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Global Preparatory Meeting for Consultations
on the Agricultural Machinery Industry
Vienna, 5-8 June 1979

REPORT

Addendum

Summary and main conclusions
of the Report of the Regional
Preparatory Meeting on Agricultural
Machinery convened by ESCAP at
Manila, Philippines, 24-28 May 1979.*

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* See para. 10 of the basic document

I. ORGANIZATION OF THE SESSION

1. The Meeting was held at Manila from 24-28 May 1979 and was attended by experts from the following ESCAP member countries: India, Indonesia, Iran, Malaysia, Philippines, Socialist Republic of Vietnam, and Thailand. The International Rice Research Institute (IRRI) and the Regional Network for Agricultural Machinery (RNAM) were also represented.

2. UNIDO has organized a series of preparatory activities for the Global Consultation Meeting on the Agricultural Machinery Industry. It was decided that ESCAP would collaborate with RNAM and with regional experts in a Regional Preparatory Meeting in order to prepare issues of regional importance to be considered at the global meetings because of the unique situation existing in the ESCAP region due to the establishment and operation for nearly two years of RNAM.

3. The Meeting discussed eight issues identified during preparatory work at Vienna with special emphasis on:

Present status

Identification of specific issues of regional importance and priorities

International co-operative measures

The role of UNIDO, ESCAP and RNAM in the agricultural machinery industry

II. CONSIDERATION OF THE ISSUES

A. Formulation of strategy for the agricultural machinery industry

4. The Meeting was of the view that each developing country should form its own strategy taking account of local factors affecting the crop production pattern, levels of mechanisation required, available skills, energy and other factors related to the country's own needs.

The Meeting made the following recommendations:

- (a) ESCAP and RNAM should commission a study on mechanization of agriculture and its impact on employment in the Punjab, one of the states in India, and also in the Republic of Korea;
- (b) UNIDO was requested to assist interested countries in the preparation of guidelines in the formulation of strategy for agricultural mechanization in conformity with agricultural development plans;
- (c) RNAM should assist all participating countries and others in the region to establish professional societies of agricultural engineering, and manufacturers' and distributors' associations which could play an important role in promoting mechanization;
- (d) UNIDO should conduct a case study on the successful adoption and implementation of a strategy for agricultural mechanization in one or two developing countries in the ESCAP region.

B. Creation of national farm mechanization committees

5. Experience within the region showed that the guidelines for the establishment of national farm mechanization committees were being considered by most ESCAP countries either in planning the establishment of a committee or in reconstituting existing organizations.

The recommendations were as follows:

- (a) The Meeting emphasized that the status and authority of the members of such a committee should be such that it had an effective voice in formulating and executing policy;
- (b) Guidelines for the establishment of such a committee already drawn up by RNAM could be made available to interested countries in other regions of the world through UNIDO (see annex).
- (c) RNAM should compile information on the establishment of national farm mechanization committees, their composition and functions, and disseminate the information to ESCAP member countries;
- (d) A case study should be carried out by RNAM on the successful establishment and functioning of a national farm mechanization committee in one of the developing countries and the information so collected should be disseminated to ESCAP member countries.

C. Creation of design and development centres (at national and regional levels)

6. The Meeting emphasized the importance of the design of new agricultural machinery and the need for local design and development work was being carried out at a large number of centres throughout the region. Nevertheless, the consensus was that in most ESCAP countries the importance of the role of design and development has not been fully appreciated and much of the work was research oriented and could not be commercialized.

The Meeting therefore made the following recommendations:

- (a) UNIDO was requested to prepare guidelines and assist in the establishment of design and development centres in interested countries. The centres must have adequate facilities for manufacture of prototypes for extensive field evaluation so that the designs could be brought to the stage of commercial acceptance after field proving;
- (b) Assistance should be provided for establishing suitable mechanisms for the commercialization of the designs developed within the countries at various levels;
- (c) In the context of design and development activity, considerable emphasis was placed on standardization of the components of agricultural machinery;
- (d) Links should be encouraged between international research institutes and interested ESCAP member countries similar to those that IRRI has with Pakistan and Thailand.

