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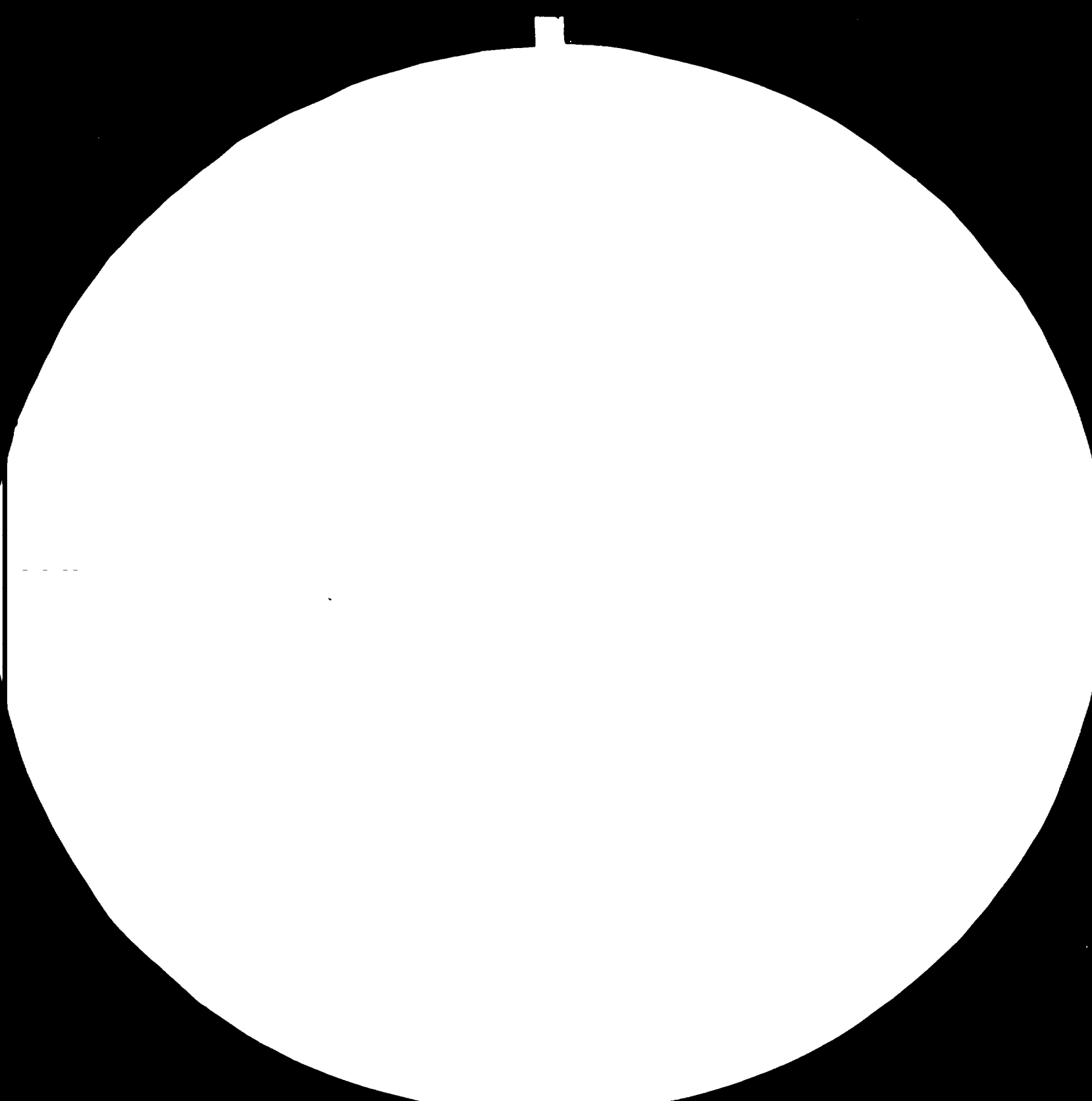
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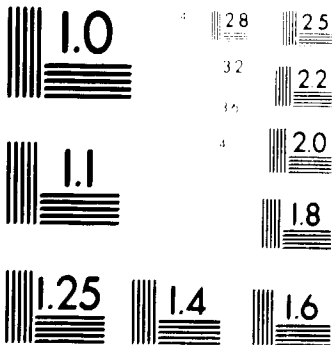
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10. November 1983

A FRAME OF REFERENCE FOR INTERNATIONAL
CO-OPERATION IN THE DEVELOPMENT OF FOOD
PROCESSING INDUSTRY .

"A FRAME OF REFERENCE FOR INTERNATIONAL COOPERATION
IN THE DEVELOPMENT OF FOOD PROCESSING INDUSTRY"
Some Notes

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Silvia Alk-journalista

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"A FRAME OF REFERENCE FOR INTERNATIONAL COOPERATION
IN THE DEVELOPMENT OF FOOD PROCESSING INDUSTRY"
Some Notes

Introduction

1. The First Consultation on the Food Processing Industry having agreed on the importance of coordinating the various stages of the agro-food chain for food industry development, recommended inter-alia that UNIDO should "...develop a frame of reference for international cooperation in this sector." Such a frame of reference would provide policy guidelines for a comprehensive approach to the acquisition of training, technology, financing, marketing, etc.

The idea of a "frame of reference" was inspired during the discussions at the Consultation by the Mexican delegation referring to the Mexican Food System (SAM), 1/ an integrated food system plan aiming at the achievement of food self-sufficiency which was initiated in Mexico in 1980.

The function of the "frame of reference" in the Mexican case was to provide a policy framework 2/ for an integrated development of food production, processing, marketing, distribution, etc., and underline the role and the relationship of the specific sectors of the economy (such as agriculture, industry, commerce, transport, etc.) involved in the achievement of such a goal. 3/

1/ Sistem a Alimentario Mexicano - See Annex 1.

