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SUSTAIN

CENTRAL AMERICA/GUATEMALA

JANUARY 27 - FEBRUARY 3, 1992

TECHNICAL ASSISTANCE

Sharing
United
States
Technology to
Aid in the
Improvement of
Nutrition

A U.S. Private Food Industry initiative
in collaboration with the U.S. Agency for International Development
through a Cooperative Agreement with the National Cooperative Business Association

Upgrading the Food Processing Industries in Developing Countries.

Why SUSTAIN?

SUSTAIN represents a successful collaborative effort between the U.S. food industry and the Agency for International Development (A.I.D.) to upgrade food processing in developing countries. It provides an excellent model for similar private-public sector joint ventures in health, agriculture and other areas of concern to developing countries.

Food processing is a major contributor to development. It serves multiple roles. Food processing can increase the available food supply by extending the life of perishable food products. It can improve the nutritional quality of the diet by making nutritious foods available the year round. It can lead to the growth of related enterprises in transportation, storage, distribution and marketing. And, it can produce much needed foreign exchange by creating value added products both for export and for internal substitution of imported processed foods.

The U.S. food industry has embraced the concept that freely sharing its expertise and knowledge is of mutual benefit to recipient and donor - to the recipient by improving current operations - to the donor by contributing to a healthier global future.

How SUSTAIN Works

A.I.D. missions and trade associations in developing countries publicize SUSTAIN's goals and activities. Executives of U.S. food companies with technical expertise and overall knowledge of the food industry serve as the SUSTAIN Steering Committee, providing guidance and overseeing activities.

Food related companies in developing countries submit their requests to SUSTAIN through the A.I.D. mission or a designated organization in their country. SUSTAIN screens all incoming requests and if necessary asks for additional information. Appropriate U.S. companies are then invited to respond.

Some problems can be readily resolved by providing information. Others require that consultants be sent. When a consultant is sent, the usual assignment is for one to three weeks. Upon completion of the assignment, the consultant prepares a report describing findings and making recommendations. Depending on need, some consultants may return for follow-up visits to ensure that recommendations have been appropriately implemented.

SUSTAIN Helps

Requests are diverse. Help may be needed to solve processing problems, to identify equipment needs and sources of new and used equipment, to train personnel in the use of new equipment and new technologies, to find new uses for indigenous commodities, to establish or improve quality assurance procedures, to control insects and rodents in food processing plants and to improve plant layouts and materials handling.

In the past, U.S. food companies, large and small, have provided technical assistance in the form of information, consultants and training to food processors in Africa, Asia, Latin American and the Caribbean.

SUSTAIN PROGRAM
TECHNICAL ASSISTANCE MISSION TO INCAP/ROCAP
GUATEMALA CITY, GUATEMALA

January 27 to February 3, 1992

SUSTAIN Mission Team:

**Dr. Arnold Denton, Senior Vice-President (retired), Campbell Soup Company and
Professor, Purdue University**

Elizabeth Turner, Program Director, SUSTAIN

**Dr. John Nelson, Vice President for Science and Technology, McCormick & Co., Inc.
Berkley Cone, President, Alimentos Congelados (ALCOSA), S.A.**

Zuli Gonzalez, Manager of Quality Control, Alimentos Congelados (ALCOSA), S.A.

NCBA Project 111.002

SUSTAIN MISSION TO INCAP/ROCAP

JANUARY 27 TO FEBRUARY 3, 1992

	PAGE
I. PURPOSE OF MISSION	1
II. FRAMEWORK FOR THE MISSION	1
III. OUTPUT FROM THE MISSION	
A. Laboratory Initiative	2
B. Seminars	3
C. Technical Assistance	3
D. Institutional Strengthening	3
IV. MISSION PROCEEDINGS	
A. Meeting with Director of INCAP	4
B. "Unified Laboratory Initiative"	5
C. Collaborative Seminars	8
D. In-Country Technical Assistance	9
V. FOLLOW-UP	
1. Laboratory Action Plan	9
2. Seminars	9
3. Roundtable Meetings	10
4. In-Country Technical Assistance	10
5. On-Going Assistance	10

APPENDICES

- I. Correspondence
- II. Meeting Agenda
- III. INCAP Presentation on Lab Concept
- IV. Group Exercise Proceedings
- V. "What is AGTA?"
- VI. Purpose of Questionnaire
- VII. To Do by INCAP
- VIII. AGTA/INCAP Collaboration
- IX. Letter of Request from Intercham
- X. Letter of Request from Industrias Sula

SUMMARY OF SUSTAIN MISSION TO INCAP/ROCAP
(January 27 to February 3, 1992)

I. Purpose of Mission:

A SUSTAIN team went to Guatemala from January 27 through February 3, 1992 to provide assistance to INCAP in three areas. The purpose of the SUSTAIN mission was to:

- assess opportunities and constraints to INCAP's concept for offering laboratory services (on a fee basis) to local food processing companies as a component of its "unified analytic laboratory" initiative,
- develop plans for organizing joint seminars on food processing technologies in Central America, and
- identify strategy for collaborative follow-up on a request for technical assistance in infant foods from a food manufacturer in Central America.

SUSTAIN first learned about INCAP's concept for providing laboratory services to the private sector during its September 1991 mission.¹ The concept was presented as one of several options being considered for providing technical assistance to local bakeries and food processing companies in the region. Other options being considered include providing services through INCAP's pilot food processing plant and technical assistance in food chemistry and product development.

The INCAP proposals are part of an overall strategy for increasing the Institute's emphasis on applied, or "mission-oriented", research and technology transfer. SUSTAIN's assistance was initially requested by ROCAP under an institutional strengthening project for INCAP.

II. Framework for the Mission:

The SUSTAIN team included professionals with expertise in organizational planning, laboratory technologies, food processing, and management systems. The mission was scheduled in response to recommendations outlined in a SUSTAIN mission report from September 1991. SUSTAIN worked with the director of INCAP, division chiefs from the Agriculture and Food Sciences Division and the Nutrition and Health Division, and ROCAP to organize the agenda for the mission.²

¹ See SUSTAIN report on September 13-19, 1991 mission.

² See appendix I.

- 1 -

SUSTAIN representatives acted as group facilitators, technical advisors, and catalysts for bringing public and private sector groups together to talk about needs for improving local food systems. SUSTAIN presented a framework for helping to sort through technical, managerial, and organizational issues related to the proposed laboratory initiative.

The mission included a week-long series of workgroups; exercises in options evaluation, capability assessments, and strategic planning; and roundtable discussions that brought together a broad spectrum of private and public sector organizations. INCAP representatives were also provided a tour through the local plant and laboratory facilities of Alimentos Congelados S.A. (ALCOSA), a local food plant that packs frozen vegetables for export to U.S. companies.³

III. Output from the Mission:

The January mission concluded with the following achievements:

A. **Laboratory Initiative:**

• The Director of INCAP gave his approval to a plan of action⁴ that outlines steps for INCAP to take in gathering input and resources needed to implement a project for providing laboratory services to the private sector.

The action plan calls for research to identify needs among private and public sectors for laboratory and technical assistance services (market research), a sales and financial plan, consultation with legal counsel, and decisions staged at various points for the Director to decide whether to proceed or not proceed with the project.

It also recommends a structure for administering the project and managing the research and service components of the laboratory as separate operations. The service component of the laboratories would be run by a Service Manager, who would report to the Director, and function almost as a contractor that would subcontract with each laboratory facility for services that could be provided to outside clients. The structure would also allow INCAP to draw on laboratory resources outside its own facilities. INCAP and LUCAM representatives expressed a strong interest in working together on the initiative.

³ See appendix II for mission agenda.

⁴ See appendix IV, "J".

- An inventory and preliminary assessment was prepared of the capabilities and needs of each laboratory division under INCAP and LUCAM.⁵

- A framework for group decision-making was developed for analyzing implications of new project initiatives and strategic planning.

B. Seminars:

- An action plan was developed for SUSTAIN/INCAP collaboration on organizing food technology seminars in Guatemala, Honduras, Costa Rica, and El Salvador, with priority on organizing seminars first in the former two countries. The seminar in Honduras would be organized with the help of INTERCHAM, which had requested SUSTAIN assistance in providing seminar speakers.

C. Technical Assistance:

- A follow-up strategy was developed for INCAP and SUSTAIN cooperation on providing technical assistance to a Honduran company. The company had contacted SUSTAIN to request technical assistance in producing weaning foods. The groups agreed that INCAP would have its representative in Honduras contact the company to gather more detailed information on the needs for assistance and outline possible follow-up.

