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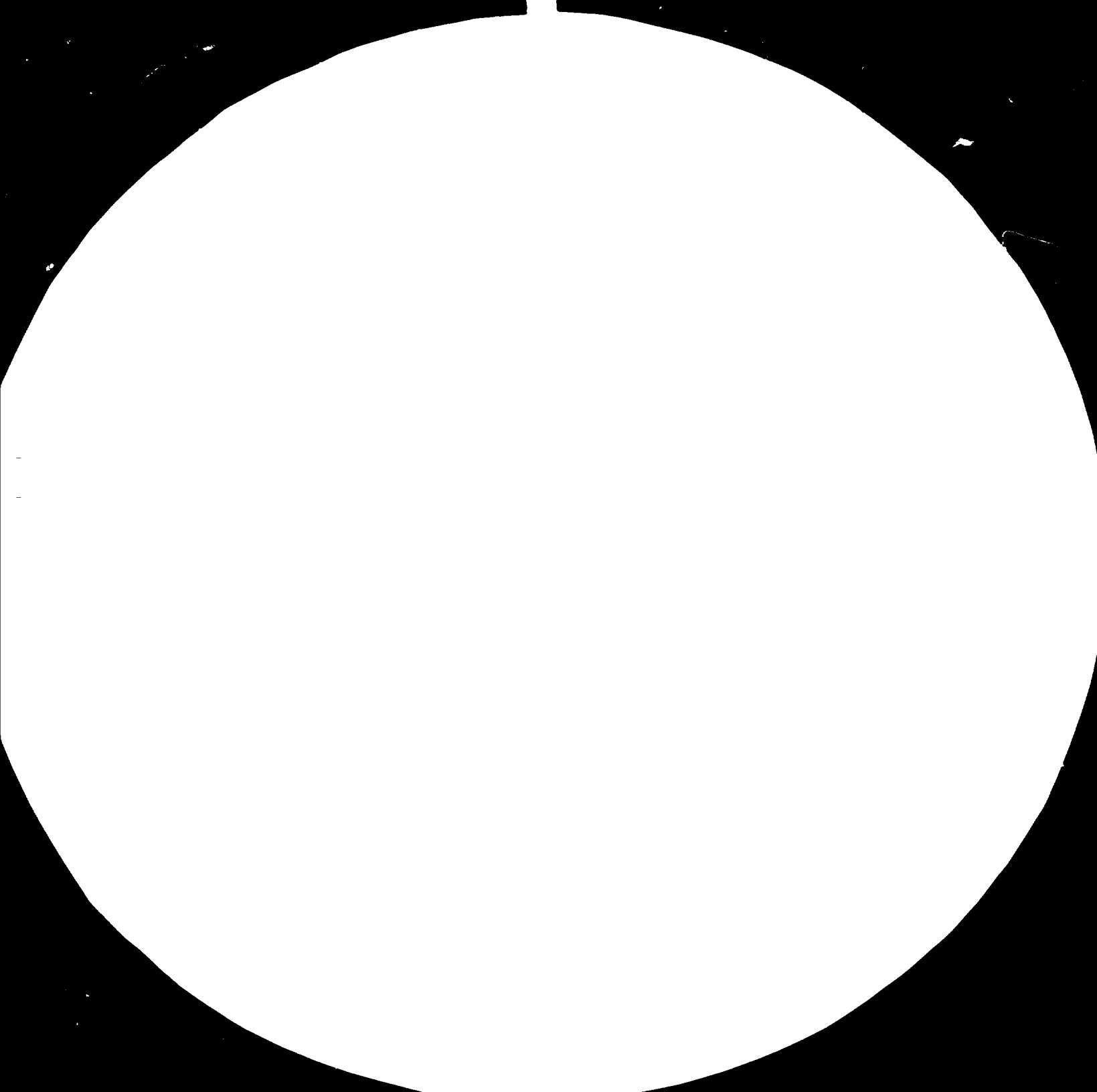
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Technical Course on Criteria for the
Selection of Woodworking Machines

US/INT/83/079

Milan, Italy, 14-30 May 1984

14160

REPORT* (Course on selection of
woodworking machines).

prepared by the
Agro-industries Branch
Division of Industrial Operations

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3043

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1. Purpose of the Mission

A staff member of the Agro-industries Branch of the Division of Industrial Operations, Antoine V. Bassili, went to Milan, Italy, from 13 to 31 May 1984 to attend and help conduct the fifth UNIDO Technical Course on Criteria for the Selection of Woodworking Machines.

2. Preliminary preparations

This was the fifth such course which UNIDO organized in collaboration with the Italian Woodworking Machinery and Tools Manufacturers Association (ACIMALL) convened in conjunction with the International Exhibition for Woodworking Machinery and Tools (INTERBIMALL) held in Milan in the months of May of even years. (The previous four courses were organized in 1976, 1978, 1980 and 1982 in conjunction with the fifth to eighth INTERBIMALL Exhibitions respectively.) All these courses were financed from special purpose contributions of the Government of Italy to the UNIDF.

The decision to repeat the course was taken soon after it was completed in the spring of 1982, and in February of 1983 UNIDO ascertained the interest of ACIMALL to provide technical and logistic support. Taking into account the response of Governments to previous courses, it was agreed with the Director of ACIMALL that the number of participants be once again 50, and that the course be split into primary and secondary wood processing industries, so as to cater more specifically for the needs of each of the groups (as was the case for the 1982 course). This was confirmed and a project document prepared and submitted to the Project Review Committee for its approval on 28 March 1983. The project was approved by the Project Review Committee on 17 June 1983 and transmitted to the Italian authorities for their approval. This approval reached UNIDO on 24 November 1983 and resulted in a PAD for the total cost (amounting to US\$ 367,250) being issued on 1 December 1983.

Invitations were sent out by the Training Branch to the Resident Representatives on 3 January 1984. A total of 73 countries were invited to nominate candidates. The list, and their responses, are given

in Annex I. The closing date for submission of nominations was 19 March 1984. Cabled reminders were sent out on 28 February 1984. UNIDO received 105 cabled nominations from potentially interested candidates from developing countries; these were submitted by the respective Governments following direct contacts with candidates by UNIDO or its field project personnel. This number far exceeded our expectations. At the time the final selection was made (on 2 April 1984) 60 completed nomination forms had reached UNIDO. The candidates were notified of their acceptance through the offices of the Resident Representatives about one month before the start of the course. However, because of the Easter and 1st May holiday period on the one hand, and an error by the Training Branch and delay in processing elsewhere in UNIDO on the other hand, instructions for issuance of the tickets were only cabled one week before the start of the course for some of the participants. In spite of this delay, 44 participants arrived before the start of the course, four on the opening day and two one day later. (This was the first time that all the participants selected actually attended the course.) The exact arrival dates of the various participants can be found in the Daily Subsistence Roster submitted with the accounts.

UNIDO had selected 50 participants to attend the course, and 8 standbys. Three of the 50 notified UNIDO of their inability to attend and standbys were informed of their acceptance. Consequently, all 50 participants budgeted for attended the course at the expense of UNIDO. The list of participants, observers, lecturers and consultants is given in Annex II (UNIDO document ID/WG.432/series).

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 homogeneous 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 English and French. 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 the participants were of the expected standard. The majority were very keen on getting as much information as possible out of the lecturers, visits, and the UNIDO consultants, and did so continually. Most had no difficulty expressing themselves in English or French with two exceptions, one from Paraguay and one from Uruguay but their Italian was fluent.

This was the fifth such course that UNIDO 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 were to be held again in conjunction with the next INTERBIMALL exhibition in 1986 - 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 authorization to start implementation of the project is received before November 1985, and that Governments will nominate candidates with industrial experience or with exposure to industry.

The response that UNIDO received for the five courses already held 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 five courses held so far 176 participants (plus 9 observers) have attended, but a total of 245 would have qualified out of the 356 nominated. Details are given in Annex III.

Bearing in mind the response UNIDO has received for this course it should be repeated, and the number of participants should again be 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. As in the case of the previous course, the possibility was offered to each participant to select between "specializing" in primary (logging, sawmilling

and the production of wood-based panels) or secondary wood processing industries (production of wooden prefabricated houses, doors, windows, furniture, surface improved boards, etc.). Lectures in fields of common interest (e.g., wood technology, wood preservation, tool maintenance, economic and technical considerations relating to the purchase of woodworking machines, waste and dust extraction, utilization of residues, safety and selection of electrical equipment, etc.) were added to the "specialized" topics. Thus it was possible to avert some of the boredom which inevitably occurs when people attend lectures in topics of no immediate interest to them, while at the same time offering to each group the possibility of having more lectures and factory visits in field of special interest to them. Fifteen participants opted for the primary industries' alternative and 35 chose the secondary industries' alternative.

Both groups had two and a half hours of opening and closing speeches, 32 hours of lectures and 20 hours of presentation of assignment work. They were also given the opportunity to spend 32 hours at the INTERBIMALL exhibition. To this common programme must be added 14 additional hours of lectures and four factory visits (to a sawmill, a veneer mill, a plywood mill and a particle board mill) for those interested in primary processing; and 12 additional hours of lectures and four factory visits (to a solid wood furniture factory, two panel furniture factories and a solid wood door factory) for those interested in secondary processing. The total number of hours of lectures given was, therefore, 58 (of which each participant attended only 46 or 44) to which should be added some 15 hours of factory visits, 18 hours of presentation of assignment work and 32 hours of visits to the INTERBIMALL exhibition. The breakdown, expressed in tabular form is given hereunder:

- Opening and closing ceremonies	2 hours	- 2 %
- Lectures	45 hours	- 40 %
- Factory visits	15 hours	- 13 %
- Visits to the INTERBIMALL exhibition	32 hours	- 29 %
- Presentation of assignment work	18 hours	- 16 %
	<hr/>	
Total	112 hours	- 100 %

In calculating the time spent for assignment work, the figure indicated above relates only to the normal working hours. Because all concerned: the 50 participants, the 4 UNIDO consultants and the UNIDO staff member, resided in the same hotel which was not in the centre of the city but close to the Milan Fair grounds, the participants spent considerable hours every evening preparing for these assignments. Some of these meetings lasted to the early morning. Serious group work started much earlier than in previous courses.

The author lectured on three occasions: on general criteria for the selection of woodworking machines, on methodology for the selection of woodworking machines, and on selection of equipment for the production of prefabricated wooden houses. The first two lectures were highly appreciated; the participants listed them as the first and third most popular of all the lectures. The third, being of a more specialized nature, was of particular interest to fewer participants.

5. Documentation

It had been the author's intention to send each participant the texts of the lectures (document ID/247/Rev.1) at the time he was notified of his acceptance, but this was not possible. They received the revised texts of the English version, consisting of copies of the edited, typed material to be sent to the printers, and the French texts of the additional lectures which had not been revised. These lectures were completed by some new texts which were reproduced at the last minute 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 subsequently in the appropriate ID/WG series. Each participant also received three of the UNIDO guides to sources of information (on furniture and joinery, woodworking machinery, and industrial maintenance and repair - UNIDO/LIB/SER.D/4, Rev.1, 31 and 36 respectively). In addition they received relevant UNIDO promotional material (PI/78 and PI/88) and a copy of the latest UNIDO Newsletter in English, French or Spanish as well as copies of the ACIMALL and INTERBIMALL catalogues.

Arrangements were made with FAO to mail directly to those participants who indicated interest the following FAO publications: Proceedings of the world consultation on wood based panels (in English, French or Spanish) and a Manual on small-scale sawmills for developing countries (in English).

Each participant was requested by UNIDO to prepare and submit a country paper to serve as background material; however, pressure of work did not permit their reproduction by UNIDO.

6. Exhibition of UNIDO publications

It has been realized from past courses that the very intensive nature of the programme does not permit participants to make full use of a course library. Also with 50 participants with varying ranges of interest there would have been the need to transport a vast number of books. Instead, an exhibition of relevant UNIDO publications was arranged, and a list of specific requests by participants is given in Annex V; copies of these, in English, French or Spanish, were pouched from Vienna after the course.