2/ Such as credit and financing, fiscal incentives, public investment, state-supported marketing and distribution, R & D, etc...Plan Nacional de Desarrollo Agro-industrial 1980-1982. pp. 35-45. Comision Nacional de Desarrollo Agro-Industrial.

3/ Sistema Alimentario Mexicano - Pis y ecto N. 1 Marco de Referencia.

2. The purpose of this paper is to collect and assess information material on food processing industry as available with the World Bank, IFC, IDB, OAS in order to contribute to develop the above mentioned "frame of reference."

It has also seemed appropriate to deepen the knowledge of the Mexican experience in integrated development of the agro-food chain through research, exchange of views with professionals (of lending institutions and the academic world) thoroughly familiar with the Mexican experience both in Washington and Mexico.

In addition to the international organizations mentioned above, "The Grocery Manufacturers of America" have been contacted as well as the Agricultural Cooperative Development International to explore, if possible, what is, on the part of the private sector, a "frame of reference" conducive to industrial collaboration.

Given the available financial resources, this is an initial diagnosis.

WORLD BANK

Introduction

The World Bank is a source of vast information on food processing industry for the activities in which it has been involved and for the publications it has undertaken, which, even if not directly, are related to food processing. However, since the Bank does not have "a food processing approach" (which means that activities covering food processing stem from various branches and have not been comprehensively reviewed) collection and assessment of information has been elaborate.

Elements which can be valuable for the preparation of a "frame of reference" can be identified in:

- I. Guidelines for bank lending in single food processing projects, as sorted out through analysis of project documents.
- II. "Agroindustrial Project Analysis" (by James Austin, Johns Hopkins Press), a most thorough analysis and checklist of elements to be considered in agro-industrial project analysis, largely based on material used in training courses for officials of developing countries.
- III. "Food Policy Analysis" (by Timmer, Falcon, Pearson, Johns Hopkins Press) a comprehensive analysis of policy elements aimed at increasing food production and productivity, which, even if it does not consider the role of processing at all, is very valid for the first part of the agro-food chain.
- IV. Case Studies on Industrial Processing of Primary Products - Vol. 11: cocoa, coconut oil, tea, an assessment of the problems involved in and the specific advantages of increasing processing of cocoa, coconut oil, tea in various countries.

I. World Bank ACTivity: Projects and Guidelines

The World Bank does not have a "food processing sector" approach, which means that projects encompassing food processing activities stem from various branches. Loans for food processing development have been made a) by the Agriculture and Rural Development Department; b) indirectly by the Industry Department through IDF lending to local DFC (development finance companies); and finally c) to a minimum extent by the Urban Development Department.

A. Since 1975 the Agriculture and Rural Development Department has made 71 loans that have included food processing components out of a total of 572. 1/

The Agriculture and Rural Development Department (AGR) supports food processing through several channels including loans for the promotion of a specific commodity, integrated rural development, regional agricultural development, and agricultural credit. Typical of lending for commodity development are loans for the production and processing of palm, coffee, sugar, dairy products and milk (outstanding example: Amul dairy-India). Among the loans with food processing components 1% covers cashew nuts, 1% oil milling.2/

I reviewed reports of some of the above mentioned projects with the intent of extracting guidelines for bank lending in food processing. By and large each project is carried out when it is considered financially sound (returns on investment are adequate), economically viable (beneficial to the overall development process: socio-economic returns), technically feasible and administratively workable.

It is worth pointing out that even if the project concerns only one input into the agro-food chain, the analysis aims at insuring that the overall development of the agro-food chain is coordinated (starting from market and marketing requirements down to raw material supply) and the institutions, in the developing country in question, are adequate for the project organization and management.

1/ Data on bank's activity is based on a review of the Bank's activity in food processing which is being conducted (not yet finalized and therefore not official) by the Industrial Strategy and Policy Analysis Section.

2/ E.G., Liberia, 1980. Promotion of palm oil as an export commodity, Loan 1765-0. Nigeria, palm oil mill (1978 Loan 1591); Tanzania; establishment of five cashew nut factories, IDA (1978) Credit 796-0; Malaysia, palm oil and cocoa mills (1981), Loan 1960-0, etc., etc.

In this comprehensive approach to agro-industrial development a very important part of the analysis is devoted to Government policies and infrastructure affecting the project success (price policies, agricultural and credit policies, transport, marketing organization, etc.) 1/ For instance, in the case of an "Oilseed Processing Plant" Syrian Arab Republic (Nov. 2, 1978), the Bank - inter-alia - looks into the Agricultural Policies (e g., Pricing Policies, Institutional Capability) as well as into Oilseed Processing Industry; in the case of a Sugar Rehabilitation Project" in Jamaica (Jan. 19, 1978), the lack of constant supply of cane sugar is considered a project risk and therefore it is considered imperative that the government takes steps to ensure consistent cane supply for efficient sugar factory operation.

With regard to training and acquisition of technology no general guidelines can be extracted from project reports since needs vary from project to project. Training needs are decided case by case for the project implementation, the selection of technology is tailored to market requirements and based on cost comparatively advantageous.

1/ These conclusions are based on scanning few project reports.

B. Industrial Development Finance (through Development Finance Companies) to Food Processing

Since 1965 491 million dollars (10% of funds either authorized or disbursed by IDF to local DFC's) have been directed to food processing through 1500 subloans to food processing activities worldwide. 1/ The largest recipients of IDF lending in the food sector are sugar and sugar related products.

