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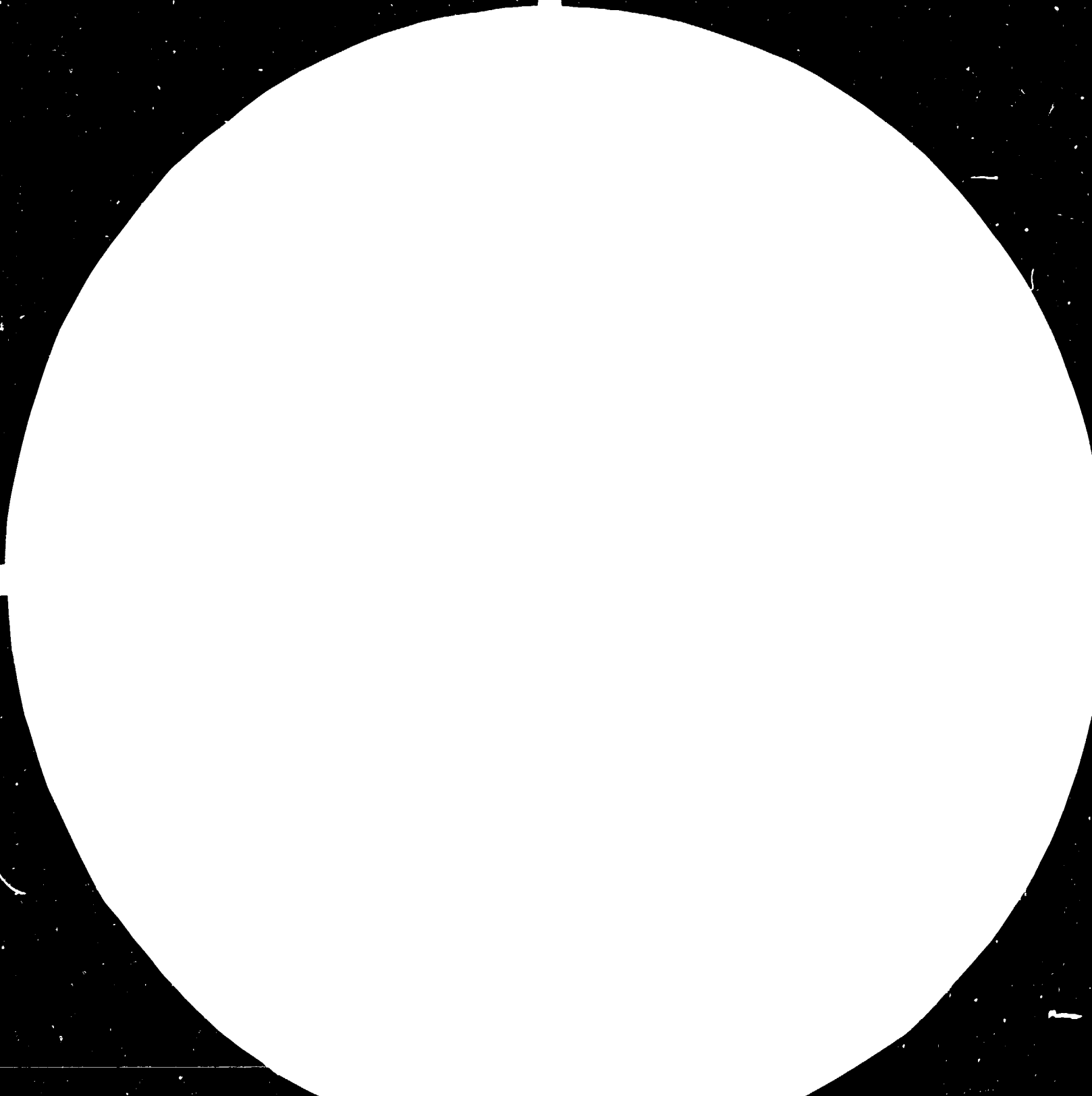
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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

SECOND
CONSULTATION
ON THE
AGRICULTURAL
MACHINERY
INDUSTRY

Vienna, Austria, 17-21 October 1983

REPORT (2nd Consultation on
agricultural machinery
industry).

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ENGLISH

PREFACE

The Second General Conference of the United Nations Industrial Development Organization (UNIDO), held at Lima, Peru, in March 1975, recommended that UNIDO should include among its activities a system of continuing consultations between developed and developing countries with the object of raising the share of the developing countries in world industrial output through increased international co-operation.^{1/} The General Assembly, at its seventh special session in September 1975, endorsed the recommendation and requested UNIDO to implement it under the guidance of the Industrial Development Board.

Nineteen Consultations have been convened since 1977 covering the following industries: capital goods, agricultural machinery, iron and steel, fertilizer, petrochemical, pharmaceutical, leather and leather products, vegetable oils and fats, food-processing, industrial financing, training of industrial manpower, and wood and wood products.

In May 1980, the Industrial Development Board decided to place the System of Consultations on a permanent basis, and in May 1982 it adopted the rules of procedure ^{2/} according to which the System of Consultations was to operate, including its principles, objectives and characteristics, notably:

The System of Consultations shall be an instrument through which the United Nations Industrial Development Organization (UNIDO) is to serve as a forum for developed and developing countries in their contacts and consultations directed towards the industrialization of developing countries;^{3/}

The System of Consultations would also permit negotiations among interested parties at their request, at the same time as or after consultations;^{4/}

Participants of each member country should include officials of governments as well as representatives of industry, labour, consumer groups and others, as deemed appropriate by each Government;^{5/}

1/ Report of the Second General Conference of the United Nations Industrial Development Organization (ID/CONF.3/31), chapter IV, "The Lima Declaration and Plan of Action on Industrial Development and Co-operation", para. 66.

2/ The System of Consultations (PI/84).

3/ Ibid., para. 1.

4/ Ibid., para. 3.

5/ Ibid., para. 23.

Each Consultation shall formulate a report, which shall include conclusions and recommendations agreed upon by consensus and also other significant views expressed during the discussion.^{6/}

The Industrial Development Board, at its fifteenth session in May 1981,^{7/} decided to include the Second Consultation on the Agricultural Machinery Industry in the programme of Consultations for the biennium 1982-1983.