D. Financing, investment and contract conditions related to the manufacture and sale of agricultural machinery

7. The Meeting considered the credit needs of both manufacturers and users of machinery and felt that the small farm implements programmes had been handicapped through lack of funds and should be supported in national development plans. Wide variations existed throughout the region in both the types and levels of credit that were available and also in the level of protection afforded to domestic manufacturing industries.

The following recommendations were made by the Meeting:

- (a) In theory, the users of agricultural machinery tools or farmers had access to credit from the banks. National Governments had to examine the problems of lack of utilization of available credit and eliminate procedural difficulties, especially to small farmers;
- (b) It was recognized that local manufacture was important to the country for its long-term growth. Special steps should therefore be taken by Governments to encourage local manufacture such as:
 - (i) Eliminating discrimination in local taxes and duties against local manufacture;
 - (ii) Providing incentives to local manufacturers;
 - (iii) Eliminating unnecessary competition from imported machinery;
- (c) IRRI should continue to be selective in releasing their designs for commercial manufacture so that the quality of products based on IRRI designs would be ensured;

(d) In promoting subregional co-operation between the ASEAN countries the following elements would merit consideration:

- (i) Co-ordination of design and development activities in the participating countries;
- (ii) Purchase of components and equipment from the participating countries;
- (iii) Joint procurement of raw materials and components from outside the ASEAN countries for reasons of economy and facility of trade.

(e) The programme for small farm implements is often handicapped for lack of funds for demonstration, manufacture of prototypes, hiring, hire-purchase etc. and therefore adequate funds should be provided for the promotion of these activities.

E. Basic activities - the encouragement of developing countries to install the basic metal working equipment including facilities for forging, forming, heat treatment and welding in order to produce all their own requirements of simple agricultural implements

8. The Meeting felt that the problems of installing basic metal working equipment varied widely within the region and although production of a range of equipment, mostly for small-scale producers, was occurring in most countries, there was wide variation in the production levels.

The Meeting made the following recommendations:

- (a) A few countries in the region need assistance to develop the basic activities;
- (b) UNIDO assistance was required to establish rural workshops for machinery manufacture, repair and servicing;
- (c) Assistance was required in most countries to extend from level II to level III manufacture;
- (d) Specialized technical assistance was required in some countries;
- (e) Metal industry development centres and training institutes existing in most countries should be used for the manufacturing technology of agricultural tools.

F. Training of individuals from developing countries in the production, maintenance and repair of agricultural machinery within the countries and outside

9. Training requirements for both farm operators and manufacturing operatives presented the most serious and difficult problems in agricultural mechanisation. A wide range of training facilities existing throughout the region was reviewed by the Meeting but it was felt that considerable improvement was required.

The Meeting made the following recommendations:

- (a) The United Nations should provide training kits for upgrading skills at all levels of production and operation of equipment;
- (b) Metal industry development centres and similar organizations should receive assistance to provide improved training;
- (c) Management and design-development skills should be accorded high priority;
- (d) Activities of academic institutions should be linked with those of the industry;
- (e) Assistance should be provided for design and development activities. Design engineers should be deputed to countries where the required training facilities are available;
- (f) The RNAM training programme should be strengthened to meet the increasing needs of ESCAP member countries.

G. Bilateral arrangements for fostering long-term arrangements for the operating, repairing and manufacturing of machines

10. Various arrangements existed within the region for manufacturing agricultural machinery and equipment. Manufacture usually began with foreign collaboration and joint ventures but fully indigenous production now existed in a number of countries.

The Meeting recommended the following:

- (a) UNIDO should provide technical assistance in carrying out feasibility studies for the selection of technology and equipment best suited to local conditions. Such assistance should also include the evaluation of competing offers of technical collaboration and their comparative merits;
- (b) UNIDO could assist in the licensing terms and agreements whenever technical collaboration projects were involved as was decided at the International Forum on Appropriate Industrial Technology at New Delhi, India, in November 1978;
- (c) In the terms of transfer of technology and licensing agreements, there should be no restrictive clauses on exports, royalty payments should be equitable and there should be increasing emphasis on the use of indigenous components. In other words, the technical collaboration schemes should not result in pure assembly operations but should aim at indigenous manufacture of all components which should be achieved within specific periods.

