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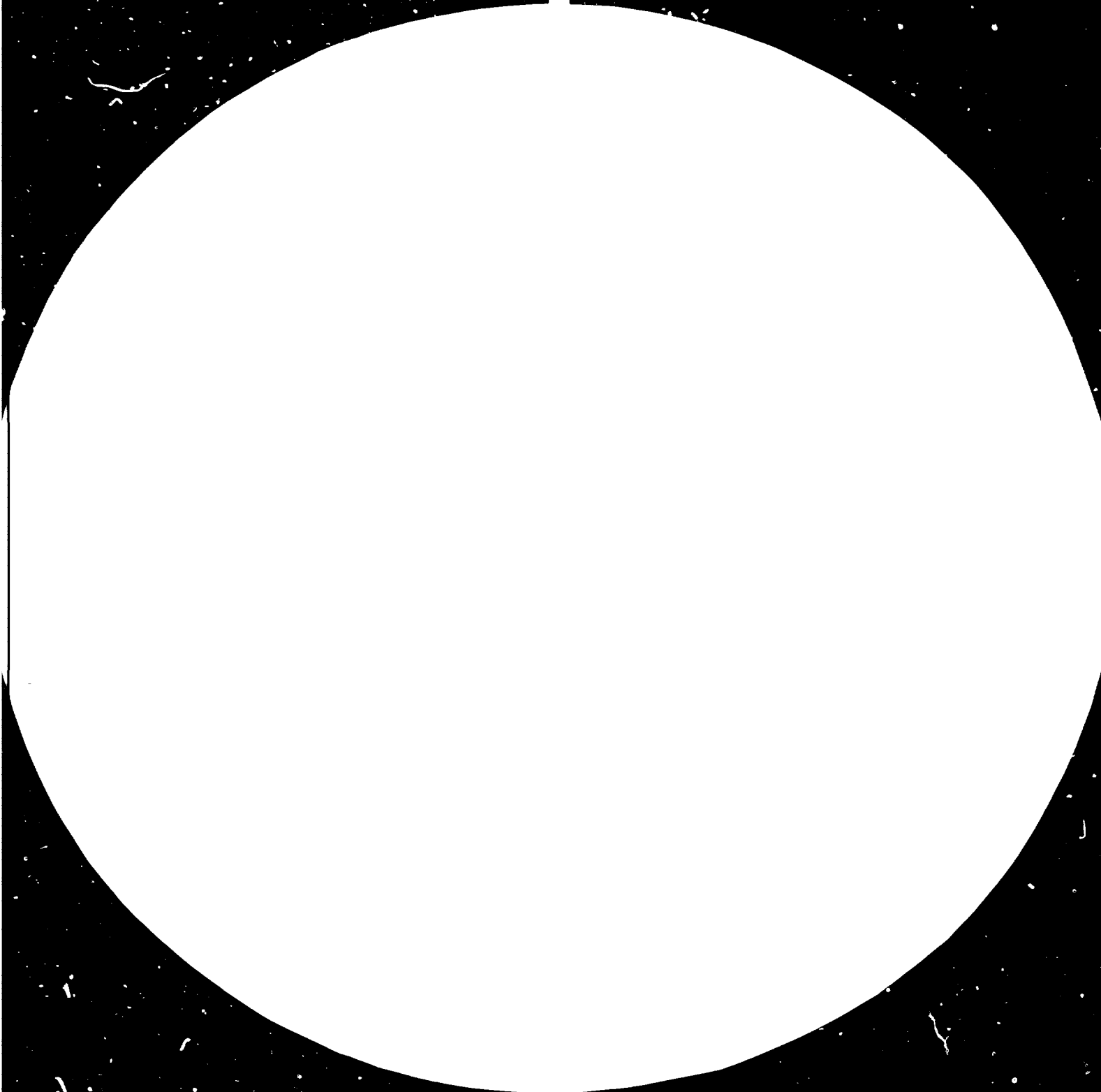
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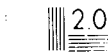
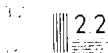
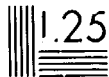
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UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

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English

Assistance to TECHNOFOREST 1979 •

Technical Consultation to Forestry and Wood Processing Industries
for Latin American Countries

Lima, Peru, 19-24 November 1979

UC/RLA/78/231

Mission Report*

by

Heinz Eldag
Industrial Development Officer
Agro-industries Branch
Division of Industrial Operations

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V.81-29128

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1. Background

The TECNOFOREST consultancy service programme was based on "Technical problems of the forestry and woodworking industry in Latin America" including questions compiled by a group of professionals from Latin American countries under the direction of the TECNOFOREST-organizers. Some of the questions (764) were similar to those from technicians of industrialized countries but others were rather simple according to the needs of the small scale industries. The presentation of the booklet on technical problems was based on the guidance and advice of the Food and Agriculture Organization (FAO), the United Nations Industrial Development Organization (UNIDO) and the Ministry of Agriculture and Food of Peru, the Latin American Forestry Service and other institutions.

Within the seven groups, the following subjects were covered:

- reforestation and forest management
- harvesting and transport
- saw milling and related activities
- veneer and wood panels
- furniture
- prefabricated houses and parquetry
- marketing of forest products

2. Purpose of the mission

A staff member of the Agro-Industries Branch of the Division of Industrial Operations, Heinz Eldag, went to Peru to attend and help to conduct the TECNOFOREST consultancy service programme for experts

from the wood processing industries from Latin American countries which was held in Lima, Peru, from 19 to 24 November 1979.