^{6/} Ibid., para. 46.

^{7/} Official Records of the General Assembly, Thirty-sixth Session, Supplement No. 16 (A/36/16), para. 171.

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INTRODUCTION

Second Consultation

1. The Second Consultation on the Agricultural Machinery Industry was held at Vienna, Austria, from 17 to 21 October 1983. The Second Consultation was attended by 124 participants from 58 countries and 9 observers from 7 international organizations (see annex I).

Background to the Second Consultation

2. In pursuance of the recommendations of the First Consultation on the Agricultural Machinery Industry (ID/WG.307/9/Rev.1) held at Stresa, Italy, 15-19 October 1979, the major meetings noted below were convened.

Meeting on Exchange of Experiences and Co-operation among Developing Countries in the Development of the Agricultural Machinery Industry, Beijing, China, 20-27 October 1980

3. In that meeting, several proposals for South-South co-operation were submitted and it was recommended that an international centre for the development of the agricultural machinery industry be established in Beijing, China.

First Regional Consultation on the Agricultural Machinery Industry in Africa, Addis Ababa, Ethiopia

4. The First Regional Consultation was prepared and held in close collaboration with the Food and Agriculture Organization of the United Nations (FAO), the Organization of African Unity (OAU) and the Economic Commission for Africa (ECA). For that meeting, 16 diagnostic studies using a common methodology were carried out at the national level in African countries in order to identify problems as well as existing manufacturing capacities in the field of agricultural equipment (UNIDO, IS.377).

5. The Regional Consultation confirmed that vast opportunities existed for co-operation between Africa and the rest of the world as well as between African countries. A proposal was adopted for the African Development Plan for Agricultural Equipment and Machinery (1982-1990). In line with the

recommendations of the Regional Consultation, and at the request of the Government of the United Republic of Cameroon, a project to define and prepare a 10-year national plan for agricultural mechanization has been initiated in collaboration with FAO.

Workshop on Design and Development of Agricultural Equipment in Africa, Cairo, Egypt, 17-28 October 1982

6. As a follow-up to the Regional Consultation, a workshop was held in Cairo, Egypt, from 17-28 October 1982, which was attended by representatives from 17 countries, who described their experiences in the adaptation, design and development of simple agricultural equipment. The exchange of information between interested countries on plans for the manufacture of tools and machinery was recognized as being the first effective step towards regional co-operation.

AGREED CONCLUSIONS AND RECOMMENDATIONS

Issue 1: The world agricultural machinery industry: prospects for international co-operation

Conclusions

7. The Consultation recognizes that the agricultural machinery industry can not be considered in isolation; rather it should be considered as a key factor in both agricultural and industrial development.

8. It is necessary to take concrete action in order to improve the conditions of international industrial co-operation (both North-South and South-South) and of commercial and industrial relations between interested partners; it could take the form of the elaboration by UNIDO of a framework to facilitate the establishment of contacts and to improve the effectiveness of such co-operation in the field of agricultural machinery and related rural equipment.

9. The information produced by the various research centres on agricultural machinery, design and production know-how is not always accessible to research centres in developing countries.

Issue 2: Integrated manufacture of agricultural machinery
and capital goods

Conclusions

10. The Consultation recognizes the validity and applicability of the concept of the multi-product production units for the manufacture of agricultural and capital goods equipment in developing countries. In areas where such units already exist, better capacity utilization is possible by adding new products, even if they are needed in other sectors, that suit the available production facilities. The exchange of information between the local partners, including Governments, should be strengthened.

11. The main advantage of multi-product production units may be expressed in terms of: (a) permanent industrial activity; (b) accelerated industrialization; (c) greater benefits to farmers; (d) better satisfaction of local needs; and (e) positive influence on food production.

Issue 1: The world agricultural machinery industry: prospects for
international co-operation

Issue 2: Integrated manufacture of agricultural machinery
and capital goods

Recommendations

12. The Consultation recommends the establishment, under the auspices of UNIDO, of a group of experts composed on the basis of equitable geographical distribution, taking into account the need for interested partners, including Governments, manufacturers and users of agricultural machinery, to be represented:

(a) To carry out a precise assessment, on a selective basis, of the needs in terms of products and technology in purchasing countries, and of the industrial capacity available in supplying countries in terms of products, components and research and development. Based on this assessment, the expert group should work out particularly the details of the application of the multi-product approach and demonstrate practical ways of implementing this approach by establishing pilot multi-purpose plants by up-grading utilization of existing plants and adapting, as far as possible, techniques and products;

(b) To elaborate a framework for industrial co-operation in the field of agricultural machinery to facilitate the establishment of contacts and to improve the effectiveness of such co-operation, emphasizing in particular the mobilization of small- and medium-scale enterprises;

(c) To investigate the possibility of establishing further regional networks to provide access to information available from various research centres related to agricultural machinery, design and production know-how. Interregional co-operation should be encouraged.

13. The Consultation recommends that UNIDO should convene a regional consultation in Latin America, and if possible one in Asia, to consider the needs of the agricultural machinery industry in those regions in order to promote regional and subregional co-operation.

14. The Consultation recommends that UNIDO should encourage the developing countries to develop the exchange of information between them regarding their industrialization programmes and technologies implemented in order to identify and expand possibilities for regional and subregional co-operation.

15. The Consultation recommends that UNIDO should give due consideration to the problems of Africa in line with the recommendations of the Regional Consultation on Agricultural Machinery Industry in Africa. The results achieved in relation to increased food production and increased industrialization should be reported to a next Consultation.

Issue 3: Main items to be included in model contracts
for the import, assembly and manufacture of agricultural equipment
including training: model licensing agreement

Conclusion

16. The Consultation, in the light of the recommendation on long-term arrangements of the First Consultation and after consideration of "Items to be included in model contracts for the import, assembly and manufacture of agricultural equipment including training: model licensing agreement" (ID/WG.400/2) concludes that further work should be undertaken to carry out that recommendation.

