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**United Nations Industrial Development Organization**

Expert Group Meeting on Design and Manufacture of  
Wet-land (Rice) Mechanization, Harvesting and Threshing  
Machinery in Developing Countries of Asia and the Far East **Region.**

Los Baños, Laguna, The Philippines  
12 - 17 March 1973

PROVISIONAL AGENDA AND WORK PROGRAMME

I. PROVISIONAL AGENDA

<u>Date</u>	<u>Time</u>	<u>Agenda Number</u>	<u>Agenda</u>
Monday 12/3/73	8.00 - 8.30	-	Registration
	8.30 - 9.30	-	Inaugural Session
	9.30 - 12.00	1	Presentation of UNIDO, IRRI, ESCAPE and FAO activities in the promotion of agri- cultural mechanization and machinery development in the developing countries of Asia and Far East
	1.00 - 3.00	2	Demonstration and review of agricultural machinery and implements developed by the International Rice Research Institute (IRRI)
	3.15 - 4.00	3	Presentation of UNIDO report on the regional study mission on wet-land (rice) mechani- sation machinery design and manufacture in the developing countries of Asia and Far East (1972)
	4.00 - 5.00	4	Discussions on rice mechanisation and machinery manufacture and trend in requirements
Tuesday 13/3/73	8.30 - 12.00	5	Research, design, development and adaptation for promotion of agricultural machinery manufacture in the developing countries of Asia and the Far East
	1.30 - 5.00	6	Market research, marketing and supporting facilities for the development of local manufacturing facilities

We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.

Wednesday 14/3/73	8.30 - 12.00	7	Manufacturing techniques, problems and technology transfer for the promotion of local manufacturing potential
Thursday 15/3/73	8.30 - 11.00	8	Promotion of institutional activities for encouraging local manufacturing potential
	11.00 - 12.00	9	Regional co-operation and international assistance for the promotion of local manufacturing potential
	1.30 - 3.00		
	3.15 - 4.45	10	Conclusion and recommendations
Friday 16/3/73	8.30 - 9.30	11	Concluding session: adoption of the report of the Expert Group Meeting
	9.30 - 12.00	12	Field trip to machinery manufacturers in the Manila area.
	2.30 - 4.45		

## II. PROVISIONAL WORK PROGRAMME

Monday 12 March 1973

Registration: 8.00 - 8.30

Inaugural Session: 8.30 - 9.30

- 8.30 - 8.45 - welcome addresses: Director IRRI, Executive Director UNIDO  
8.45 - 9.20 - election of Chairman, Vice Chairman and Rapporteur  
9.20 - 9.30 - adaption of agenda

Agenda No. 1 (9.30 - 12.00)

Presentation of UNIDO, IRRI, ECAFE and FAO activities in the promotion of agricultural mechanization and machinery development and local manufacture in the developing countries of Asia and Far East

- 9.30 - 10.00 - physical and economic aspects influencing the level of agricultural mechanization - FAO (Mr. von Hülst)  
10.00 - 10.15 - (coffee break)  
10.15 - 10.45 - rice mechanization and machinery manufacture in the ECAFE group of countries - ECAFE (Mr. V.M. Subramaniam)  
10.45 - 11.15 - IRRI's programme objectives: Mr. A.U. Khan  
11.15 - 11.45 - role of UNIDO: Mr. Swamy Rao A.A.  
11.45 - 1.00 - (lunch break)

Agenda No. 2 (1.00 - 3.00)

Demonstration and review of the agricultural machinery and implements developed by IRRI

- 1.00 - 3.00 - IRRI machinery demonstration (see Appendix A)  
3.00 - 3.15 - (coffee break)

- 3 -

Agenda No. 3 (3.15 - 4.00)

Presentation of the UNIDO report on the regional study mission on rice-land (rice) mechanization machinery design and manufacture in the developing countries of Asia and Far East (1972)

3.15 - 4.00 - country study and regional reports: Mr. G. Pellizzi

Agenda No. 4 (4.00 - 5.00)

Discussions on rice mechanization, machinery manufacture and trend in requirements

4.00 - 5.00 - discussions

(note: based upon agenda No. 1, 2 and 3, the general discussions are recommended to be limited to the following aspects:

- a. priority areas (from tillage to processing) for attention
- b. present level of manufacture
- c. future trends in mechanization
- d. priority potential areas (from tillage to processing) for local manufacture of appropriate machinery
- e. present status of local manufacture
- f. opportunities for product diversification

for agenda No. 1, 2 and 3: Background papers

- a. Physical and economic aspects influencing the level of agricultural mechanization - FAO
- b. Rice Mechanization and Machinery Manufacture - ECAFE
- c. ID/95: Role of UNIDO in promoting the agricultural machinery and implements industry
- d. UNIDO country study and regional reports on mission on rice mechanization machinery manufacture in selected countries of Asia and Far East
- e. UNIDO/ITD/125: Interrelationship among agricultural mechanization, industrialization and national employment in the developing countries).