D. Institutional Strengthening:

- Through the series of roundtables scheduled throughout the week, INCAP, SUSTAIN, and the Guatemalan Association of Food Technologists (AGTA) agreed informally to work together on future projects to organize and coordinate seminars, technical assistance, and institutional strengthening activities. Another opportunity might be to coordinate and share library resources.

- A network also emerged between INCAP and representatives from the private sector, government agencies, and universities for meeting in the future to discuss and evaluate problems in local food systems and identify opportunities for addressing those problems. The group asked for a follow-up meeting, which was rescheduled for March 10th.

⁵ See appendix IV, "I" for inventory and assessment.

IV. Mission Proceedings

A. Meeting With Director Of INCAP (Jan. 27)

Participants:

INCAP: Dr. Hernan Delgado, Dr. Rafael Flores, Dr. Juan Rivera, Dr. Omar Dary, Dr. Luiz Elias

SUSTAIN: Dr. Arnold Denton, Elizabeth Turner, Berkley Cone

Dr. Delgado presented an overview of INCAP's concept for a "unified analytical laboratory". He said the concept grew out of a need to better integrate and coordinate INCAP's resources. Under the "unified concept", the labs could be organized to serve both the public and private sectors. Service to the private sector was viewed as being compatible with the mission of INCAP because it could impact the health of the population by helping to improve food safety. It might also generate revenue. However, there was also concern among some segments of the Institute that a service lab might compromise research capabilities. If service to the private sector is pursued, it was suggested that research and service functions be separately administered.

Dr. Delgado introduced Omar Dary as the coordinator of INCAP laboratories. The group continued to discuss goals and objectives for the "unified analytical laboratory" concept, as well as other questions outlined in SUSTAIN's letter of January 9.⁶ The SUSTAIN mission provided the impetus for bringing together the parties that might have a stake in the "unified" laboratory and analyzing its potential implications.

Berkley Cone (President of ALCOSA) explained that ALCOSA put in their own laboratory because they were unable to find reliable service elsewhere. He said he thought there was a growing need and demand for laboratory services among the private sector, particularly in microbiology and pesticides. For the private sector, accuracy, turnaround time, and cost are important. Berkley outlined several considerations in managing a service laboratory, including the need for a business manager and buying equipment from dealers that provide maintenance and parts within the country.

Berkley Cone and Bud Denton emphasized that a service laboratory would need to be run as a business. Funds would need to be allocated for maintenance and up-grades and an auditing system would be needed to track revenue and expenses. To develop a client base for a service laboratory they suggested INCAP should hire (or contract with) someone with strong marketing and sales experience.

⁶ See appendix I.

B. "Unified Laboratory Initiative" (Jan27-30)

The following individuals participated in workshops and roundtable meetings at various stages throughout the week of Jan. 27-Feb. 1.

SUSTAIN: Dr. Arnold Denton, Elizabeth Turner, John Nelson, Berkley Cone, Zuli Gonzalez⁷
INCAP: Dr. Luiz Elias, Dr. Omar Dary, Concepcion de Bosque, Luis Velasquez, Floridalma Cano, Leonardo De Leon, Luis Reyes
ROCAP: Sandy Callier, John Acree
PLANNING ASSISTANCE: Joe Coblentz
LUCAM: Elsa de Reyes, Azucena de Zuniga, Walter Gilbert, Teresita de Miranda, Eugenia Canahui
AGTA: Alvaro Menendez, Juan Carlos Morales Marcucci
January 30th Roundtable Participants: See Appendix IV, "J"

The week's sessions were devoted to the following activities:

- assessing INCAP's capability for providing laboratory and technical assistance services,
- analyzing opportunities and constraints to the provision of these services,
- outlining alternative organizational structures to manage these types of services,
- developing group consensus on whether to forge ahead with the initiative, and
- developing a plan of action for implementing the group's recommendations.

SUSTAIN acted as the moderator and facilitator of exercises to achieve the foregoing tasks. In a letter of January 9, SUSTAIN recommended a format for assessing these issues and asked for a presentation on goals and operational features of the "unified analytic laboratory" concept.

Omar Dary gave a description of the unified analytical laboratory project.⁸ He explained that the initiative started by pooling equipment from the divisions of Agriculture & Food Sciences and Health & Nutrition to form a joint specialized laboratory. He said a broader concept was proposed in 1991 for developing a linkage with LUCAM. The LUCAM laboratory is operated by the Government of

⁷ Berkley Cone and Zuli Gonzalez were an active part of the SUSTAIN mission, contributing advice and expertise throughout the week and hosting a tour at the ALCOSA plant for SUSTAIN and INCAP representatives. Their participation was arranged by Bud Denton, who requested their assistance through a former colleague at Hanover Foods.

⁸ See appendix III.

Guatemala, but is physically located at INCAP facilities. The details for this project have not been fully developed, although the goal would be to draw on laboratory resources not available under INCAP.

John Acree (ROCAP/USAID) gave a brief overview of ROCAP's RENARM program. The program focuses on training growers in the safe handling and use of pesticides and on strengthening laboratory capabilities for analyzing pesticide residues. Under the program, the U.S. Environmental Protection Agency and the Food and Drug Administration will be brought in to evaluate and grade laboratories throughout Central America. U.S. AID will evaluate this information within the context of helping to upgrade key laboratories in the region.

Group Exercises (January 27-30, 1992)

SUSTAIN acted as moderator and facilitator of the following group exercises. The purpose was to analyze opportunities and constraints to unified laboratory concept designed to serve private sector and develop consensus among the group for the next steps.

APPENDIX IV

ACTIVITY DESCRIPTION

- "A" **Considerations** -- the group outlined considerations in analyzing opportunities and constraints to the laboratory initiative
- "B" **Relation to INCAP Mission** -- in outlining mission, strategies, and programs of INCAP, the group concluded that the provision of laboratory services and technical assistance would be consistent with INCAP's mission
- "C" **Goals for Laboratory Services** -- the group concluded that goals for a research, service, or reference laboratory housed within INCAP facilities were similar
- "D" **Reference Laboratory** -- issues likely to be important in becoming a reference lab were identified
- "E" **Definitions** -- definitions were given to different laboratory structure to facilitate group discussion
- "F" **Options Identification** -- all things being equal, the group was asked to identify preferred combinations for the level of resources allocated to research, reference, and service laboratory functions. The number of combinations indicated a wide divergence of views.

On further analysis, the group agreed that arbitrary caps could not be placed on a service laboratory, if it was to be run as a competitive business operation. Instead, a management system should be developed to separate research and service functions.

- "G" **Opportunities & Constraints** -- the group outlined opportunities and constraints to the establishment of a service and reference laboratory utilizing existing INCAP laboratory resources.
- "H" **Strategies to Overcome Opportunities & Constraints** -- the group identified strategies for resolving constraints identified under Appendix VII.
- "I" **Laboratory Facilities & Capabilities Review** -- the group prepared an inventory and capabilities assessment of each of the laboratory facilities operated by INCAP and LUCAM. INCAP's sensory analysis facility was noted as needing no additional resources or staff training in order to open for services.
- "J" **Private/Public Sector Roundtable** -- approximately 25 representatives from private and public sector organizations met to discuss the need and demand for laboratory and technical assistance services. Meeting minutes are attached.
- "K" **Proposed Organizational Structure** -- the group proposed an organizational structure to manage research, service, and technical assistance components under a "unified" laboratory. The service component of the laboratories would be run by a Service Manager, who would report to the Director, and function almost as a contractor that would subcontract with each laboratory facility for services that could be provided to outside clients. The structure would allow INCAP to draw on laboratory resources not currently available under its own facilities.
- "L" **Workplan** -- a five-phase workplan was developed to implement the groups recommendations for the "unified" research and service labs over the next 12 months. The workplan calls for market research, capability analysis, a marketing/sales plan, and a budget. It also includes decisions staged at various points for the Director to decide whether to proceed or not proceed with the project.

C. Collaborative Seminars (Jan. 31)

Participants:

INCAP: Dr. Luiz Elias, Luis Reyes, Leonardo de Leon, Maggie Fisher

AGTA: Alvaro Menendez, Juan Carlos Morales

SUSTAIN: Dr. Arnold Denton, Liz Turner

Representatives from SUSTAIN, INCAP, and AGTA held a one-day roundtable to develop and plan a series of seminars in Central America on food technology issues. Discussions centered on identifying seminar topics, the target audience, collaborating organizations, and priorities for seminar locations in each Central American country.