Recommendation

17. The Consultation, taking cognizance of the recommendations of the First Consultation, recommends that:

(a) UNIDO should prepare guidelines for the import, assembly and manufacture of agricultural machinery and training. These guidelines should take due account of the documentation considered by the Second Consultation, the views expressed on it, relevant documents of national and international institutions and the views that may be communicated to the UNIDO secretariat by the participants and other interested parties within the next four months as well as the experience gained in the work on contractual arrangements within the framework of the UNIDO System of Consultations;

(b) Following this, an international group of experts should be convened by UNIDO to agree upon the guidelines, and in this context, the elaboration of master agreements may also be considered. The experts should be selected by UNIDO from developed and developing countries, and from among participants of the Second Consultation, with due regard to an equitable geographical distribution and adequate representation of interested parties;

(c) The group of experts should prepare model contracts based upon the guidelines. In case of disagreement on any specific clause, various alternatives should be presented and given equal weight. The guidelines and model contracts will be submitted for consideration to a next Consultation.

I. ORGANIZATION OF THE CONSULTATION

Opening of the Consultation

Speech by the Minister of State

18. The Second Consultation was opened by Mr. Ferdinand Lacina, Minister of State at the Federal Chancellery of Austria. He said that his country attached great importance to development co-operation as an instrument to strengthen the economic, political and cultural relations with developing countries. The System of Consultations was aimed at strengthening the productive capacity of developing countries. Austria supported the System and had actively participated in the Consultations held that far.

19. He noted that the general economic environment was not favourable to efforts to facilitate the global spread of industrial capacity and the agricultural machinery industry had not been spared. That situation should induce people to look for new solutions and strategies to deal with it. He was confident that the Consultation would be able to contribute significantly to the co-operation between developing and developed countries in that sector.

20. On behalf of his Government, he welcomed the participants to the Consultation, and thanked the Government of Argentina, which had originally offered to host the Consultation, for the great efforts made in its preparation.

Speech by the Executive Director of UNIDO

21. The Executive Director of UNIDO thanked the Minister of State for his Government's hospitality, and welcomed participants to the Second Consultation. He said that the importance of the subject of the Consultation had no doubt encouraged attendance despite the somewhat late change in venue, and apologized for any inconvenience to participants.

22. He recalled that in 1979 UNIDO organized the First Consultation on Agricultural Machinery at Stresa, Italy. The First Consultation had discussed two basic problems: how to provide food for a rapidly increasing world population, most of which lived in developing countries in which the average food intake was already inadequate; and how agricultural mechanization could help to stabilize the population in rural areas. Those problems were still unsolved.

23. Developing countries, he said, were beginning to attach priority to the satisfaction of the basic needs of their populations, and in particular to food production. That had created an enormous awareness for strengthening the indigenous capacity for the production of agricultural machinery. The developed countries had excess manufacturing capacity, and it would be advantageous to both North and South to co-ordinate their efforts. Particularly, the small- and medium-scale enterprises in developed countries could take the opportunity to discover new partners.

24. He pointed out that the production of agricultural machinery was at the hub of many other industrial activities. The documentation of the Consultation stressed that a multi-product approach to production might hold the key to the more rational development of many developing countries. It also dealt with contractual arrangements to govern the purchase, manufacture or assembly of agricultural equipment. A draft had been prepared of a number of clauses considered essential in preparing such contracts. That draft had been examined by a group of experts meeting at Vienna in March 1983, and now awaited the consideration of the Consultation.

25. He concluded by stressing the importance UNIDO attached to the agricultural machinery sector, which was vital to the attainment of food security and self-sufficiency for the developing countries.

Statement by the Ambassador of the Republic of Argentina

26. With reference to the change in venue, His Excellency regretted that despite the efforts made by the competent Argentine authorities, it was not possible to overcome certain material difficulties that might in some degree have affected the satisfactory conduct of the Second Consultation and its successful outcome. He said that it was well known that his country was then involved in the process of ensuring the re-establishment of democratic institutions. He realized that the change of site might have inconvenienced the participants and appealed for their understanding in the certainty that the holding of the Consultation at Vienna would enable its objectives to be fully achieved. He thanked the UNIDO secretariat for the efficient and speedy manner in which it had made the necessary arrangements for the change of venue. He stressed that Argentina attached great importance to the System of Consultations as a new and imaginative mechanism for stimulating international co-operation for industrial development.

Election of officers

27. Hervé Bolot (France), Direction des Nations Unies et des Organisations Internationales, Ministère des Relations Extérieures, was elected Chairman.

28. Mohamed Feisal Ibrahim (Malaysia), Commercial Counsellor and Alternate Permanent Representative, was elected Rapporteur.

29. The following Vice-Chairmen were elected:

Josef Bubenicek (Czechoslovakia), Department Director, Federal Ministry of General Engineering

Manuel Calisto (Ecuador), Ambassador Extraordinary and Plenipotentiary and Permanent Representative to UNIDO

Elias D. Mabhena (Zimbabwe), Under Secretary (Heavy Industries), Ministry of Industry and Energy Development

José de Benito Reques (Spain), Director de la Asociación Nacional de Fabricantes de Maquinaria Agrícola (ANFAMA)

Adoption of the agenda

30. The Consultation adopted the following agenda:

1. Opening of the Consultation
2. Election of Chairman, Rapporteur and Vice-Chairmen
3. Adoption of the agenda
4. Presentation and discussion of the issues:
 - Issue 1: The world agricultural machinery industry: scope for international co-operation
 - Issue 2: The integrated manufacture of agricultural machinery and capital goods
 - Issue 3: Main items to be included in model contracts for the import, assembly and manufacture of agricultural equipment, including training: model licensing agreement
5. Conclusions and recommendations
6. Adoption of the report of the Consultation

Establishment of working groups

31. The Consultation decided to establish two working groups in order to discuss the following issues and propose conclusions and recommendations for the consideration at the plenary session:

- Issue 1: The world agricultural machinery industry: scope for international co-operation
- Issue 2: The integrated manufacture of agricultural machinery and capital goods

32. Peter Stewart Barton (Australia), Stewart Barton & Associates, was elected Chairman of the working group on issues 1 and 2.

