the programme?

Too theoretical

7

Too practical

Well conceived

5

9. How was, in your opinion a) the amount of practical training?

Too much

Adequate

5

Too little

7

- b) the amount of theoretical studies/lectures:

Too many

4

Adequate

7

Too few

- c) the number of study visits:

Too many

Adequate

4

Too few

8

Please state your suggestions for changes, if any:

10. What is your opinion about the time allotted to language studies?

Not applicable

11. What is your opinion about the training material used?

13. Have you benefitted from contacts with

a) instructors yes 10

no 2

b) participants yes 10

no 1

c) plant personnel yes 4

no 6

14. Did you feel that you could influence the programme content?

Large extent

Certain measure 1

Little 4

Not at all 6

15. Did you find the programme as conducted relevant to the conditions in your home country?

To some extent only

to a sufficient extent

To a great extent

16. Do you think this programme should be repeated?

Yes 12

No

17. If yes, do you think it should be held

in the same country and place

in the same country but another place

in another developed country

Please state the reasons for your answer:

Irrelevant, course cannot be held unless we have fairs.

P R O J E C T S C H E D U L E S

EVENT	a) as foreseen in the project proposal	b) as actually implemented	c) Author's proposal for a course in 1982
Submission of project proposal to the Secretariat of the Programming Committee	--	31 August 1979	May 1981
Approval of the Project by UNIDO's Programming Committee	September 1979	12 November 1979	June 1981
Approval of the Project by the Italian Government	October 1979	19 January 1980	August 1981
Visit to Vienna by ACIMALL's Secretary General to finalize programme arrangements and agree as to which countries are to be invited	October 1979	12 December 1979	September 1981
Booking of hotel, transport arrangements, recruitment of interpreters, etc. (By ACIMALL)	--	January 1980	October/December 1981
Letters of invitation to be sent to Governments by UNIDO	October/November 1979	29 January 1980	October 1981
Notification to SIDFA's and former participants of the course	--	20 March 1980	November 1980

EVENT	a) as foreseen in the project proposal	b) as actually implemented	c) Author's proposal for a course in 1982
Press release to technical press by UNIDO and ACIMALL	--	20 March 1980	November 1981
Initiation of recruitment action for consultants (by UNIDO)	--	11 March 1980	December 1981
Submission of draft of new lecture documents in English, by ACIMALL to UNIDO for final approval	December 1979	(not done)	December 1981
Submission of final text of documents in English and French by ACIMALL to UNIDO for reproduction by UNIDO	January 1980	April 1980	February 1982
Closing date for receipt of nominations	28 February 1980	11 April 1980	end February 1982
Finalization of recruitment of consultants (by UNIDO)	--	22 April 1980	end February 1982
Final selection of participants from the list of nominations, in collaboration with ACIMALL	15 March 1980	22 April 1980	mid March 1982
Travel of UNIDO staff member to Milan to finalize arrangements	--	17 April 1980	(not necessary)

EVENT	a) as foreseen in the project proposal	b) as actually implemented	c) Author's proposal for a course in 1982
Notification of candidates who have been selected	1 April 1980	22 April 1980	end March 1982
Pouching of course material to candidates who have been selected	--	(not done)	end March 1982
Documents shipped to ACIMALL by UNIDO	15 April 1980	30 April 1980	end March 1982
Airfreighting course library and conference material by UNIDO	--	(not done)	end April 1982
Shipment (by surface) of course material to candidates who have not been selected	--	(not done)	April 1982
Convening of Technical Course on Criteria for the Selection of Woodworking Machines	5-21 May 1980	5-21 May 1980	May 1982
Submission of report	--	June 1980	June 1982
Issuance of country papers	--	August 1980	June 1982

