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Expert Group Meeting for Africa
in Preparation of the Consultation on the
Food-Processing Industry with Emphasis on
Fruit and Vegetable Processing

Tunis, Tunisia, 28-30 March 1989

REPORT*

* This document has not been edited.

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PREFACE

The System of Consultations

The Second General Conference of the United Nations Industrial Development Organization (UNIDO), held at Lima (Peru) in March 1975, recommended that UNIDO should include in its activities a system of continuing consultations between developed and developing countries with the aim of increasing the participation of the latter in world industrial production by means of enhanced international co-operation. Subsequently, the United Nations General Assembly, at its seventh special session in September 1975, supported this recommendation.

In May 1980 the Industrial Development Board decided to establish the System of Consultations on a permanent basis, and in May 1982 approved the rules thereof (The System of Consultations, PI/84), stipulating its principles, objectives and characteristics - in particular:

"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.

The System of Consultations shall seek action-oriented measures towards increasing the share of developing countries in world industrial production and creating new industrial facilities in developing countries contributing to the establishment of a New International Economic Order. To that end, the problems associated with the industrialization of developing countries shall be considered on a continuing basis from a policy, economic, financial, social and technical point of view.

The System of Consultations shall relate to co-operation between developed and developing countries and among developing countries themselves.

The System of Consultations would also permit negotiations among interested parties at their request, at the same time as or after consultations.

Participants of each member country should include representatives of governments, industry, labour, consumer groups and others, as deemed appropriate by each Government.

Each Consultation Meeting shall formulate a report, which shall include conclusions and recommendations agreed upon by consensus and also other significant views expressed during the discussions."

Consultation on the Food Processing Industry with Emphasis on Fruit and Vegetable Processing

The Industrial Development Board, at its second session in October 1986, decided to include the Consultation on the Food-Processing Industry with Emphasis on Fruit and Vegetable Processing in the programme of consultation meetings for the biennium 1988-1989.

In accordance with the decision and the programme of work adopted, the Consultation on Fruit and Vegetable Processing will be convened in Tbilisi, USSR, from 18-22 September 1989.

Preparatory activities have begun at the regional level, including the preparation of documents on the fruit and vegetable processing industry in the Asian and Pacific Region, Africa and Latin America, the organization of regional expert group meetings as well as a Global Preparatory Expert Group Meeting.

CONCLUSIONS AND RECOMMENDATIONS

1. The Expert Group Meeting for Africa, held at Tunis, Tunisia from 28-30 March 1989, in preparation of the Consultation on Food Processing Industry with Emphasis on Fruit and Vegetable Processing to be convened in Tbilisi 1989, fully recognized the importance of the economic and technical problems facing the sector in the region and world-wide as a whole.

2. As a result of the discussions the participants agreed upon the following conclusions and relevant recommendations:

-The agroindustries, in particular the fruit and vegetable processing sector, have a large potential, only partially exploited, to contribute to the economic development of African countries both for local and export markets.

-The linkages between producers (farmers, co-operatives, small land-owners) and industry should be strengthened and improved to assure a flexible, reliable supply of raw material, not subject to seasonal fluctuations or other hindering factors which negatively influence the pricing system and the continuous operation of the processing industry.

-New or improved existing technologies should be promoted to foster continuous supply of fresh products for processing and ensure quality.

-Proper contract and pricing systems and coherent strategies should be developed by those concerned in the fruit and vegetable sectors with the assistance of policy makers government bodies to foster co-operation between raw material producers and industry.

-The quality of the products has to be assured during their production, processing and marketing through quality management in terms of quality control, standardization, testing certification, health requirements, until the product reaches its final destination.

-Co-operation in the field of quality management should be promoted at regional/sub-regional level to take into consideration similar raw materials, climate conditions, infrastructure.

-In spite of the existence of a number of institutions in the region dealing with technology development, there is a lack of awareness and mutual information among the countries and therefore the tendency exists to plan the creation of new institutions involving unnecessary expenses and duplications. An inventory of institutions in the region dealing with technology for food industry, especially fruits and vegetables processing, at different levels (information, research, training) should be prepared by UNIDO, in co-operation with international organizations like FAO, UNCTAD and other African organizations. The inventory should stress the specialities of each institution to facilitate exchange of experience.

-Given the complexity and different requirements of export markets, in particular of the forthcoming 1993 European Common Market, it was agreed that there is a need to prepare the fruit and vegetable processing industry in developing countries to fulfill these requirements resulting from the homogenization, within the EEC, of national legislations.