AGTA representatives described seminars they organized over the past year and said they would be interested in coordinating with INCAP and SUSTAIN to hold joint seminars.⁹ To help identify relevant seminar topics for Guatemala, AGTA representatives suggested that a questionnaire be distributed at their upcoming Congress. INCAP agreed to develop the questionnaire and share the results with AGTA. The questionnaire will be designed to identify what topics local food companies would like to see featured in seminars, as well as their potential need and demand for laboratory and technical assistance services. The results will be used to design seminar agendas and a market research study for the laboratory and technical assistance services initiative.¹⁰

To help ensure a good response rate, AGTA said they would condition entry in a lottery (for a free vacation) on a requirement that participants fill out the INCAP questionnaire. The group proceeded to outline a list of specific tasks that had to be completed in order to meet the deadline for the Congress.¹¹

SUSTAIN also facilitated a discussion on areas where INCAP and AGTA could collaborate and share areas of expertise for the mutual benefit of both organizations. A list was developed outlining potential areas of cooperation.¹²

SUSTAIN also proposed collaborating with INTERCHAM (International Chamber of Commerce, San Pedro Sula, Honduras) to organize a seminar in Honduras. INTERCHAM had contacted SUSTAIN in January to request speakers for an up-coming seminar (SUSTAIN has had an

⁹ See appendix V for information on AGTA.

¹⁰ See appendix VI.

¹¹ See Appendix VII.

¹² See appendix VIII.

active involvement with INTERCHAM in the past).¹³ Dr. Elias agreed it would be a good opportunity for collaboration. Ms. Turner agreed to coordinate the effort.

D. In-Country Technical Assistance (Feb.3)

Participants:

INCAP: Dr. Luiz Elias, Luis Reyes, Leonardo de Leon
SUSTAIN: Liz Turner

SUSTAIN proposed that INCAP and SUSTAIN collaborate on a request for technical assistance in infant foods. A company in Honduras (Industrias Sula) had written to SUSTAIN asking for technical assistance in "developing new products to feed the children of low income families all over this Central America area."¹⁴

Dr. Elias agreed it would be an excellent area to collaborate, especially with INCAP's expertise in composite flours and weaning foods. Luis Reyes also suggested it might be compatible with work they are doing under another project.

As a first step, INCAP agreed to contact one of its representative in Honduras (Adriana Hernandez) and request her assistance in gathering more specific information about the needs and capabilities of the company. SUSTAIN will communicate with the USAID mission in Honduras (Emily Leonard) to brief them on the nature of the request.

Once more detailed information has been gathered from the company, Dr. Elias and Ms. Turner will discuss areas for collaboration between SUSTAIN and INCAP and next steps for specific follow-up action.

V. FOLLOW-UP:

1. Laboratory Action Plan -- Dr. Luiz Elias and Dr. Omar Dary will coordinate implementation of the action plan. Dr. Elias will keep SUSTAIN informed of progress on this project, including any major changes in direction. SUSTAIN remains available to provide advice or review any documents developed under this project.

2. Seminars -- SUSTAIN will work with Dr. Elias, AGTA, and INTERCHAM to organize, develop the agenda, and select speakers for seminars in Central America. The seminars will represent a collaborative effort between these organizations. First priority will go towards organizing seminars in Guatemala and Honduras.

¹³ See appendix IX.

¹⁴ See appendix X.

Seminars will be next organized in Costa Rica and El Salvador. Dr. Elias will contact INCAP staff in Costa Rica and El Salvador to ask for their input and assistance in organizing these seminars.

3. Roundtable Meetings -- Representatives at the January 30th Roundtable (on private-sector need and demand for laboratory and technical assistance services) voted to reconvene on March 10th. Dr. Elias will send out a notice and questionnaire to all participants in advance of the meeting.

4. In-country Technical Assistance -- INCAP agreed to contact one of its representative in Honduras (Adriana Hernandez) and request her assistance in gathering more specific information about the needs and capabilities of the Honduran company requesting technical assistance in infant foods (Industrias Sula). SUSTAIN will communicate with the USAID mission in Honduras (Emily Leonard) to brief them on the nature of the request.

Once more detailed information has been gathered from the company, Dr. Elias and Ms. Turner will discuss areas for collaboration between SUSTAIN and INCAP and next steps for specific follow-up action.

5. On-Going Assistance -- SUSTAIN will continue to respond to requests for technical assistance from INCAP. This assistance can include providing analysis and advice on management systems, information and trouble-shooting on food processing technologies, and other assistance that would contribute to the strengthening of INCAP as a Center for providing technical assistance to local food manufacturing enterprises.



SUSTAIN

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A id in the
I mprovement of
N utrition

January 9, 1991

Dr. Hernan Delgado
Director
Instituto de Nutricion de Centro America Y Panama
Apartado 1188
Guatemala, C.A.

Dear Dr. Delgado:

We look forward to meeting with you during our visit to INCAP. We wish to emphasize that SUSTAIN comes with no preconceived notions for specific INCAP program activity. Our goal is to promote thorough analysis and an examination of the opportunities and constraints to proposed activities.

In order to be most effective, we would appreciate receiving a briefing from you and Dr. Flores (on January 27) on the following:

1. "Unified Reference Laboratory"

- a description, your perspective, and proposed organizational structure of INCAP's "unified reference laboratory" concept
- goals for this project
- opportunities & constraints to the concept

2. INCAP/SUSTAIN Collaboration on Food Technology Conferences

- INCAP/SUSTAIN collaboration on food technology conferences in Central American region
- roles for each organization

With the type of information outlined above, SUSTAIN would be in a better position to furnish to INCAP the advice and expertise of SUSTAIN's professional volunteers. To reiterate, we have requested the following meetings with you and Dr. Flores in our itinerary:

- Monday morning, January 27 - to receive your perspective on (a) "unified reference laboratory" concept and (b) recommendation for INCAP/SUSTAIN collaboration on conferences on food technology outlined in SUSTAIN's September 1991 mission report
- Friday evening, January 31 - dinner with John Nelson to discuss institutional goals and targets
- Saturday morning, February 1 - meeting with representatives from INCAP, SUSTAIN, ROCAP, and PLANNING ASSISTANCE to discuss institutional goals and targets

Thank you in advance for your assistance.

Sincerely,



Elizabeth Turner
Program Director

cc: Rafael Flores
Sandy Callier
Luiz Elias
John Nelson
Bud Denton
Peggy Sheehan
John Bowman
Joe Coblenz



SUSTAIN

S haring
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I mprovement of
N utrition

January 9, 1991

Dr. Luiz Elias
Director
Division of Agricultural & Food Sciences
Instituto de Nutricion de Centro America Y Panama
Guatemala, C.A.

Dear Luiz:

We look forward to meeting with you later this month. We wish to emphasize that SUSTAIN comes with no preconceived notions for specific INCAP program activity. Our goal is to promote thorough analysis and an examination of the opportunities and constraints to proposed activities.

In order to be most effective, we would like to start the two work sessions with a briefing from you and other participating INCAP professionals on the following topics:

1. "Unified Reference Laboratory" (January 27 - 31)

- a description of INCAP's "unified reference laboratory" concept and status of actions/decisions to date
- goals for this project
- proposed organizational structure
- relationship to LUCAM
- current laboratory operations and services
- services & potential markets proposed under the "unified reference" concept
- source of financial support for current lab operations
- source of financial support for reference laboratory
- opportunities & constraints to the concept

2. INCAP/SUSTAIN Collaboration on Food Technology Conferences (Jan. 31; Feb. 3)

- perspectives on INCAP/SUSTAIN collaboration on food technology conferences in Central American region, as outlined in SUSTAIN's September 1991 mission report
- roles for each organization
- involvement of INCAP regional staff
- recommended countries

With the type of information outlined above, SUSTAIN would be in a better position to furnish to INCAP the advice and expertise of SUSTAIN's professional volunteers.

I have attached a proposed itinerary for the SUSTAIN mission and would appreciate receiving your comments on the proposal as soon as possible. If the foregoing is acceptable, could you please provide the following:

1. List of INCAP professionals to participate in work session on "Unified Reference Laboratory" concept
2. List of outside participants (6-10) for "roundtable" discussions on the reference lab concept. The purpose of the roundtable discussions would be to get feedback on the reference lab concept from potential users and to promote INCAP services. If you would like to proceed with the roundtable discussions, we would recommend scheduling them on Friday. Participants could include representatives from private industry, educational institutions, food technology and trade organizations, and government.
3. List of INCAP professionals to participate in work session on food technology conferences.