7. Assignment work

The aim of this work was similar to that of previous courses. At the beginning of the course all participants were requested to indicate their interest in the following fields:

<u>Topic</u>	<u>No. of participants</u>
1. Selection of equipment for forestry use	8
2. Selection of equipment for sawmills	10
3. Selection of equipment for the production of plywood and veneer	9
4. Selection of equipment for the production of boxes and pallets of various kinds	
5. Selection of equipment for the production of flush doors	15
6. Selection of equipment for the production of louvered windows	5
7. Selection of equipment for the production of parquet	2
8. Selection of equipment for the production of kitchen furniture	15

9.	Selection of equipment for the production of solid wood school desks	10
10.	Selection of equipment for the production of upholstered chairs with bent plywood frames	11
11.	Selection of appropriate lumber drying kilns for furniture and joinery products	7
12.	Selection of equipment for dust and waste extraction	4
13.	Selection of equipment for wood turning	1
14.	Selection of equipment for the production of particle board *	1
15.	Selection of equipment for the production of solid wood panel doors*	7
16.	Selection of equipment for tool maintenance*	7

The number of participants in each group reflects their main interests. Details of the topics, objectives and methodology are given in Annex VI. A discussion leader was nominated for each group to co-ordinate the work and present conclusions; their names and nationalities are given in Annex VII. The four consultants appointed by UNIDO (see 8 below) also guided the work, assuming responsibility for the groups as follows:

<u>Mr. P. Borretti</u> (Italy)	<u>Groups:</u> 5, 6, 9, 16
<u>Mr. H. P. Brion</u> (Philippines)	1, 2, 3A, 3B
<u>Mr. J. Carré</u> (Belgium)	1, 2, 3A, 3B, 4, 7, 13, 14
<u>Mr. P. J. Paavola</u> (Finland)	8, 10, 11, 12, 15

Each group was allocated 90 minutes to present its conclusions, and full use was made by almost all groups of the excellent audio-visual facilities available. Presentations of the various groups are evaluated under section 11 of this report.

8. UNIDO Consultancy Service at INTERBIMALL

Additional to the course UNIDO had a stand to provide free and impartial consultancy services to visitors from developing countries (in a hall of the Exhibition where all the professional associations were located). The stand was manned by the four consultants mentioned above who were especially recruited by UNIDO for the purpose, and at times by the author.

* Added at the request of the participants.

Advice was provided on an ad hoc basis to technical enquiries made by visitors to the exhibition, as well as information on UNIDO's activities in general. It was also used by the participants in the course in their assignment work as a meeting place for exchange of views. The stand, which was large and adjacent to the one of FAO, was provided by INTERBIMALL fully furnished and free of charge.

This was the third time that UNIDO had a Consultancy Service at INTERBIMALL. (Such a service had also been provided in 1977, 1979 and 1981 at the LIGNA Fair in Hanover, and in 1979 at the INTERZUM Fair in Cologne.) There is no doubt as to the usefulness of such a service, not only to provide ad hoc advice to visitors from developing countries, but to complement the lectures by providing technical advice and information to the course participants at a time when the lecturers are not available to do so (the majority being busy at their companies' stands in the exhibition). The consultants also guided the participants in preparing their assignment work in the evenings at the hotel. This tutoring successfully complemented the formal lectures, and resulted in presentations of the assignment work of a high level.

The information on UNIDO's work in general, and specifically on the wood industries' sector, made available to the general public was provided through the use of material published by its Public Information Section. It included a background note "UNIDO's activities in the wood processing industries" and two printed brochures (PI/78 and PI/88) in English, French and Spanish.

Records of enquiries were kept on forms to facilitate the follow-up action to be taken by the author upon his return to Vienna (for a sample form see Annex VIII).

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

In-depth assistance was provided to four industrialists from developing countries.

UNIDO's Consultancy Service stand also attracted the attention of potential candidates for our Roster of Experts and consulting firms.

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.

The problem encountered in 1980 of registering the participants with the Department for Foreigners of the Questura did not arise, since the Milan Fair authorities did these formalities for all concerned resulting in no loss of time for the participants.

The hotel selected (Hotel Astoria, Viale Murillo) was both well situated with respect to the Fiera di Milano and within the limits imposed by the per diem allocation. Excellent arrangements were made at both Milan airports to ensure that participants could reach the hotel without trouble.

ACIMALL made all the arrangements for the UNIDO reception which was held at the Restaurant Crispi, Via Crispi, in Milan. All who were involved in the course (participants, lecturers, staff, consultants and managers of the factories visited) were invited, and it was deemed to have been a great success by all concerned.

ACIMALL financed two sightseeing trips for the participants: one half day trip on Saturday, 19 May, when the major touristic attractions of the city of Milan were seen, and a full day trip on Sunday, 20 May, to visit the Certosa di Pavia and had lunch in a restaurant in the Oltrepo area.

The Ente Autonoma della Fiera di Milano put the conference facilities of the Palazzo Africa at the disposal of the course. These are as good as any in the VIC, the conference room having a seating capacity of some 55 persons at tables and another 70 on chairs behind each row

and at the back of the hall. Facilities for simultaneous interpretation in six languages exist as do all the necessary visual aids: overhead projectors, slide projectors of various sizes, and cinema projectors for various sizes of film and epidiascopes.

ACIMALL once again assumed the responsibility of recruiting interpreters for the course. Because of the problems encountered two years ago with the interpretation - and, it was later found, also with the translation of the new documents from Italian to English (and to a lesser extent French) - it was decided to entrust the translation and interpretation to a new team of free-lance interpreters. Interpretation into French was of an internationally recognized standard. That into English seems to have been of a lower standard than than into French, although it must be realized that the lecturers often used a highly technical jargon, and many read their texts quite rapidly. It was, nevertheless, more than acceptable. Complaints from the participants were probably made because they did not master the language perfectly and found difficulty in following lectures that were interpreted for so many hours per day.

The financing of the course was secured from the Special Purpose Contribution of Italy to the UNIDF. (Project No. US/INT/83/097.) A sum of US\$ 367,250 was allocated to that effect. The detailed breakdown of this budget is given in Annex IX. The entire sum will not be spent, since, among other things, the strength of the U.S. dollar resulted in savings in travel costs and a lowering of the per diem rate budgeted.

The author wishes to put on record the assistance he received from the Training Branch of DIO (especially Mr. K. Hanselmann and Ms. C. Bankowski) and the Documents Control and Reproduction Units of the Division of Conference Services. On several occasions they had to provide services at very short notice.

10. Press coverage

The press service of the Milan Fair and INTERBIMALL issued press releases describing the course and consultancy service. (Annexes X and XI.)

Copies of press clippings will be sent to UNIDO's Public Information Section by Mr. F. Ziberna of the press service of ACIMALL, and the author handed them over a set of the press releases in all the languages.

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

André Bouchez, Directeur-Rédacteur en chef,
Mécanisation Forestière, Paris, France

John Braun, Editor, Wood and Equipment News,
Eastcote, Middlesex, U.K.

Andrija Ilic, Editor of Drvna Industrija periodical,
Zagreb, Yugoslavia

David A. Pease, Editorial Director, World Wood,
Atlanta, Georgia, U.S.A.

Ward C. Williams, Editor, Wood Based Panels International/
Benn Publications Ltd., St. Sulpice (VD), Switzerland

11. Evaluations

UNIDO's forms for the evaluation of the course were handed to all participants on 24 May 1984 and all 50 forms, duly completed, were returned by the end of the course. The replies were compiled and details are given in Annex XII.

By and large the participants' assessment 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. Fifty-six per cent felt the schedule was "just right", while the balance felt it was too heavy. Of the 50 participants, 30 (60 per cent) felt that the training corresponded to a large or very large extent to their needs, and only 3 (6 per cent) felt it corresponded to a small extent. Some participants felt they would have benefitted more from the factory visits if more information on the plant had been given beforehand. (The author feels that serious consideration should be given to having the UNIDO appointed consultants visit the factories

beforehand so as to brief the participants prior to visits. Also, information on the factories to be visited should be distributed before the actual visit.) Forty-seven of the 50 participants felt that the training was adequate.

Generally the lectures were of a good standard. Some, such as those on Methodology for the Selection of Woodworking Machines and on General Criteria for the Selection of Woodworking Machines (both by the author of this report), on Kiln Drying of Sawn Timber (by Mr. A. Griner), on Selection of Sawmilling Equipment and on Wood Characteristics Influencing Equipment Selection and Machine Operations (both by Prof. G. Giordano) and on Industrial Production of Doors, Windows and Frames (by Mr. E. Traversa) were exactly what we had intended them to be. The latter covered the various options available and discussed the pros and cons of each option. Other lecturers, such as those who 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, on the whole, were too sophisticated for use in many of the participants' home countries. However, this shortcoming was more than compensated for by the advice available to participants during their preparation of the assignment work. This advice was given by the four UNIDO consultants and the author of this report. The lecture on kiln drying was better presented and of a more appropriate level than that at previous courses. More visual-aids were used than in previous years, and this was appreciated by the participants.

The first day's lectures outlining the situation of the wood processing industries sector in Italy, and the woodworking machinery industry in Italy, were well presented and led to fruitful discussion. This broke the ice and assured very lively discussions from the start of the course and throughout all the lectures.

According to the participants' evaluation of the lectures, the most popular were those on:

1. General Criteria for the Selection of Machines (by the author)
2. Kiln Drying of Sawn Lumber (by Mr. A. Griner)
3. Methodology for the Purchase of Woodworking Machines (by the author)
4. Economic Consideration in the Selection of Machinery (by Mr. B. Zarnetti)
5. Utilization of Woodwaste (by Prof. G. Giordano)

(It must be realized that all the above lectures were of general interest; hence there was a larger audience to comment on their relevance.)

Seven participants indicated that, to their eyes, none of the lecturers were not valuable.

In commenting on topics that were not covered, participants listed fields which were clearly outside the scope of the course. This can be attributed to their eagerness to learn as much as possible in, for what is to most, a once in a lifetime experience.

The actual presentation of the lectures was of two types: those for which the lecturers presented (as against read) their topics, using audio-visual aids; and those where the lecturers read prepared texts. Fortunately the latter were a minority, and fewer lecturers read their texts than on previous courses.

The social programme was very well organized and greatly appreciated by all concerned (mentioned positively by 31 of the 50 participants).

It would be useful for future courses if the text of lectures could be distributed to the participants beforehand.

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 thorough preparation by members of the group:

- Selection of equipment for forestry use (Topic No. 1):
Sub-group working on conditions in Asia. Excellent presentation of conditions, operating costs, etc., in a logging concession in Indonesia.

- Selection of equipment for sawmills (Topic No. 2): Excellent financial analysis.
- Selection of equipment for the production of solid wood school desks (Topic No. 9): Excellent presentation, well thought out. Went to the root of the problems and studied various alternatives.
- Selection of equipment for the production of upholstered chairs (Topic No. 10): Excellent presentation, went to a lot of trouble to study all the alternatives.
- Selection of appropriate lumber drying kilns for furniture and joinery products (Topic No. 11): A full in-depth study was made, both technical and economic. The lecturer found their presentation to be so good that he suggested a portion of it be included in the revised document (ID/247).
- Selection of equipment for the production of solid wood panel doors (Topic No. 15): Excellent presentation, indicating that the group knew what they were doing and went to the trouble of analysing various alternatives.

The following presentations were considered to be good:

- Selection of equipment for forestry use (Topic No. 1): Sub-group working on conditions in Africa.
- Selection of equipment for the production of louvered windows (Topic No. 6): Sub-group working on small plant.
- Selection of equipment for the production of kitchen furniture (Topic No. 8): Good presentation, but no machine loading, and a limited study of the alternatives.
- Selection of equipment for tool maintenance (Topic No. 16): A very thorough description of the process; less detail about alternative equipment.

The following two groups' presentations can be termed satisfactory:

- Selection of equipment for the production of louvered windows (Topic No. 6): Sub-group working on the large plant - they did not study a sufficient number of alternatives, and their judgement was poor.
- Selection of equipment for dust and waste collection (Topic No. 12): A reasonable presentation.

The following group's presentation was below the expected standard:

- Selection of equipment for the production of flush doors (Topic No. 5): It was obvious that the person presenting the topic knew what he was talking about, but that he did a minimal amount of research.

The following two groups' presentation were poor:

- Selection of equipment for the production of sliced veneer (Topic No. 3A): The group did not do any serious work and tried to bluff their way through by showing a film obtained from a manufacturer and commenting on it.

- Selection of equipment for the production of plywood (Topic No. 3B): The team leader knew the process and how to select, but it was obvious that he did not have the support of other members of the group and that it was a "one man show".

The single participant who chose to cover Selection of equipment for the production of particle board (Topic No. 14) enumerated, in a very convincing and thorough way, the problems he faces in operating a plant in his country (Guinea).