Issue 3: Main items to be included in model contracts for the import, assembly and manufacture of agricultural equipment, including training: model licensing agreement

33. Mohammed Ramdani (Algeria), Directeur Général, Ministère de l'industrie lourde, was elected Chairman of the working group on issue 3.

Adoption of the report

34. The report of the Consultation, including the conclusions and recommendations, was adopted in plenary on Friday, 21 October 1983.

Documentation

35. Documents issued prior to the Consultation are listed in annex II.

II. REPORT OF THE PLENARY

Speech of the Deputy Director of the Policy Coordination Division and Head of the Negotiations Branch

36. The Head of the Negotiations Branch first recalled the main substantive activities of UNIDO, namely technical assistance programmes, industrial studies, technology programme and the System of Consultations, and their interrelations. He explained that the sum total of the experiences obtained from those activities was considered by Task Forces on priority sectors of industry that were chaired by the Division of Industrial Operations. In that way, consultations could draw on the considerable interdisciplinary knowledge available at UNIDO. He described the System of Consultations as a dialogue at the sectoral level that had four main characteristics:

(a) Wide participation that included representatives of government, industry and labour from all member countries who examined general and specific problems of a given sector and suggested possible solutions to them;

(b) Decision-making on the basis of consensus at the level of participants and of the Bureau of the Consultation, with regard to the report of the Consultation that included conclusions and recommendations to the Industrial Development Board of UNIDO;

(c) Continuity insofar as a Consultation was not an end in itself, and that problems covered were analysed and discussed until solutions beneficial to all interested parties were found;

(d) Providing a forum where problems could be tackled continuously from a policy, economic, financial, social and technical point of view.

37. In referring to the subject matter of the current Consultation, he recalled the continuity of the consultation process since the First Consultation had been convened at Stresa, Italy, in October 1979, notably through the activities related to the meeting on co-operation between developing countries (Beijing, China, September 1980) and to the First Regional Consultation on Agricultural Machinery in Africa. Those activities, which included country experiences, studies and surveys based on interviews with entrepreneurs in several European countries, had led to the following conclusion: No progress would be made without mutually beneficial international co-operation in which both commercial and industrial relations were taken into account.

38. On the subject of mechanization, he stressed that there were several key elements to be taken into account, notably repair and maintenance and supply of spare parts; also, he recalled the implications of contracting foreign loans that were often tied to the purchase of capital goods and did not provide for the financing of training and other facilities and services that were required for the creation of the necessary industrial environment. Various aspects of co-operation between developing countries were also evoked.

39. In conclusion, he felt that the many constraints that he had mentioned were an important argument in favour of organizing mutually beneficial international co-operation. The role of small- and medium-scale enterprises in such co-operation had become clear from the survey of European enterprises carried out by UNIDO. In that connection, he proposed that the Consultation consider that:

(a) The best solution to the problems of the majority of developing countries, being small, was product diversification and multi-purpose production;

(b) A framework for industrial co-operation should be elaborated to ensure the balancing of interests of the parties, taking into account both commercial and industrial relations.

Results of a survey of European enterprises

40. The Chairman requested a representative of the UNIDO secretariat to summarize the findings of a survey conducted in 1983 in France, the Federal Republic of Germany, Italy, and the Netherlands by interviews with representatives of national associations of agricultural equipment manufacturers, industrialists (principally from small- and medium-sized enterprises but also some large companies), technical centres, and universities and engineering firms.

41. The survey had confirmed the interest of the European partners in markets in the developing countries and their desire to take part in the efforts of such countries to industrialize agricultural machinery production. It had also confirmed the existence of major obstacles and a reluctance to become involved in co-operation for fear of failure or risks that were difficult to assess. On the other hand, a consensus had emerged with respect to the desirability of versatile production units for agricultural equipment.

42. The survey had found that small- and medium-sized enterprises could transmit many innovative ideas and had the necessary flexibility to meet the needs of developing countries using new forms of industrial co-operation. However, being aware of the difficulties of the industrial work were cautious about setting out on that new path.

43. A main problem was the lack of information, including that related to the possibilities for co-operation with large international firms for purposes of complementary production through sub-contracting in the markets of the developing countries, on the partners in and the needs of developing countries, techniques to be applied, and availability of training, and repair and maintenance facilities.

44. The survey had found that the large companies of developed countries provided their partners with financing, staff, technology, production equipment, and often political support. Despite that, they had difficulties to overcome, such as the lack of the necessary industrial environment in many developing countries.

45. With regard to institutions and agencies involved in agricultural development and industrialization of developing countries, the survey had confirmed their wish to participate in the industrialization of the developing countries through co-operation with the small- and medium-sized enterprises of the industrialized countries. Furthermore, they considered that the products supplied to developing countries were often not adapted to local conditions. They felt that new techniques must be developed, taking into account the principles of simplicity and sturdiness, and that specific, original materials were needed. Those institutions had also considered that the diversification of production and the versatility of production units were very important if the agricultural machinery market was to be expanded to cover agro-food equipment needs.

46. The survey, therefore, constituted an initial basis for discussion, providing information on the position of a part of the "supply side" of industrial co-operation, which should also include producer developing countries. It was felt that the Consultation was an opportunity to react to that position and to clarify points of view and objectives of the developing countries vis-à-vis industrial co-operation. The identification of the common points and differences as between the supply and demand side should lead to a selection of priority actions, and possibly to the elaboration of a framework in which the various parameters conditioning co-operation between small- and medium-scale industry in the developed and developing countries would be taken into account.

47. A working paper containing the principal results of the survey conducted by UNIDO was circulated to all participants for their information.

Presentation of the issues

48. Having recalled the activities undertaken by UNIDO following the First Consultation in 1979 (see Background to the Consultation, paras. 2 to 6), a representative of the secretariat introduced issue 1 (ID/WG.400/1 and 3) and issue 2 (ID/WG.400/5 and 6).

Issue 1: The world agricultural machinery industry: prospects for international co-operation

49. Issue 1 dealt with the problem of international co-operation, focusing on the areas and means of international co-operation that would permit the resolution of the current situation, open new markets, develop internal industrial capacities of developing nations and respond to world agricultural needs and rural equipment, while respecting the mutual interests of the parties involved.