Tuesday 13 March 1973

Agenda No. 5 ( 8.30 - 12.00)

Research, design, development and adaptation for promotion of agricultural machinery manufacture in the developing countries of Asia and the Far East

8.30 - 9.15 - design, development: general: Mr. C.V. Paul  
9.15 - 10.00 - development of appropriate mechanization technology: Mr. A.U. Khan  
10.00 - 10.15 - (coffee break)  
10.15 - 11.00 - national policies for research and development: Mr. Khardekar  
11.00 - 12.00 - discussions

(note: Discussions are to be limited to the agenda, with special reference to:

- a. reinforcing design and development facilities in developing countries
- b. review of IRRI developed machinery and its appropriateness
- c. identification of IRRI developed machinery which are suited to specific developing countries (also see Appendix A)

Background papers for agenda No. 5:

- a. UNIDO/ITD/121: Role of design, development and adaptation and testing in manufacture of agricultural machinery and implements : Mr. G.W. Giles
- b. UNIDO/ID/57: The development of engineering design capabilities in developing countries
- c. Development of an appropriate mechanization technology: Mr. A.U. Khan
- d. National policies for research and development: Mr. Khardekar).

Agenda No. 5 ( 1.30 - 5.00)

Market research, marketing and supporting facilities for the development of local manufacturing facilities

- |             |   |   |
|-------------|---|---|
| 1.30 - 2.00 | - | market research and product planning: Mr. R. Wijewardene                |
| 2.00 - 2.30 | - | marketing strategy: Mr. E. Uichanco                                     |
| 2.30 - 3.00 | - | manufacturing potential in the less developed countries: Mr. F. Nichols |
| 3.00 - 3.15 | - | (coffee break)  |
| 3.15 - 3.45 | - | after sales repair and maintenance: Mr. Behr                            |
| 3.45 - 4.45 | - | discussions   |

(note: the discussions are to be on the following aspects of the agenda:

- a. need for national and regional market research and product planning
- b. examples of specific expense in developing countries
- c. problems of repair and maintenance
- d. how IRRI developed machinery could be incorporated in national marketing strategies

Background papers for agenda No. 6:

- a. Market research and product planning (Mr. R. Wijewardene)
- b. Development of marketing strategy at national and regional levels for promotion of local manufacture of agricultural machinery: Mr. E. Uichanco
- c. Manufacturing potential in the developing countries: Mr. F. Nichols
- d. UNIDO/ITD/119: The role of effective repair and maintenance in the agricultural machinery and implements field in Asia and the Far East region: Mr. A.B. Behr).

Wednesday 14 March 1973

Agenda No. 7 (8.30 - 12.00)

Manufacturing techniques, problems and technology transfer for the promotion of local manufacturing potential

- 8.30 - 9.00 - capital Vs labour intensive manufacturing: Mr. B. Duff
- 9.00 - 9.30 - techniques of sub-contracting: Mr. C. Follosco
- 9.30 - 10.00 - institutional credit in manufacturing: Mr. B. Catane
- 10.00 - 10:15 - (coffee break)
- 10.15 - 11.00 - possibilities of investment promotion activities in local manufacture of agricultural machinery - UNIDO
- 11.00 - 11.45 - techniques in steel grain bin manufacturing in the U.S.A.

Agenda No. 7 (continued -)

(1.30 - 4.45)

- 1.30 - 1.50 - problems of a manufacturer: Mr. V.R. Reddy
- 1.50 - 2.10 - problems of a manufacturer: Mr. Ittifaq
- 2.10 - 2.30 - problems of a manufacturer: Mr. Eric Chia
- 2.30 - 3.00 - problems of a manufacturer: Mr. T.W. Jinasena
- 3.00 - 3.15 - (coffee break)
- 3.15 - 4.45 - discussions

(note: the discussions on agenda 7 are to be oriented to the following:

- a. manufacturing techniques and capital requirement
- b. ways and means of promotion of local manufacture of grain storage and handling equipment
- c. problems of manufacturers
- d. ways and means of promoting IRRI developed machines in developing countries
- e. ways and means of investment promotion and promotion of joint collaboration with international manufacturers in selected cases

Background papers for Agenda No. 7:

- a. Capital Vs labour intensive manufacture: Mr. B. Duff
- b. Techniques of subcontracting for the promotion of agricultural machinery manufacture: Mr. C. Follosco
- c. Institutional credit in local manufacture of agricultural machinery: Mr. B. Catane
- d. Techniques in steel grain bin manufacturing in the U.S.A. - present status and industry trends: Mr. Deforest
- e. UNIDO.ITD/120: Encouraging manufacture of improved storage and transport facilities in Asia and the Far East Region : Mr. Wimberly).