Thank you in advance for your assistance. I look forward to hearing from you.

Sincerely,



Elizabeth Turner
Program Director

Enclosure

cc: Hernan Delgado Bud Denton
 Rafael Flores Peggy Sheehan
 Sandy Callier John Bownan
 Luiz Elias Joe Coblentz
 John Nelson

PROPOSED SUSTAIN/INCAP FOLLOW-UP MISSION

SCOPE OF WORK

A. SUMMARY

Technical Assistance Missions

1. **"Unified Reference" Laboratory** - (January 27-January 31st) a SUSTAIN team with expertise in laboratory technologies will be sent to help INCAP evaluate its concept for a "unified reference lab." The mission will include a field visit to a laboratory facility affiliated with a U.S. food company.
2. **Institutional Planning** - (January 31-February 1st) John Nelson (Chairman of SUSTAIN Steering Committee) will meet with ROCAP and the Director of INCAP to discuss institutional goals and targets.
3. **Annual Conference Planning** - (January 31; February 3rd) SUSTAIN Program Director will meet with INCAP to develop agreement and workplans for SUSTAIN/INCAP collaboration on three regional conferences on food technology.

B. PARTICIPANTS

1. **SUSTAIN:** Dr. Arnold Denton, Senior Vice President, Campbell Soup (retired) and Professor at Purdue University
Mr. Tim Beard, Vice President, Hanover Foods, Inc.
Dr. John Nelson, Vice President, McCormick & Co.
Ms. Elizabeth Turner, Program Director, SUSTAIN
Ms. Zuli Gonzalez, Alcosa Food Co., Guatemala
2. **INCAP:** Dr. Herman Delgado, Director
Dr. Rafael Flores, Coordinator, Research Unit
Dr. Luiz Elias, Director, Division of Food & Agricultural Services
Dr. Omar Dary, Division of Nutrition & Health
[Please identify other professionals from Agriculture & Food Sciences and Nutrition & Health Divisions to participate in "unified laboratory" discussions]
3. **ROCAP:** Ms. Sandy Callier, Health/Nutrition Advisor
Mr. Wayne Williams, Environmental Advisor
4. **PLANNING ASSISTANCE:** Mr. Joseph Coblentz, Associate Director
5. **LUCAM:** *[Please identify LUCAM representatives to be contacted during "Unified" laboratory discussions]*
6. **Potential Clientele:** *[Please identify representatives from private and public sector organizations, who would be potential users of "Unified" lab, to join in a roundtable discussion of the lab concept]*

C. SCHEDULE

1. **"Unified Reference" Laboratory**

<u>Date</u>	<u>Location</u>	<u>Participants</u>			
Jan. 27	INCAP • Meeting with Delgado & Flores • INCAP presentation on "unified lab" concept • Discussion	<u>SUSTAIN</u> Denton Beard Turner Gonzalez	<u>INCAP</u> Elias Dary <i>[Please identify additional]</i>	<u>ROCAP</u> Williams Callier	<u>LUCAM</u> <i>(Please identify)</i>
Jan. 28	Alcosa Co. • Tour of lab • Discussion	<u>SUSTAIN</u> Denton Beard Turner Gonzalez	<u>INCAP</u> Elias Dary		

Jan. 29	INCAP · Discussion	<u>SUSTAIN</u> Denton Beard Turner Gonzalez	<u>INCAP</u> Elias Dary <i>[Please identify additional]</i>	
Jan. 30-31	INCAP · Discussion · Roundtable with potential clientele · Wrap-up & next steps	<u>SUSTAIN</u> Denton Turner	<u>INCAP</u> Elias Dary <i>[Please identify additional]</i>	<u>Potential Clientele</u> <i>[Please identify]</i>

2. Institutional Planning

<u>Date</u>	<u>Location</u>	<u>Participants</u>		
Jan. 31	ROCAP	<u>SUSTAIN</u> Nelson	<u>ROCAP</u> Callier	<u>PLANNING ASSISTANCE</u> Coblentz
Feb. 1	Hotel (Camino Real)	<u>SUSTAIN</u> Nelson Denton Turner	<u>INCAP</u> Delgado Flores Elias <i>[Others as designated]</i>	<u>ROCAP</u> Callier
		<u>PLANNING ASSISTANCE</u> Coblentz		

3. Annual Conference Planning

<u>Date</u>	<u>Location</u>	<u>Participants</u>		
Jan. 31; Feb. 3	INCAP	<u>SUSTAIN</u> Turner (1/31;2/3) Denton (1/31)	<u>INCAP</u> Elias Flores <i>[Please identify additional]</i>	<u>ROCAP</u> Callier

Appendix II

SUSTAIN/INCAP MEETING

January 27 - February 3, 1992

Date	Location	SUSTAIN	INCAP	ROCAP	LUCAM	Planning Assistance	OPS	Potential Clientele
January 27	INCAP							
08:30 - 09:00	1. <u>Unified Reference Lab.</u> Meeting with Delgado, Flores, Elfas, Rivera	Denton Cone Turner González	Elfas Rivera Dary Bosque Velásquez Cruz Cano	Callier Acree			Campos	
09:30 - 12:00	INCAP presentation on "unified lab." concept				de Reyes Zúñiga Gilbert de Miranda Canahui	Coblentz		
14:00 - 16:30	Discussion	Denton Cone Turner González	Elfas Dary Bosque Velásquez					
January 28								
08:00 - 12:00	ALCOSA CO. Tour of lab.							
14:00 - 16:30	INCAP - Group Exercises							
January 29								
08:00 - 16:30	INCAP - Group Exercises & Discussion	Denton Turner González	Elfas Rivera Dary Bosque Velásquez Cruz		de Reyes Zuniga Gilbert de Miranda Canahui	Coblentz		

61

Date	Location	SUSTAIN	INCAP	ROCAP	LUCAM	Planning Assistance	OPS	Potential Clientele
January 30 08:00 - 16:30	INCAP Discussion Roundtable with potential clientele Wrap-up and next steps	Denton Turner Cone	Elías Rivera Dary Bosque Cruz Velásquez	Acree	de Reyes Zúñiga Gilbert de Miranda Canahui	Coblentz	Campos	AGTA GREFAL Gremial USAC DIGESEPE
January 31	ROCAP/INCAP 2. <u>INCAP - Collaborative Seminar Planning</u>	Nelson Turner Denton	Delgado Elias de Reyes de Leon Fischer	Callier Curtis				
February 1	3. <u>Institutional Planning</u> Hotel Camino Real	Nelson Denton Turner	Delgado Flores Elías Dary	Callier				
February 3-4	INCAP 4. <u>Follow-up & In-Country Technical Assistance Planning</u>	Turner	Elías de Reyes de León					AGTA: Alvaro Menendez Juan Carlos Morales

11

Appendix III

INCAP PRESENTATION UNIFIED ANALYTICAL LABORATORIES (LAU)

JANUARY 27, 1992

INTRODUCTION

The following laboratories operate at INCAP as part of the Institute's chemical-biological and technological analysis facilities:

Food Technology	Division of Agr. and Food Science
Animal Nutrition	Division of Agr. and Food Science
Food Chemistry and Biochemistry	Division of Agr. and Food Science
Experimental Animal Room	Division of Agr. and Food
Biochemistry of Nutrition	Division of Health and Nutrition
Nutrition, Infection, and Immunology	Division of Health and Nutrition
Human Physiology	Division of Health and Nutrition

In response to the need for an increase in efficiency and effectiveness regarding INCAP's laboratories' analytical capacity, sophisticated and expensive laboratory equipment from the divisions of Agricultural and Food Science and Health and Nutrition were pooled in one institutional laboratory. This laboratory was called SAL (Specialized Analytical Laboratory); funding was obtained from the Pan American Health Organization (PAHO).

At the present time, these laboratories have the following staff members: Food Chemistry and Biochemistry - 3 professionals and 5 support staff. Nutritional Biochemistry - 3 professionals and 6 support staff.

A different strategy was proposed in 1991, when the establishment of the Unified Analytical Laboratory (LAU) was set forth. This laboratory is the result of coordinated and integrated actions of the Food Chemistry and Biochemistry section of the Division of Agricultural and Food Science, and the Nutritional Biochemistry section of the Division of Health and Nutrition, in specific work areas.

THE CONCEPT OF LAU

At the present time, LAU is conceived, in a very wide sense, as the integration of those of INCAP's laboratories with chemical-biological and technological analytical capacity. The object of this integration is to use of laboratory resources more efficient and effective in order to reach research goals.