Topic No. 7 (Selection of equipment for the production of parquet) and Topic No. 13 (Selection of equipment for wood turning) were not presented because the groups were small and also due to lack of time. However, the consultant provided ad hoc assistance to the members who chose these topics.

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 July 1985 to enable UNIDO and ACIMALL to invite the respective countries to nominate candidates in time. Approval in principle should be obtained about one year before the course is due to take place. Annex XIII gives the proposed time schedule for the 1984 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 1986.
2. As many as possible of the lectures being published in the compilation of lectures given in the first four courses (ID/247/Rev.1) should be used. This would reduce costs of translation of the lectures and fees paid to the lecturers.
3. Documentation should be sent to the participants as soon as they are notified of their acceptance, so that they may study it and prepare queries.* More time could thus be devoted to discussions, since, instead of reading their texts, the lecturers could then assume that these have been read and highlight the text and then devote the time saved to discussions.
4. 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.
5. In view of the good response received to all five previous courses (see Annex III) the author recommends that it be repeated in 1986, again with 50 participants. This will again permit having larger groups in the assignment work, with two groups per topic, one being a French speaking and the other an English speaking group.
6. Although certain of the participants from Latin America suggested that interpretation into Spanish be also provided, the author recommends that the official languages of the course be

* This will be possible because the revised document (ID/247/Rev.1) will be available in time.

limited to English and French (plus, of course, Italian), as adding Spanish would reduce the possibility of close work between participants for the assignment work and complicate interpretation during the factory visits unduly. Furthermore, it would mean that some of the UNIDO appointed consultants also know Spanish.

7. The organisers of INTERBIMALL should notify to the course the times and locations of demonstrations during the Fair. The course could then pass this information on to the participants, who would then be in a position to benefit more from them.

8. Consideration should be given to a lecture on automation and mechanization (pneumatic controls).

13. Other matters

A. Discussions with Mr. Alberto Orlandi of the Italian Ministry for Foreign Affairs

On the opening day (14 May) the author had the opportunity to explain to Mr. Alberto Orlandi the objectives of the Technical Workshop on Furniture Design (US/INT/83/282) proposed by UNIDO to the Italian authorities for financing from the Italian voluntary contribution to the UNIDF, as well as the project proposed for Tunisia on the Development of Islamic and Traditional Motives in Furniture (US/TUN/84/832).

B. Briefing of Mr. Francis Kamau, UNDP consultant on the Tripartite Evaluation Mission of the Forest Industries Advisory Group for Africa (DU/RAF/82/006)

Prior to undertaking the mission, the author agreed with the FAO officers backstopping the above project that the Mission's members would visit the Palazzo Africa for briefing. This was decided upon since both the author and the UNIDO Regional Adviser in Secondary Forest Industries (Mr. Pietro Boretti) would be at the Technical Course.

C. Debriefing of Mr. Horatio P. Brion, UNIDO consultant in
Production of Bentwood Chairs in the Sudan (SI/SUD/82/805/11-51)

Mr. Brion was debriefed by the author upon completion of the above two months' assignment, and his report reviewed and prepared for reproduction.

D. Discussions with Mr. Pietro Borretti, UNIDO Regional Adviser in
Secondary Forest Industries (DU/RAF/82/006/11-05)

Mr. Borretti was seconded from the project to serve as a consultant at the course. During his stay in Milan he handed over to the author five draft reports on his recent furniture export promotion mission to Kenya, Mauritius, Swaziland, Zimbabwe and Mozambique.

These were discussed in depth with him and a detailed Note for the File was prepared outlining the points raised.

E. Discussions with Messrs. A. Griner, Head of ACIMALL's Technical
Office and P. Zanibon, Director of ACIMALL

During the course the author had the opportunity to discuss with Messrs. Zanibon and Griner:

(a) ACIMALL's interest in pursuing their collaboration with UNIDO in organizing a similar technical course in conjunction with the next INTERBIMALL Exhibition in May 1986. They confirmed their keen interest to pursue this collaboration.

(b) ACIMALL's collaboration with UNIDO in preparing a technical manual giving a two-page technical description of the major types of wood-working machines, classified by the type of operation, giving alternatives for each type by level of sophistication. They confirmed their Association's keen interest in undertaking such a task on behalf of UNIDO, the document to be published as a UNIDO manual in the ID series. The author will seek funds and contact them once the project has been approved.

F. Discussions with the participants

During the course the author discussed with many participants possible UNIDO assistance to their countries; specific needs were identified, and the methodology for soliciting requests for technical assistance explained.

14. Acknowledgements

The author hereby wishes to express his gratitude to Dr. Lazzaro Cremona, President of ACIMALL and INTERBIMALL, Dr. Paulo 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. Ing. Attilio Griner, Miss Gabriella Morandotti and Miss Valentina Moisé, 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 interpret 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 four consultants, Messrs. Pietro Boretti, Horatio P. Brion, José Carré and Pekka J. Paavola, not only during the Exhibition hours, but also late into the nights. The guidance they gave to the various teams resulted in a higher levels of presentations of the assignment work and helped the participants to understand some technical details that they had missed in the lectures and/or visits to the Exhibition.

ANNEX I

LIST OF COUNTRIES INVITED AND THEIR RESPONSES

Countries invited	Response		Number of candidates nominated	Number of candidates who attended
	Yes	No		
Algeria		x	-	-
Angola	x		2	-
Belize	x		3	-
Bolivia	x		4	1
Burma		x	-	-
Central African Republic	x		6	-
Chile	x		3	3
China	x		1	1
Colombia	x		1	1
Congo	x		4	1
Costa Rica	x		5	4
Cuba	x		2	-
Democratic Korea		x	-	-
Democratic Yemen	x		1	-
Ecuador	x		3	3
Egypt	x		4	-
Equatorial Guinea		x	-	-
Ethiopia	x		2	2
Gabon		x	-	-
Ghana	x		2	-
Guatemala	x		1	-
Guinea	x		2	1
Guyana	x		1	1

Countries invited	Response		Number of candidates nominated	Number of candidates who attended
	Yes	No		
Honduras	x		1	-
India	x		1	1
Indonesia	x		8	4
Iraq		x	-	-
Iran		x	-	-
Ivory Coast	x		2	2
Jamaica	x		2	1
Jordan	x		1	1
Kenya		x	-	-
Kuwait		x	-	-
Laos		x	-	-
Lesotho		x	-	-
Liberia		x	-	-
Libya		x	-	-
Madagascar		x	-	-
Malawi		x	-	-
Malaysia	x		2	2
Mauritius	x		1	1
Morocco	x		1	1
Mozambique		x	-	-
Nepal		x	-	-
Nicaragua	x		1	-
Nigeria		x	-	-
Pakistan	x		2	1
Panama	x		1	-
Papua New Guinea		x	-	-
Paraguay	x		1	1
Philippines	x		10	4

Countries invited	Response		Number of candidates nominated	Number of candidates who attended	
	Yes	No			
Republic of Korea	x		1	-	
Senegal	x		1	-	
Somalia		x	-	-	
Sri Lanka	x		4	1	
Sudan	x		1	-	
Surinam		x	-	-	
Swaziland		x	-	-	
Syria	x		1	-	
Thailand	x		3	3	
Togo	x		2	-	
Tunisia		x	-	-	
Turkey		x	-	-	
Uganda	x		3	2	
United Republic of Cameroon	x		2	2	
United Republic of Tanzania	x		3	1	
Uruguay	x		2	1	
Venezuela		x	-	-	
Viet Nam		x	-	-	
Yemen	x		1	1	
Zaire	x		2	2	
Zambia		x	-	-	
Zimbabwe		x	-	-	
TOTALS:	73	45	28	107	50

ANNEX II

LIST OF PARTICIPANTS
LISTE DES PARTICIPANTS

<u>NAME/NOM</u>	<u>FUNCTION AND COMPANY</u> <u>FONCTION ET COMPAGNIE</u>	<u>MAILING ADDRESS</u> <u>ADRESSE</u>
<u>B O L I V I A</u>		
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Marcel BITOKY	Chef de Service des Industries de Bois et du Papier DIRECTION GENERALE DE L'INDUSTRIE	B.P. 211 Brazzaville

<u>NAME/NOM</u>	<u>FUNCTION AND COMPANY</u> <u>FONCTION ET COMPAGNIE</u>	<u>MAILING ADDRESS/ADRESSE</u>
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<u>DIRECTOR OF THE COURSE</u> <u>DIRECTEUR DU COURS</u>		
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LECTURERS
CONFERENCIERS

<u>NAME/NOM</u>	<u>FUNCTION/FONCTION</u>	<u>MAILING ADDRESS/ADRESSE</u>
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<u>Sig. Ezio MABINI</u>	Expert en production de contre-plaqués et de placages Expert in plywood and sliced veneer production	c/o A. Cremona & Figlio Viale Lombardia 275 20052 Monza (Milano) ITALY
<u>Ing. Mario BERMANI</u>	Ingénieur, expert en panneaux de fibres Engineer, technician, expert in the production of fibre boards	Via Rosmini 38 28100 Novara ITALY
<u>Sig. Mario PARETTI</u>	Expert en entretien de scies à ruban large Expert in maintenance of band saw blades	c/o Sandvik Italia Via Varesina 186 20156 Milano ITALY
<u>Sig. Roberto RUZZENENTI</u>	Expert en outils à pointes reportées de carbure Expert in carbide-tipped tools	c/o Grifo s.r.l. Via Montello 135 20038 Seregno (Milano) ITALY
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<u>Ms. Valentina MOISE</u>	Technical Office Secretariat	

ANNEX III

SUMMARY OF RESPONSES OF MEMBER STATES TO INVITATIONS TO FIVE COURSES

	1976 ^{1/}	1978 ^{1/}	1980 ^{1/}	1982 ^{2/}	1984 ^{2/}	TOTAL
Number of countries invited by UNIDO to nominate candidates	42	29	76	77	73	n.a. ^{3/}
Number of participants nominated by Governments	82	42	68	91	107	390
Number of participants who would qualify to attend	53	31	32	59	70	245
Number of participants who actually attended	35 ^{4/}	22	30 ^{5/}	48	50	185 ^{6/}

1/ Course funded for thirty participants.

2/ Course funded for fifty participants.

3/ Most countries were invited to nominate participants for all five courses.

4/ Including three participants who attended at their own cost.

5/ Including four participants who attended at their own cost.

6/ Including seven participants who attended at their own cost.

ANNEX IV

P R O G R A M M E

Document number

Sunday, 13 May 1984

Arrival of participants at Milan.

Monday, 14 May 1984

0900 Registration.

1000 Opening Ceremony.

Welcoming addresses by:

- Dr. Alberto Orlandi, Representative of the Italian Ministry for Foreign Affairs;
- Dr. Gino Colombo, Secretary of the Ente Autonoma della Fiera di Milano, on behalf of Cav. Michele Guido Franci, President of this body;
- Dr. Lazzaro Cremona, President of ACIMALL;
- Mr. Antoine V. Bassili, UNIDO representative, on behalf of Dr. Abd-El Rahman Khane, Executive Director of UNIDO.

1030- 1130 Lecture on "The evolution of the Italian wood processing and furniture manufacturing industries and their progress in introducing modern technologies" by Dr. Davide Viziano of Federlegno-Arredo (lecture of general interest).

No written text

1130 Lecture on "The increasing importance of tropical timber for the Italian wood processing industry" by Mr. Armanda Gardino, President of FEDECOMLEGNO (lecture of general interest).

No written text

1300 Lunch

1430- 1600 "Wood characteristics influencing equipment selection and machine operations" by Prof. Guglielmo Giordano (lecture of general interest).

ID/247,
chapter I

1630- 1730 Introduction to assignment work by Mr. Antoine V. Bassili.

1800 Reception hosted by ACIMALL at its Headquarters in Assago.

Tuesday, 15 May 1984

0900- 1100 Lecture on the "General criteria for the selection of machines" by Mr. Antoine V. Bassili (lecture of general interest).