Data on food processing subprojects is very limited 2/ and does not permit analysis of issues such as training and transfer of technology. A review of the few subprojects on which relatively detailed information exists reveals that, even if the project relates to one factor of the agro-food chain, the analysis looks into all the factors: market and marketing, procurement of raw material, processing. E.G., in the case of a loan requested for food processing machinery (Kenya: Kageene Posho-Mill Mbev, 1980), analysis of raw material supply as well as on the market demand for the processed product is made. In the case of a sugar rehabilitation project in Kenya (1978) in Miwani, Mu Loroni, Chemecil and Rauini, the proposed rehabilitation was considered by the Bank a more efficient way of increasing production than building new factories (as proposed by private groups) because new factories would lead to large surpluses for which there was no market. In the case of a project in Kenya, IDB-Gada Oil Mills Limited, involving the establishment and operation of a vegetable oil mill in Eldoret for the extraction and refinery of vegetable oil, the report points out that the Government policy encourages farmers to grow vegetable oil seeds (to substitute for palm oil importation) and that the technology chosen (coming from Desmet, India) is appropriate to the domestic market demand.

1/ World Bank Review of Food Processing Activities: Op. Cit. From the same source the following details: (See attached.)

2/ Contained in the PPAR (Project Performance Audit Report) and PCR (Project Completion Report) of the local DFC. I went through the PPAR and PCR of Liberian Bank for D and I; Nigerian S.D. Bank, Senegal Sofisedit, Ethiopia AIDB; Kenya IDB; D. Bank of Mauritius; L. Bank of Sudan, Zaire Societe Fin. de. D.; East African Development Bank: subloans on food processing were only mentioned by their titles. No details. Actually DFC's are under no obligation to send single sub-project's reports unless the subproject in question bypasses a certain ceiling.

(Continues Footnote 1/ to Page 6.)

Food Processing Subloans in Africa

Since 1969 the Bank has made 64 loans to DFC's in 27 countries. Total commitment \$579 million representing 7% of total IDF lending. The food subsector has received 19% of Bank financed DFC loans.

Food Processing Subloans in Asia and Pacific

Since 1965 72 loans to DFC's in 12 countries. Total commitment about \$2,976 representing 38% of IDF lending. Food subloans number 12% of total subloans (largest subloans to Philippines).

Food Processing Subloans in Latin America and the Caribbean

Since 1966 47 loans to DFC's in 17 Latin American and Caribbean countries. Total commitments to the region amount to some US \$1,949 million, 25% of total IDF lending. 10% subloans were for creation or expansion of food processing activities.

Food Processing Subloans to EMENA

83 loans to DFC's in 16 EMENA region countries. Total commitment to the region amounts to approximately 2.430 million, or 31% of IDF lending. Food processing subloans comprise 12% of lending. Sugar processing receives 27% of all funds committed to food processing.

Algeria received an IDF loan in 1975 for \$40 million. The type of activity was not recorded in the subloan register for this loan.

Morocco has received 12 IDF loans since 1966 and made 50 food subloans, the largest number in the region. (20% larger) The largest food subloan in the country was a \$6 million loan to Sucra for a fully integrated sugar refinery complex. (More details on this project in following pages.)

In the case of various projects concerning bakeries in Kenya 1/ and Ivory Coast 2/ the analysis covers - inter alia - the market demand, production process and procurement of raw material. The same systematic approach is valid for a "frozen fish industry" 3/ project in Ivory Coast where, (financed by BIDI) the procurement of fish is assured through imports controlled by eight enterprises of which the principal is Afri-Pêche. 4/

Little evidence exists in either PCR, PPAR 5/ or other Bank reports with which to evaluate the relative success of subloans in IDF projects 6/; however, the existing records show that sometimes they have failed for a lack of effective coordination among raw material supply, processing and marketing. In the case of SUCRAFOR (BNDE - Loan 736-Mor) a fully integrated sugar refinery complex in E. Morocco, the agricultural performance was inadequate which meant that the refinery had to operate below half of its full capacity. The failure was due to the fact that 1) prices paid to the farmers were not competitive enough in a region where agricultural labor was scarce; and 2) land operated to cultivation was too limited.

As a follow up the government was reassessing its policies with a view to increasing sugar selling prices and prices paid to farmers, supplies of raw materials to SUCRAFOR from surplus areas and opening up new land for cultivation.

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- 1/ E.G., "Manufacture of Bread at VOI" Kenya Ind. Ext. Limited, Subproject N. 406, January 1981. Kenya IEL with IDF financed 20 bakeries.
- 2/ E.G., "Gaufricoire" BIDI, Subproject No. 305.
- 3/ "Stockage, Vente et Distribution de Poisson congele" Poissonerie de Yopougon", 1980.
- 4/ The project is based on imported fish "temporarily" while the government is studying measures to develop artificial and continental fishery. No issue is made in this project as well as in the ones previously considered (bakeries based on imported flour) over imported raw material.
- 5/ See under footnote 2 of page 6.
- 6/ Bank Review, Op. Cit.

II. Agro-industrial Project Analysis

The Economic development Institute (EDI) of the World Bank has published a very useful book, "Agro-industrial Project Analysis" 1/ (copy sent) that provides a framework 2/ for analysing and designing agro-industrial projects. Agro-industrial projects are by nature intersectoral: "Agriculture and industry must be seen as being integrated if an appropriate framework for agro-industrial project analysis is to be developed." The author stresses the importance of systems analysis (what UNIDO would call "integrated approach") for the overall design and implementation of agro-industrial projects, which means examining at the same time (a systematic approach to) marketing, procurement, and processing. As the author states, the scope of the book is limited first of all because it provides one part of the framework for agro-industrial project analysis; second, because the orientation is toward the micro-level analysis of industrial projects. The author stresses, however, that it is important to recognize that the viability of specific projects can be significantly affected by macro-level policies.

Macro-level policies likely to affect agro-industries are:

1. International Trade Policies

Policy measures to encourage exports, fiscal incentives (tax rebates) and monetary incentives (preferential foreign exchange) to attract central and managerial resources to agro-industrial projects. Policy measures to encourage imports for the agro-industry such as packaging.