Information has therefore to be collected and appropriately circulated in order to give to developing countries the possibility of adjusting in advance their industries to meet requirements of production.

It was therefore recommended that UNIDO should follow closely the on-going process of establishing the above new legislation with the purpose of keeping developing countries informed on new prospects concerning processed fruits and vegetables export after 1993 with emphasis on quality requirements.

-The cottage, small scale and rural industries are a reality in the African region which need support and assistance. It is felt that they could be oriented towards the development and improvement of traditional technologies and consequently of traditional products which could find a market abroad. Innovative products utilizing local raw materials should be promoted and presented for export purpose.

-The economy of packaging, being a major problem, requires concerted efforts by all concerned parties in all related areas like transport, standardization, labelling, design, equipment, environmental and economic aspects.

In view of the fact that, with few exceptions, packaging materials are mainly imported, influencing negatively (up to 35-40%) the total price of the product, it is of first priority to keep the amount of import at the optimal lower level. This can be achieved through research focussing on locally available raw material which can be used for reliable, safe and marketable packaging.

UNIDO and other international organizations should promote more exchange of information in this field, provide example of successful import substitutions and organize technical meetings on this subject.

Existing research institutes should be made aware of this necessity so that they orient their research activities towards packaging material, with focus on local, low-cost available materials.

-As far as equipment for fruit and vegetable processing is concerned, the participants agreed that there is a need to design this equipment in a way to fulfill the specific conditions existing in the region. In this connection, closer consultations should be held with equipment manufacturers in developed countries to identify proper equipment design. Another major obstacle to productivity in developing countries is the lack of spare parts and proper maintenance. It was therefore recommended that countries in the region exchange information on a regular basis about suppliers and organizations dealing with processing equipment development.

Also exchange of information about availability of spare parts and new maintenance methods should be fostered among the countries of the region.

-It was recommended by many participants that an extension of technical assistance activities is needed for the countries in the region, with emphasis on the various problems of the fruits and vegetables processing sector. UNIDO's assistance was requested in this respect, together with other UN organizations dealing with technical assistance programmes. It was agreed that follow-up actions of the Consultation meeting should cover this important area.

-Human resource development and training should be concentrated on management operations, and on the personnel dealing with technological processes and development programmes. In this area it was recommended that operational manuals related to training and technological processes should be worked out and utilized at all levels covering specific elements of production.

-By establishing close co-operation on a South-South basis, emphasis should be given to co-operation among countries with similar climatic and agricultural conditions.

-It was recommended that UNIDO, FAO, ITC and other international bodies should make joint efforts for the preparation of the Consultation taking into account the agriculture-industry linkages.

3. It was agreed that in the preparation of the First Consultation, UNIDO's activities should focus on the following main items:

- a) Basic factors influencing the production of processed fruits and vegetables, inter alia:
 - raw material supply;
 - quality requirements and assurance;
 - technological improvements and development including processing equipment;
 - market intelligence, promotion, potentials.

- b) Due to the importance of packaging in the sector, questions related to development of packaging materials, methods, design, supply of materials, with the aim to economize the industry and increase the efficiency.

4. It was suggested that UNIDO and FAO should co-operate closely during the preparation for the Consultation, using the knowledge and experience already accumulated by those two Organizations. Co-operation should also be maintained with other international and regional organizations.

5. The participants expressed their appreciation to the host country for the excellent organization of the meeting as well as to the French Government for the financial contribution which enabled UNIDO to organize the meeting.

I. ORGANIZATION OF THE MEETING

6. The Expert Group Meeting for Africa in preparation of the Consultation on the Food-Processing Industry with Emphasis on Fruit and Vegetable Processing was held at Tunis, Tunisia, from 28-30 March 1989. The meeting was attended by 40 participants from 13 countries, and two representatives from FAO and ITC. (See Annex I for list of participants).

Opening of the meeting

7. At the opening session, the meeting was addressed by Mr. Boudjebel, Secretary of State for Agriculture who welcomed the participants and stressed the importance of the agro-industrial sector in a region like Africa where, because of strong demographic problems, food self-sufficiency is an urgent aim to be reached.