Based on ID/247
chapters II & III

Tuesday, 15 May 1984 (continued)

- 1115- "Economic considerations in the selection of
1300 machinery" by Mr. Bruno Zarnetti (lecture of
general interest). ID/247, Addendum
- 1430- "Methodology for the purchase of woodworking
1715 machines" by Mr. Antoine V. Bassili (lecture
of general interest). ID/247,
chapter IV

Wednesday, 16 May 1984

- 0900- "Utilization of woodwaste" by Prof. Guglielmo
1100 Giordano (lecture of general interest). ID/WG.320/1
- 1115- "Power supply and auxiliary systems in wood
1300 processing industries" by Mr. Enrico Banfi
(lecture of general interest). New text
- 1430- "Kiln drying of sawn lumber" by Mr. Attilio
1615 Griner (lecture of general interest). Based on ID/247,
chapter X
- 1730 Distribution of assignment work.

Thursday, 17 May 1984

- 0900- "Tools for machining wood" by Mr. Gian Franco
1100 Melloni (lecture of general interest). ID/247,
chapter V
- 1215 "Equipment for tool maintenance for carbide-
tipped tools" by Mr. R. Ruzzenenti (lecture of
general interest). ID/WG.369/14
- 1430- "Equipment for tool maintenance of steel blades"
1615 by Mr. Mario Paretto (lecture of general interest). ID/247,
chapter IV
- 1630 "Waste and dust extraction systems" by Mr. Giancarlo
Anselmi (lecture of general interest). ID/WG.369/12

Friday, 18 May 1984

- 0900 "Preservation of wood products" by Prof. Guglielmo
Giordano (lecture of general interest). ID/WG.369/1
- 1100 "Painting and varnishing of wood and its
derivatives" by Mr. Gabriele Martelli (lecture
of interest to secondary wood processing). ID/247,
chapter XV
- 1215 "Kiln drying of sawn lumber" (continuation) by
Mr. Attilio Griner (lecture of general interest). Based on ID/247,
chapter X
- 1415- "Mechanization of forest operations" by Mr. Elvio
1500 Garello (lecture of interest to primary wood
processing). ID/247,
chapter VIII
- 1500 "Selection of forestry equipment" by Mr. Sanzio
Baldini (lecture of interest to primary wood
processing). Based on ID/247,
chapter VII
- 1400 Visit to two small panel furniture plants
(secondary wood processing).

Saturday, 19 May 1984

A.M. City sightseeing in Milan.

P.M. Free for shopping, etc.

Sunday, 20 May 1984

All day trip to Certosa di Pavia and Oltrepo region.

Monday, 21 May 1984

- | | | |
|-----------|---|----------------------------|
| 0900 | "Kiln drying of sawn lumber" (continuation) by Mr. Attilio Griner (lecture of general interest). | Based on ID/247, chapter X |
| 1000-1145 | "Wood based panels; comparison of various types of panels; general considerations and guidelines for the selection of machines, equipment and plant" by Mr. Mario Bermani (lecture of interest to primary wood processing). | ID/247, chapter XI |
| 1200-1315 | "Economic aspects in the selection of plant and machines for the production of particle board" by Mr. Taddeo Slodyk (lecture of interest to primary wood processing). | ID/WG.369/3 |
| 1430-1630 | "Selection of sawmilling equipment" by Prof. Guglielmo Giordano (lecture of interest to primary wood processing). | New text |
| 1630-1700 | Promotional film of ACIMALL. | |
| 1430 | Visit to a panel furniture plant and to the G. Meroni School in Lissone (of interest to secondary wood processing). | |

Tuesday, 22 May 1984

- | | | |
|------|---|-----------------------|
| 0900 | "Briquetting of wastes" by Mr. Roberto Costa (lecture of general interest). | ID/WG.369/16 |
| 1100 | "Selection of equipment for panel surface improvement" by Mr. Taddeo Slodyk (lecture of general interest). | ID/247, chapter XIV |
| 1430 | "Technology and machinery for the production of casegood furniture" by Mr. Aldo Schiavo (lecture of interest to secondary wood processing). | ID/247, chapter XVIII |
| 1600 | "Production of chairs and other wood components" by Mr. Angelo Speranza (lecture of interest to secondary wood processing). | ID/247, chapter XVII |
| 1430 | Visit to a sawmill (of interest to primary wood processing). | |

Wednesday, 23 May 1984

- 0900 "Production lines for plywood and veneer" by Mr. Aristido Colombo (lecture of interest to primary wood processing). ID/247, chapter XVII
- 1100 "Production of sliced veneer" by Mr. Ezio Mabini (lecture of interest to primary wood processing). ID/247, chapter XIII
- 0900 Visit to a secondary wood processing plant (furniture and flush doors), (of interest to secondary wood processing).
- 1430 "Industrial production of doors, windows and frames" by Mr. Enrico Traversa (lecture of interest to secondary wood processing). ID/WG.369/8
- 1400 Visit to a veneer plant and to a plywood producing plant (of interest to primary wood processing).

Thursday, 24 May 1984

- 0900 Visit to a particle board plant (of interest to primary wood processing).
- 0900 "Glued laminated timber structures" by Prof. Guglielmo Giordano (lecture of interest to secondary wood processing). ID/WG.369/6
- 1100 "Selection of equipment for the production of prefabricated wooden houses" by Mr. Antoine V. Bassili (of interest to secondary wood processing). No text
- 1400 Visit to the Exhibition and compilation of data for the assignment work;
- or
- All day Visit to the Exhibition and compilation of data for the assignment work.

Friday, 25 May 1984

- All day Visit to the Exhibition and compilation of data for the assignment work.

Saturday, 26 May 1984

- All day Visit to the Exhibition and compilation of data for the assignment work.

Sunday, 27 May 1984

- All day Visit to the Exhibition and compilation of data for the assignment work.

Monday, 28 May 1984

- All day Presentation of assignment work.

Tuesday, 29 May 1983

All day Presentation of assignment work.

1930 Reception hosted by UNIDO at the Restaurant Crispi.

Wednesday, 30 May 1984

A.M. Presentation of assignment work.

1200 Closing statements by:

- Dr. Lazzaro Cremona, President, ACIMALL
- Mr. Antoine V. Bassili, UNIDO representative
- Prof. Guglielmo Giordano, Course Director
- Dr. Paulo Zanibon, Director, ACIMALL

Thursday, 31 May 1984

Departure of participants to their home countries.

ANNEX V

LIST OF UNIDC DOCUMENTS REQUESTED BY THE PARTICIPANTS

COUNTRY	NAME	LANGUAGE	ID/WG.	ID/	ID/	ID/	ID/	ID/	ID/	ID/	ID/	ID/	ID/	ID/	ID/	ID/	ID/	ID/	ID/	SER.G/ 208, Rev.1	P1/61, Rev.2, Vols. 1,2,3,4
			335/16	61	72	79	108 Rev.1	133	154 Rev./	180	223	247	265	275	298	299	300				
	<u>Participants</u>																				
CAMEROON	ABENA, JOSEPH CLAUDE	F	x	x	-	x	x	x	x	x	x	x	-	x	-	-	-	-	-	-	-
CAMEROON	FOTEU, KAHENI ROGER	F	x	x	-	x	x	x	x	x	x	x	-	x	x	x	x	x	x	-	-
CHILE	CHIANG, J. GUSTAVO	S	x	x	x	x	x	x	x	x	x	x	-	x	-	x	-	-	-	-	-
CHILE	KLINGENBERG, ENRIQUE	S	-	x	x	-	-	-	x	x	x	-	x	-	-	-	-	-	x	-	-
CHILE	TAUBER, W. C.	S	-	x	-	-	-	-	x	x	x	-	x	-	x	x	x	x	x	-	-
COLOMBIA	JIMENEZ, AGUIRRE CARLOS	S	-	x	-	-	-	x	x	x	-	x	-	x	x	x	x	x	-	-	-
CONGO	BITOKY, MARCEL	F	x	x	-	x	x	x	-	x	x	-	x	x	x	x	x	x	x	-	-
COSTA RICA	FERNANDEZ, ROJAS ALLEN	S	x	x	x	-	x	x	x	x	x	-	x	x	x	x	x	x	x	-	-
COSTA RICA	PERALTA, ALFREDO J.	S	x	x	x	x	x	x	x	x	x	-	x	-	x	x	x	x	x	-	-
COSTA RICA	PICADO, ALVARADO F.	S	-	-	x	-	-	x	-	-	x	-	-	x	x	x	x	x	x	-	-
COSTA RICA	SOTO, JUAN CARLOS	S	-	x	x	x	-	x	x	x	x	-	x	-	x	x	x	x	x	-	-
ECUADOR	JIMENEZ, LOPEZ P.	S	x	x	x	x	x	x	x	x	x	-	x	x	x	x	x	x	x	-	-
ECUADOR	MENA, DURINI JORGE	S	-	x	x	-	-	x	x	x	x	-	x	x	x	x	x	x	x	-	-
ECUADOR	TERAN, RAFAEL A.	S	-	-	x	-	-	x	-	-	-	-	-	x	-	x	-	-	-	-	-
ETHIOPIA	DEMISSIE, LISANEWORK	E	x	x	-	x	-	x	-	-	x	-	-	-	-	-	-	-	-	-	-
ETHIOPIA	MELADU, ABEGAZ	E	-	x	x	-	-	x	-	-	x	-	-	x	-	x	-	-	-	-	-
GUINEA	DIANE, LAMINE	F	x	x	-	x	x	x	x	x	x	-	x	-	x	-	-	-	-	-	-
GUYANA	RAMSANDI, RAMSARRAN	E	-	x	-	-	-	x	x	x	-	-	-	-	-	-	-	-	x	-	-
INDIA	SRIVASTAVA, KRISHNA A.	E	-	x	-	x	-	x	x	x	x	-	x	-	x	-	x	-	x	-	-
INDONESIA	DHARMAWAN, SEDIONO	E	-	-	x	-	-	-	x	x	x	-	x	-	x	-	x	-	x	-	-
INDONESIA	POEDJIONO, RACHMAT	E	x	-	x	x	-	x	x	x	x	-	x	-	x	-	x	-	x	-	-
INDONESIA	ZAKARIA, HIDAYAT	E	-	x	x	-	-	x	-	x	x	-	x	-	x	-	x	-	x	-	-
IVORY COAST	BOSSE, HUBERT	F	x	x	-	-	-	x	-	-	x	-	-	x	-	-	-	-	-	-	-
IVORY COAST	CISSE, MAMAEOU	F	x	x	-	x	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-
JAMAICA	BYLES, PAUL	E	-	-	x	x	-	x	x	x	-	x	-	x	-	x	-	x	-	-	-
JORDAN	KOPTI, GEORGE	E	-	x	-	-	-	x	-	-	-	-	-	x	-	x	-	-	-	-	-
MALAYSIA	HARON, ZULKEFLI	E	x	x	x	x	-	x	-	x	-	x	-	x	-	x	-	x	-	-	-
MALAYSIA	MATHALAKAN, CHELLIAN	E	x	x	x	-	x	-	x	x	-	-	-	x	-	x	-	x	-	-	-
MAURITIUS	BHEESINGH, CHATTUR	E	x	-	-	-	-	-	-	-	-	-	-	x	-	x	-	x	-	-	-
MOROCCO	ALIOUA, ABDELJALIL	F	x	x	-	x	-	-	-	-	-	-	-	x	-	x	-	-	-	-	-
PAKISTAN	RAUF, CHOUDHRY ABDUL	E	-	-	x	x	-	x	-	-	-	-	-	x	-	x	-	x	-	-	-
PARAGUAY	BENITEZ, CUBILLA JORGE	S	x	x	x	x	-	x	x	x	x	-	x	-	x	-	x	-	x	-	-
PHILIPPINES	DE LOS REYES, STEPEN	E	x	x	x	-	x	-	x	x	x	-	x	-	x	-	x	-	x	-	-
PHILIPPINES	LUMBAD, RAYNALDO	E	x	x	x	x	-	x	x	x	x	-	x	-	x	-	x	-	x	-	-
PHILIPPINES	VILLASENOR, FRANCISCO	E	-	-	-	-	-	-	x	-	-	-	-	x	-	-	-	-	-	-	-
PHILIPPINES	SO, JAMES LENG RENN	E	-	x	x	-	-	-	x	-	-	-	-	x	-	x	-	x	-	-	-
SRI LANKA	WIJAYRATNE, PAULA	E	x	x	x	x	-	x	x	x	x	-	x	-	x	-	x	-	x	-	-
TANZANIA	KALECELE, JORAH	E	-	-	x	x	-	-	x	x	x	-	x	-	-	-	-	-	-	-	-
THAILAND	KITTIPAKORN, BORNWORN	E	x	-	-	x	-	-	x	x	x	-	x	-	x	-	x	-	x	-	-
THAILAND	METHAKAJONKUL, SUPINDA	E	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-
THAILAND	NAKASARN, NUNTAPIT	E	x	x	x	x	-	x	x	x	x	-	x	-	x	-	x	-	x	-	-
UGANDA	BYAHAM, JOSSY	E	-	-	-	-	-	-	x	x	x	-	-	-	-	-	-	-	-	-	-
UGANDA	CARVALHO, JOHN	E	-	x	-	-	-	-	x	x	x	-	-	-	-	-	-	-	-	-	-
URUGUAY	LA BUONORA, MARIO	S	-	-	x	-	-	-	x	x	x	-	-	-	-	-	-	-	-	-	-
YEMEN (DEMOCRATIC)	ALAHERY, FAIZ S.	E	-	-	x	x	-	-	x	x	x	-	-	-	-	-	-	-	-	-	-
ZAIRE	LONGO, KANT	F	x	x	-	x	-	x	x	x	x	-	-	x	-	x	-	x	-	-	-
ZAIRE	LWIBA, NSOKI	F	-	x	-	-	-	-	x	x	x	-	-	-	-	-	-	-	-	-	-