3. Attendance

UNIDO selected twenty participants from 28 Latin American countries out of twenty six nominations to attend the consultancy service programme. Three of them were unable to attend due to the delay in notifying them. This delay resulted in seventeen participants arriving in time on 18 and 19 November. The selected candidates attended the TECNOFOREST-programme at UNIDO's expense. One observer from Uruguay participated on her own expense.

4. Participation of UNIDO experts (Annex I)

According to the seven field groups, the participants were selected predominantly for the subjects of wood processing (group 3, 5, 6) but they had also the opportunity to join other groups.

Selected experts distribution to discussion tables

<u>Group</u>	<u>Subject</u>	<u>No. of UNIDO experts</u>
1	Forestry	1 (+ 1)
2	Logging	-
3	Sawmilling	4
4	Panel production	-
5	Furniture	4
6	Prefab products	8
7	Marketing	1

This was the first of its kind organized in co-operation with the following organizations: UNIDO, FAO, GTZ (Gesellschaft für technische Zusammenarbeit) and CBI (Centrum tot Bevordering van de Import uit Ontwikkelingslanden).

According to the final report of the organizers, 413 participants from thirty-one countries were listed at the end of the meeting who were registered in different groups.

Group	Subject	Registered participants	Average participation	Consultants from
<u>19-21 November</u>				
1	Forestry	135	85	FAO
2	Logging	146	65	GTZ
3	Sawmilling	189	120	UNIDO
<u>22-24 November</u>				
4	Panel production	156	75	GTZ
5	Furniture	76	40	UNIDO
6	Prefab products	125	90	UNIDO
<u>24 November</u>				
7	Marketing	175	180	CBI

During the coffee and lunch break the participants exchanged views on different subjects and session discussions. Consequently, a change within the different groups often occurs resulting in varying attendencies.

5. Consultants (acting as moderators) at the discussion tables

UNIDO recruited three consultants experienced in wood processing industries for the following fields:

UC/RLA/78/231/11-01 - Wood technology

UC/RLA/78/231/11-02 - Furniture manufacturing

UC/RLA/78/231/11-03 - Wood constructions

The consultants had to arrange grouping of questions printed in the book and retyped on individual cards by the organizers, forming of discussion subjects, answering the questions in a global form before starting the discussions question by question.

They had to co-ordinate the oral contributions presented on the different subjects by their associates or from the audience and guide the discussions. They also had to inform the participants on appropriate solutions following an industrial development:

- in changing the applied methodology
- in changing the applied machining technology

and summarize the solutions according to the development stages in different Latin American countries. The participation of experts from consulting and engineering firms assisting the chairman was very good and their contributions in most cases were excellent.

6. UNIDO documentation

The staff member made, within the consultants centre, a display of UNIDO documentation in English and Spanish (Annex II). Each participant had the opportunity to inform himself about the publications UNIDO issued in the field of wood processing. Some of them requested individual documents.

7. Administrative matters

The TECNOFOREST organizers maintained a high level standard. The sessions were efficiently carried out. Within the fairgrounds, one hall was reserved for the TECNOFOREST consultancy programme besides four session-rooms, a consultant centre was arranged where each consultant had a small office to arrange work and individual consultancy service.

The subsistence allowance of US\$ 72 was paid by UNIDO to the UNIDO participants according to their date of arrival and the hotels they were booked which resulted in a different cash rate.

Already in August the staff member informed the management of the Hotel Suites del Golf and the tourist office (Ms. Garibaldi), that the group has to stay together in one hotel. Without notifying UNIDO, the organizers in co-ordination with the tourist office, changed the hotel accommodations so that it was difficult to contact the UNIDO participants in the evening for further discussions or certain arrangements during the sessions in the fairgrounds. The sessions were held in Spanish but simultaneous interpretation in English was provided by the organizers.

The financing of the consultants and the Latin American experts was secured by UF-funds, covering the cost of transportation and out-of-pocket expenses for seventeen experts, the staff member's travel and per diem, local transportation, secretarial assistance, UNIDO reception at the end of the meeting and other miscellaneous costs. The pre-calculated budget was originally US\$ 42,090 excluding 14 per cent overhead (US\$ 5,893). The reestablished budget UC was US\$28,197.- (overhead US\$ 3.948). The detailed breakdown is:

3 consultants	US\$ 9,864,-
Experts travel	US\$ 2,151,-
Participants travel and per diem	US\$13,829,-
Hospitality	US\$ 353,-
Reporting costs	<u>US\$ 2,000,-</u>
Total:	<u>US\$28,197,-</u>

8. Press coverage

<u>Journal</u>	<u>Issue date</u>	<u>Title</u>
World Wood	May 1979	We have 764 problem. Can you solve them
World Wood	Oct. 1979	TECHNOFOREST: An experiment in new Seminar Format
La Prensa	25 Nov. 1979	Europa es Gran Mercado para Madera Tropical
La Prensa	Nov. 1979	Humedad Influida en Calidad de Muebles de Exportación

<u>Journal</u>	<u>Issue date</u>	<u>Title</u>
Correo	Nov. 1979	En TECNOFOREST Requeza forestal evaluan expertos
El Comercio	21 Nov. 1979	Asseradero peruano concita gran atencion en cita mundial forestal
La Prensa	21 Nov. 1979	Asseradero Portatil Nacional Concita Gran Interés Mundial
El Comercio	20 Nov. 1979	Sesiones de Consulta tecnica se iniciaron en Feria del Pacifico
OJO	Nov. 1979	Plantea soluciones a problematica forestal
El Comercio	19 Nov. 1979	Hoy inician en FIP la primera consulta tecnica para buscar solucion al problema forestal
Correo	23 Nov. 1979	Tecnoforest y la amazona
Forest Products Journal from Chilean Forestry News	Vo. 30, No.6	TECNOFOREST 79 TECNOFOREST Review
World Wood	Jan. 1980	Latinos show eagerness to learn.