H. International and regional co-operation

11. A considerable number of the practical activities of RNAM were reviewed. In particular, the subnetwork on rice transplanters, harvesters, weeders and manufacturing technology had been useful. Prototypes had been distributed to the participating countries and were being tested.

The Meeting made the following recommendations:

- (a) RNAM had to be strengthened with the technical and financial assistance of UNDP, UNIDO and other international organizations;
- (b) RNAM should distribute technical information more widely through national institutes in ESCAP member countries;
- (c) Assistance should be given to RNAM to increase its training programmes;
- (d) RNAM should arrange for studies on the eight issues considered by the Meeting to be made at institutes;
- (e) RNAM should help to establish agricultural machinery associations and professional societies of agricultural engineers;
- (f) UNIDO and ESCAP should assist the ASEAN countries with the subregional industrial co-operation programme, which included manufacture of agricultural machinery on a subregional complementarity basis.

III. CONCLUSIONS

12. In view of the importance and the very serious difficulties of the development of agricultural machinery and farm mechanization to the developing countries in the region, the Meeting expressed the hope that the UNIDO Consultation Meeting would result in recommendations for action of immediate benefit to the developing countries.

13. The Meeting urged UNIDO to give due consideration to its recommendations on the eight issues contained in the Report adopted at Manila during the discussions at the Global Preparatory Meeting scheduled from 5-8 June 1979 at Vienna. It also requested UNIDO to circulate the Report of the ESCAP Regional Preparatory Meeting on Agricultural Machinery to the First Global Consultation Meeting to be held in Stresa, Italy, from 15-19 October 1979. It was the expectation that an early circulation of the report to the participating Governments would facilitate detailed study and examination of the issues involved and the recommendations that had been made.

14. The Meeting expressed the hope that UNIDO would make increasing use of the expertise and the institutional facilities available in the ESCAP region for follow-up action and implementation of the recommendations of the First Global Consultation Meeting on Agricultural Machinery.

Annex *

GUIDELINES FOR THE ESTABLISHMENT
OF NATIONAL FARM MECHANIZATION COMMITTEES

1. Title

The title of the committee may be "National Farm Mechanization Committee" but if a similar committee is already in existence the Government may wish to retain the existing designation.

2. Purpose/objectives

(a) To promote appropriate farm mechanization in the country, and review long-term trends, in relation to production;

(b) To promote the use and to co-ordinate at the national level the development and manufacture of small and medium-size agricultural machines and tools;

(c) To look into problems such as credit, training, repair and maintenance, organization and service facilities connected with farm mechanization in the country;

(d) To ensure co-ordination between the provinces/states and the Federal Government and between the Federal Government and RNAM.

3. Membership

The membership of the Committee may vary from country to country depending upon the administrative structure in each country and the functions and responsibilities of different ministries and organizations. However, membership of the Committee may consist of representatives from the ministries of agriculture, industry production, finance, planning, science and technology, economic affairs, besides representatives of progressive farmers, private manufacturers and distributors, financing institutions, agricultural research councils, agricultural universities, and agricultural engineering societies, if these already exist.

* Originally issued as by ESCAP as document IHT/RNAM/TAC-SC/5

4. Number of meetings to be held during the year

The number of meetings to be held during the year will vary from country to country depending upon their policies and requirements. However, it is suggested that at least two meetings may be held during a calendar year

5. Working relationship between RNAM and the National Farm Mechanization Committee

(a) RNAM will provide regularly to the Committee all reports, circulars, newsletters etc. published by RNAM. Similarly, the Committee will provide all published materials connected with farm mechanisation in the country to RNAM, including copies of accounts of the deliberations of the Committee;

(b) Based on such exchange and through periodic contacts between the Project Manager of RNAM and the Committee, close collaboration may be developed between RNAM and the Committee in order to solve common problems;

(c) The Committee may wish to place certain matters before RNAM for its consideration. Technical matters can be placed before the Technical Advisory Committee of RNAM through the designated representative of the country. Similarly, policy issues can be placed before RNAM through the countries' designated representative on the Governing Body of the Network.



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