LAU will be involved in common interest internal affairs such as safety norms and measures, emergency norms and measures, waste treatment, equipment purchasing, preventive maintenance and other important aspects.

SITUATION OF LAU AT THE PRESENT TIME

At the moment, LAU is comprised of the two section mentioned above, to which the section of Nutrition, Infection and Immunology and the area of Food Microbiology will be added. These sections will form a multidisciplinary work team, whose area will be mainly Food Safety.

Interaction has also been planned between INCAP and LUCAM (Central Laboratory for Food and Drug Analysis Control) as regards joint projects: the established abilities and expertise of LUCAM guarantee that the association will benefit both parties, as well as the population served.

Funding sources are institutional funds and specific projects. In the latter case, the availability of funds will depend on the projects carried out by INCAP each year.

At the present time, the services provided by these labs are mainly related to food quality and safety (proximate chemical composition, selected minerals and vitamins, amino acid analysis, nutritional evaluation of foods). Potential clients are public and private institutions.

LAU OPERATION

The integration of these facilities will take place under the supervision of the Laboratories Committee, which will carry out the following:

1. The responsibility of coordinating and integrating the policies, norms, resources and analytical activities carried out at INCAP.
2. Quality control of analysis and service excellence.

This Committee will be made up of one person from each laboratory and a representative of LUCAM, who will act as link between institutions.

- CA** - Food Technology (includes Sensory Lab and Pilot Plant)
- Nutritional Technology (Nutritional value, animal vivarium)
(room)
- Chemistry and Biochemistry of Food
- Animal Nutrition (includes ICTA facilities)

- NS - Microbiology (Infections, Imm. Nutr.)
- Nutritional Biochemistry (Clinical Chemistry)
- Physiology

- LUCAM - Contaminants (Pesticides, heavy metals, toxins)
- Physical Chemistry of Foods (Carbohydrates, additives, fatty acids, etc.)
- Food Microbiology

POSSIBLE SERVICES IN FOOD INDUSTRY

Sensory Analysis, Physical Analysis, Functional Properties

Nutritional Value

Food Composition (Proximate, fatty acids, minerals carotenoids, vitamins)

Feed

LAU ORGANIZATION

Food Lab.	Specialized Agricultural and Science/ Health and Nutrition Laboratories
LAU	Animal Nutrition Lab. Food Technology Lab. Committee Food Microbiology Lab. Nutritional Technology Lab. Nutritional Biochemistry Lab. Human Physiology Central Laboratory for Food and Drug Analysis Control. (LUCAM) ICTA

GROUP EXERCISE PROCEEDINGS

Appendix IV, "A"

CONSIDERATIONS

TYPE OF ANALYSIS	EQUIPMENT RESOURCES
PERSONNEL	ORGANIZATIONAL STRUCTURE
BUSINESS/FINANCE MANAGEMENT	FUNDING
USERS	TIME FRAME
MARKETING/SALES	PHYSICAL SPACE
COMPARATIVE STRENGTH (competitors)	
RELATION TO INCAP MISSION, STRATEGIES	

Appendix IV, "B"

INCAP

MISSION: To help INCAP member countries in solving their food and nutrition problems.

STRATEGIES: Technical transfer
Food and Nutrition Surveillance
Advocacy
Strengthen INCAP member countries
to solve their problems

PROGRAMS:

1. Infectious diseases that affect nutritional status.
2. Nutrition of school children, adolescent and adults
3. Health and nutrition of mother and child
4. Prevention and control of specific nutritional deficiencies
5. Food and nutrition technology
6. Food safety
7. Systems of food production and consumption
8. Food socioeconomics
9. Politics and programs of food and nutrition surveillance
10. Strengthening of the processes for training in food and nutrition
11. Strengthening of the processes of training in food and nutrition of professional and in service technical personnel
12. Strengthening of the food and nutrition component in programs and projects of community development

21

Appendix IV, "C"

GOALS FOR LABORATORY SERVICES

	Ref.	Serv.	Resch
Strengthening Research Capabilities	x	x	x
Source of income	x	x	x
Contribute to the Nutrition and Health of population	x	x	x

Appendix IV, "D"

CONSIDERATIONS FOR STARTING REFERENCE LAB

- . Analytical capabilities
- . Recognition for quality control
- . Political support
- . Market
- . Access to analytical standards/check samples

Appendix IV, "E"

DEFINITION OF ALTERNATIVE LABORATORY STRUCTURES

- RESEARCH: . Development of new knowledge
- REFERENCE: . Check samples for other laboratories ("round-robin" samples)
. Standardized Methodology
. Arbitration
. Training in methodology
- SERVICE: . Analyses for fee
. Technical Assistance for fee
- REGULATORY: . Analyses according to laws and regulations
. Force of law (leads to investigation by other Ministries)

Appendix "E" (continued)

DESCRIPTIONS OF POTENTIAL LABORATORY SERVICES

Nutrition Surveillance (Clinical Chemistry of Biological fluids)

Micronutrients
Protein/energy
Effect of toxins
Enzymes/metabolites

Food Composition

Proximate Chemical Composition
Vitamins
Minerals
Fatty acids (including polyunsaturated fatty acids)
Fatty acids
Amino acids
Biological value
Sugars

Contaminants

Pesticides
Heavy metals
Mycotoxins

Food Microbiology

Enteric-Pathogens
Salmonella
Campylobacter (no competition)
Coliforms (fecal and generalists)
E. Coli
V. Cholerae
Plate count (bacteria and molds)
Others: Listeria

Additives

Sensory Analyses (acceptability)

Adulterations

Physical properties (texture)

Biochemical and Nutritional Evaluation of Foods and Feed

Functional Properties

Bioavailability of Nutrients

Appendix IV, "F"

OPTIONS

OPTION No.1

70% Research
20% Technical Assistance (T.A.)
in lab. techniques for fee

10% Service for fee

OPTION No.2

50% Research
25% Reference
20% T. A. for fee
5% Service

OPTION No.3

50% Research
50% Reference

OPTION No.4

70% Service

20% Analyses for fee
50% T.A.
10% Training
10% Research
10% Reference

OPTION No.5

50% Research
50% Service

24'

Appendix IV, "G"

OPPORTUNITIES & CONSTRAINTS

REFERENCE CONCEPT

Clinical Chemistry	Chemical Composition	Contaminants	Microbiology	Biological Value	Technical Assistance Activity Sensory Anal.	General
<ul style="list-style-type: none"> *Methodology *Equipment *Personnel <p>STRENGTHS/OPPORT.</p> <p>-----</p> <p>WEAKNESSES/CONST.</p> <ul style="list-style-type: none"> *International recognition *Access to standards 	<ul style="list-style-type: none"> *Analytic capability *Personnel *Equipment <p>-----</p> <ul style="list-style-type: none"> *International recognition *Marketing *Analytic standards 	<ul style="list-style-type: none"> *Demand <p>-----</p> <ul style="list-style-type: none"> *No capability 	<ul style="list-style-type: none"> *Analytic capability (currently performing services) <p>-----</p> <ul style="list-style-type: none"> *Etc. 	<ul style="list-style-type: none"> *Personnel *Equipment *Recognition <p>-----</p> <ul style="list-style-type: none"> *Marketing *Customers 	<ul style="list-style-type: none"> *Personnel (technicians facilities) <p>-----</p> <ul style="list-style-type: none"> *Professionals 	<ul style="list-style-type: none"> *Analytic capability *Recognition for quality control *Political support *Market *access to analytic study *Check samples <p>-----</p> <ul style="list-style-type: none"> *Management *Finance *Business *Personnel

25

Appendix IV, "G" (continued)

OPPORTUNITIES & CONSTRAINTS

SERVICE CONCEPT

	Sensory Analyses	Nutritional Surveillance	Food & Feed Composition	Contaminants	Additives	Food Microbiology
Strengths/opportunities	Trained personnel Potential demand No competitors	Equipment Personnel No competitors Organized Structure No limit to expansion	Equipment Personnel Organized Structure Weak competition	Potential demand (big problem)	Potential demand	Personnel Equipment
Weakness/Constraints	Physical space Professionals Finance management	Customers	Limited No. analyses Vitamin (other than "A") and mineral analyses Marketing Weak incentives for private sector Turn around time	No capability Marketing		Personnel Additional equipment Marketing Physical space Competitors

Marketing
Business/Financial management

Appendix IV, "H"