Thursday 15 March 1973

Agenda No. 7 (8.30 - 11.00)

Promotion of institutional activities for encouraging local manufacturing potential

- 8.30 - 9.00 - role of professional agricultural engineering associations: Mr. K.L. Butt
- 9.00 - 9.30 - role of manufacturers associations: Mr. Y. Kishida
- 9.30 - 10.00 - Asian Agricultural Machinery Institute: UNIDO and ECARF
- 10.00 - 10.15 - (coffee break)
- 10.15 - 11.00 - discussions

(note: the discussion on agenda 8 is recommended to be limited to the following aspects:

- a. possibilities of establishing national agricultural engineering professional societies, desirabilities of incorporating the same in the national engineering societies
- b. promotion of agricultural machinery manufacturers association
- c. reflections on an Asian Agricultural Machinery Institute

Background documents for the agenda No. 8:

- a. UNIDO/ITD/118: The role of manufacturers and development organisations in promoting manufacture of agricultural machinery and implements in Asia and Far East region: Mr. Y. Kishida
- b. UNIDO/ITD/137: The role of professional societies in the development of agricultural machinery manufacture in Asia and the Far East: Mr. B.K.S. Jain
- c. UNIDO/ITD/124: Analysis and possible activities of the proposed Asian Agricultural Machinery Institute).

Agenda No. 9 (11.00 - 3.00)

Regional co-operation and international assistance for the promotion of local manufacturing potential

- 11.00 - 12.00 - discussions
- 1.30 - 3.00 - discussions
- 3.00 - 3.15 - (coffee break)

(note: The discussions on agenda No. 9 are to be limited to the following aspects:

- a. ways and means of promoting IRRI developed machines in developing countries of Asia and Far East
- b. identification of such machines that could be manufactured at (i) a national level and (ii) at a regional level
- c. specific proposals for UNIDO-IRRI co-operative activities for the promotion of such machines
- d. reflections on possible investment promotion activities and joint foreign collaboration in manufacture).



Agenda No. 10 (3.15 - 4.45)

Conclusions and recommendations

3.15 - 4.45 - discussions: conclusions and recommendations

(note: The discussions are to be directed towards formulating specific conclusions and recommendations regarding:

- a. manufacturing promotion of IRRI developed machinery at national and regional level
- b. manufacturing promotion through investment promotion
- c. promotion of establishment or reinforcement of national agricultural engineering professional societies and manufacturers associations
- d. possible regional activities
- e. recommended future line of action through UNIDO-IRRI cooperative activities for the promotion of local manufacturing potential).

Friday 16 March 1973

Agenda No. 11 (8.30 - 9.30)

8.30 - 9.30 - concluding session: adaptation of the report of the Expert Group Meeting

Agenda No. 12 (9.30 - 4.45)

Field trip to selected machinery manufacturers

9.30 - 12.00 - field trip to agricultural machinery and allied implements manufacturers in the Manila area  
3.30 - 4.45

(note: 1.00 - 2.30 - lunch break,

APPENDIX A

Agricultural implements developed by the International Rice Research Institute, IRRI, the Philippines

Demonstration, review, discussions and promotion of local manufacturing programme.

1. present status: A number of agricultural machinery that is being developed at IRRI. A few of them are ready for release for local manufacture. The following agricultural implements and machinery developed at IRRI would be the most important product line for discussions and formulation of a joint manufacturing promotion programme.

A. Secondary Tillage Equipment

1. portable row power weeder

B. Seeding Equipment

1. individual hopper seeder
2. 6 - 8 row pregerminated paddy seeder
3. multicrop seeder with fluted roller

C. Harvesters

5. stripper harvester

D. Threshers

6. multicrop drum thresher
7. PTO driven multicrop thresher
8. wireloop light multicrop thresher
9. table thresher

E. Grain cleaners

10. power operated rotary screen cleaner
11. manual grain cleaner (community operations)