2. Regional Development Policies

Fiscal incentives and investment in public sector infrastructure can attract industry to new regions.

3. Research

Government-sponsored research programs in conjunction with industry, can create the production information vital to project development. Market research, e.g., is frequently industry related and too costly for a single firm to conduct.

1/ James E. Austin, "Agro-industrial Project Analysis," Johns Hopkins University Press.

2/ "The Analytical Framework for Agro-Industrial Project Analysis" contains three components, comprises systems, financial and economic analysis. The book focuses on the first one since literature on financial and economic analysis is abundant.

4. Quality Control

For export oriented agro-industries, governments and industries should ensure that the export product is of a high quality by setting standards and instituting inspection systems.

5. Income Policies

Support prices to farmers or price controls on finished consumer goods can affect agro-industrial project profitability.

6. Monetary Policy

Interest rates, credit availability and also inflation will influence project economics.

7. National Planning

The feasibility of an agro-industry can be influenced by its relationship to overall national development plans. Single policy measures have already been mentioned (see under previous paragraph). The role that a government wishes foreign investors to play can also be significant for agro-industries.

After an introductory chapter (overview) the book concentrates on the Marketing Factor (Chapter 2), the Procurement Factor (Chapter 3), the Processing Factor (Chapter 4). In each chapter the primary elements of the Factor under consideration are reviewed. Furthermore, Appendix B of the book contains a checklist of critical questions for agro-industrial projects analysis.

The marketing factor is the logical starting point for project analysis: unless there is adequate demand for a project, it has no economic basis. The author comments that a production bias has historically dominated agricultural and agro-industrial project analysis and markets were considered secondary issues. Too often projects have failed for a mismatch of production and marketing.

Procurement should be able to supply an adequate quantity of raw material of an acceptable quality at the approximately time for a reasonable cost; the procurement system's overall effectiveness depends on its organization, which - depending on the circumstances - can either take the form of backware vertical integration, 1/

1/ On the advantages and disadvantages of backward vertical integration, see p. 108-109.

or cooperatives or farmers' forward integration. 1/ The processing stage is operationally central to an agro-industrial enterprise as it links the project stages together. Despite the diversity of processing operation of food and fiber, there are several common factors that should be considered, the first of which is selection of processing technology, which must be tailored to fit the market's requirements.

1/ p. 108-116.

III. Food Policy Analysis

Even if a food policy analysis does not fall under UNIDO's mandate, this book can be useful on two counts:

A. It gives the elements of a workable food policy, which are also valid for a food processing policy:

- a. Creation of productive jobs for relative unskilled rural or urban workers. These jobs provide 2 components of the answer to the food problem: increased economic output (which brings about economic growth), greater earned income (which increases purchasing power).
- b. Price incentives for food production.^{1/}
- c. Public investment in agricultural productivity.
- d. Targeted subsidies.

Subsidies are needed because the poor do not share the resources to purchase adequate amounts of food from the market. Targeting is essential because the society does not have the resources to subsidize food for the entire population.

B. It recognizes that a sectoral food policy strategy designed to teach the four basic objectives of the food sector (mentioned above) is not enough. In the long run macro-economic forces are too pervasive and too powerful for micro-sectoral strategies to overcome. E.g., the miller's choice of technique for rice milling will depend on nearly every important macro-economic variable in a country: foreign exchange rates, interest rates, wage rates and rice prices.

^{1/} How a government should choose a price policy which can on one side attract investment in agriculture and on the other make the price of food acceptable and competitive for consumers is of paramount importance for the economics of processing, too. E.g., Brasil is the only developing country that has succeeded to compete with the USA on the international market for soya oil and cake, thanks to a policy of subsidies to the producers which has enabled it to sell it at a lower price than the USA.

Foreign exchange rates dictate the cost of imported machinery for the rice mill, interest rates determine the cost of the loan to pay for the machinery and the building, wage rates determine the labor costs of running the establishment after it is operational, and rice prices determine the value of the additional rice produced from each ton of paddy input by more technically efficient facilities.

IV. Case Studies on Industrial Processing of Primary Products

Vol. 11 - Cocoa, coconut oil, tea. The World Bank has recently undertaken a joint research project assessing the problems involved in and the potential benefits of specific projects of increasing processing of export crops. The project has involved six case studies of individual products of interest to a broad spectrum of developing countries, three of which concerning food.

Each case study addressed three important questions:

1. What factors are most influential in determining the particular location of the various processing chains?
2. What gains and losses would result from the limitation or expansion of local processing?
3. Can selected policy measures lead to an efficient shift in the location of the processing activities so that a greater share of the value added would accrue to developing countries supplies?

The conclusion contained in each study with regard to the third issue might be helpful in the preparation of a "frame of reference."

In the case of coconut oil refining, the main policy recommendation of international character is that a major effort should be made to reduce, if not abolish, the escalating tariff protection for refined and further processed vegetable oils in certain developed countries. ^{1/} The main recommendation of domestic character is that the government of the exporting country should encourage refining for exports through incentives such as differential export duties and/or broader tax concessions to the refining industry.

In the case of cocoa processing, the most important domestic policy issue concerns the supply of raw cocoa beans to the domestic processing factories, with respect to price, quality and quantity. ^{2/} Subsidies for the price of raw

-
- 1/ The evidence suggests that escalating tariffs have been highly effective in restricting imports of refined vegetable oils by developed countries.
 - 2/ Some of the domestic policies adopted by the bean producing countries have not encouraged the transfer of processing from the consuming countries to consuming countries. E.G., Ivory Coast domestic processors

beans will enable the domestic processor to compete with the processor in developed countries that can buy beans at the lowest prices. 3/

A reform of the organizational structure of the domestic industry in developing countries seems also desirable as domestic processors often run short of beans and operate below capacity because they are treated as individual purchasers by the cacao marketing boards (from which they depend for their purchase) that give preference to the export market.