8. He pointed out the efforts of his country toward the increase of agricultural production, the improvement of its quality and the reduction of production costs. Because of urbanization, consumers show a preference towards new food products and industry has to adapt itself to this trend. In Tunisia, a country with a long tradition in agriculture, more than 3,500 enterprises operate in this field. One of the main problems Tunisian agriculture has to face today is the amount of waste, which can reach up to 80% in those developing countries with a tropical climate. The Secretary of State concluded his speech wishing all the delegates a successful and productive meeting.

9. The meeting was then addressed by a representative from UNIDO who, on behalf of the Director of the System of Consultations Division, welcomed the participants and expressed his gratitude to the Ministry of Agriculture for their kindness in hosting the meeting, as well as for their hospitality. He gave an account of the work that UNIDO was carrying out within the framework of the System of Consultations to encourage contacts between the countries in order to promote the industrial and economic development and the process of industrialization.

10. He also referred to the importance of the fruit and vegetable processing industry for many developing countries in general, and the African region in particular. He drew the attention of the participants to the fact that the increased processing of fruits and vegetables in the developing countries of the region would further strengthen the linkage between industry and agriculture. Modern technology in the production of high quality industrial raw materials, storage, packaging, transportation, and industrial processing and utilization of the by-products, standardization, introduction of quality control, inspection and regulation, needed to be intensively employed to derive maximum benefit to the economy. Referring to the importance of the fruit and vegetable processing industry in terms of its contribution to the

gross domestic product and employment in the region, he expressed his confidence that co-ordinated efforts would inevitably help the interested parties to find a successful solution to existing problems and he hoped the meeting would determine those areas which were crucial for the future development of the fruit and vegetable processing industry in the Africa region.

II. SUMMARY OF DISCUSSIONS

11. Mr. Mohammed Harrabi, Director, Group of Canned Food Industries, was elected Chairperson of the Meeting. In introducing the agenda, Mr. Harrabi, recalling the theme touched by Mr. Boudjebel, underlined the results achieved by his country in reducing food waste which, in comparison with the level of the last decade (30%) is now being decreased to 15%. This result has been achieved mainly in an important sector for the Tunisian economy, the tomato sector. The hope, he stressed, would be to reach, through the introduction of new technologies, a 5% waste. With the consensus of all participants the agenda was then adopted and is attached as Annex II.

12. A representative of UNIDO, in his presentation, gave an overall view of the fruit and vegetable processing industry in the world. He emphasized the need to concentrate on the obstacles to development of the fruit and vegetable processing industry and ways and means of their elimination. He also drew the attention of the participants to the perspectives of international co-operation and the role of UNIDO and some other specialized institutions, especially FAO, in the field of fruit and vegetable processing. He noted that joint efforts and co-ordinated actions as well as the proper exchange of information, technology and know-how would be of great value for the efficient resource management and speeding up the development process in the sector.

13. In accordance with the agenda, the Chairperson requested the participants to discuss the documents prepared for the meeting and to follow up with the characterization of the problems affecting the region's fruit and vegetable processing industry. Appreciation was expressed to all participants who submitted reports relating to their own countries.

14. The participants recognized that the linkages between agriculture and industry should be strengthened in a way to assure regular, constant supply of fresh products for the processing industry. Fluctuations in the availability of fresh products for transformation negatively affect the pricing system of raw materials and hinder the proper operation of processing industry. Surplus quantities of products run to waste because of insufficient processing capacity while deficit of products leads to underutilization of equipment.

Although new technologies assist in decreasing seasonal supply fluctuations, they create problems of absorption and storage for those products which cannot be processed immediately or at all. It was therefore agreed that an accurate information system on surplus/deficit should be established so as to orient production in advance.

15. In reviewing the subjects related to quality assurance, both for local markets as for export, the participants expressed concern on the forthcoming European Common Market coming into force the first of January 1993. They felt that efforts should be done in order to prepare industry to new import regulations and requirements through timely information so as to direct production and adjust other relevant aspects of products marketing such as standardization, quality control, packaging, and labelling towards a different legislation in Europe. The participants also felt that more attention should be paid to local markets as well as to intra-regional trade so as to balance possible EEC restrictions.

16. One of the major problems of the fruit and vegetable sector is that related to packaging. The participants pointed out that packaging costs, due to the fact that packaging materials are mainly imported, affect the total price of the product up to 35/40%. Availability of low-cost, local packaging materials, packaging equipment, harmful chemical interaction with content of packaging, design were mentioned by the participants as priority subjects for study and research.