STRATEGIES TO ADDRESS WEAKNESSES/CONSTRAINTS

SERVICE/REFERENCE CONCEPTS

WEAKNESSES/CONSTRAINTS	STRATEGIES
Customers	Market research, including identification of competitor capabilities
Market Research/Publicity	I.D. services to offer through: <ul style="list-style-type: none"> . Market research . Capability analysis Publicize services through: Brochures, seminars, booth at trade show, training courses, technical assistance
Capabilities/Resources <ul style="list-style-type: none"> .Equipment .Professionals .Technicians 	Identify resource needs through: <ul style="list-style-type: none"> . Market research . Capability analysis . Financial plan/budget
Physical space	INCAP <ul style="list-style-type: none"> .Space management LUCAM <ul style="list-style-type: none"> .More difficult .Evaluate in investment/financial strategies Options
Demands on Resources	Evaluate under investment strategies/budgets Sharing resources with INCAP
Management (Business and Finance)	Hire service manager with expertise in Business and Finance Management

Appendix IV, "J"

ROUNDTABLE ON NEED FOR "SERVICES"
(Laboratory, technical assistance)

LIST OF PARTICIPANTS*
January 30, 1992

Nombre	Dirección	Tel.	Fax	Compañía Entidad	Actividad Principal	Título
Francisco Solórzano	Ruta 6, 9-21 Zona 4	346872-7	3223590	Gremial de Exportadores	Comisión Agrícola	Ing. Agr.
Thelma A. de Gallardo	14 Av."A" 39-38 Zona 8, Edif. T-12, Cdad. Univer. Z.12	760985 y 86, ext.393		Escuela de Química, USAC	Directora Escuela Química	Químico
Pedro Noriega Ruiz	2a.C.50-16 Z.2, Mixco, Mol. de las Flores	912301		Escuela de Química, USAC	Prof. Supervisor Prog. de EDC	Químico
Willy Knedel	7 Av."A" 7-81 Zona 2	21770		Escuela Química, USAC	Investigador	Químico
Dannys Cifuentes	10 Av. 14-00 Zona 1	500108	500108	Control de Alimentos, Ministerio Salud	Jefe Depto. Control de Alimentos	Médico Veterinario
Helio Urzúa	10 Av. 14-00 zona 1	500108	500108	Control de Alimentos, Ministerio Salud	Asesor Legal control de Alimentos	Licenciado Abogado
Alvaro Menéndez	15 Av. 13-55 Zona 10	682826 y 766229	318364	AGTA	Ventas Técnicas	Ing. en Alimentos
Guillermo Caballeros	Bárcenas, Villa Nueva, Km. 22.5	0312013 al 17	0312012	DIGESEPE-MAGA	Jefe Depto.	

* The group decided to meet again on March 10, 1992. INCAP will send out notices (Sandy Callier/ROCAP, Rick Clark/ROCAP and a representative from ICAITI will also be invited).

Appendix IV, "J" (continued)

Nombre	Dirección	Tel.	Fax	Compañía Entidad	Actividad Principal	Título
Luis G. Elías	INCAP, Apartado 1188, Guat.	719912	736529	INCAP	Jefe División Ciencias Agrícolas y de Alimentos	Científico en Alimentos
Berkley Cone	ALCOSA	0341-337		ALCOSA		Lic.
Joseph Coblentz	1229 15th St. N.W., Washington, D.C. 2005	202-797-9711	203-387-5474	Planning Assistance	Planificación y manejo gerencial en desarrollo	Director Asociado para Programas de Ayuda y Seguridad Al.
John Acree	ROCAP/RENARM 2av. 9-01, Z.10	313515, 367372	348502	ROCAP/RENARM		
Elizabeth Turner	SUSTAIN 1401 N.Y. Avenue NW. Suite 1100 Washington, D.C. 20005	202-638-6222	202-638-1374	SUSTAIN	Program Director	
Luis Velásquez	INCAP, Apartado 1188, Guat.	723762-7	736529	INCAP	Química analítica	Químico
Floralma Cano	INCAP	723762-7	736529	INCAP	Supervisor, Lab. Bacteriología y Parasitología Intestinal	Químico Biólogo
Dr. Arnold Denton	SUSTAIN 1401 N.Y. Avenue, NW Suite 1100 Washington, D.C. 20005	202-638-6222	202-638-1374	SUSTAIN	Senior Vice-President, Campbell Soups (retired)	Professor Purdue University
Leonardo F. de León	INCAP	723762-7	736529	INCAP	Desarrollo y Transferencia de Tecnología Progr.	Tecnólogo de Alimentos
Concepción M. de Bosque	Apartado 1188, Guat.	723762-7	736529	INCAP	Protec. de alimentos.	Ciencia y Tec. de Alimentos
Luis Eduardo Reyes	INCAP	723762-7	736529	INCAP	Tecnología de Alimentos	Ing. Químico Industrial

Appendix IV, "J" (continued)

Nombre	Dirección	Tel.	Fax	Compañía Entidad	Actividad Principal	Título
Walter R. Gilbert	LUCAM	717336		LUCAM	Análisis Plaguicida	Químico Farmacéutico
Marit de Campos	LUCAM	717336 o por INCAP, EXT. 456		OPS/LUCAM	Protección de Alimentos	Ing. Química
Elsa de Reyes	LUCAM	717336 o por INCAP, Ext. 458		Ministerio de Salud	Protección de Alimentos y Medicamentos	Ing. Química
Azucena de Zúñiga	LUCAM	INCAP Ext.458 y 459		Ministerio de Salud	Supervisión y análisis físico-químico de alimentos	Químico Farmacéutico
Teresita de Miranda	LUCAM	717336		Ministerio de Salud Pública	Supervisión y análisis microbiológico de alimentos	Químico Biólogo
Juan Carlos Morales Marcucci	Apartado Postal 8F, Guatemala, Ciudad 01910		318364	AGTA	Asociación de Tecnólogos	Lic. en Mercadotec. y Admón. de Empresas

Appendix IV, "J" (continued)

ROUNDTABLE ON NEED FOR "SERVICES"
(Laboratory, technical assistance)
January 30, 1992

GENERAL QUESTIONS

1. From your experience, do you see a need for lab services?

For example _____
(list tests)

2. Where do you think the demand will come for lab. services?

ie, restaurants, feed manufacturers, vegetables, cereals, etc.

3. Where do food enterprises currently go for lab services?

4. Are these services adequate? Why or Why not?

5. What factors do you think might effect the demand for lab services in the future?

ie, export market, nutritional labeling, etc.

6. Do you see a need for technical assistance and training in the food industry? In what areas?

Appendix IV, "J" (continued)

ROUNDTABLE ON NEED FOR "SERVICES"
(Laboratory, technical assistance)
January 30, 1992

PREGUNTAS GENERALES

1. De acuerdo a su experiencia cree usted necesario los servicios de laboratorio?

e.g. _____

2. De dónde cree usted que surgirá más la demanda por servicios de laboratorio?

e.g., de restaurantes, fabricas de alimentos, vegetales, cereales, etc.

3. A dónde van usualmente las fábricas de alimentos a solicitar servicios de laboratorio?

4. Son éstos servicios adecuados?

Por qué sí?
ó

Por qué no?

5. En el futuro, que factores cree usted que afectarían la demanda en servicios de laboratorio?

e.g., el mercado exportador, etiquetado nutricional, etc.

6. Cree usted necesario una asistencia técnica y capacitación en la industria de alimentos?

En qué áreas?

22

Appendix IV, "J" (continued)

ROUNDTABLE ON NEED FOR "SERVICES"
(Laboratory, technical assistance)
January 30, 1992

ACTA No.1

En la Ciudad de Guatemala, el día jueves treinta de enero de mil novecientos noventa y dos, en el Auditorium del Instituto, se reunieron las siguientes personas:

ASISTENTES:

Srita. Elizabeth Turner/SUSTAIN
Sr. Arnold Denton/SUSTAIN
Sr. Joseph Coblentz/Planning Assistance
Sr. Barkeley/ALCOSA
Dr. John Acre/ROCAP
Lic. Marit de Campos/OPS
Lic. Elsa de Reyes/LUCAM
Lic. Azucena de Zúñiga/LUCAM
Lic. Walter Gilbert
Lic. Teresa de Miranda
Dr. Luiz G. Elías/INCAP
Dr. Omar Dary/INCAP
Lic. Floridalma Cano/INCAP
Ing. Leonardo F. De León/INCAP
Ing. Luis E. Reyes/INCAP
Lic. Concepción de Bosque/INCAP
Lic. Luis Velásquez/INCAP
Lic. Francisco Solórzano/Gremial de Exp. Prod. No
Tradicionales
Ing. Alvaro Menéndez/AGTA
Lic. Juan Carlos Morales/AGTA
Lic. Helio Urzúa/Ministerio de Salud
Dr. Dennis Cifuentes/Ministerio de Salud
Lic. Gustavo Gini/USAC
Lic. Thelma de Gallardo/USAC

A las 8:30 horas se declaró abierta la reunión para el Sondeo de Necesidades de diferentes sectores involucrados en el área de Protección de Alimentos.