9. Evaluation of the consultation programme

9.1 Participation according to countries

Participating Latin American countries	No of parti- cipants	Participating industrialized countries	No. of participants
Argentina	15	Austria	1
Bolivia	6	Belgium	1
Brazil	31	FRG	6
Chile	12	France	3
Colombia	8	Netherlands	1
Costa Rica	6	Spain	1
Ecuador	19	Sweden	4
El Salvador	1	Canada	6
Guatemala	5	U.S.A.	30
Guyana	1	Total countries	<u>53</u>
Honduras	4		
Jamaica	1		
Mexico	5		
Panama	5		
Paraguay	6		
Peru	223		
Surinam	1		
Uruguay	9		
Venezuela	2		
Total Latin American countries	<u>360</u>		

According to the list of participants and the addendum to this list 413 attended of which 360 (87 per cent) came from Latin American countries and 53 from Europe, Canada and U.S.A. Peru was represented by 223 (62 per cent) participants and 18 Latin American countries represented by 137 (48 per cent) out of which 17 (12 per cent) experts were financed by UNIDO. Taking into consideration that Peru was the host country, one can understand the high amount of Peruvian participants. The average attendance is 8 participants per country, so that 19 Latin American countries are representing 145 experts (having in mind that Peru also is represented by 8 participants) which is an average of 20 per group (based on 7 field subjects) plus 7 experts from industrialized countries. This is a workable size of groups for a workshop or Seminar.

9.2 Evaluation by UNIDO participants

The UNIDO evaluation questionnaire was handed out to all UNIDO participants and most of them (11 submission out of 17) were filled in and returned to the author. A detailed evaluation of the answers is given in Annex III.

9.3 Evaluation by consultants (job descriptions IV 1, IV 2, IV 3)

The UNIDO consultants submitted their individual reports on their field subjects. Mr. W. G. Kauman who had to discuss the questions on saw milling and related topics (213 questions) evaluated from the view point as discussion leader the TECNOFOREST - Consultancy programme and prepared suggestions for improvement, composition of the audience and follow-up action by the industry, the governments and international organizations (Annex V).

9.4 Evaluation of the Conference by the author

The TECNOFOREST Consultancy programme was organized in a different way than UNIDO is organizing technical courses, Seminars or workshops. Field subjects were discussed on questions collected by technicians who visited different countries and their related forestry and wood processing industries. These technicians could not decide whether a problem (question) should be more detailed or formulated in a more well-aimed way.

They did not evaluate the level of questions. Some questions could really be answered by experts in their own countries from Wood Research Institutes or the information source of wood processing industry associates. During the sessions the discussion leaders could find out that inquirers were not present. The 764 questions were grouped according to the field subjects but not balanced in time distribution so that the average discussion or answeres could not be more than 5 minutes in one session while problems of other groups could be discussed within 12 minutes. The simultaneous running of different sessions did not allow participants to attend all sessions they wish. All participants had the possibility to discuss their own problems in depth with a consultant in the consultancy office provided by the organizers.

Many participants used the opportunity to study the UNIDO-Documentation and being informed about UNIDO activities during their stay at TECNOFOREST.

10. Conclusion and recommendations

A consultancy programme should be prepared by the related international organizations (UNIDO/FAO). The field subjects should be well balanced between primary and secondary wood processing. FAO and UNIDO consultants should collect problems according to specialized fields and countries within Latin America, evaluating the problems and preparing a document which offers already certain solutions which will be the base of discussions in different sessions. Solutions may vary from country to country because of different laws in forestry or wood processing industries.

Problem solutions can not only be applied through transfer of technology. Some participants could not accept the answer given by the consultants because of different country conditions which should be found out through the consultation sessions.

ANNEX I

List of participants, observers and consultants

<u>Country.</u>	<u>Name</u>	<u>Function</u>	<u>Mailing address</u>
Argentina	Carlos Ferraro	Gerente	GIMAX SRL Salta 2752 (2000) Rosario
Bolivia	Jorge Muriell Céspedes	Director	Muebleria Jesus Muriel Morales General Acha 4027 Cochabamba
Bolivia	Cardenas Ernesto Guzman	Gerente	Maderera Liner Ltd. Casilla No. 763 Cochabamba
Bolivia	Virreira Eduardo Maclean	Gerente	Casilla 427 Cochabamba
Bolivia	Sahunero Jorge Quiroz	Gerente	Carpenteria Pesces S.R.L. Calle Antezana No. 181 Casilla 3308
Brazil	Reinaldo Herrero Ponce	Researcher	Instituto de Pesquisas Tecnologicas Caixa Postal 7141-01000 Sao Paulo
Colombia	Contreras Lombardo Tibaquirá	Director	Instituto Nacional delas Recursos Naturales Removables y del Ambiente Calle 26 No. 13-B-47 Jete Seccion
Colombia	David Yanine Diaz	Asesor	Calle 26 No. 13-B-47
Costa Rica	Jaime Raigosa Echererri	Asesor	Oficina de Plantificacion Desarollo Forestal Apartado 1 ^o 127, San Jose
El Salvador	Jose Saul Palomares	Gerente	Fabricacion MATISA C. Liverpool 113 Col. Roma
Honduras	Danilo Humberto Escoto	Sub-Gerente	Col Rio Grande Bloque P-14 Comayaguela, D.C.