A major issue at the international level is market access, not so much in terms of tariff barriers as of competition with the multinational companies which control the market. (80% of the production of cacao based products is controlled by 12 multinational companies.) The ability of the bean producing countries to compete with them will determine whether they can increase their share of world trade in processed products. The competitiveness of developing countries' processors would be enhanced by their buying beans at preferential prices.

2/ (Ctd.)...were sold subgrade beans at the f.o.b. prices of quality beans, further export taxes were levied on processed products (not on beans). On the contrary, in the presence of a domestic policy favoring domestic processing like in Ghana, the prices of beans for domestic processing are kept lower than the international (f.o.b.) price. This is very important in the case of beans processing as the price of the raw material covers a great percentage of the production cost. (In Ghana it turned out to be 78% of the cost.)

3/ Because they have the choice among many suppliers.

INTERNATIONAL FINANCE CORPORATION
IFC

Since 1966, IFC has been involved in food processing projects in 25 countries, covering vegetable oils and fats, 1/ sugar, cocoa, poultry, fish, rice, corn, wheat, etc.

Unlike the Bank, IFC deals with the private sector in developing countries and therefore, the documents are confidential and I could not have access to them; my report is based on interviews.

IFC projects are evaluated according to the same criteria as World Bank Projects: Economic rate of return, risk factors, government policies (in particular "price"), etc. (See Guidelines for Agricultural Investment Projects.) Often, IFC comes after the Bank has worked on agricultural rural development projects that provide infrastructure. Business is not encouraged (and therefore IFC never goes) if there is no infrastructure. IFC projects are of a commercial size, vertically integrated, with a market assessment being the first consideration in project evaluation. At present, there are hardly any new oil projects financed by IFC which are reportedly oriented because, with the exception of sheanut butter (from Africa), there is no market. In the Solomon Islands, a coconut oil processing (dry coconut) project for exports has been formulated and is being appraised. If it is approved it will go to UNILIVER. Associations with the multinationals that control the international market seem to be the "sina que non" for export oriented projects. In the Philippines it is Guthrie that is assuring the market for the exports of coconut oil. The marketing company would not accept being engaged only at the tail end of the agro-food chain, but wants to be engaged from the start.

The private sector partner financed by IFC is not necessarily a multinational. In Ruanda, for instance, IFC was associated with a small tea trader for a tea processing plant.

Negotiations with private sector partners are not always successful, sometimes they fail for the conditions imposed by the government of the country in question, and sometimes for the conditions imposed by IFC. In Papua, New Guinea, which is located in one of the most fertile fish areas of the world, a fish processing project could not attract any foreign partner. First negotiations with Mitsubishi, the Japanese company, then with Starkist, the American, failed over the issue of royalties.

1/ As of the last years, Argentina (soybean crushing plant, 1977 - Soyex S.A.); Brasil (Palm oil - 1980 - Dende do Para S/A); Cameroon - 1980 - (S.A.F.A. Oil palm planting and processing); Peru (oil mills - Palms del Espino 1982); Philippines (Oil Mills - 1982 - Guthrie - MDC).

In the case of an oil palm project in Ecuador, the project failed at a pre-negotiation phase because IFC wanted to impose distribution of benefits among the shareholders.

IFC is financing a very interesting fish project in Egypt (between Cairo and Ismailia) with the technical assistance of the Peoples Republic of China. It is an aquaculture project with three layers of different fish and ducks in top.

INTERAMERICAN DEVELOPMENT BANK

IDB is becoming more and more involved in food processing as Latin American countries with their growing urban markets increase their demand for processed food. IDB portfolios share for food processing will increase from 10 percent this year to 25 per cent next year. However, lending for food processing development has never matched so far the availability of funds at IDB because often projects prepared by developing countries are not comprehensive of all the elements which IDB considers necessary to appraise projects as technically, financially, institutionally, legally, socially and economically feasible. IDB frame of reference for project analysis is contained in the guidelines for project analysis: "Guia para la Formulacion de Solicitudes de Prestamo: Pro y ectos de Agro-industrias" - copy sent.

My conversation with Mr. Barazza, Director, Agriculture and Forestry Division, has been very interesting. For developing countries, he believes in an integrated development of the agro-food chain at project level but not overall at sectoral and inter-sectoral level nationwide. The negative experience of the Mexican Integrated Plan, for which IDB has committed an enormous amount of development money, has put IDB in a cautious attitude concerning integrated rural development projects. They are:

- a. too expensive
- b. require too much administration
- c. something is lost in their generality

Development has to be pursued step by step after you identify one "catalyst" for development. Generality does not lead to any operational recommendation. It would be interesting for UNIDO to put some reservation in something integral.

OAS

The Organization of American States has been involved in technical assistance concerning food processing only to a limited extent.^{1/} Furthermore, there is no coordination within OAS concerning food related projects. Due to this limited exposure OAS has not developed any systematic approach to the development of the industry.

The guidelines that OAS has developed deal with national food plans for food self-sufficiency, regional trade, and cooperation, as the Secretariat is mostly interested in food security issues in Latin America and the Caribbean (and not food industry).^{2/}

In its policy paper presented at a recent meeting in Ecuador^{3/} OAS recommends inter-alia "coordination of policy, strategy and action guidelines with other agencies and organizations that do not belong to the inter-American system."

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- 1/ A list of ongoing projects is in OEA/Ser. J/11.24. CIECC/doc. 488/81 p. 3.
 - 2/ See "Food Security for Latin America and the Caribbean," OAS, IICA Document prepared for Consultation on Food Strategies, Quito, Ecuador, April 25-27, 1983.
 - 3/ Consultation of the Ministerial Level on Food Strategies and Policies in Latin America and the Caribbean, Quito, Ecuador, April 25-27, 1983.