El Dr. Luiz G. Elías inició la reunión como primer punto con la presentación de los asistentes, seguido de la participación de la Srita. Elizabeth Turner, quien dio una breve reseña histórica de lo que es SUSTAIN, seguidamente, el Dr. Elías, indicó el propósito de dicha reunión y en base a preguntas generales formuladas juntamente con el grupo de trabajo SUSTAIN y miembros del INCAP y LUCAM fue moderada la misma.

33

1. De acuerdo a su experiencia cree usted necesario los servicios de laboratorio?

- Si, son necesarios los servicios de un laboratorio, por lo que se requiere que éste tenga acceso no sólo al empresario grande sino también al pequeño y mediano productor nacional, puesto que no tienen el capital para montar un laboratorio de Control de Calidad por lo que se afirma una vez más la necesidad de un laboratorio ya que la industria de alimentos es muy empírica.
- La Gremial de Exportadores de Productos No tradicionales agregó que sería de gran beneficio un laboratorio para así lograr los objetivos deseados con la ayuda de un buen Plan Integral de Capacitación, que involucre no sólo un análisis sino que considere incluso la fase inicial que realiza el productor.
- LUCAM afirmó que si es necesario un laboratorio, que incluya además un asesoramiento en todo lo que es la cadena alimentaria.
- Es necesario tener un Centro de Investigación para verificar y definir puntos críticos de control en donde el INCAP debe jugar un rol importante que tenga la característica de accesibilidad US\$ a los productores de alimentos. En ellos los servicios analíticos participarían a través de la normatización.

2. De dónde cree usted que surgirá más la demanda por servicios de laboratorio?

De restaurantes, fábricas de alimentos, vegetales, cereales, etc.

- Se necesita un laboratorio para análisis de carnes, así como leche y mariscos siempre nos hemos referido a ICAITI hemos tomado acciones conjuntas con el Ministerio de Salud Pública.
(Ministerio de Agricultura) pero no ha sido posible satisfacer la demanda.
- Hay una gran necesidad en control de materia prima en el pequeño y mediano empresario. Por ejemplo: en el campo de aditivos.
- La Lic. Azucena de Zúñiga/LUCAM, mencionó que es muy importante brindar servicios de laboratorio en lo que respecta a preservantes, colorantes, productos lácteos, carnes, adulteraciones en aspectos de jugo alimenticio, salsas de tomate, etc.
- Por otro lado, el Lic. Menéndez del AGTA agregó que también es importante analizar los ingredientes que compran ciertas empresas de alimentos que no son de grado alimenticio, las adulteraciones, etc. Pero que para ello se tiene que empezar por educar a la población. El Dr. Elías agregó a esto de que hay que tomar en cuenta varios ángulos tanto el área del productor como el de la industria para que ambos puedan producir en forma eficiente.

3. A dónde van usualmente las empresas de alimentos a solicitar servicios de laboratorio?

- Respondiendo a esta pregunta la USAC se refirió a empresas privadas o bien estudiantes que han solicitado servicios analíticos así como los pequeños y medianos productores, en algunos aspectos si es posible atender dicha demanda, pero en otros no, pues ya que no tenemos la capacidad de análisis de alimentos. La política de la USAC ha sido la de aceptar en la medida que hay equipo, desarrollar determinados análisis.
- El Dr. Cifuentes del Depto. de Control de Alimentos del Ministerio de Salud habló sobre la importancia del control de calidad en la venta callejera de alimentos, las cuales se debieran de eliminar por no cumplir con los requerimientos esperados, pero debido a su fuerte demanda es imposible. Sería muy importante desarrollar una buena metodología mediante un laboratorio de acceso en el que puedan asistir estas personas.
- El AGTA señaló también refiriéndose a los restaurantes, en que éstos deberían saber cual es la calidad nutritiva de lo que venden, por lo que podrían convertirse en posibles usuarios, siempre y cuando sea algo accesible en tiempo y costo. (hospitales, restaurantes, etc.)
- En Guatemala, solamente hay 2 laboratorios LUCAM e ICAITI, existen algunos laboratorios privados que prestan servicios de análisis de alimentos pero que son relativamente de alto costo. Al respecto la USAC, también añadió de que muchos de los laboratorios privados sirven como intermediarios o sea que aún queda un vacío por satisfacer.

4. Son estos servicios adecuados?

Por que sí? y Por qué No?

- La Lic. Elsa de Reyes, indicó que la demanda de servicios es alta y los laboratorios no tienen la suficiente capacidad para atenderla.
- La Lic. de Campos indicó que no es adecuado el servicio ya que no existe un acuerdo con la industria. Por lo que habrá que mejorar estos aspectos.

5. En el futuro que factores cree usted que afectarían la demanda en servicios de laboratorio?

- El Lic. Morales del AGTA informó que el F.D.A. va a establecer un requisito de etiquetado o sea que la demanda aumentaría en este aspecto.
- El Lic. Velásquez de INCAP agregó también en respuesta a esta pregunta de que todo va a seguir las leyes del mercado, por lo que la tendencia es al crecimiento.

- El Dr. Dennys Cifuentes, Jefe del Depto. de Control de Alimentos del Ministerio de Salud, informo a los asistentes que se espera la Integración Centroamericana y se nos ha considerado como barrera no arancelaria por lo que los laboratorios LUCAM, INCAP y demás serán insuficientes para esta tarea.

6. Cree usted necesario una asistencia técnica y capacitación en la industria de alimentos? En qué áreas?

- Identificar una serie de productos para ver que normas son necesarias para implementarlas.
- Qué personal es el más adecuado para llevar a cabo este trabajo.
- Conocimiento de técnicas agrícolas que sean convenientes para llevarlas a la práctica.
- Qué técnicas de manejo son las apropiadas
- Un miembro del AGTA agregó que no se cuenta con mucha información relacionado a los productos en "Vida de Anaquel" o sea que sería otra área en la cual se necesita capacitación, por lo que es necesario tener centros o instituciones que respondan a problemas específicos en la industria alimentaria.

Respondiendo a ésto el Dr. Elías agregó que se va a tratar como un área de acción a través de Seminarios.

Se discutió sobre la debilidad que se tiene en el área de "Etiquetado de Nutricional de Alimentos":

- El Lic. Velásquez hizo una pregunta acerca de cómo se prevee el "Etiquetado Nutricional" a largo plazo, corto plazo? Respondiéndose a ésta que se prevee a largo plazo puesto que muchas de las etiquetas no llenan los requisitos mínimos del control de alimentos y habría que pensar si el laboratorio tiene la capacidad para responder a esta debilidad que tiene la industria.
- La Gremial de Exportadores de Productos No Tradicionales informó sobre el tema de que el etiquetado se conceptualiza a un producto industrial y que actualmente, la gremial pretende en lo que respecta a verduras, crear un sello de garantía que certifique la calidad del producto que se está exportando, así como los que se consumen internamente.
- A este respecto, la Lic. de Campos informó que la Comisión de Normas está trabajando en Etiquetado Nutricional pero con la desventaja de que no tienen un laboratorio propio.
- La Lic. de Bosque, explicó de que Costa Rica es el país donde más se ha avanzado en lo que respecta a Etiquetado Nutricional, puesto que se han definido necesidades específicas, esto implica que el gobierno tiene que tener la capacidad suficiente para responder, la industria tener la garantía de esa calidad y que se quiere fortalecer a nivel de los países toda la capacidad para reforzar el etiquetado nutricional.

Por otro lado, se manifestó que se necesita reforzar más el área de Comunicación entre instituciones:

El AGTA manifestó que se carece de comunicación en cuanto a la información de los servicios que se ofrecen en INCAP, así como los de muchas otras instituciones, por lo que el Lic. Morales informó a los asistentes y especialmente al personal de INCAP de la edición de una nueva revista en la cual si INCAP lo considera, podrían anunciarse servicios específicos.