Paraguay Regelio Pedro Vidal Lovera	Jefe	Dpto. de Fomento e Industrias Forestales Tacuari No. 443 Edificio Patria 4 P
Uruguay Nilmo Pirone Gomez	Gerente	NURIT S.A. Regimento No. 9 No. 1676, Montevideo
Uruguay Sante Antonio Sandrin	Director	Santin S.A. Cardal 3078 Montevideo
Uruguay Jean Alex. Tissierre	Director	Wicker S.R.L. Rivera 2262 Bis
Uruguay Maria del Rosario Pou Ferrari	Professor	Agregado de Dendrologia Av. Garzon 780 Montevideo
Uruguay Hector Carlos Farropa Negri	Director	Direccion de Aseradero y Coordinacion con Planta Procesadora Cambay 2816, Montevideo
<u>Observer</u>		
Uruguay Doris Ahlig Shaub	Asesor	J.M. Montero 3006 Arartamento 803 Montevideo
<u>Consultants</u>		
France Walter G. Kauman	Centre Technique du Bois, Director	10 Ave. de Saint Mande 75012 Paris
Mexico Armando Ruiz Galindo	DM-Nacional S.A. Director	Calz. San Juan de Aragon 544 Mexico D.F.
FRG Karl Kehr	Consultor	Sandweg 11. 3101 Oldam

ANNEX II

UNIDO Documents displayed at TECNOFOREST

ID/10	Production Techniques for the Use of Wood in Housing (E.S.)
ID/WG.49/1-10	Study Group on Production Techniques for the Use of Wood in Housing.
ID. 61	Production of Prefabricated Wooden Houses (E.S.)
ID/72	Wood as a Packaging Material in the Developing Countries (E.S.)
ID/79	Production of Panels from Agricultural Residues (E.S.)
ID/WG.83/1-16	Meeting on the Production of Panels from Agricultural Wastes (E.S.)
ID/108	Furniture and Joinery Industries for Developing Countries I, II, III (S).
ID/108.Rev.1	Furniture and Joinery Industries for Dev. Countries (E).
ID/133	Selection of Woodworking Machinery (E.S.)
ID/WG.133/1-28	Seminar on Furniture and Joinery Industries (E.S.)
ID/154	Low Cost Automation for Furniture and Joinery Ind. (E.S.)
ID/180	Wood Processing for Developing Countries (E.S.)
ID/WG.200/1-15	Workshop on Wood Processing for Developing Countries
ID/223	Adhesives Used in the Wood Processing Industries (E.S.)
ID/WG.248/1-17	Workshop on Adhesives Used in the Wood Processing Ind.
ID/WG.277/1-15	Technical Criteria for the Selection of Woodworking Machines
ID/WG.296/1-28	Economic Criteria in the Selection of Woodworking Machines and Plant Systems.
UNIDO/LIB/Ser.D.	UNIDO Guides to Information Sources
4 Rev. 1	Furniture and Joinery Industries
9	Building Boards from Wood
18	Paint and Varnish Industry
31	Woodworking Machinery
ID/SER/G/160	Documents List - Abstracts of UNIDO documents. Country papers from Latin American countries
ID/WG/105/9	Wood Processing Industry in Chile
ID/WG/133/4	The Furniture and Joinery Industry in Ecuador
ID/WG/133/5	The Furniture and Joinery Industry in Mexico
ID/WG/133/9	The Furniture and Woodworking Industry in Costa Rica
ID/WG/133/10	Furniture Industry in Paraguay
ID/WG/133/13	The Chilean Furniture Industry
ID/WG/133/14	The Wood and Furniture Industry in Chile

ID/WG/133/23	The Furniture and Joinery Industry in Colombia
ID/WG/163/2	The Colombian Furniture and Joinery Industry and Its Export Potential
ID/WG/163/3	The Furniture and Cabinet-making Industry in Uruguay
ID/WG/163/4	The Furniture Industry in Costa Rica
ID/WG/163/10	Furniture and Joinery Industry in Chile
ID/WG/163/16	The Brazilian Furniture Industry: Current Status and Prospects for Development
ID/WG/163/17	The Furniture Industry in Chile
ID/WG/163/18	The Furniture and Cabinet Making Industry in Venezuela
ID/WG/163/20	The Furniture Industry in Mexico
ID/WG/163/21	The Furniture Industry in Brazil
ID/WG/163/23	General Description of the State of Furniture Industry in Cuba and Its Development Prospects.
ID/WG/209/7	The Furniture Industry in Mexico
ID/WG/209/11	Situation of the Furniture and Cabinet Industry of the Furniture and Cabinet Industry and Its Perspectives - Honduras
ID/WG/209/15	The Joinery and Furniture Industry in Antigua

UNITED NATIONS  NATIONS UNIES

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

REFERENCE

EVALUATION OF IN-PLANT GROUP TRAINING PROGRAMMES

Number of participant: UNIDO
financed 17

Number of participating countries: 7

Programme: TECNOFOREST

Host country: Peru

Year: 1979

I Pre-programme information

1. What is your opinion about the advance information on the programme received in your home country? (Please indicate with an X in the appropriate box).

	Sufficient	Too little	None
Aim of programme	7	2	-
Contents of programme	3	5	-
Level of programme	3	5	-

Do you think that additional information should have been provided? If so, please state your suggestions:

II Concept and organization of programme

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

appropriate 6

not appropriate 3

If not appropriate, please state why:

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

too high

sufficient

too low

4. Is, in your opinion, the programme:

too specialized

too broad (covering too many subjects)

correct in its concept

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

much too short

too short

correct

too long

much too long

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

..... weeks.