F. Driers

12. continuous flow heated sand conduction drier
13. para boiling machine

G. Power tiller and trailer

14. 5 H.P. power tiller
15. trailer

H. Irrigation equipment


16. low lift foot operated pump
17. wind mill

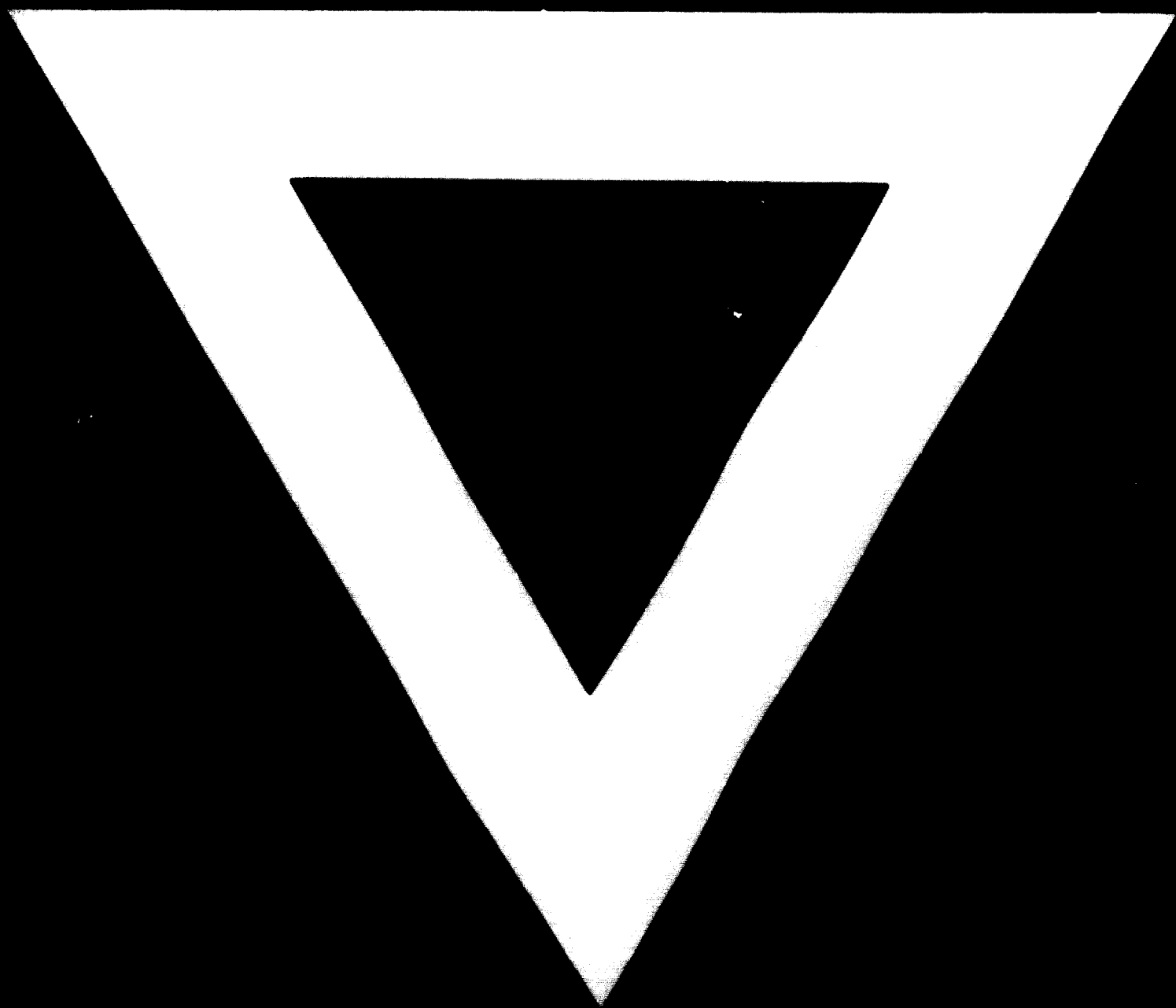
2. Recommended line of action for discussions at the Expert Group Meeting

a. All discussions of the meeting should be specifically in concept with the aim of achieving positive and optimal results. Therefore, discussions should be limited to development and adaptation, small scale manufacture at national level, co-operative large scale manufacture, product identification, product selection for local manufacture and formulation of an integrated programme for development of local manufacture. It is requested that IRRI developed prototypes are to be considered on a priority basis for manufacturing

promotion and as a result of the meeting, a long-term IRRI-UNIDO co-operative project in selected countries of Asia, either at national levels or at a regional level, is to be formulated, with the active co-operation of the respective Governments and participation of selected small and medium scale manufacturers.

b. Therefore, in order to make the meeting hardware oriented, it is recommended that participants in general, and representatives of small scale industries in particular, discuss their problems and manufacturing plans. It is also necessary that representatives from the developing countries, participants at the meeting, devote sufficient time to discuss IRRI developed products as well as other machinery to promote a programme for local manufacture and to discuss on ways and means of developing a co-operative project for realization of this objective.





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