50. Among the subjects covered in issue 1 were:

(a) The influence of the strategies of dominant firms on the area of international co-operation;

(b) The relationship between the evolution of models of agricultural mechanization and the future of the agricultural machinery industry;

(c) The determinant role of States for the future of international co-operation;

(d) The necessary renewal of the agricultural machinery industry considering the needs of countries and the most needy farmers.

51. On that basis, four main points were proposed for discussion by participants to the Consultation:

(a) The influence of the strategies of enterprises on aspects of international and regional co-operation;

(b) The effect of the evolution of agricultural policies and types of mechanization on the agricultural machinery industry and the opening of international co-operation to new partners, in particular small- and medium-scale enterprises;

(c) The responsibilities of the supplying and receiving countries in the development of mutually beneficial industrial co-operation, which would open new horizons for world industry and for the production of agricultural equipment in developing countries;

(d) The reorientation and priority actions of the international community and the development aid necessary for the promotion of mechanisms adapted to the needs of agricultural mechanization and rural development in developing countries.

Issue 2: Integrated manufacture of agricultural machinery and capital goods

52. With regard to issue 2, UNIDO had undertaken a number of surveys, diagnostic analyses, and techno-economic missions in the developing countries with special reference to agricultural machinery and allied industries. The

overall analysis indicated that the major problems faced by most developing countries were (a) under-utilization of the installed production capacities; (b) limited product range; and (c) low quality and high cost of production.

53. The analysis showed that there was a need for the Governments of developing countries to initiate inter-ministerial, multi-disciplinary programmes of action in order to promote the engineering activity in the public and private sectors, and to achieve intermediate and long-term objectives.

54. It was stressed that production of agricultural machinery should be considered an integral part of national industrialization including the promotion of engineering and capital goods manufacturing programmes. It was, therefore, essential to develop programmes of product diversification and to introduce batch-level manufacturing. Combined production could be established in multi-product production plants with a view to accelerating the development of the engineering and capital goods sectors including agricultural machinery.

55. There were several major advantages to multi-product production plants: mastering diversified production techniques, maximizing existing production capacity and developing a well-balanced industrial infrastructure in terms of design, engineering services and training. They also facilitated the utilization of available national basic facilities such as foundries, forges, press works, heat treatment and electro-plating. For many countries that was the only way of initiating significant industrial activities and developing their industrial infrastructure. The establishment of multi-product production routes also required considerable Government support.

56. With regard to programmes of co-operation between developing countries, efforts should be directed towards strengthening local capabilities in the areas of (a) equipment; (b) design; (c) research and development; (d) information; and (e) policy in the agricultural machinery, engineering and capital goods sectors. The linking of national, subregional and regional activities related to production through multi-product plants would be beneficial.

57. He concluded by drawing attention to the four main questions for discussion by the Consultation:

(a) What was the validity, in terms of prerequisites, techniques and institutional support of the multi-product production approach?

(b) To what extent were the following key elements in the multi-product production approach: (i) the design and adaptation of products; (ii) the corresponding plant level production processes and layout; and (iii) production planning and organization?

(c) What were the practical modalities to be included in international industrial arrangements that could be conducive to the realization of the multi-product production approach?

(d) Could a group be established, under the auspices of UNIDO, composed of interested partners, including Governments, producers and recipients, to work out the details of the multi-product production approach and to suggest the best ways for its implementation?

Issue 3: Main items to be included in model contracts for the import, assembly and manufacture of agricultural equipment including training: model licensing agreement

58. Introducing issue 3 (ID/WG.400/4), a representative of the UNIDO secretariat traced the historical background of recommendations on long-term arrangements made by the First Consultation (ID/WG.307/9/Rev.1) related to the elaboration of model contracts. He outlined the developments since then that had led to the presentation of the draft clauses and comments in "Items..." (ID/WG.400/2). He stated that the graduated manner in which Issue 3 had been approached was to provide the greatest possible opportunity for participants to discuss and agree on the necessary elements that would ultimately lead to the finalization of standard contracts. It was felt that that objective could best be achieved by continuing the work of the current Consultation in an international expert group.

59. He further explained that the elaboration of, and agreement on, the draft clauses contained in "Items..." were an essential step towards the achievement of the recommendations of the First Consultation, which had called for the preparation of model contracts to deal with import policies, licensing for local manufacture and joint ventures, taking into account, wherever appropriate, the model contracts under preparation within the framework of the System of Consultations. Those model contracts were seen as more complete instruments of industrial co-operation. It was further pointed out that the

draft clauses and comments suggested in "Items..." had been elaborated in the nature of building blocks so that they could be used to provide guidance in solving the negotiating and drafting problems most commonly faced by the parties for which a large number of developing countries were not adequately prepared.

60. From that point of view, it was felt that the greatest beneficiaries of an agreement on those draft clauses were likely to be the developing countries. However, it also meant that a better understanding of the rights and obligations involved would benefit all parties by creating stabler markets and longer-term relationships.

61. He drew attention to important and specific clauses relating to the purchase of agricultural machinery and its assembly and manufacture in developing countries, and stressed the importance of training to industry and to the agricultural machinery sector in particular.

62. The participants were invited to review and discuss the document presented with a view to reaching conclusions and recommendations.

Summary of discussion

At the opening plenary session

63. In approaching the general problems of the development of the agricultural machinery industry in developing countries, participants stressed the need to consider the sector in its broadest sense because of its interlinking role with national strategies for the development of food production, agro-industries, rural areas and industrialization. The establishment of multi-product production units, such as those suggested by the secretariat, was considered to be a worthwhile approach for many developing countries. Covering a wide range of machinery from the simplest to the most sophisticated equipment would require the involvement of new partners and new forms of international co-operation. Such new partners could include small- and medium-scale enterprises in developed countries that could contribute to the realization of that new approach to international co-operation. A few participants remarked that those enterprises were more

flexible and able to better meet the needs of the developing countries through the provision of equipment that was adapted to the wide range of their different requirements. However, it was noted that the involvement of those enterprises required considerable support at the national level in the developed countries.