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

too large

adequate

too small

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

Most of the participants stated that the group was well composed with a good technical level.

8. What is your opinion about the general character of the programme?
Should it, in your opinion, be:

More practical

more theoretical

as it is

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

too much

adequate

too little

b) the amount of theoretical studies (lectures):

too many

adequate

too few

c) the number of study visits:

too many

adequate

too few

Please state your suggestions for changes, if any:

The participants missed laboratory and industry visits in connection with field subjects discussed.

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

absolutely indispensable

useful N.A.

unnecessary

Please indicate to what extent you could communicate with the personnel of the factories where you had your in-plant training:

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

The training material was considered as appropriate.

12. Did you have sufficient time for a professional exchange of views with instructors:

yes

no

with fellow participants: yes

no

with staff of the factories: yes

no

13. Did you benefit from that exchange
- | | | |
|-----------------------------|-----|---|
| with instructors: | yes | 9 |
| | no | - |
| with fellow participants: | yes | 9 |
| | no | - |
| with staff of the factories | yes | 5 |
| | no | 1 |

14. Did you feel that you could influence the programme content?
- | | |
|----------|---|
| much | 1 |
| somewhat | 9 |
| little | - |

III Relevance and applicability of the programme

15. Did you find the programme as conducted relevant to the conditions in your home country:
- | | |
|------------------------|---|
| to some extent only | 5 |
| to a sufficient extent | 3 |
| to a great extent | - |
16. Do you think this programme should be repeated?
- | | |
|-----|---|
| yes | 9 |
| no | - |
17. If yes, do you think it should be held
- | | |
|---------------------------------------|---|
| in the same country and place | 2 |
| in the same country but another place | 1 |
| in another developed country | 3 |
| in another developing country | 4 |
- Please state the reasons for your answer:

The conference could be organized in different Latin American countries. Countries with large forestry resources should be preferred. The individual governments should be informed about the importance of such conferences.

18. Do you feel that your participation in this programme has benefitted you professionally?

- to a very small extent 1
- to some extent 3
- to a sufficient extent 3
- to a high extent 2
- to a very great extent -

19. Do you think that the qualifications you have acquired will be recognized in your home country?

- yes 5
- no 1

20. Will you have the opportunity to pass on the acquired knowledge in your home country?

- to a very great extent -
- to a great extent 5
- to a certain extent 4
- to a limited extent 1
- to a very limited extent -

21. How ill the transfer of knowledge be made?

- a) during daily work with colleagues and personnel 5
- b) during meetings organized for this purpose in your company -
- c) during meetings organized on a bigger scope: 4

Are you of the opinion that you might encounter difficulties in passing on the knowledge obtained. If so, what are the problems you are anticipating?

22. Other suggestions:

UNIDO should promote private initiative. Information on various field subjects is needed. With the rapid development it is necessary that every 2 years a conference should be conducted. Most important is the contact of people from different countries to be acquainted with their activities and developments.

UNITED NATIONS



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

UNIDO

JOB DESCRIPTION

UN/RAI/TC/231/11-01/1

Post title Consultant in wood technology

Duration One week including travel

Date required 18 to 24 November 1979

Duty station Lima, Peru

Purpose of project To provide International expertise at the Technical Consultation Programme (TECNOFORREST) in the field of wood technology.

Duties The consultant will be responsible to act as discussion leader in the field of wood technology and will be expected to work closely with the national specialists at the TECNOFORREST Consultation Programme.

 Under the guidance of the UNIDO officer in charge of this project the consultant is expected to:

1. Arrange prior to his travel to Lima, grouping of questions printed in the book "Technical Problems of the Forestry and Wood working Industry in Latin America" in form of discussion subjects answering the questions in a global form.
2. Co-ordinate the oral contributions presented on the different subjects by the national specialists.
3. Guide the discussions among these national specialists and the general public.
4. Suggest appropriate solutions to these problems classified under item 2 d) in view of item 1 a), 1 b) and 1 c) of the Aide Mémoire.

Applications and communications regarding this Job Description should be sent to:

Project Personnel Recruitment Section, Industrial Operations Division

UNIDO, P.O. Box 707, A-1010 Vienna, Austria

5. Summarize the discussions on solutions appropriate to the development stages in different Latin American countries.

6. Present report on these discussions, identifying follow up action to be taken by:

- the industry
- the governments of Latin American countries
- international organization such as UNIDO.

Qualifications: Advanced degree in forestry and wood technology and industrial experience in Latin American countries.

Language: Fluency in Spanish and English essential.

Background information: This Technical Consultation Service is organized by the Peruvian Government and the Pacific International Fair as a programme for higher technical managerial personnel in the wood processing sector of industry in Latin American countries.

The Government of Peru has entrusted the Pacific International Trade Fair to provide the physical facilities and support personnel. UNIDO is providing technical support in conducting this programme.

Technical Consultation is intended to give the persons attending it an insight into the technical problems (both solved and unsolved) in wood processing industries of Latin American countries. The Pacific International Trade Fair has compiled a set of queries from various industries which indicate the problems the forestry and wood processing industries are faced with in the fields of industrial machining of wood and wooden products, as well as selection of equipment appropriate for local conditions.

UNITED NATIONS



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

UNIDO

JOB DESCRIPTION

UN/BI/TC/SP/14-01, 2

Post title Consultant in furniture production.