COUNTRY	NAME	LANGUAGE	ID/WG. 335/16	ID/ 61	ID/ 72	ID/ 79	ID/ 108 Rev.1	ID/ 133	ID/ 154 Rev.1	ID/ 180	ID/ 223	ID/ 247	ID/ 265	ID/ 275	ID/ 298	ID/ 299	ID/ 300	ID/ SER.G/ 208, Rev.1	PI/61, Rev.2, Vols. 1,2,3,4
	<u>Enquiries at the INTERBIMALL Stand</u>																		
ITALY	SPERANZA, ANGELO	E	-	-	-	-	-	-	x	x	-	-	-	x	x	x	-	-	-
ITALY	TRAVERSA, ROMANO I.	E	-	x	-	-	-	-	-	x	-	-	-	x	x	x	-	-	-
ITALY	SCHIAVO, ALDO	S	-	-	-	-	-	-	-	-	-	-	-	-	x	-	x	-	-
ITALY	GIORDANO, GUGLIELMO	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-
ITALY	COLOMBO, ARISTIDE	E	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-
ITALY	PARETTI, MARIO	E	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-
ITALY	TROPEANO, DARIO	E	-	x	-	-	-	-	x	x	-	x	x	x	x	x	x	x	x
ITALY	SPARACI, GIORGIO	F	-	-	-	-	-	-	-	-	-	x	x	-	-	-	-	x	-
ITALY	MULAZANNI, ENZO	E	-	x	-	-	-	-	x	x	-	-	x	x	x	x	x	x	x
ITALY	NAJEED, KHAN AKBAR	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-
ITALY	DOLFO, GIANMARIA	E	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-
ITALY	MARCATI, A.	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-
ITALY	UNIVERSITA DEGLI STUDI	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x
BELGIUM	CARRE, JOSE	F	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EGYPT	TANANI, ADLY	E	-	-	-	-	-	-	x	-	-	x	x	x	x	-	x	-	-
FINLAND	IKONEN, VEIKKO	E	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-
SPAIN	GALLARDO, ANTONIO LOPEZ	S	-	x	x	-	x	x	x	x	x	x	x	x	x	x	-	-	-
FRANCE	MARTIN, PATRICK	F	-	-	-	-	-	-	x	-	-	x	-	-	-	-	-	-	-
SPAIN	LARRANAGA LARRANAGA, J. L.	S	-	-	-	-	-	x	x	-	x	-	x	-	x	-	-	-	-
EGYPT	CANSOUNI, ATTILIO	F & E	-	x	-	-	x	x	x	x	x	x	x	x	x	x	x	-	-
UNITED KINGDOM	BRONDBJERG, TONY	E	-	-	-	-	-	-	x	-	-	-	x	x	x	x	x	-	-
PORTUGAL	MIROTO, PEDRO	S	-	-	-	-	x	-	x	-	-	-	-	-	-	x	-	-	-
MALAYSIA	TEOH, SENG AUN	E	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-
KUWAIT	AL QATAMI, YACOUB Y.	E	-	-	-	x	-	x	x	x	-	x	x	x	x	-	x	-	-
YUGOSLAVIA	ANDRIJA, ILIC	F	-	-	-	-	-	x	-	x	x	x	x	x	-	-	-	-	-
YUGOSLAVIA	OMER, SALAH ELDIEN	E	-	-	-	x	-	-	-	-	x	x	-	-	-	-	-	-	x
YUGOSLAVIA	STJEPCEVIC, ILIJA	E	-	-	-	x	-	-	-	-	x	x	-	-	-	-	-	-	x
TURKEY	CINAR, SINAN*	E	-	-	-	-	-	-	-	x	x	-	x	-	-	-	-	-	-

* and UNIDO/LIB/SER.D/4, Rev.1
and UNIDO/LIB/SER.D/36

ANNEX VI

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 from 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 the 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 forestry use;
2. Selection of equipment for sawmills;
3. Selection of equipment for the production of plywood and veneer;
4. Selection of equipment for the production of boxes and pallets of various kinds;
5. Selection of equipment for the production of flush doors;
6. Selection of equipment for the production of louvered windows;
7. Selection of equipment for the production of parquet;
8. Selection of equipment for the production of kitchen furniture;
9. Selection of equipment for the production of solid wood school desks;
10. Selection of equipment for the production of upholstered chairs with bent plywood frames;
11. Selection of appropriate lumber drying kilns for furniture and joinery products;
12. Selection of equipment for dust and waste extraction;
13. Selection of equipment for wood turning;
14. Selection of equipment for the production of particle board;
15. Selection of equipment for the production of solid wood panel doors;
16. Selection of equipment for tool maintenance.

Details of the technical specifications of each product will be determined by the participants. Detailed descriptions of each of these topics are given hereunder.

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 course and the Exhibition to guide the groups in their work. Participants 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 audio-visual material.

Technical specifications and capacities of the products
for the assignment work

Topic No. 1: Selection of equipment for forestry use

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

Topic No. 2: Selection of equipment for sawmilling

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:	maximum 6 metres minimum 2 metres
Diameter of logs:	maximum 120 cm average 80 cm

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

Twenty-five per cent of the production is to be kiln dried to 12 % m.c. Emphasis should be placed on achieving a high yield and utilizing wastes.

Tentative cost of equipment: US\$ 330,000.

Topic No. 3: 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:
- (a) 10,000 m³ plywood sheets
4' x 8' 4 to 12 mm thick,
average thickness 6 mm, of which
2,000 m³ 4' x 8' x 4 mm with
sliced veneer faces.
 - (b) 1,000,000 m² sliced veneer up to
3 m long and 0.6 to 0.8 thick.

Tentative cost of equipment: US\$ 930,000.

Topic No. 4: Selection of equipment for the production of boxes and pallets of various kinds

Prepare a layout and select equipment for a plant to produce yearly:
500,000 light wooden trays (for vegetables);
200,000 cases for soft drinks (0.2 litre bottles);
100,000 pallets (100cm x 120 cm).

The raw material is to be sawn timber and/or sliced veneer. The plant is to use labour intensive production methods whenever applicable.

Tentative cost: US\$ 200,000 for the cases and trays and US\$ 100,000 for the pallets.

Topic No. 5: 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 costs of equipment: US\$ 160,000 for alternative (a) and US\$ 550,000 for alternative (b).

Topic No. 6: 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.

Tentative cost of equipment: US\$ 150,000 for alternative (a) and US\$ 375,000 for alternative (b).

Topic No. 7: Selection of equipment for the production of parquet

Prepare a layout and select equipment for plants to produce for export:

- (a) 500 m² of traditional hardwood parquet per day;
- (b) 1,000 m² of mosaic parquet per day.

The plants are to use kiln dried hardwoods.

Tentative cost of the equipment: US\$ 200,000 for each plant.

Topic No. 8: 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\$ 100,000.

Topic No. 9: 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\$ 180,000.

Topic No. 10: 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.

Tentative cost of equipment: US\$ 90,000.

Topic No. 11: 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 kiln drying.

Topic No. 12: Selection of equipment for dust and waste collection

Select dust and waste collection equipment for a furniture factory in a developing country having the following equipment already installed:

- one planer moulder (6 cutters)
- one planer moulder (4 cutters)
- one 24 inch (60 cm) thicknesser
- one 18 inch (45 cm) jointer
- one 10 inch (25 cm) jointer
- two radial arm saws
- two circular saws
- one double end trimmer
- one bandsaw
- one manual lathe
- one automatic lathe
- one automatic sander

Topic No. 13: Selection of equipment for wood turning

Select equipment for a plant having a daily capacity of: 500 lamp bases and furniture parts, plus 500 bowls and plates having a diameter of 15 to 45 cm, plus 8,00 small pieces such as salt and pepper shakers, small candlesticks, cups, toys, etc.

The equipment selected should include automatic and semi-automatic lathes, sanders for turned parts, drills and boring machines, and finishing equipment (lacquering and tumbling).

Tentative cost of equipment: US\$ 115,000.

Topic No. 14: Selection of equipment for the production of particle board
(added at the request of participants)

Select equipment for a particle board plant producing 12,000 m³ particle board per annum having the following specifications:

Raw material:	Tropical hardwood in the form of sawmill waste (slabs and edgings) 50 % and plantation thinnings, branches and tops 50 %
Size of panels:	1,250 mm x 2,500 mm
Thickness range:	8 mm to 24 mm, average 16 mm
Density:	700 kg/m ³
Panel construction:	All systems should be considered: monolayer, three layer and "graduated" board
Surface quality:	Must be good enough to allow surface coating and lamination
Other properties:	According to DIN
Tentative cost of equipment:	US\$ 3 million

Topic No. 15: Selection of equipment for the production of solid wood panel doors (added at the request of participants)

Select equipment for a plant to produce (a) 15 doors per day using simple technology and (b) 150 doors per day using a more advanced technology; using air dried sawn wood.

The doors are to have various types of panels machined or hand carved.

Tentative cost of equipment: US\$ 40,000 for alternative (a) and US\$ 150,000 for alternative (b).

Topic No. 16: Selection of equipment for tool maintenance

(a) Select equipment for the maintenance of sawmilling blades to include:

- circular saw blades;
- wide bandsaw blades;
- framesaw blades.

(b) Select all the equipment for the maintenance of cutting tools used in a medium sized furniture/joinery production plant to include:

- circular saws^{1/}
- bandsaws
- planing knives
- boring bits^{1/ 2/}
- routing bits^{1/ 3/}
- moulding knives^{1/ 4/}
- solid cutters^{1/}
- hand tools

^{1/} H.S.S. and carbide-tipped

^{2/} With plain and threaded shank

^{3/} With plain shank and morse taper shank

^{4/} Loose type

ANNEX VII

COMPOSITION OF GROUPS FOR ASSIGNMENT WORK
COMPOSITION DES GROUPES DE TRAVAIL

<u>NAME/NOM</u>	<u>COUNTRY/PAYS</u>	<u>CONSULTANT(S)</u>
1. Selection of equipment for forestry use.		
1. Sélection d'équipement pour usage en forêt.		
Lamine DIANE*	Guinea	Horatio BRION
Slamet Kees KADAR	Indonesia	José CARRE
Abdeljalil ALIOUA	Morocco	
Mamadou CISSE	Ivory Coast	
Kameni Roger FOTEU	Cameroon	
Joseph Claude ABENA	Cameroon	
Enrique KLINGENBERG	Chile	
John CARVALHO	Uganda	
2. Selection of equipment for sawmills.		
2. Sélection d'équipement pour scieries.		
J. Gustavo CHIANG*	Chile	Horatio BRION
LWIBA Nsoki	Zaire	José CARRE
Slamet Kees KADAR	Indonesia	
Mamadou CISSE	Ivory Coast	
Kameni Roger FOTEU	Cameroon	
Joseph Claude ABENA	Cameroon	
Alfredo J. PERALTA	Costa Rica	
Rojas Allen FERNANDEZ	Costa Rica	
Lisanework DEMISSIE	Ethiopia	
Jossy BYAMAH	Uganda	

* Team leader
Chef d'équipe

<u>NAME/NOM</u>	<u>COUNTRY/PAYS</u>	<u>CONSULTANT(S)</u>
Rachmat POEDJIONO	Indonesia	
Chattur BHEEMSINGH	Mauritius	
Rafael A. TERAN	Ecuador	
George KOPTI	Jordan	
Faiz S. ALAMERY	Yemen	
Krishna Autar SRIVASTAVA	India	
Abdeljalil ALIOUA	Morocco	
LONGO Kani	Zaire	
Hidayat ZAKARIA	Indonesia	
Marcel BITOKY	Congo	
Lisanework DEMISSIE	Ethiopia	
John CARVALHO	Uganda	

6. Selection of equipment for the production of louvered windows.
6. Sélection d'équipement pour la production de persiennes.