64. Several participants considered that the integration of the development of agricultural machinery and of rural areas required a global approach within which diverse activities could be co-ordinated and organized. They considered it necessary to create the necessary industrial environment, including production units, the provision of service units, training facilities, and repair and maintenance. The role of small- and medium-scale enterprises in developing countries was considered crucial to the creation of that industrial environment.

65. One participant suggested that it would be useful for UNIDO to undertake an assessment of the real needs of developing countries and of the potential of the developed countries to satisfy those needs. That would lead to improved knowledge with regard to markets and commitments from the parties concerned in international co-operation.

66. Several participants gave examples of the experiences of their own countries and of the contributions made to those efforts through international co-operation. They stressed, inter alia, that there was a need to provide more concrete information on that sector. It was also pointed out that existing production units often needed to be modernized through the introduction of more up-to-date technology.

67. With regard to co-operation between developing countries, a specific suggestion was made that UNIDO carry out a survey of the experience of some developing countries for the benefit of other developing countries. It was noted, in particular, that the development of equipment by developing countries for tropical agriculture was promising since often the equipment provided by developed countries was only suitable for temperate climates.

68. Participants generally appreciated the quality of the UNIDO documentation for the Second Consultation. However, one participant considered that the role of Governments was often over-emphasized, while

another felt that the checklist of clauses should not be of a normative nature; rather it should be used as a reference for potentially interested parties. It was also suggested that the secretariat should take into account the work of other institutions in the area of contractual arrangements.

At the closing plenary session

69. In reference to the recommendation to establish a group of experts on the multi-product production approach to the development of the agricultural machinery industry, the representative of India extended an invitation to UNIDO to convene the first meeting of the expert group in India, and to hold a meeting for developing countries on design, manufacture, training and various aspects of agricultural machinery and its integration with the capital goods industry in the latter half of 1984. To finalize the detailed programme, he suggested that a team from UNIDO visit India to work out the detailed programme.

70. With regard to the recommendation contained in para. 15 above, a representative of the secretariat stated that its interpretation of that recommendation was that it asked countries to provide information on increased food production and industrialization. That information would be passed on to participants at a next Consultation.

71. One delegation expressed concern with regard to the establishment of expert groups and the implementation of the recommendations adopted by the Consultation in view of their possible financial implications.

III. REPORT OF THE WORKING GROUP ON ISSUES 1 AND 2

Issue 1: The world agricultural machinery industry: prospects for international co-operation

72. The participants recognized the need to develop international co-operation in the agricultural machinery sector, stressing, in accordance with the analysis presented in Issue Paper 1 (ID/WG.400/3), the need to take the following factors into account:

(a) The strategies followed by the various economic agents in light of current economic difficulties;

(b) The affirmation of the specific and diverse nature of the needs of the developing countries;

(c) The importance of the role of South-South co-operation together with North-South relations.

73. The discussion centered on the questions proposed by the UNIDO secretariat in Issue Paper 1.

Given the current difficulties of the sector, in what ways do the strategies of firms influence the prospects for international and regional co-operation?

74. While many of the participants agreed in acknowledging the clear slow-down in the agricultural machinery industry, both in the industrialized and the developing countries, opinions differed with respect to the impact that the slow-down was likely to have on international industrial co-operation. One participant emphasized that the increasing under-utilization of existing capacity heightened competition between the major world manufacturers and stimulated their interest in specific potential markets in the developing countries and the transfer of technology to those countries. Others, however, stressed the tendency for such firms to fall back on their home bases and markets. Some participants stressed the difficulties encountered by small- and medium-scale enterprises, which were particularly sensitive to the aggravation of economic and financial risk. Other participants emphasized their role and capacities as industrial partners, particularly through groupings and with the support of their Governments. One participant noted that in all cases the involvement of firms of the offering countries was prompted by their expectation of a financial profit in the context of limited and controllable risks.

75. It was noted that, in general, the problem of North-South co-operation was accentuated by the divergence between the tendency in the industrialized countries to move towards the very capital-intensive large-scale production of sophisticated machinery and what the developing countries regarded as a priority need for less complex equipment suited to local conditions and manufactured in small- and medium-scale production units. As a result of the economic situation, those countries were looking to transitional technology that would also satisfy the concern for better control over the growing complexity of mechanization. Such factors prompted some participants to underline their interest in South-South co-operation.

How does the development of agricultural policies and types of mechanization affect the future of the agricultural machinery industry and the opening up of international co-operation to new partners?

76. The UNIDO secretariat stressed the repercussions of agricultural policies on the orientation of mechanization. It distinguished between three main mechanization models:

(a) Mechanized cultivation of the major agricultural products, referred to as extensive mechanization of agricultural products from large farms for export or for immediate supplying to urban populations. That type required the heavy equipment and machines as used in the industrialized countries;

(b) Intensive mechanization, which was applied in much smaller agricultural production units for the production of a range of machinery and equipment covering both agricultural mechanization and equipment intended for primary processing;

(c) Mechanization geared to the development of agricultural production and also rural development. A very wide range of machinery and equipment was called for, but those were less complex than those mentioned earlier.

77. The priority assigned to one or other option had repercussions on the selection of partners for industrial co-operation. One participant pointed out that heavy mechanization often appeared to be a compulsory stage in agricultural modernization. Various participants mentioned the development of the agricultural machinery industry following the rise in the mechanization of small farms.

78. Others stressed the need to make a clear distinction between the diversity of demand in terms of products and of technological levels, in order to adapt industrial supply to the specific domestic demand. The observer of FAO welcomed the attention given in UNIDO documentation to the linkage between agriculture and industry and to the role of farmers.

What were the essential reciprocal responsibilities of the "supplying" and "receiving" States for the development of mutually beneficial industrial co-operation, creating outlets for world industry and the manufacture of agricultural equipment in developing countries?

79. An observer emphasized the need for a well-defined policy framework in each developing country, specifying the nature of and the interrelation between national options in agricultural and industrial matters. The existence of such a framework determined the nature of the industrial partners and the possible forms of co-operation. Many participants emphasized the

importance of a commitment by the Governments of developing countries in the context of encouraging the establishment of relations with industrial partners, guaranteeing the existence of markets and participating in financing and in sharing industrial risks.