Duration One week including travel

Date required 18 to 24 November 1979

Duty station Lima, Peru

Purpose of project To provide international expertise at the Technical Consultation Programme (TECNFOREST) in the field of furniture industry.

Duties The consultant will be responsible to act as discussion leader in the field of furniture industry and will be expected to work closely with the national specialists at the TECNFOREST Consultancy Programme.

Under the guidance of the UNIDO officer in charge of this project the consultant is expected to:

1. Arrange prior to his travel to Lima, grouping of questions printed in the book "Technical Problems of the Forestry and Wood Working Industry in Latin America" in form of discussion subjects answering the questions in a global form.
2. Co-ordinate the oral contributions presented on the different subjects by the national specialists.
3. Guide the discussions among these national specialists and the general public.
4. Suggest appropriate solutions to these problems classified under item 2 d) in view of item 1 a), 1 b) and 1 c) of the Aide Mémoire.

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UNIDO, P.O. Box 707, A 1010 Vienna, Austria

5. Summarize the discussions on solutions appropriate to the development stages in different Latin American countries.

6. Present a report on these discussions, identifying follow up action to be taken by:

- the industry
- the governments of Latin American countries
- international organization such as UNIDO

Qualifications: Advanced degree in forestry and wood technology and industrial experience in Latin American countries.

Language: Fluency in Spanish and English essential

Background information: This Technical Consultation Service is organized by the Peruvian Government and the Pacific International Fair as a programme for higher technical managerial personnel in the wood processing sector of industry in Latin American countries.

The Government of Peru has entrusted the Pacific International Trade Fair to provide the physical facilities and support personnel. UNIDO is providing technical support in conducting this programme.

Technical Consultation is intended to give the persons attending it an insight into the technical problems (both solved and unsolved) in wood processing industries of Latin American countries. The Pacific International Trade Fair has compiled a set of queries from various industries which indicate the problems the forestry and wood processing industries are faced with in the fields of industrial machining of wood and wooden products, as well as selection of equipment appropriate for local conditions.

UNITED NATIONS



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

UNIDO

JOB DESCRIPTION

UN/IND/CO/CP/11-01/2

Post title Consultant in the use of wood in construction

Duration One week including travel

Date required 18 to 24 November 1979

Duty station Lima, Peru

Purpose of project To provide International expertise at the Technical Consultation Programme (TECNOFOREST) in the field of wood in construction

Duties The consultant will be responsible to act as discussion leader in the field of the use of wood in construction and will be expected to work closely with the national specialists at the TECNOFOREST Consultancy Programme.

Under the guidance of the UNIDO officer in charge of this project the consultant is expected to:

1. Arrange prior to his travel to Lima, grouping of questions printed in the book "Technical Problems of the Forestry and Wood Working Industry in Latin America" in form of discussion subjects answering the questions in a global form.
2. Co-ordinate the oral contributions presented on the different subjects by the national specialists.
3. Guide the discussions among these national specialists and the general public.
4. Suggest appropriate solutions to these problems classified under item 2 d) in view of item 1 a), 1 b) and 1 c) of the Aide Mémoire.

..../...

Applications and communications regarding this Job Description should be sent to:

Project Personnel Recruitment Section, Industrial Operations Division

UNIDO, P.O. Box 707, A-1010 Vienna, Austria

5. Summarize the discussions on solutions appropriate to the development stages in different Latin American countries.

6. Present a report on these discussions, identifying follow up action to be taken by:

- the industry
- the governments of Latin American countries
- international organization such as UNIDO

Qualifications: Advanced degree in forestry and wood technology and industrial experience in Latin American countries.

Language: Fluency in Spanish and English essential

Background information: This Technical Consultation Service is organized by the Peruvian Government and the Pacific International Fair as a programme for higher technical managerial personnel in the wood processing sector of industry in Latin American countries.

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ANNEX V

UNITED NATIONS INDUSTRIAL DEVELOPMENT
ORGANIZATION
(UNIDO)

Consultancy in Wood Technology
UC/RLA/78/231/11-01/31.7.A

REPORT

on

MISSION in PERU

Nov. 18 to 24, 1979

by

WALTER G. KAUMAN

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Consultant to UNIDO

March, 1980

ORIGINAL: English

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ACKNOWLEDGMENTS

The Consultant wishes to thank the Organizers of the TECNOFOREST discussions, and in particular Messrs. Gösta A. LETTERSTEN and Frank E. GRIFFITHS for their very kind and efficient assistance throughout the meeting, for their friendly support and for their hospitality.

He is also grateful to the many people who helped to make TECNOFOREST a success - secretaries, interpreters, clerks, janitors - too numerous to name individually - to whom he would like to express his sincere thanks for their unfailing courtesy and kindness.

He is, of course, greatly indebted to his Peruvian and other Latin American colleagues, and to the international officers who acted as "problem-solvers", for their unfailing and most competent help in running the discussions.

Finally, he would like to thank UNIDO for inviting him to undertake the consultancy, and particularly Mr. Heinz ELDAG for his support and friendship, and the Centre Technique du Bois for granting him leave of absence.

1. OUTLINE OF THE MISSION

The consultant was commissioned by the UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION (hereafter referred to as UNIDO) to provide international expertise at the Technical Consultation Programme (TECNOFOREST) in the field of wood technology, organized in Lima, Perú, in connection with the Pacific International Trade Fair 1979.