Hubert BOSSE*	Ivory Coast	Pietro BORRETTI
Sediono DHARMAWAN	Indonesia	
Hidayat ZAKARIA	Indonesia	
Marcel BITOKY	Congo	
Mario LA BUONORA	Uruguay	

7. Selection of equipment for the production of parquet.
7. Sélection d'équipement pour la production de parquet.

J. Gustavo CHIANG*	Chile	José CARRE
Ramsarran RAMSAHOI	Guyana	

*
Team leader
Chef d'équipe

<u>NAME/NOM</u>	<u>COUNTRY/PAYS</u>	<u>CONSULTANT(S)</u>
10. Selection of equipment for the production of upholstered chairs.		
10. Sélection d'équipement pour la production de chaises capitonnées.		
W. C. TAUBER*	Chile	Pekka PAAVOLA
Nuntapit NAKASARN	Thailand	
WIJAYRATNE Paula	Sri Lanka	
Reynaldo LUMBAD	Philippines	
JAMES Leng Renn SO	Philippines	
Francisco VILLASENOR	Philippines	
Chelliah MATHIALAKAN	Malaysia	
Zulkefli HARON	Malaysia	
Cubilla Jorge BENITEZ	Paraguay	
Aguirre Carlos JIMENEZ	Colombia	
Patricio JIMENEZ	Ecuador	
11. Selection of appropriate lumber drying kilns for furniture and joinery products.		
11. Sélection de séchoirs appropriés pour la production de mobilier et menuiserie.		
Alvarado Federico PICADO*	Costa Rica	Pekka PAAVOLA
Paul BYLES	Jamaica	
Ramsarran RAMSAHOI	Guyana	
Stephen DE LOS REYES	Philippines	
Marcel BITOKY	Congo	
Juan Carlos SOTO	Costa Rica	
Abegaz MELADU	Ethiopia	
12. Selection of equipment for dust and waste collection.		
12. Sélection d'équipement pour l'aspiration des déchets.		
Enrique KLINGENBERG*	Chile	Pekka PAAVOLA

*
Team leader
Chef d'équipe

<u>NAME/NOM</u>	<u>COUNTRY/PAYS</u>	<u>CONSULTANT(S)</u>
Patricio JIMENEZ	Ecuador	
Borworn KITTIPAKORN	Thailand	
Supinda METHAKAJONKUL	Thailand	

13. Selection of equipment for wood turning.
13. Sélection d'équipement pour objets en bois tourné.

Hubert BOSSE*	Ivory Coast	José CARRE
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14. Selection of equipment for the production of particle board.
14. Sélection d'équipement pour la production de panneaux de particules.

Lamine DIANE*	Guinea	José CARRE
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15. Selection of equipment for the production of solid wood panel doors.
15. Sélection d'équipement pour la production de portes en bois massif.

George KOPTI	Jordan	Pekka PAAVOLA
Rafael A. TERAN	Ecuador	
Juan Carlos SOTO	Costa Rica	
Alfredo J. PERALTA	Costa Rica	
Alvarado Federico PICADO	Costa Rica	
Ramsarran RAMSAHCI	Guyana	
Rojas Allen FERNANDEZ	Costa Rica	

*Team leader
Chef d'équipe

<u>NAME/NOM</u>	<u>COUNTRY/PAYS</u>	<u>CONSULTANT(S)</u>
16. Selection of equipment for tool maintenance.		
16. Sélection d'équipement pour l'affûtage des outils.		
Paul BYLES*	Jamaica	Pietro BORRETTI
Choudhry Abdul RAUF	Pakistan	
Joram KALEGELE	Tanzania	
WIJAYRATNE Paula	Sri Lanka	
Lamine DIANE	Guinea	
Reynalda LUMBAD	Philippines	
John CARVALHO	Uganda	

UNIDO CONSULTANCY SERVICE AT INTERBIMALL	
Name and address of company: MULAZZANI ENZO SCM SpA RIMINI VIA EMILIA 71 Tel 700111 ITALIA (0541)	
Contacting person; status:	
Type of company (private, government-owned): PRIVATE	
End product and annual volume of production:	
Information needed, particular problems: <u>INGLESE</u> ID/275 ID/180 ID/298 ID/159 Rev 1 ID/300 ID/61 ID/299 ID/154 ID/265 ID/SER. G/208/REV 1 P1/61/REV 2 VOL 1,2,3,4	
Remarks:	

ANNEX IX

BUDGET OF THE COURSE

	<u>US\$</u> <u>1984</u>	<u>Borne</u> <u>by</u>
<u>Technical Course on Criteria for the Selection of Woodworking Machines</u>		
<u>A. Travel</u>		
50 participants at US\$ 2,336.14 each	116,807	UNIDF
- Excess baggage 50 x US\$ 200	10,000	"
- Per diem 50 x 20 US\$ 85	85,000	"
	<hr/> 211,807	"
<u>B. Cost of training course proper</u>		
- Fees and travel of 4 international consultants	22,353	
- Per diem 4 x 12 x US\$ 85	5,064	"
- Lecturers: honoraria, expenses (accommodation + meals)	19,130	"
- Simultaneous interpretation (Italian/French/English)	10,000	"
- Local travel	5,000	"
- Facilities: rental of premises for 2 weeks, 1 conference room for 70 persons + 1 office & audio-visual materials	7,500	
- 50 INTERBIMALL catalogues for participants	p.m.	CEPRA
- Sundry stationery, etc.	3,000	UNIDF
- Hospitality: UNIDO reception	2,500	"
- Reception by CEPRA	p.m.	CEPRA
- Documentation: translation of about 100 pages of lectures from Italian into English & French	3,500	UNIDF
- Reproduction of these lectures by UNIDO	p.m.	UNIDO
- Transportation of documents & UNIDO publications from Vienna to Milan	1,500	UNIDF
	<hr/> 79,547	
SUB-TOTAL		
<u>C. Administration costs</u>		
- Salaries: course director (3m/m) + accommodation for course director	7,500	"
- Course secretary, 2 interpreters (English/French)	,000	"
<u>Travel:</u>		
1. To Milan by UNIDO substantive officer for finalization of programme (air fare + 2 days' per diem)	920	"
2. To Milan by UNIDO substantive officer to finalize selection of participants (air fare + 2 days' per diem)	920	"
3. Of UNIDO staff member to conduct course + excess baggage + 22 days' per diem	2,400	"
	<hr/> 16,740	
SUB-TOTAL		

	<u>US\$</u> <u>1984</u>	<u>Borne</u> <u>by</u>
D. <u>Miscellaneous and unforeseen</u>	5,200	UNIDF
E. <u>Administrative support by UNIDO:</u> letters of invitation, screening of participants' nominations, issuance of letters of award, travel accommodations, reviewing text of lectures, plus their reproduction	p.m.	UNIDO
TOTAL	<u>313,294</u>	

Revision of the UNIDO Publication ID/247 (Technical Criteria for the Selection of Woodworking Machines)

- Publication of the documents (as revised) as ID/WG/369... documents (about 350 pages in English and 375 in French)	p.m.	UNIDO
- Editing of 350 pages, US\$ 20/page	7,000	UNIDF
- Translation of the edited 350 pages into French, US\$ 20/page	7,000	"
- Editing of the new lectures prepared for the 1984 course, about 100 pages, US\$ 20/page	2,000	"
- Translation of 3 new lectures into French, about 100 pages, US\$ 20/page	2,000	"
- Issuing these lectures as ID/WG/... documents	p.m.	UNIDO
- Printing of the revised document as ID/247, Rev.1 in English and French	p.m.	"
- Art work, unforeseen	2,000	UNIDF
TOTAL	<u>20,000</u>	"
13 per cent overhead	43,328	UNIDF
GRAND TOTAL	<u><u>376,622</u></u>	"

Currency requirements: Costs borne from special contribution of the Government of Italy to the UNIDF 376,622

NB: ACIMALL will provide in kind:

- Cost of 50 catalogues for the participants
- Reception by CEPRA
- Miscellaneous support (secretarial, administrative, etc.)

The rate of exchange in converting ACIMALL's estimate of the local costs was Lit 1,400 = US\$ 1.

ANNEX IX

FIERA DI MILANO

SERVIZIO STAMPA

ST/mi

4/85

Destinato ai tecnici dei Paesi in via di sviluppo

UN CORSO A "PALAZZO AFRICA"

SULLE MACCHINE PER LAVORARE IL LEGNO

Milano, 15 maggio 1984 - Un corso di aggiornamento sulle macchine per la lavorazione del legno, promosso dall'UNIDO ed organizzato dall'ACIMALL, è stato inaugurato a Palazzo Africa, alla Fiera di Milano. Vi partecipano cinquanta tecnici provenienti dall'Africa, dall'Asia e dall'America Latina: fra essi, è una donna della Thailandia. Nell'Aula Africa del palazzo ha porto ai convenuti il saluto dell'Ente Fiera il segretario generale, avvocato Gino Colombo il quale ha sottolineato tra l'altro l'attività di Palazzo Africa: organismo finora unico nel suo genere, che permette ai Paesi dell'Africa di mantenere uffici commerciali permanenti per la promozione, anche turistica, in tutta Europa e nel bacino del Mediterraneo. Dopo brevi parole del dottor Orlandi, in rappresentanza del Ministero italiano degli Affari Esteri, hanno parlato il dottor Lazzaro Cremona quale presidente dell'ACIMALL e, a nome del direttore esecutivo dell'UNIDO, dottor Abdel Rahman Khane, il signor Antoine V. Bassili. Sono seguite, per l'intera giornata, le prime relazioni tenute da esperti italiani e stranieri, sull'industria del legno e del mobile e sulle caratteristiche dei legni tropicali.

Le lezioni, con dibattito, proseguiranno fino al 25 maggio. Due giorni saranno poi dedicati alla visita dell'INTERBIMALL, la 9ª Biennale internazionale delle macchine e accessori per la lavorazione del legno, aperta nell'ambito della Fiera di Milano dal 24 al 29 maggio. Le giornate del 29 e 30 maggio saranno dedicate a un esame degli elaborati preparati dai partecipanti al corso e a una riunione di chiusura dei lavori.

Il 31 maggio tutti ripartiranno da Milano per i rispettivi Paesi di provenienza. (r.r.)

ANNEX X



ufficio stampa

interbimall '84

9^e BIENNALE INTERNAZIONALE DELLE MACCHINE
E ACCESSORI PER LA LAVORAZIONE DEL LEGNO
24-29 MAGGIO 1984 - FIERA DI MILANO

Comunicato Stampa - Presse-Information - Press-Release - Communiqué de Presse - Comunicado de Prensa

Press release n. 52

Together with Interbimall '84, the 5th Unido Course on the criteria for the selection of woodworking machinery - 50 selected participants from developing Countries - high expectation for the big show.

THE UNIDO COURSE

During the 9th Interbimall '84 - Biennial Exhibition for Woodworking Machinery and Tools - there will be held an important event, of world-wide significance.

It is the 5th Unido (United Nations Industrial Development Organization) technical Seminar, financed by contributions from the Italian Government and managed by the Department of Development of the Ministry for Foreign Affairs. The logistics and organization of the Seminar are the responsibility of Acimall, the Association representing over 85% of sales for this industrial sector.

The Seminar, slated for May 14 to 30, 1984 at "Palazzo Africa" on the Milan Fairgrounds, will be directed by Prof. G. Giordano together with Dr. A. Griner.

The participants are 50 specially selected individuals from numerous Afro-Asiatic developing Countries as well as Central and South America. The subject "The criteria for the selection of woodworking machinery" will be discussed and analyzed from many aspects by 27 Italian and foreign speakers, including industrialists, professors and engineers.

The Unido Seminar participants will also have the opportunity to focalize on the production potential and high technology of the Italian logging and woodworking industries. To help demonstrate, the participants will be taken to visit manufacturers of woodworking machinery and furniture, as well as wood panels (i.e. plywood) and other unfinished wood processing plants.