80. One participant gave an account of his country's experience in establishing a national development plan for the agricultural machinery industry comprising various priority elements, particularly with regard to training, research and development, and regional co-operation.

81. The importance of training users and designers was frequently stressed by several participants.

82. One participant emphasized the responsibility of Governments of developing countries for the creation of a national industrial environment. Some participants highlighted the need for a commitment by the "supplying" countries for motivating some partners (small- and medium-scale enterprises), strengthening appropriate financing mechanisms and adapting offers to the needs of the requesting countries.

83. The majority of the participants both from developing and developed countries emphasized the essential role of information in strengthening mutually beneficial industrial co-operation: knowledge of needs and markets (particularly in association with farmers' organizations), knowledge of the results of experiments and conditions for use, knowledge of the nature of the partners and products offered, investment conditions, local industrial partners, information on costs etc.

84. Several participants also stressed the role played by existing information exchange networks, for example in Asia, in the dissemination of the results of experiments to all parties concerned with agricultural machinery.

85. Several statements emphasized the need to carry out a precise assessment of needs, in terms of products and technology in purchasing countries, and of the industrial capacity available in supplying countries in terms of products, components and research and development.

86. In order to ensure continuity and to translate into operational terms the recommendations of the Consultation, many participants suggested the establishment of a permanent committee under the auspices of UNIDO consisting of a small number of experts drawn equally from developing and developed countries.

Issue 2: Integrated manufacture of agricultural machinery and capital goods

87. With regard to issue 2, a representative of the secretariat said that it concerned the linking of the manufacture of agricultural tools, implements and machinery with the manufacture of related capital goods and allied engineering items, within the framework of national policies and programmes. He outlined the product spectrum of the term agricultural machinery and the relevant levels of production. The desirability of expanding and diversifying production through multi-purpose units, particularly at small- and medium-scale levels, was stressed. In that context, the optimum utilization of installed capacities, production links with basic facilities such as foundries, forging, heat treatment and tool rooms, and ancillary industries with backward-forward linkages were emphasized. In order to achieve integrated development, it was suggested that domestic design and adaptation capabilities and allied common engineering support services be strengthened. The prerequisites in terms of necessary governmental action and international industrial co-operation between developed and developing countries were stated. There were four basic points of discussion.

What was the validity, in terms of prerequisites, techniques and institutional support of the multi-product production approach?

88. The participants generally welcomed the concept of multi-product production units as a most efficient way to achieve local production, higher utilization of installed capacity and promotion of greater subcontract arrangements. Their role in establishing manufacturing interlinkages between agricultural machinery and capital goods, including allied engineering products, was stressed.

89. The following elements were considered by a number of participants as crucial in the promotion of multi-product production units: identification of products; rationalization of product mix and production volume; determination of the level of engineering activities and production technology; proper

control of stock levels in order to minimize capital tie-up; higher level of management; possible horizontal integration and local sub-contract arrangements; market information; market development; marketing systems; changes in ways and means of technology selection and transfer; financial allocation; political will; infrastructure; and training. Also important were the following: expansion of metal-working industries and forging plants in the general engineering sectors; upgrading of rural entrepreneurship through blacksmiths and institutionalized training; and integration of agricultural machinery with a limited number of allied engineering products of similar technology.

To what extent are the following key elements in the multi-product production approach: (a) design and adaptation of products; (b) corresponding plant level production processes and layout; and (c) production planning and organization?

90. Design and adaptation. A number of participants pointed out the need to identify sources for product design and possible institutionalized information dissemination mechanisms. One participant mentioned that in the absence of suitable design and basic facilities, the promotion of multi-product production units would be seriously affected. He suggested establishing regional and sub-regional centres for design and manufacture. In that context, an observer mentioned the activities of the African Regional Centre for Design and Manufacturing, located at Ibadan, Nigeria. Several participants pointed out the need for promotion of national centres and their interlinkage with regional centres. Some participants requested UNIDO to establish an information service guide on design and development.

91. A few participants emphasized the need for the training of designers and disseminating information on engineering design. Existing design and testing centres in developing countries should be used for specific categories of implements. One participant observed that design concepts could originate from end-users.

92. Plant-level production processes and layout. A participant said that multi-product production units were suitable for simple and intermediate level products with emphasis on small- and medium-scale batch-level production. One participant stressed the importance of plant layout and process planning, jigs, tools, fixtures etc.; and industrial engineering and manufacturing drawings within the overall context of multi-product production units.

93. Production planning and organization. Some participants suggested that a multi-product production unit need not be located under one roof. Another participant requested UNIDO to work out specification parameters and the scope of such units at a national level.

What were the practical modalities to be included in international industrial arrangements that could be conducive to the realization of the multi-product production approach?

94. One participant said that multi-product manufacture existed in many developing countries in terms of components and repair parts, but that its extension to include finished products was more difficult. There was a role for both small- and medium-scale firms in developed countries. He felt, however, that such firms needed the connection with large firms in order to venture into co-operation with developing countries.

95. One participant underlined that industrialized countries should assist developing countries in increasing the share of locally manufactured components. Assistance to develop multi-product production and basic facilities rather than simple assembly operations should be extended.

96. One participant strongly supported enhanced South-South co-operation and suggested a more elaborate discussion on that subject.

97. A few participants suggested a survey in developing countries of the needs related to the establishment of multi-purpose production plants.

98. One participant suggested the establishment of an information network at national or subregional level. A participant brought to the attention of the Working Group the activities of the Regional Network on Agricultural Machinery in Asia and Pacific. One observer indicated that the current main priority for the participating countries was the definition and implementation of

national mechanization policies. A few participants highlighted the activities of their national institutions at home and abroad and pointed to the information available with agricultural machinery trade associations, agricultural societies and farmers associations of industrialized countries.

99. A few participants proposed a comparative analysis in selected industrialized and developing countries of the successful examples of integrated manufacture of agricultural machinery and capital goods and the dissemination of that information to interested countries.

Could a group be established, under the auspices of UNIDO, composed of interested partners, including Governments, producers and recipients, to work out the details of that multi-product production approach and to suggest the best ways for its implementation?