The terms of reference of the mission were as follows (UNIDO Job-Description UC/RLA/78/231/11-01-31.7.1):

Under the guidance of the UNIDO officer in charge of this project, the consultant is expected to:

1. Arrange prior to his travel to Lima, grouping of questions printed in the book "Technical Problems of the Forestry and Wood working Industry in Latin America" in form of discussion subjects answering the questions in a global form.
2. Co-ordinate the oral contributions presented on the different subjects by the national specialists.
3. Guide the discussions among these national specialists and the general public.
4. Suggest appropriate solutions to these problems classified under item 2 d) in view of item 1 a), 1 b) and 1 c) of the Aide Mémoire.
5. Summarize the discussions on solutions appropriate to the development stages in different Latin American countries.
6. Present report on these discussions, identifying follow-up action to be taken by:
 - the industry
 - the governments of Latin American countries
 - international organization such as UNIDO

On his arrival at Lima, the consultant was informed of the following changes in these instructions:

- Re 1. Instead of providing answers to groups of questions in global form, each question was to be treated and discussed individually. On the conclusion of each topic, the consultant was to present a summary.
- Re 4. Instead of topic 2 d) - Furniture, joinery and prefab. products - the Consultant was to chair and guide discussions on Topic C. of the printed Tecnoforest book - Sawmilling, Preservation, Drying, Conveying, Posts, Secondary Forest Products.

The Consultant arrived in Lima on November 11, 1980, to undertake another mission on behalf of UNIDO.

After preliminary meetings with the organizers of TECNOFOREST, Messrs. Gösta Lettersten and Frank Griffiths, he participated in the technical sessions full-time from November 18 to 24 incl.

On November 19, 20 and 21 he chaired the sessions on topic C. of the printed Tecnoforest Book (Seasoning, Preservation, Sawmilling etc.), in close cooperation with his counterpart, Ing. Felix CANCHAYA CANACHEO

In addition, he conducted a considerable number of interviews and consultations with participants of TECNOFOREST to discuss their particular technical problems.

The discussions on topic C. were fully recorded and transcribed by the organizers. At the present moment (march, 1980) the consultant is preparing a concise summary of these transcripts at the organizers' request. However, since the transcripts cover some 300 typewritten pages, this is necessarily slow work.

The present report is submitted in pursuance of UNIDO instruction Nº 6 (see above).

2. REPORT ON DISCUSSIONS

Altogether, the TECNOFOREST Book contained 764 questions, distributed as follows:

A - Reforestation	151	(19.8 %)
B - Logging and Transport	85	(11.1 %)
C - Sawmilling and related topics	213	(27.9 %)
D - Panel products	133	(17.4 %)
E - Furniture	83	(10.9 %)
F - Prefab. Housing, Parquetry	88	(11.5 %)
G - Marketing	11	(1.4 %)

However, no allowance had been made in the allocation of time to the different discussion groups to take account of the varying number of questions. For instance, each of the groups A, B and C was allotted 18 hours discussion time, in spite of the widely different number of questions to be treated.

As a result, the consultant had only 5.1 minutes available per question whereas group B, for instance, was given 12.7 minutes.

~~The~~ attendance during the discussions of group C was generally of the order of 100 and never below approximately 80 persons.

Audience participation was excellent throughout and would have been even more lively, had sufficient time been available. Unfortunately, owing to the great number of questions to be treated individually, the consultant was obliged to cut off interesting discussions at various opportunities, and although time was available to continue after the formal sessions, it was difficult to bring together all those interested due to other commitments.

The contribution made by the "problem-solvers" was in general excellent, and with few exceptions, no question remained without an answer.

The detail of the solutions proposed, of the discussions deriving therefrom, and of the summaries of topics presented by the consultant, will be found in the Resumé mentioned above that the consultant is now preparing.

3. SUGGESTIONS FOR IMPROVEMENT OF DISCUSSIONS

In the first place, it appears to the consultant that apart from the vertical division of subjects according to technical themes (sawmilling, panels, etc.), some horizontal division might have been useful, grouping the questions relating to actual operation of equipment and those concerned with management and investment.

In the second place, it might have been useful to reduce the number of topics in order to have not more than two discussion groups operating simultaneously. As it was, it would seem that a number of participants had to forego attending sessions in which they were interested, in order to be present in another group.

As regards the preparation of the discussions, it is recommended that in any future exercise of this type, the Moderators be more closely associated with the preparation. The organizers are to be highly commended for having circulated the printed book of questions several months before the meeting, but it should have been made quite clear to each Moderator which sessions he was expected to chair. This would have enabled greater efficiency in the grouping of questions and in the preparation of general comment and summaries.

It would also be useful to associate the Moderators with the selection of questions, and with their grouping prior to printing the handbook. It is realized that this would involve the organizers in additional work as they would probably have to draw up, first an initial list, and then a final list for printing, of the questions. However, the consultant believes that such a procedure would greatly enhance the value of any future Tecnoforest meeting.

If at all possible, moderators and "problem-solvers" should be invited to arrive at the conference location at least one clear

working day, and preferably two, before the start of the meeting. A working session of each moderator with his "problem-solvers" prior to the public discussions would do much to streamline the conduct of the meeting and probably provide more time for contributions from the floor.

One shortcoming that the consultant felt very keenly was the fact that apparently none of the persons who had formulated the questions was present during the meeting. On a number of occasions, this left a discussion suspended in mid-air, when a question was not entirely clear and nobody was present to provide the necessary explanation.

However, these are relatively minor points and although they would bring about a notable improvement, the consultant does not wish to convey the impression that there were major deficiencies. In fact, the general organization of the sessions was excellent and he feels sure that participants derived considerable profit from attending.

4. COMPOSITION OF AUDIENCE

The audience contained a good selection of people from various industries and from university laboratories, but a majority appeared to be either trained engineers or graduates, or fairly senior persons in technical and commercial management of companies.