Dr. L. Cremona, president of Acimall, pointed out during an interview

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BIENNALE
INTERNATIONALE
DES MACHINES
ET ACCESSOIRES
A TRAVAILLER
LE BOIS

BIENNIAL
INTERNATIONAL
EXHIBITION
FOR WOODWORKING
MACHINERY
AND TOOLS

INTERNATIONALE ZWEI-
JAHRESAUSSTELLUNG
FÜR HOLZBEARBEITUNGS-
MASCHINEN
UND ZUBEHÖR

EXPOSICIÓN
INTERNACIONAL
BIENAL
DE MAQUINARIA
Y ACCESORIOS
PARA LA MADERA

that Italy has not been chosen to host this Seminar on a merely casual basis.

The choice has been based on Italy's long standing position in the area of design and installation and on her machinery which is technologically the most advanced in the world today. The Italian woodworking industry, world-wide leader in the sector, is made up of more than 250 industrial concerns, 170 of the most important ones being members of Acimall.

The international consultants of Unido who will be assisting the participants during Interbimall will also be at disposal of those visitors from developing Countries to the show who might require information.

INTERBIMALL '84

Actually more than 520 exhibitors, with a specific interest from foreign Countries, specially European, have already confirmed their participation to the Interbimall '84.

The 9th edition will be held from May 24 to 29, 1984, on the Milan Fair grounds, on a comprehensive surface of about 50.000 net square meters.

Numerous are the communications signalized in our offices about the arrival of groups and delegations by charters flights, coming from South-East Africa and Central-South America.

ANNEX XII

EVALUATION - GROUP TRAINING PROGRAMMES

Compilation of replies to 50 questionnaires

Programme: Technical Course on Criteria for the Selection of Woodworking Machines Host country: Italy
Year: 1984

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	40	6	1
Content of the programme	29	14	4
Level of the programme	27	15	2
"Did not receive any" 2			

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

- More about technical and professional level of course (1)
- Very important to include course programme (9)
- Detailed programme and basic lectures in written form (1)
- Details of what is expected from assignment work (1)
- That the programme is divided into primary and secondary processing (1)
- Everything was clear (1)

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

Information about the programme:

Number of weeks:	18	12	10	9	8	7	6	5	4	3	2	1	3 days
Number of replies:	1	1	1	1	17	3	7	1	6	3	1	1	1

Being accepted in the programme:

Number of weeks:	6	5	4	3	2	1½	1	5	4	3	6 days
Number of replies:	1	2	1	8	15	2	12	1	1	4	1

Comments:

- UNIDO field officers should inform candidates in time to organise travel arrangements (1)
- Acceptance should arrive 3-4 weeks in advance (resulting in a better country paper and also because of distance between town and SIDFA)
- All information to arrive 1 month in advance (4)
- Acceptable (3)
- Nothing received (1)
- UNDP and Government knew nothing about the course or UNIDO activities (1)
- Acceptance should be received 6 weeks in advance (1)
- It is thanks to the SIDFA's help that I managed to arrive in time because there is no Thomas Cook in Cameroon

II. PROGRAMME CONTENT AND ORGANIZATION

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

Too long	3
Just right	37
Too short	10

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

Number of weeks:	6	4	3	2
Number of replies:	1	7	1	2

- Longer allowing more time to find more information (1)
- Shorter because it is hard to leave business for such a long time (1)
- Longer (4 weeks) allowing more time to see and possibly use machines, and have discussions with the lecturers (1)
- Longer to enable far more factory visits (transformation units) (2)
- Longer because there is too much to be done and seen (10)
- Longer to allow more in-depth analysis (4)
- Eight days of lectures are too much. Most could be read. Summaries followed by an open forum are better (1)
- Longer so that lecturers can go into detail and/or give more explanation (1)
- Two weeks of theory + 1 week of practical work (1)

4. State your opinion about the daily schedule:

Too heavy	22
Just right	23
Too light	0

Comments:

- Too heavy because of 7 hours' interpretation into a language which is not yours (1)
- Too many and too long lectures (8)
- A.M: lectures - P.M: open discussion or visits (6)
- Too much - lecturers have to rush and using microphones all day is a stress (1)
- Everything was O.K. (1)
- Too much theory; not enough time for practical parts (2)
- Primary and secondary should not be mixed (1)
- Too much work late at night (1)
- During Fair - A.M: Fair; evenings: lectures (1)
- My work days were very positive (2)
- The programme was reasonable; otherwise the participants would have been exhausted the next day (1)
- Five lectures a day is excessive, whatever the level of the audience (1)

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

- Candidates should indicate upon their arrival whether interested in primary or secondary industries. Two sets of lectures at different places: these 2 categories made bigger difference between groups (3)

- Focus on conditions relevant to working with timber resources from the tropical broadleaf species (1)
- At least one lecture on reafforestation should be included (1)
- Plant layout to be associated to line of production (1)
- Find speakers lecturing in language common to the majority (3)
- Divide class into groups according to topic(s) of interest and have dialogues instead of lectures (1)
- Mornings: lectures - afternoons: more visits/discussions (3)
- More visits (2)
- No change - suitable for developing countries (2)
- No change - programme was basically orientated (1)
- None (3)
- Lecturer shouldn't read but explain and discuss (1)
- Introductory lectures to production planning/scheduling (1)
- Lecture on quality control
- Language was No. 1 problem (as compared with Lahti); I got only 50 per cent of the lectures (1)
- None (3)
- Must be more practical (2)
- Separate the two groups (1)
- Specialize in furniture production with emphasis on hardwood and upholstered furniture (1)
- More time for selection of machinery (1)

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

To a very large extent	10
To a large extent	20
To a sufficient extent	17
To a small extent	3
To a very small extent	0

Please comment:

- Small extent because some topics touched on very basic aspects only and main actual problems were not discussed (1)
- Very important for an Operations Manager (1)
- Good insight into matters relevant to decision making (2)

- It is impossible to satisfy each participant's needs in all details (1)
 - More people from manufacturing companies should attend (1)
 - Most beneficial (1)
 - I learned new techniques - new practical experience (2)
 - Now I can help my enterprise in choosing the right equipment (1)
 - For me the course was refreshing. It allowed me to get an idea about the wood industry in other countries (1)
 - Enabled me to know about technical processes which make wood productive, and to better appreciate the dimensions of the machines needed and the technical organization of a workshop or plant (1)
 - Little only: because, in my work, I work with tropical woods with small diameters (1)
 - Introduce Spanish into the course (1)
 - Due to interpretation we understood about 25 per cent only from the lecturers (they can speak English anyway) (1)
 - If interpreted, lectures should be shorter (30-40 minutes), followed by a technical film and discussion (1)
 - Automation in the wood industry (1)
 - The theory took too much time (1)
 - Some lectures should be given on the spot (visits) (1)
 - Participants would like to be able to discuss general problems they have encountered with other participants or consultants with experience (1)
 - One should foresee the case where participants are interested in all the visits (1)
 - Spreading of time allowed for technical work, which lasted only two days (1)
 - Two to three days of lectures; the balance being group works.
7. Please give your opinion about the study visits (if any):
- O.K., but there should be more than one chair manufacturer (1)
 - Good for the purpose of the training; interesting, O.K. (11)
 - Should have less visitors at a time (2)
 - More but smaller groups (1)
 - Interesting as far as these showed modern techniques (full automatization) for timber manufacture (1)
 - Interesting, but purpose of visit and data about factories missing (5)
 - Interesting, but not well organized in advance (2)
 - Interesting, but not possible to learn about owners' experiences with results of machinery, level of products and economic results (1)

- Very little and very short (3)
- Very useful and informative (2)
- Not very interesting because they were mainly assembly operations with very little processing of lumber (1)
- Very satisfactory; if time allowed, they should be increased (2)
- They were perfect within the time available (1)
- More visits needed (to give in-depth study of use of machinery) (5)
- Too poor (1)
- Should visit more medium and large industries to get to know new production system (1)
- Visit to technical school meaningless (1)
- Some factories had expensive machines but no good organization from which to learn (1)
- Should take place right after related lecture and with the lecturer (1)
- Contact with technicians responsible for units visited should be made possible (1)
- Need better explanation of production process (1)

Please suggest other study visits that might have been valuable:

- Machinery manufacturers (4)
- A solid wood furniture factory (the one visited worked at 10 per cent capacity) (1)
- A fully operational factory processing solid wood (1)
- More visits to big companies and better contacts with them (1)
- O.K. but should plan visits to less sophisticated factories (1)
- Visits to kilns in operation would have helped with assignment in general (1)
- A laboratory for quality control (equipment necessary) (2)
- Visit to research and testing of products section and quality control section (1)
- Wood corking industry (craft) (3)
- Larger factories, particularly producing chairs for home use (1)
- Depends upon what is available around Milan (1)
- Logging operation - sawmills (2)
- Furniture fair - woodworking laboratories (1)
- Upholstered furniture (1)
- Hardwood home or office furniture (1)

- More furniture industries and add metal components, because it goes with solid wood (1)
- Factories of components such as hinges, knobs and other metal parts used (1)
- Chair factory (1)
- Factories working at full capacity with a good production management (1)
- One week of practical experience in a particular industry or activity (1)
- Reafforestation site (1)
- Logging operations (2)
- Visit to a plantation for wood production (2)
- Visit to a natural forest (1)
- Visit to a fibreboard plant (1)

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

Much too high	1
Too high	1
Adequate	47
Too low	1
Much too low	0

Comments:

- Lectures not sufficiently in-depth (2)
- Some lectures of too high a level (1)
- Suppose the level was average because the participants did not all have the same level (1)
- A higher level could be reached through the organization of a complementary course about special topics (automation, design, etc.) (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.)

- Selection of machines for sawmills (4)
- Selection of moulding machines (1)
- Maintenance of machines/tools (2)
- Selection of plywood machines (4)
- Use of by-products of wastes from sawmilling (6)
- Kiln drying of sawn lumber (14)

- General criteria (16)
- Methodology for purchase (9)
- Painting and varnishing (6)
- Production of chairs (4)
- Industrial production of doors (5)
- Visit to flush doors and windows (1)
- Briquetting of wastes (4)
- Economic considerations in purchasing machines (6)
- Assignment work (1)
- Almost all (2)
- Technology and machinery for the production of casegood furniture (3)
- Mechanization of forest operations (1)
- Selection of equipment for prefabricated houses (3)
- Production of panel furniture (2)
- Just the word "criteria" in the course title makes it important to me (1)
- Primary industries (2)
- Production of sliced veneer (3)
- Waste and dust extraction (3)
- Production of doors and wooden components (1)
- Information about new machines and equipment (1)
- Furniture production/manufacture (2)
- Glue laminated timber (1)
- Lectures on particle board (1)
- Wood as a fuel (1)
- Maintenance of tools and equipment (1)
- Wood based panels (1)
- Plywood (1)
- The Fair itself (new types of machines) (1)
- Wood characteristics influencing machine selection (1)
- Choice of electrical installations (1)
- Veneer slicing (1)

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

- Mechanization of forest operations (1)
- Laminated products (1)
- Preservation of wood products (too elementary) (4)
- Selection of equipment for panel surface improvement (1)
- Use of wood wastes (2)
- None (7)
- All primary wood processing (4)
- Production of bases of pallets (1)
- Production of upholstered furniture (1)
- Kiln drying (2)
- Economic aspects in selection of machinery for particle board (2)
- Sawdoctoring (1)
- Tool maintenance (3)
- All furniture related lectures (1)
- Power supply of auxiliary (1)
- Tools for machining wood (1)
- Briquetting of wastes (2)
- Importance of tropical timber to Italian industry (1)
- Economic considerations (approach was for financial managers) (1)

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

Yes	16
No	25

If yes, what did you miss?