100. One participant suggested a programme to involve the small- and medium-scale enterprises of industrialized countries in the promotion of multi-product production units and to establish pilot demonstration units.

101. Many participants strongly recommended the establishment by UNIDO of a permanent expert committee to elaborate an appropriate programme in the area of multi-product production units and also assist at national level in aspects involving material supply, design and development etc.

IV. REPORT OF THE WORKING GROUP ON ISSUE 3: MAIN ITEMS TO BE INCLUDED IN MODEL CONTRACTS FOR THE IMPORT, ASSEMBLY AND MANUFACTURE OF AGRICULTURAL EQUIPMENT INCLUDING TRAINING: MODEL LICENSING AGREEMENT

102. The Working Group decided to discuss separately the commercial aspects of the purchase of agricultural equipment and the industrial aspects of the assembly and manufacture of agricultural equipment in developing countries.

103. It was generally agreed that the work of UNIDO in the area of contractual arrangements could provide a useful background for further negotiations not only between partners from industrialized and developing countries, but also between partners from developing countries for negotiating contracts.

104. Participants commended the quality of the documentation. The difficulty of writing a document that dealt with complex technical and contractual matters was generally acknowledged by the participants. Although sufficient time had not been available to examine the document in detail, some participants questioned certain terms in the provisions in "Items..." (part I, ID/WG.400/2). Some participants felt in particular that the provision relating to "latent defect" was harsh on the suppliers; others thought that clauses of that type were common business practice. Some participants stated that the provision on the "most favoured customer" was impractical and imprecise. Yet others criticized "secrecy clauses", "industrial property rights", "sales rights", "supply of parts" and "product improvements" (part V, ID/WG.400/2).

105. One participant indicated that the provisions under "import and supply of spare parts" had not been presented in a sufficiently explicit manner, particularly as regards services.

106. After listening to the clarifications provided by the secretariat, the Working Group agreed that the text relating to those items needed further elaboration and clarification. Several participants stated that, in general "Items..." should provide more explanatory comments in order to avoid any misgivings by potential partners, notably small industries in the developed countries.

107. In the opinion of one participant, the document should provide general guidance to negotiations; other participants emphasized the need to take international contract practice into account, including existing guidelines worked out by national and international institutions, for example, UNCITRAL, WIPO, the World Bank, EEC, ORGALIME, and the regional development banks. Some participants felt that the document should simply consist of an indicative list of items to be considered in negotiating contracts. Others maintained that a mere listing of items would not be sufficient to meet the requirements of many developing countries, and that the preparation of model contracts was required.

108. The wording used in "Items..." was felt by some participants to be somewhat normative and rigid. They particularly felt that small- and medium-scale enterprises in developed countries should not be confronted with overly legalistic texts; others said that legal norms governed daily life and were required for any commercial relations.

109. Several participants insisted that parts of the document be reworded in a balanced and impartial style in order to produce an instrument that was acceptable to both suppliers and buyers of agricultural equipment. Other participants maintained that the bias of the document in favour of buyers in developing countries was justified by the need to rectify their weak negotiating position. According to one participant, a balanced and flexible document would help to achieve long-term co-operation. Another participant expressed inability to adopt the position contained in certain clauses, although he understood that those clauses could reflect a valid negotiating position of potential partners in developing countries.

110. Considerable discussion took place on the title of the document. An agreement was reached to call it the "Indicative list of items to be taken into account in negotiating contracts for industrial co-operation in the manufacture of agricultural equipment".

111. One participant drew attention to the inconsistencies between the five parts of the document. While part I was a mixture of legal clauses and explanations, parts II, III and IV contained no legal clauses and thus represented a more acceptable approach; and part V was a model contract without explanatory notes. Several participants agreed with him, and suggested that the parts should be made consistent.

112. The same participant noted the absence of clauses on technical assistance, which were usually part of licensing agreements, and suggested their incorporation. Another participant said that the part of the document on training required expansion in order to cover, for example, the strengthening of training institutes in developing countries, the training of training personnel, and co-operation in that field between developing countries. One participant informed the Working Group of an integrated training programme provided by his enterprise to developing countries as a new

form of technical assistance. It was agreed that training related to the sector should be reviewed in the context of the activities on training undertaken in the framework of the System of Consultations.

113. Many participants accepted the need for clauses relating to the availability of spare parts, delivery dates and guarantee periods in a contract. However, they felt strongly that the exact time periods would differ from situation to situation and should not be determined in advance. One participant disagreed. He maintained that in the light of his country's experience, fixing a precise period for the availability of spare parts, delivery and guarantee would be most valuable. Others pointed out that an insistence on the time scheduling would ultimately be reflected in higher costs of the product.

114. On the subject of the assembly of agricultural equipment, it was explained by the secretariat that while not explicitly requested at the First Consultation, it was included in the document as for some developing countries such assembly represented an essential transitional phase towards the establishment of manufacturing facilities for agricultural equipment. That part of the document was generally accepted by the participants.

115. Regarding the manufacture of agricultural machinery in developing countries, one participant questioned the applicability of the text to the private sector within free market economies. He felt that the relevant part of the document had not taken into account contracts with subsidiaries, affiliates or joint ventures; in his view it specifically addressed the public sector. Disagreeing with his view, another participant stated that any industrial infrastructure project in a developing country would inevitably involve the Government if for no other reason than the need to obtain foreign exchange. It was clarified that the recommendations of the First Consultation specifically called for consideration of joint venture arrangements and the document should be suitably amended to take that into account.

116. Another participant stated that on the basis of his company's experience, before a product was accepted for manufacture in a developing country it should be tested extensively to ensure wide acceptance.

117. In the opinion of a few participants the document required further study by industrial partners in the developed countries. One participant stated that he wished to submit the document to national competent bodies for comments.

118. One participant suggested that the UNIDO secretariat should compile a bibliography of existing pertinent national and international guidelines.

Annex I

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Annex II

LIST OF DOCUMENTS

Issue papers

Issue No. 1: The world agricultural machinery industry:
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Issue No. 2: Integrated manufacture of agricultural
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Information paper

The agricultural machinery industry: an appraisal of the
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