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REPORT OF THE FIRST PREPARATORY EXPERT PANEL MEETING FOR
CONSULTATIONS ON THE AGRICULTURAL MACHINERY INDUSTRY,

Vienna, 23-25 November 1977.

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Introduction

1. Mr. A. Hacini opened the meeting and welcomed the participants. He said that they would be taking part as individual experts and not as representatives of Governments or their organizations. The annexed agenda was agreed and the annexed working paper - UNIDO/EX. 23 - was presented.

Consideration of Issues presented by the Secretariat

(a) Strategic

2. Each country should have a plan for agricultural production, integrated with the appropriate mechanization and with the development of the agricultural machinery industry as part of a general industrialization programme. The plan should involve a proper selection of tools and implements together with improvements to existing designs and to the materials used. The plan ought to take account of all relevant factors such as the effect on the balance of payments of local production of farm equipment as compared with importing, and the need for adequate training and infrastructure. The plan should be realistic. Each country should look first to its own needs and frame its programme for agricultural machinery in relation to its own conditions and reflecting its own potential. This led to the recommendation that each country should aim at producing more of its requirements of tools and equipment in the different categories^{1/}. Bearing in mind the need for regional co-operation, the changes in international trade patterns which would result were understood and accepted.

3. International co-operation should be fostered, first to help countries to formulate their programmes for agriculture and agricultural machinery, then to recommend and assist whatever improvements in design, materials and manufacturing methods might be feasible and finally to provide advice and financial help in setting up manufacturing units under mutually beneficial conditions.

(b) Institutional

4. The institutional arrangements should reflect the requirements of the strategic plan. In particular, developing countries should make a conscious effort to bridge the gap which sometimes existed between the functions of the various Ministries involved.

5. On the technical level there was a need for national or regional research and development centres in co-operation with developing countries to assist manufacturing capability and encourage local ideas in design and production beyond the traditional methods.

(c) The design for manufacture

6. There were discussions on design problems related to categories (i) and (ii). Research and Development Institutes in both developed and developing countries should co-ordinate efforts in adapting existing designs or creating new designs which could be put to use immediately in developing countries.

1/ Category (i) - simple implements and machinery; (ii) - crop intensifying machinery; (iii) - powerd machinery; (iv) - specialised machinery

7. There was a discussion of problems arising in categories (iii) and (iv) in developing countries as a result of changes in design introduced by licensors. This created no difficulties if a developing country were selling only in its home market but there were problems if it were attempting to sell abroad. In discussion the point was made that design changes by licensors were not introduced for trivial reasons. They resulted from the continuing need to meet the requirements of their main users, from the drive towards better quality of equipment, better reliability, more efficiency in operation and the need to meet new legislative requirements in the developed countries. Producers in developing countries should not be obliged to follow all these changes but ought to be able to continue with established designs or change according to their assessment of the local conditions. Developing countries should co-operate in exchanging their experience in this field and explore the possibility of mutual activity.

8. The meeting heard statements from a number of participants from developing countries about the establishment of their own tractor plants. Some had evolved designs suited to their own conditions, emphasising simplicity and economy. There were designs which had remained constantly in use for a number of years. Other countries had standardised parts and components with which they actively engaged in the export trade.

(d) Technology including infrastructure and training

9. On the subject of training, participants laid much emphasis on the need for training at all levels from the grass roots up to the university, always including an element of practical application with the theory.

10. There was a field for international co-operation in encouraging developed countries to place at the disposal of the developing countries some of their educational and training facilities at the various levels under mutually acceptable conditions.

11. The main effort of the large manufacturing companies in the transfer of technology was devoted to categories (iii) and (iv) but there was a need for them to assist with categories (i) and (ii) which were the most important for many developing countries. Manufacturers and trade associations in the developed countries included small and medium-sized firms which could be a source of management and technical skill and appropriate technology. Some Governments in industrialised countries had set up units whose specific aim was to arrange international contacts between small and medium-sized firms and with developing countries. There was a need to offer positive encouragement to small companies in developed and developing countries to co-operate.

12. Governments should give particular encouragement to schemes worked out by UNIDO and FAO for international collaboration between small and medium companies, in developed and developing countries.

13. A number of developing countries summarised the action which they had taken in developing the production of equipment under classifications (iii) and (iv).

It was accepted that many problems had to be overcome. Among them were the high costs involved in installing capital equipment, of skilled expatriate management, of training operatives abroad, of production rates lower than the plant could eventually achieve and of the various components of the transfer of technology. Other difficulties concerned the provision of engineering services, foundries, forges and material supplies.

14. The effect of these disadvantages resulted in many cases in the cost of locally produced items being substantially more than for similar imported items. Nevertheless, these extra costs were accepted in the short term as being a necessary part of the learning process leading to efficient industrialisation, improved agricultural production and an eventual saving in foreign exchange, provided Government policies towards agriculture were framed to foster such development.

15. The need was expressed for fuller exchange between developing countries of technical and contractual information.

16. Participants referred to the vital need to establish maintenance services for agricultural machinery whether locally produced or imported.

(e) Finance and Investment Promotion

17. In discussion it was emphasised that it would help all parties concerned in the establishment of production units in the developing countries if the financial criteria to be met were spelled out clearly and were held constant throughout the term of a contract. This referred to items such as the proportion of local sub-regional and regional manufacture to be included; the proportion of local sub-regional and regional financial participation; the permissible dividend payments; and the terms of licensing. Both sides should approach the setting of such conditions with some flexibility but the final terms should provide benefit for both sides. There was no single pattern that was right for all circumstances.

Agenda Item 8 - Recommendations

18. Arising from the points in the working paper and from those made in discussion the meeting arrived at firm recommendations on the following subjects:-

- (a) Developing countries should set up strategic plans (para 2).
- (b) Developing countries should aim at manufacturing all their needs of items in categories (i) and (ii) and as much as their potential will allow of the other categories.
- (c) Technical and management skills should be sought from small and medium-sized firms (para 11).
- (d) Research Institutes should actively promote the adoption of improved designs of implements (para 6).
- (e) Developed countries should expand schemes for training in co-operation with developing countries (para 10).

In addition, the meeting recommended the following issues as suitable for presentation to a Consultation Meeting:-

- (f) An assessment of the world market for agricultural machinery and the pattern of production and supply.
- (g) An assessment of the costs of advanced technologies in relation to the benefits.
- (h) A review of achievements in developing countries and the methods of sharing experience bilaterally, regionally or internationally.

- (i) An assessment of the right size of manufacturing units for defined conditions.
- (j) Consideration of guide lines for a framework for co-operation between developed and developing countries.
- (k) Co-operation among developing countries.

AGENDA

23 NOVEMBER, Wednesday

Morning Session

1. Opening statement
2. Adoption of agenda
3. Introduction to the UNIDO Consultations System
4. Introduction of the Working Paper, including the issues for consultation
5. The issues for consultation
 - a) Strategic
 - b) Institutional

Afternoon Session

- 5.(cont.) The issues for consultation
 - c) Design for manufacture
 - d) Technology, including infrastructure and training

24 NOVEMBER, Thursday

Morning Session

- 5.(cont.) The issues for consultation
 - e) Finance and investment promotion

Afternoon Session

6. Technical considerations
7. Proposals for action by the consultation meeting

25 NOVEMBER, Friday

Morning Session

8. Drafting of the report

Afternoon Session

9. Consideration of conclusions/recommendations
10. Adoption of the Report
11. Closing of the meeting

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