17. The representative of FAO mentioned in this respect a recently held Regional Seminar on Packaging of Food Products - 13 to 18 March 1989, Casablanca, Morocco - organized by FAO in co-operation with the Moroccan Institute for Packaging (IMEC, Institut Marocain pour l'Emballage et le Conditionnement).

18. Within this context the institutional approach to packaging through the creation and strengthening of regional packaging centres was discussed with the participants, in particular giving emphasis to information, research and training activities of these centres. The meeting reached the conclusion that research should concentrate on the utilization of locally available materials which, through appropriate design, could give an "exotic", attractive aspect to the products.

19. The issue of technology was also brought to the meeting's attention. Many participants pointed out their interest in technologies for transformation of tropical fruits such as papaya, mango, passion fruit, still unknown in Africa as well as in sophisticated technologies used in developed countries to give to transformed fruits more and more a "fresh" look and taste.

20. A number of other issues relevant to technology as those related to the legal aspects of transfer of technology, to energy utilization, to training of manpower and to South-South co-operation were discussed in depth. The participants stressed that efforts should be concentrated in the strengthening of existing regional technology centres which can provide countries in Africa with information, training programmes, consultancy and legal advice in all technology related fields. It was therefore recommended that UNIDO, in co-operation with other relevant organizations within and outside the UN System, prepare an inventory of the above centres as first basis for future assistance.

21. The use of new and renewable energy sources made the object of a presentation by three UNDP experts who illustrated to the participants the on-going project TUN/85/004 "Heated greenhouse crops" aimed at utilizing geothermal energy with the purpose of overcoming seasonal fluctuations of tomatoes and watermelons, both products of priority importance for export. Although the products obtained in the geothermal greenhouses are meant for the fresh market, the same technology could be applied for providing constant supply of fresh fruits to the processing industry and therefore bridging seasonal fluctuations leading to equipment underutilization.

22. Continuing the deliberations some of the participants expressed positive remarks on the general abundance of fresh fruits and vegetables in their countries for meeting local needs and export purposes.

Besides, the increase in fruits and vegetables trade in the last two decades was stressed as an important result achieved. The representative of ITC noted the general tendency to overestimate the world market for fruits and vegetables and informed the participants of his organisation activities related so far to fresh fruits and vegetables but already planned for processed fruits.

III. CLOSURE OF THE MEETING

23. At the closing session, the Chairperson thanked the experts for their excellent professional contributions, their efforts and enthusiastic and fruitful participation. He expressed his strong belief that the outcome and recommendations of the meeting would be extremely useful for the preparation of the Consultation on the Food-Processing Industry with Emphasis on Fruit and Vegetable Processing and contribute to fulfilling its objectives.

Annex I

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Annex II

AGENDA

1. Opening of the meeting
2. Election of chairman
3. Adoption of the agenda
4. Introduction by the Secretariat of the Consultation on the Food-Processing Industry with Emphasis on Fruit and Vegetable Processing to be held at Tbilisi in September 1989 and the preparations for the meeting
5. Discussion on the main problems related to the development of the fruit and vegetable industries in the region
6. Discussion on the main issues to be selected for the Consultation
7. Adoption of the conclusions and recommendations

Annex III

LIST OF DOCUMENTS

- Background paper prepared by Yohannes Habtu ID/WG.483/1(SPEC.)
- The State of Fruit and Vegetable Processing Industries in Africa: The Case of Algeria, Egypt, Côte d'Ivoire and Nigeria,
- Background paper prepared by the UNIDO Secretariat ID/WG.483/2(SPEC.)
- Investment Considerations in the Fruit and Vegetable Processing Sector
- Synthèse: Le secteur de la transformation des fruits et légumes en Algérie by Kadir Ait Ouarab
- Transformation des Légumes et Fruits Tropicaux, by J. De Vos
- Experience de la Côte D'Ivoire (Note de Synthèse) by E. Dolly
- Fruits and Vegetables Processing in Egypt by Zenab Hashem Ahmed
- Contribution de la France à la Réunion d'experts pour l'Afrique préparatoire à la Consultation sur l'industrie alimentaire et plus particulièrement sur la transformation des fruits et légumes
- Secteur des Fruits et Légumes transformés au Maroc - Situation et Perspective by Wafae Chraibi
- Status of Fruit and Vegetable Processing Industry in Nigeria by F.A.O. Osinowo
- Situation du Secteur des Fruits et Légumes au Sénégal by Mouhamadou Diop
- Secteur des Conserves des Fruits et Légumes en République du Zaïre by Mbuyu Kabango