In this context, the interest has been expressed to cooperate with UNIDO in preparing a "frame of reference" for international cooperation. OAS contribution would be based on the Latin American countries' experience (in national food systems such as SAM and PAN^{4/}) and needs.

4/ For SAM see annex 1; PAN is the Programa Alimentario de Nicaragua, May 1981, aims at the achievement of food self-sufficiency through means much more modest than SAM. Expected increase in food production is based more on land tenure reform than in industrialization of agriculture and therefore it does not seem to be of interest to UNIDO.

GROCERY MANUFACTURERS OF AMERICA
NOTES FOR THE RECORD

The Grocery Manufacturers of America (GMA), Inc. is a trade association of the manufacturers and processors of food and non-food products sold in retail grocery stores throughout the USA. Member companies employ over 2.5 million people and have total annual sales in excess of \$200 billion. All the outstanding American food companies like General Foods, Kellogg, Land 'o Lakes, Coca Cola, Ralston Purina are members and also two foreign companies: Nestlé and Uniliver. I tried to establish contact with them since the beginning of July but Mr. Gardner, responsible for International Affairs, was on leave.

September 9: Mr. Sherwin Gardner, Vice President, Science and Technology (who deals with international affairs) was informed that UNIDO is preparing a "frame of reference" for the development of food processing industries in developing countries and in this connection we would be very interested to review the experience of GMA associates involved development. Mr. Gardner told me that many GMA associates are involved in joint-ventures and technical assistance - mostly through USAID (United States Agency for International Development); however, GMA does not have information directly and you must resort to the associates for that. I ruled out our interest in technical assistance contracts as these are "cost reimbursable " contracts with AID and

not directly with developing countries (as I already experienced with ACDI). I stressed our interest in reviewing their experience of joint-ventures through interviews with responsible staff and, if possible, analysis of documents (project documents and contracts). Mr. Gardner will send out a copy of the Report on the First Consultation (of which I handed him a copy) to the technical committee for food protection that deals also with International Affairs and inform them of UNIDO follow up program concerning the "frame of reference." He will inform us within a month of their reaction.

October 4: Mr. Gardner has called today to inform me that GMA associates had been notified of UNIDO interest in having access to information concerning joint-ventures in the field of food processing in developing countries at the International Committee Meeting. The associates would be willing to provide access to information on their experiences in developing countries (with a "proviso") in view of the preparation of the frame of reference and contractual checklist. The proviso is that the information is given through an intermediary as each associate wishes to keep the anonymity. UNIDO should send a set of questions and they would answer within six months. Interviews would eventually be allowed later if the information provided through the intermediary needs

to be integrated. The reason why the associates wish to share their experiences through an intermediary is that they want to keep their anonymity.

AGRICULTURAL COOPERATIVE DEVELOPMENT

INTERNATIONAL - ACDI

ACDI has been involved in technical assistance in developing countries, concerning inputs into the food processing chain, as well as integrated rural development projects or training activities. The only kind of contract they have experienced is the technical assistance contract, a "Cost Reimbursement" type contract, and most times their counterpart is not the developing country in question, but the agency financing the project in the developing country. Even if they had experience with IDB, and the World Bank, most of the financing of their projects comes from USAID, the United States International Development Aid that takes a leading role in the project. I went through their "black book" of contracts "Cost Reimbursement Type Contract" for various projects of various kinds,^{1/} and concluded that they do not have any interest for us.

1/ E.G., Christiana Potato Growers Coop-Jamaica; Intergrated Rural Development - Jamaica; Vegetable Exports - Haiti; Improvement of Training Activities - Kenya. Honduras, Egypt, Uganda, Tonga, Guyana, Philippines are other countries where they have activities.

The above mentioned contracts consist of the following parts:

Statement of Work

Technical Directions and Report .

Key Personnel

Level of Effort

Period of Contract

Estimated Cost

Budget - Advance of Funds

Methods of Payment

ANNEX 1

The Mexican Food System (SAM - 1980-1982)

1. The Mexican Food Plan (Sistema Alimentario Mexicano) was one of the first comprehensive attempts on the part of a developing country to adapt the food production system to the basic requirements of the population and therefore to transform an import-based food system into a self-sufficient one. 1/

SAM was novel in "encouraging vertically integrated industries which would combine labor intensive agriculture production with capital intensive transformation processes," it covered three basic categories:

- a. processing food production and productivity;
- b. streamlining food delivery systems serving rural and urban poor;
- c. improving nutrition. 2/

SAM strategies were elaborated in 20 studies (sub projects) 3/ the first of which was the "Frame of reference" a coordinating policy framework for the achievement of SAM goals.

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- 1/ A five year plan to increase food production and wean the country from importing maize, beans, wheat and other staples. In 1980 Mexico was importing 8 million MT of grains. Agribusiness Worldwide - June 1982, "SAM: the Ambitious Mexican Food Plan."
 - 2/ Frank Meissner, "The Mexican Food System (SAM): Cultivating the oil revenues," Food Policy, Vol. 6. No. 4, Nov. 1981, pp. 219-230.
 - 3/ 1) Marcis de Referencia; 2) Perfil Nutricional del Pais; 3) Balance de Oferta y Demanda; 4) Analisis del Sistema Alimentario Internacional; 5) Insumos a Servicios Estrategicos a la Agricultura; 6) Produccion Agroprecuaria; 7) Industria Alimentario; 8) Mercados Comercializacion y Distribucion; 9) Conasupo; 10) Politicas de Consumo, Distribucion del Ingreso y Minimos de Bienestar; 11) Sistemas Granos Basicos; 12) Sistema de Oleaginosas; 13) Sistemas de Alimentos Protectores; 14) Sistema de Pesca e Acuicultura; 15) Sistema Complementarios; 16) Alimentos no Tradicionales; 17) Summisto de Alimentacion Directa a Lonas Criticas; 18) Tecnologia de Alimentos; 19) Promocion y Publicadand Alimentaria; 20) Analisis Institucional Legal y Administrativo del SAM.