- Sawmilling: secondary breakdown alternatives were not all covered (1)
- Future trends of the industry in developing countries (1)
- Passing from solid wood furniture to veneered furniture (1)
- Choice of electrical equipment and maintenance; electric power for machines (2)
- Standards in quality, in finishing, in production of furniture, etc. (1)
- Use of the complete forest mass in the steps of the process from forest to harbour (1)

- Quality control (1)
- Tool maintenance (1)
- Economic considerations not only from the equipment point of view, but the entire processing unit (1)
- Study of production flow not thorough, or made without explanation (in some cases) (1)
- Tools for machining - nothing in depth (2)
- Selection of machinery not studied enough, too general, and sometimes irrelevant to furniture (1)
- Portable machinery and tools (1)
- Systems of accident prevention and health problems (1)
- Machinery for labour intensive factories (1)
- Relationship between furniture design and availability of machines (1)
- Relationship between mass production machinery and ordinary production plants or conventional machines (1)
- Use of plastic with wood (because wood resources are decreasing) (1)
- Use of aluminium with wood (because wood resources are decreasing) (1)
- Use of steel with wood (because wood resources are decreasing) (1)
- Wood preservation (very important) - immersion studies, etc. (1)
- Future of laminated wood industry (1)
- Future of making good products out of wastes (1)
- Replanting/reafforestation (1)
- Design of wood products (1)
- The notion of investment return was not explained in-depth (1)
- Management of a firm (1)

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

	<u>No changes</u>	<u>More</u>	<u>Less</u>
Lectures	30	6	10
Group work	31	12	4
Demonstrations	17	20	2

Comments:

- Lectures with more visual material (1)
- Groups of people speaking same language, if possible (3)
- Definite interpretation problem (50 % grasp). Essential that interpretation be very good (1)

- More discussions; no lectures (1)
- The groups may work better together if they meet during lesson hours (1)
- Choosing two topics of assignment work is too much because of time limit (1)
- More time for assignment work because of involvement in up to three groups (2)
- More demonstrations to cement practical application of lectures in our minds (1)
- Groups should be smaller (2)
- More time to allow more questions on specific plant problems (1)
- More practical things (2)
- Lectures should be more direct and synthetized - less theoretical (2)
- Demonstrations should be made simultaneously with lectures (1)
- Group leaders should be selected by group members to achieve maximum co-operation (1)
- Group work should take place in a conference room since, when in the hotel due to participants having different programmes only the group leaders work (2)
- The consultants should be able to get everybody to work, and the participants should feel obliged to work and support and co-operate with the group leaders (1)
- More time for deeper understanding/memorizing of wood processing techniques that add value to wood (1)

13. How did you find the general standard of the instructors in respect to?

	<u>Command of English</u>	<u>Method of instruction</u>
Very good	7	16
Rather good	13	15
Fair	7	9
Poor	7	0
Very poor	0	0

Please comment:

- Interpreter misses a lot of correct technical terms (7)
- Most instructors clear and conversant, in particular on windows and flush doors (1)
- Several had very limited experience about conditions and timber in tropical developing countries (1)

- More audio-visual aids needed (1)
- Interpretation O.K. but difficult to follow for such long periods (2)
- Some lecturers did not plan their timing of presentation (visual aids) (1)
- Language was a difficulty (1)
- Lecturer to explain instead of reading (1)
- Most instructors have no teacher-training but are managers or technicians; so one cannot expect English from all of them (1)
- Bad interpretation (1)
- Most lecturers do not respect the time allotted to them (1)
- Spanish is a UN language and more than 30 % of the participants were from Spanish speaking countries (1)
- Very good - some of them only (1)
- We understood only 25 % of Italian and French lecturers (1)
- The good interpreters compensated for those lecturers who do not speak English (1)
- O.K. except that the group work organizer does not speak French (1)
- Not having all French speaking participants together created a lot of disorder in group work (1)
- Instructions method with slides and films was very good (1)
- Not "very good" as instructors have no teacher training, but they managed to be instructive (1)

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

	<u>The programme staff</u>	<u>Fellow participants</u>
Yes	42	41
No	7	6

- Not enough because after the exhibition came the group work (1)
- Consultants arrived just before the Fair and were mainly involved in project work. We did not have enough time with them (1)
- Not enough because there were not many people working in my field (machine building industry) (1)

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

	<u>The programme staff</u>	<u>Fellow participants</u>
A great deal	21	19
Much	21	17
Somewhat	7	9
Little	1	3
Not at all	0	0

Please comment:

- Practical solutions and ideas in areas of interest (2)
- Not enough time because the programme covered the whole day (1)
- Programme staff were experienced and knowledgeable (2)
- It is very important (1)
- I learned a lot from exchanges of views (2)
- Not enough time for discussions (1)
- I benefitted very much (1)
- Now I know where to go and whom to see if I have technical problems (1)
- I learned about experiences in other countries (2)
- Discussions with the instructors made me understand how to take advantage of wood resources (1)
- Instructors would give detailed information (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	13
To a great extent	19
To a sufficient extent	17
To a small extent	1

Please state why:

- Relevant to my company's work (6)
- In sawmilling, tropical conditions (exotic woods) not covered enough (1)
- The content of the secondary process was broad and relevant (1)

- I got new ideas about machinery (1)
- Relevant but the financial constraints of developing countries have to be taken into consideration (1)
- It broadened my knowledge and will thus improve management of my company (2)
- Very much because the topics were both practical and relevant (1)
- Not enough about furniture production (1)
- I learned a lot, which means improvement (1)
- Positive because 95 % of the industry in my country is at primary level (1)
- Yes because of the visit to plant producing veneer from small diameter timber (1)

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

To a very great extent	15
to a great extent	23
To a sufficient extent	12
To a small extent	0
To a very small extent	0

Please state why:

- Since I am a project economist, I got a better understanding of the technical aspects (1)
- The main benefit is the opportunity to participate in an international machinery Fair (1)
- Excellent technology transfer (very updated); very good scientific depth (1)
- Sharing of ideas (1)
- Yes because most machines are manually operated in my home country (1)
- I'll study application of new machines to my country's needs (1)
- It broadened my knowledge about wood industries (2)
- This was my first contact with UNIDO - in the future UNIDO can be a great adviser to me and my country in the wooden furniture field (1)
- This widens my capacities as a furniture producer (10)
- Relevant topics (1)
- I learned about wood, but not about woodworking production processes (1)
- Helpful for my work (as General Manager in charge of technical and economic problems) (1)

- Very useful - I'll take back something helpful for the promotion of enterprised in my country (1)
- Now I know more about the practical aspects of our enterprise's activities (1)
- I learned about problems in other developing countries (1)
- It gave me a global idea on the evolution of wood technology (1)
- Showed me the importance of a Fair for a wood professional (1)
- My knowledge was updated (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	10
To a great extent	23
To a sufficient extent	15
To a small extent	1
To a very small extent	0

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

- None (1)
- Training the (junior) staff in new methods and machines in production (2)
- Efficiency and competitiveness (2)
- Small, because of having to maintain an economic production line due to financial constraints (3)
- Not yet, but in the near future (1)
- Import limitations may be a drawback (1)
- I must improve my English to take advantage of the documentation (am French speaking) (1)
- I'm not my own boss (1)
- Very much - it enables me to better understand the technical aspects of a project (1)

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

To a very great extent	8
To a great extent	28
To a sufficient extent	12
To a small extent	2
To a very small extent	0

20. How will this transfer be made?

In day-to-day work to colleagues and subordinates	29
In specific training activities inside present employment	31
In specific training activities outside present employment	17

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

- None (1)
- Not enough instruction in this field in my country (1)
- Lack of literature, brochures, films, etc., in Spanish (1)
- Adapting and changing systems/devices to our specific local conditions and level of technology (1)
- Investment limitations because of constraints due to difficult economic conditions (2)
- To find time for training after working hours (1)
- Communication because of the low level of organization of the furniture sector (1)
- Changing the design of a machine is difficult - it means training the design department (1)
- Not enough documentation in Spanish (1)
- Government might not allow a private training centre (1)
- I'm not able to answer questions in detail (1)
- Absence of local agents for manufacturers of the different machines (1)
- Lack of equipment for demonstration (1)
- Routine habits, which are hard to change (1)

IV. SOCIAL ASPECTS OF THE PROGRAMME

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

- O.K. - good (20)
- Of interest and helped me to see certain aspects of life in Italy (5)
- Very good (6)
- Not sufficient (2)
- Thanks (1)

- Poor, but due to little time available (2)
- The activities gave us the opportunity to see the importance given in the past by Italy to the Christian religion (1)
- Within their possibilities, our instructors helped us a lot (1)

What additional activities would you have appreciated?

- Some evening activities when time available (1)
- A suitable common sports activity (tennis, football, etc.) (1)
- Movie, sightseeing (1)
- A forum between participants and experts on woodworking machines (1)
- Indoor games between groups so that group members get to know each other (i.e., darts, ping-pong, etc.) (1)
- Music and drama (theatre) (2)
- Visit to historical or cultural places (1)
- Not much (1)
- Sports (3)
- A visit to the Scala (opera) (1)
- Shopping (1)
- Visits to important places in the country (1)
- Not enough time for more activities (1)

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

- Very interesting experience - good opportunity for exchanges of ideas, techniques, experiences in specific activities - highly positive (1)
- Experience in the Fair (1)
- We should not be treated like students (1)
- UNIDO is doing a great job - gratitude to UNIDO and to Italy (1)
- Hotel - good (2)
- Hotel - too small (1)
- Brief participants on local details such as: shopping hours, nearest shops, cost of food (meals), transport system, hotel facilities, etc. (1)
- Consultants were very useful; they were able to give lectures in English instead of Italian technicians (1)
- Interpretation should be improved in clarity (3)
- Good organization (1)
- Participants well chosen (1)

- Participants of a higher level should be guided by consultants so that they learn in the same proportion as the other participants (1)
- Hotel accommodation to be improved (1)
- Good secretarial help (1)
- Advisers and counsellors had a good training capacity (1)
- During visits two consultants should accompany the group, one English speaking and one French speaking (1)
- Some visits should be more precisely linked to the speciality of some technicians (1)
- Maybe one should leave more choice to participants for their lodging, even on the basis of a hotel list presented by UNIDC (1)
- Upon their arrival, participants should present their country paper (1)

ANNEX XIII

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

EVENT	(a) AS FORESEEN IN THE PROJECT	(b) AS ACTUALLY IMPLEMENTED	(c) AUTHOR'S PROPOSAL FOR A COURSE IN 1986
Submission of project proposal to the Secretariat of the Project Review Committee	April 1983	28 March 1983	March 1985
Approval of the Project by UNIDO's Project Review Committee	May 1983	17 June 1983	May 1985
Approval of the Project by the Italian Government	July 1983	24 November 1983	July 1985
Visit to Milan by staff member to finalize programme arrangements and agreement on which countries are to be invited	October 1983	December 1983	September 1985
Booking of hotel, transport arrangements, recruitment of interpreters, etc., (by ACIMALL)	October 1983	December 1983	October/December 1985
Letters of invitation to be sent to Governments by UNIDO	October 1983	3 January 1984	October 1985
Notification to SIDFA's and former participants of the course	November 1983	(Not done due to late approval of course)	November 1985

EVENT	(a) AS FORESEEN IN THE PROJECT	(b) AS ACTUALLY IMPLEMENTED	(c) AUTHOR'S PROPOSAL FOR A COURSE IN 1986
Press release to technical press by UNIDO and CEPRA	November 1983	(Not done)	November 1985
Initiation of recruitment action for consultants (by UNIDO)	November 1983	23 January 1984	December 1985
Submission of draft of new lecture documents in English, by ACIMALL to UNIDO for final approval	November 1983	(Not done due to late approval of project)	December 1985
Submission of final text of documents in English and French, by ACIMAL to UNIDO for reproduction by UNIDO	December 1983	(Some were reproduced unedited in Milan due to late submission)	February 1986
Closing date for receipt of nominations	End February 1984	19 March 1984	End February 1986
Finalization of recruitment of consultants (by UNIDO)	End February 1984	9 February 1984	End February 1986
Final selection of participants from the list of nominations, in collaboration with ACIMALL	Mid-March 1984	2 April 1984	Mid-March 1986
Notification of candidates who have been selected	Mid-March 1984	21 April 1982	End March 1986

EVENT	(a) AS FORESEEN IN THE PROJECT	(b) AS ACTUALLY IMPLEMENTED	(c) AUTHOR'S PROPOSAL FOR A COURSE IN 1986
Pouching of course material to candidates who have been selected	February 1984	(Not done due to late approval of project)	As and when their nominations are received
Documents shipped to ACIMALL by UNIDO	End March 1984	18 April 1984	End March 1986
Airfreighting course library and conference material by UNIDO	End April 1984	(Not done, to use funds to airfreight documents)	End April 1986
Convening of Technical Course on Criteria for the Selection of Woodworking Machines	14-31 May 1984	14-31 May 1984	May 1986
Submission of report	June 1984	October 1984	July 1986