For instance, as far as the consultant could ascertain, among the 100 or more persons attending his meetings, there was only one sawdoctor who had actually been himself sharpening saws in Peruvian sawmills, and not more than three or four drying kiln operators.

The consultant feels that the presence of a certain number of skilled workers is essential if the real problems of technology transfer are to be appreciated by both the South American and the overseas professional participants. He would strongly recommend that in any future meeting, a special effort be made to have skilled workers attend the meetings and encourage them to present the views of the man actually handling the timber and actually operating the machines.

5. FOLLOW-UP ACTION

In accordance with point 6. of his instructions (see p. 1), the consultant presents the following recommendations for follow-up action.

5.1 By the industry

Industry should derive two main benefits from the conference:

- They should note where they can turn for information
- They should appreciate that they all have something to gain from open discussion among themselves.

As regards the first point, where to turn for information, one should emphasize that

- Industrialists should try their own national laboratories and their own national specialists before turning elsewhere for information. South America has many - though unfortunately not enough - good engineers in all branches of technology, and often the local professional man has a better appreciation of the problems of his country than a foreigner.
- If the information required is not available in their country, industrialists should, as far as possible, use their local timber technology laboratories to obtain for them the information from institutions in other countries.
- Only if the two preceding methods fail, should they go directly to a foreign institution, taking care that the advice they obtain is independent and given with proper knowledge of their local conditions.

As regards the second point, industry associations in each country can play a major rôle, where this is not already being doing, by encouraging and sponsoring technical meetings in different branches to bring technical people from different companies together and to get them to talk about their problems.

On the basis of the above reflexions, the consultant recommends

- Industry should make more use of their local laboratories in each country, encouraging these laboratories where possible by placing with them contracts for testing, experimentation and research.
- Industry associations should follow up the Tecnoforest discussions by organizing technical meetings, each in their particular country, to discuss in greater detail the questions brought up during Tecnoforest.

Apart from their value in imparting information, these discussions will also serve improved contact and interchange of technical experience between companies which will finally benefit not only the industry as a whole, but each individual company that participates.

5.2 By Governments

The main rôle of Governments, as the consultant sees it, is to assist industry in achieving the aims outlined in the preceding Section. This can be done in the first place, by ensuring good coordination between all Government departments concerned with forests and their utilization, to ensure that industry knows where to turn for advice and to avoid competition between different authorities. In the second place, Government can assist their local laboratories, be they in universities or other organizations, by a system of grants and tax concessions offered to industries who give contracts for testing, experimentation or research to these laboratories.

The consultant recommends

- Governments should ensure proper coordination between all government services dealing with forests and their products, including conversion processes. These different services should complement each other, not be in competition with each other.
- Governments should encourage industries to have testing, experimentation and research carried out under contract in their own national laboratories, by offering premiums, tax concessions and other advantages to industries who do so.

5.3 International Organizations

In the consultant's opinion, Tecnoforest was a highly useful exercise for the Latin American forest industries. As the Conference was largely made possible by the assistance of UNIDO, he suggests the follow-up action outlined below so as to make sure that the investment of international funds already made will bear as much fruit as possible.

The Summary of the Tecnoforest discussions, to be published by the organizers, will be a useful document, but it will only be part of the benefit derived from the meeting. It will provide an instantaneous picture of the state of the industry and its problems, it will be useful for some time to look up particular solutions, but it cannot be a substitute to textbooks or publications by the various laboratories, be they the local national ones or those in developed countries.

In the consultant's opinion, the greatest single benefit of the Tecnoforest meeting was to bring industrial engineers and technicians together with those of the various technological centres and laboratories, and of equipment manufacturing companies in developed countries. This coming together should give them a better appreciation where to turn for disinterested, independent advice.

It is in this respect that UNIDO can help by actions such as:

- Print and circulate widely a booklet listing all institutions that have specialized knowledge about the manufacturing processes of forest products, with an indication of their specialties and the assistance they might be able to provide
- Maintain and publicize a reference index of persons around the world who have special competence in areas of interest to Latin American forest industries, ~~indicating what assistance they would be prepared to provide~~ (answer letters, paid consultancies, etc.)
- In addition to the training courses organized from time to time in developed countries, sponsor small workshops on specific subjects (kiln operation, saw-doctoring, veneer lathe operation and maintenance) in developing countries so that skilled workers of these countries may assist.

6. CONCLUSION

The Consultant believes that TECNOFOREST was worthwhile. In spite of some criticisms on the detailed execution, the meeting fulfilled its purpose and undoubtedly helped in transferring relevant technology to the participants.

Should there be more Tecnoforest meetings?

The answer is a qualified "YES". Meetings in the same continent should not be held more frequently than every three years, and they should perhaps not endeavour to cover the whole area of forest products, ~~but concentrate on some topics that are~~ of particular importance in the region concerned.

For instance, in the Round Table C, clearly saw doctoring and kiln operation (or seasoning in general) were the topics that aroused greatest interest. Some of the other subjects could with advantage have been omitted or reduced to give more time to these.

Finally, it should not be overlooked that industrial enterprises, laboratories, technical institutions and forest administrations are run by people and what counts is not the technology in itself, although it must of course be relevant and correct, but how this technology is transferred to and understood by the people running the industry.

It was perhaps the greatest merit of TECNOFOREST that the encouragement of contact between technical people was a high priority, and the follow-up action recommended by the consultant is basically intended to maintain and intensify this contact which is the best guarantee for improved technology transfer.