It was defined as the "god-child" of PEMEX, which for four decades had been a successful strategy of energy self-sufficiency. The reason why SAM attracted the attention of UNIDO and of the 1 Consultation on the Food Processing Industry was that it strived to promote vertically integrated rural industries everywhere in rural areas, for the satisfaction of basic needs 4/ and covered all aspects of the food system from production to consumption..

It also represented - even if indirectly - an attempt to reduce foreign "interference" which had characterized the Mexican agro-industrialization process through direct investment and through the presence of Transnationals in all stages of the agro food chain. 5/

Through a new law 6/ communal farms were encouraged to form "units of production with small proprietors, that could be capitalized and employ labor and management in the same way commercial operations do. Lines of preferential credit and a system of subsidies for basic staples producers were also designed to increase agricultural production and productivity.

4/ In most developing countries vertically integrated agro-industries exist, if any, to serve the large urban market or the export market. In rural areas food production for the satisfaction of basic needs undergoes a minimum degree of processing. Thus, the structure of the agricultural economy in most developing countries remains dual (subsistence agriculture and commercialized agriculture) unlike in developed countries where all food production is integrated into the food system.

5/ SARH - El Desarrollo Agro-Industrial y la Economía Mexicana. Documento de Trabajo para el Desarrollo Agro-Industrial. N.F. p. 69.

6/ Agricultural Development Law - approved Feb. 1981. From: Food Policy, Feb. 1982, Vol. 7, No. 1. Frank Meissner: "SAM, a baby with many faces."

2. In 1983 SAM does not exist any longer. The first reason is that it lacked the support of the new government (a new administration in the 2nd half of 1982) and during its short existence (1980-82) did not produce any relevant result. However, it definitely proved to be too ambitious with its aim of introducing vertical integration everywhere and make the country self-sufficient in basic staples within five years; with its system of non-selective subsidies to all agricultural producers and consumers it turned out to be too expensive even for Mexico that was paying out of its oil revenues and inefficient. Furthermore, despite the existence of a "frame of reference" it failed for a lack of coordination among the various sectors of the economy involved 1/ (in particular, stronger linkages between agriculture and industry) and a lack of organization of the actors involved in the agro-food chain; especially the peasants' organization into units of production, should have received long-standing technical training.

More specifically, the single policy measures taken for the achievement of SAM did not prove to be adequate and sometimes were conflicting, e.g., price policy: food prices were kept low enough to satisfy the needs of the urban poor but too low to encourage investment in agro-industry; employment policy; the-policy of combining labor intensive agriculture with capital intensive industry did not prove efficient in the case of grain production. Labor intensive agriculture is not associated with producing basic grains and such a policy has proved inefficient.

Furthermore, the Mexican Integrated Food System met with some basic infrastructural deficiencies: Mexican infrastructure is still poorly developed. Irrigation systems, roads, utilities and other capital improvements are necessary. E.g., in 1982 the sorghum harvest in Tamaulipas (Eastern Mexico) was excellent. 2/ However, neither the railroads nor the trucking system could get this crop to consumers in Western Mexico. So it was railed to the USA port of Corpus Christi and by ship transmitted to Western Mexico.

1/ The "frame of reference" was neither prepared with the collaboration of all sectors involved nor had the Secretariat of Agriculture and Water (who prepared it) enough power over the other sector to impose the coordinating framework. As one author had already observed during its existence: "Another obstacle for implementing SAM is that the program's home is the President's cabinet but all the public agencies responsible for different facets of the program have a semi-autonomous existence, and guard their independence fiercely. Agencies such as CONASUPO, BANRURAL and COMPLAMAR (whoch looks after the poor marginal regions, rarely collaborate well, and they are often guilty of acting like "caciques" (or rural bosses)themselves. M. R. Redclift: The Mexican Food System: Sowing subsidies, reaping empathy. Food Policy, November 1984.

2/ Agribusiness Worldwide. Op. Cit.

3. Conclusions. From the causes for SAM failure some lessons can be drawn concerning integrated agro-industrial development:

- a. It is more feasible for a developing country, where a dual agricultural economy structure still exists, to move from subsistence agriculture into integrated agro-industry step by step in selected areas chosen as catalysts for development. 1/
- b. Integrated agro-industrial development requires inter-alia:
 1. a strong national commitment and effective long term policy support;
 2. to establish and institutionalize a "coordinating mechanism" and select a "policy framework" where the policy elements are not in conflict with each other vis-a-vis the goal to be achieved.
- c. Infrastructure is a prerequisite for the functioning of integrated agro-industries.

4. Present Situation. At present, Mexico is still elaborating its 1983-88 agro-industrial development plan, and therefore strategies and objectives are not known with the exception of two points:

- I. Vertically integrated agro-industries in rural areas are going to be promoted, but on a selective basis. 2/ (Possibly on efficiency.) Parallel to this promotion is going to be structural change, meaning peasants' organization into units of production.
- II. Export oriented agro-industries are going to be under emphasis again 3/ for balance of payments reasons.

It might be interesting for UNIDO to look into both strategies, namely what are the criteria for selecting agro-industries for vertical integration, what are the measures to promote export-oriented agro-industries and finally, what is the new policy framework behind this development.

In the opinion of the "Dirección de Desarrollo Agro-Industrial," the coordination among the various sectors of the economy involved in agro-industrial development will be this time more of a reality. Since the power structure has changed with the new government, the SPP (Secretaría de Presupuesto y Programación) which will be in charge of coordinating the various ministries, seems to be above them.

- 1/ See also under: Inter American Development Bank.
- 2/ See Mission Report - UNIDO Project.
- 3/ Under SAM they were (at least rhetorically) discouraged as the main goal was to cultivate land for the satisfaction of internal needs.

Eric Ake-Johnson

ANNEX II

MISSION REPORT

Sylvia Albe-Flammatter

Place: Mexico City, Mexico
Date: 10-11 October, 1983
Purpose: To establish contacts with IMETA and Direccion General de Desarrollo Agro-Industrial for possible cooperation in the preparation of the "frame of reference"

1. During my visit to the "Direccion General, Desarrollo Agro-Industrial" (October 10, 1983) met with the following people:

Mr. Alberto-Levet Contreras, Director General, Desarrollo Agro-Industrial; Ms. Maria Angelica Escarola, Subdirectora de Planeacion y Programas Agro-Industriales; Gabriel Sitjar Rousserie, UNIDO Consultant.

In June 1983 there were some changes in the organizational structure of the Coordination de Desarrollo Agro-Industrial, which has now become Direccion General Desarrollo Agro-Industrial. Mr. Levet-Contreras has replaced the late Rudolpho Echeverria Zuno. This branch is still depending on the Ministry of Agriculture and Water Supply. The "Direccion" has a new address: Tonalá No. 6, Mexico DF 06760. Mr. Levet-Contreras has been informed of the active participation of the Mexican delegation at the Consultation Meeting and has expressed the intention, as far as his institution is concerned, to continue the collaboration with UNIDO. With regard to the "frame of reference" for the development of food processing industry concerning Mexico in particular, the Direccion General Desarrollo Agro-Industrial is still working on it, under the new Agro-Industrial Development Plan (1983-1988) which is not yet completed. When their "frame of reference" (intended as policy guidelines for the acquisition of training, technology, financing, marketing, etc.) will be ready (January 1984) they would be willing to prepare a summary of basic points for UNIDO to the extent that their approach can be useful and applicable to other developing countries. They feel that their studies on planning and strategies for agro-industries (this is what the Direccion is all about) plus the Mexican experience will enable them to prepare something useful for other developing countries.

The Assistant Director for Agro-Industrial Planning and Programming exposed to me two studies which, in her opinion, have a bearing on the preparation of the frame of reference:

- A. A comparative analysis of agro-industrial planning and agro-industrial activities in seven Latin American countries: Brasil, Mexico, Columbia, Ecuador, Nicaragua, Costa Rica and Cuba.

- B. "Promotion and development of Integrated Agro-Industry" a UNIDO project to be completed in 1985. The objectives of this study are 1) to cooperate with the Government to analyse and interpret the main problems faced by agro-industry; 2) to design agro-industrial strategies for specific subsectors, regions, actors and primary products, and 3) to help the Government to design policy instruments aiming at the organization of producers, financing, and commercialization of products, technology development, etc. The study finally aims at assisting the Government in designing and implementing projects of integrated development in priority subsectors and priority regions.

During the discussions which covered the past and the present situation in Mexican agro-industrial development trends (See Annex paragraph 1) I received the impression that the kind of work undertaken by the "Direccion" remains very theoretical. I also noticed that since the "Direccion" depends from the Ministry of Agriculture, they only deal with the problems of small and medium size agro-industries producing food for internal consumption. Their mandate is to design policy measures aiming at implementing the Agro-Industrial Development 1/ Plan, whose priority has been 2/ and will be to develop small agro-industries. I went through a series of their publications which confirmed my impressions.

1/ SARH "El Desarrollo Agro-Industrial y la Economica Mexicana" Trabajo N.T.: Presentacion.

2/ "...Generalizar y Desarrollar la agro-industria campesina, que se plantea como una, de las preocupaciones basicas del Plan Nacional de Desarrollo Agro-Industrial."
Ibid.

2. My visit to the Instituto Mexicano de Tecnologias apropiadas (IMETA) took place on October 12, 1983. The Institute has now a new address:

Boulevares, Nanc. Edo. de Mexico
Colina Buenaventura 32
tel 5726009

I met with Dr. Edmundo Arias Torres, Director, Division Industrial (who participated both at the Global Preparatory Meeting and at the 1 Consultation on Food Processing) and Dra. Eugenia Olguin, Directora Division Desarrollo Tecnologico. It was interesting to listen to their views concerning agro-industrial development in Mexico as it comes from people outside the Government (IMET is a private non-profit organization) that are directly involved in projects in the field. In the time elapsed since the 1 Consultation on Food Processing, no implementation of the policy measures which were so extensively advertised by the Mexican Government has taken place, in particular, the "frame of reference." The main problem for agro-industrial development remains organization of peasants into units of production, coordination among the actors involved in the agro-food chain and improvement of an outdated storage and marketing system. The same destiny of the "frame of reference" hit other SAM documents (of which Mr. Arias prepared No. 18P Food Technology) for which no valid action was taken to move from policy analysis to policy implementation.

I informed IMET that the Direccion General de Desarrollo Agro-Industrial might prepare for UNIDO a "frame of reference" and asked them if they would also be willing to cooperate by giving their opinion in this preparation. They answered positively. (I later informed Mrs. Escajola of the "Direccion" of this possible cooperation for preparing a "frame of reference.") However, to make the "frame of reference" a document with operational significance in the context of each country concerned, all the actors involved in the agro-food chain must be represented in its preparation. They stressed that the "frame of reference" failed completely under the late Mexican Food Plan (See Annex 1) because it remained a very theoretical document and was prepared without the participation of most actors involved.

They agreed on the importance of coordinating all actors involved in the agro-food chain and therefore, on the relevance of a "frame of reference" as a starting point in food industry development process.