Asimismo, la Lic. de Campos agregó que cada uno en el campo de su especialidad pueda colaborar como un todo y que USAC especifique en qué áreas ofrecen servicios: hay inquietud en Química de Alimentos, desarrollar aspectos que no se tocan en INCAP desarrollarlos en USAC. A esto el Dr. Elías agregó que ya hay en camino una solicitud de USAC al respecto.

El participante de la Gremial de Exportadores de Productos No Tradicionales agregó que sería conveniente realizar un inventario en el cual se presenten las áreas en las que somos débiles y en las que somos fuertes, y ver cuáles son las necesidades de cada sector, pues ya que se desconocen los servicios, se recomendaría a través de la forma escrita para extenderlas a otras instituciones.

Otra área donde se necesita asistencia técnica es el de los Plaguicidas y Pesticidas y a ésto añadieron:

La Gremial de Exportadores de Productos No Tradicionales manifestó que uno de los problemas que han tenido ha sido lo relacionado a la contaminación de los alimentos debido al mal uso de los plaguicidas, ya que la mayoría son pequeños productores y desconocen las normas de aplicación de los mismos, por lo que se requiere colaboración a través de un "Sistema de Control de Calidad en lo que es la contaminación".

La Lic. Elsa de Reyes informó de que LUCAM ha prestado el servicio de Plaguicidas y Micotoxinas, asimismo información sobre manejo de Plaguicidas ya que es una Comisión Interinstitucional la que está trabajando y en este momento se están teniendo pláticas con el INCAP para lograr una mejor coordinación de nuestros servicios.

La Lic. de Campos informó a los asistentes que ROCAP publica un listado de Plaguicidas aceptados por el F.D.A. y que pueden referirse a este listado para mayor orientación.

El Sr. John Acree de ROCAP informó a los asistentes del proyecto que se está desarrollando en el área de Plagas y Pesticidas agregando que el F.D.A. quiere hacerlo para tener una base de datos para poder desarrollar proyectos para el futuro.

Siendo las doce horas con treinta minutos, se dio por terminada la mesa redonda, acordando la fecha del lunes dos de marzo del presente año para una proxima reunión y dar seguimiento a esta actividad.

INSTITUTO DE NUTRICION DE NUTRICION DE CENTRO AMERICA Y PANAMA
(INCAP)
DIVISION DE CIENCIAS AGRICOLAS Y DE ALIMENTOS

DIV.	SECTION	PERSONNEL				EQUIPMENT			CAPABILITIES	NEEDED FOR EXPANSION						
		Prof.	Tech.	Help.	Stud.	Name	Out/Order	Oper.		PERSONNEL				EQUIPMENT	SPACE	
										Prof.	Tech.	Help.	Stud.			
AC	Anim.Nut.	03	05	20	02	Fiber Crude	x		Nutritional Evaluation of feeds and crops.					2 fibertec 1 kjeltec 1 mufia 1 horno convección 1 water bath 1 balance pH meter		
					OTMS	x										
					Encubator	x										
					Facilities per raising chickens pigs and cows	x										
AC	Food.Tec.	09	01	01	03	Equipment of food processing, size pilot plant principally for grains, fruits and vegetables		x	Development of products and technological transfer	02	02	02	02	Is necessary equipment for processing of dairy products and meats. Size pilot Plant and equipment for control process.	Is necessary space for improve pilot plant	
					Balances		x									
					Tintometer		x									
					Water Bath		x									
					Potenciometer		x									

28

DIV.	SECTION	PERSONNEL				EQUIPMENT			CAPABILITIES	NEEDED FOR EXPANSION						
		Prof.	Tech.	Help.	Stud.	Name	Out/Order	Oper.		PERSONNEL				EQUIPMENT	SPACE	
										Prof.	Tech.	Help.	Stud.			
						Viscosimeters		x								
						Amilograto		x								
						Farinografo		x								
						Sensory Analysis Equipment		x								
AC	Nut.Tech.	02	06	01	02	Spectrofotometer		x	Measurement of Nutritional	01	--	--	--	Shaker water bath Freeze dryer Strengthening animal room and lab. Animal balance Methabolic animal jail Convention oven Stainsteel grinder		
						Potenciometer		x	Value, and Nutrients							
						Water bath		x	Availability							
						Analytical balance		x								
						Semi-analytical balance		x								
						Mixer		x								
						Animal Jail		x								
						Methabolic animal jail		x								

29

DIV.	SECTION	PERSONNEL				EQUIPMENT			CAPABILITIES	NEEDED FOR EXPANSION							
		Prof.	Tech.	Help.	Stud.	Name	Out/Order	Oper.		PERSONNEL				EQUIPMENT	SPACE		
										Prof.	Tech.	Help.	Stud.				
MM	Mut. Inf.	04	07	02	07	Incubators		x	Three areas: <u>Bacteriology and Parasitology:</u> Culture bacteria (main, enteric pathogens) Virus: Virus culture, dx enteric, polio <u>Molecular biology:</u> Tecnic; Western blott, hidridateon ADN, and few months going to do PCR electrophoresis. <u>Immunological Tecnies:</u> ELISA Contraimmunoelectrophoresis Immunodifusion Immunofluorecense Antiserum producers for dx: shigella and E. coli enteropatogeno	02	01	-	-	For microbiology food support in equipment for analysis of foods: 1 microspero 1 water bath 1 incubator 1 refrigeteror 1 stomacher 1 colony count	It is necessary an isolated area of clinical space.		
					Autoclaves(esterilizador equip.)		x										
					Potenciometer		x										
					Water-Bath		x										
					Hot-plate-stirer		x										
					Bacteriological chamber		x										
					Microscopes		x										
					Electrophoresis equipment		x										
					Elisa Equipment		x										
					Vortex		x										

ok

DIV.	SECTION	PERSONNEL				EQUIPMENT			CAPABILITIES	NEEDED FOR EXPANSION						
		Prof.	Tech.	Help.	Stud.	Name	Out/Order	Oper.		PERSONNEL				EQUIPMENT	SPACE	
										Prof.	Tech.	Help.	Stud.			
AC	Chem.Bio.	01	02	01	--	2 HPLC		x	Chemical composition of foods + feeds	02	03	01	03	Automatic soxhlet extractor Atomic Absorption spectrophotometer, 2 hood extractors HPLC supplies enough.		
						2 Gas Chromatographer		x								
						2 Electroforesis		x								
						1 Colorimeter		x								
						1 UVvis		x								
						2 Column Chromatography sample collectors		x								
						1 DF (Dietary Fiber)		x								
						2 Crude Fiber (1 auto/1 manual)		x								
						1 Kjeldhal (Nitrogen Anals)		x								
						4 Temp. control Baths		x								
						2 Calorimetric Bombs		x								

117

DIV.	SECTION	PERSONNEL				EQUIPMENT			CAPABILITIES	NEEDED FOR EXPANSION							
		Prof.	Tech.	Help.	Stud.	Name	Out/Order	Oper.		PERSONNEL				EQUIPMENT	SPACE		
										Prof.	Tech.	Help.	Stud.				
						2 Analytical balances		x	*Analysis of residues of contaminants in foods and feeds: Pesticides (organochlorines, organophosphates,								
					1 Aminoacid Analyser		x										
					3 Rotary Evaporator		x										
					2 Mill (sample prep)		x										
					1 Lyophilizer		x										
					3 Centrifuges		x										
					2 Vacuum Oven		x										
					1 Soxhlet Extractor (18 units)		x										
					1 Furnaces		x										
LUCAM	Contamin.	02	04	02	1 GLC with 4ECD		x				02	01					*The atomic absorption spectrophotometer must be replaced. The graphite furnace is not working.
					1 GLC with 1FPD & 1FID		x										
					1 GLC with 1ECD & 1FPD		x										

12

DIV.	SECTION	PERSONNEL				EQUIPMENT			CAPABILITIES	NEEDED FOR EXPANSION								
		Prof.	Tech.	Help.	Stud.	Name	Out/Order	Oper.		PERSONNEL				EQUIPMENT	SPACE			
										Prof.	Tech.	Help.	Stud.					
						1 Varian GLC with 1ECD & 1FID		x	carbonates dithiocarbonates, fumigants) Heavy metales (traces of lead, cadmium, cooper and others mercury, arsenic, borom, zinc, iron, etc.) Mycotoxins (aflatoxins, zearalenona, ocharatoxins) Sea food toxins (saxitoxins) *Training personnel on residue analysis. *Reference laboratory (preparation of check samples)					*A new GLC with MPD (Nitrogen-Phosphorus Detector) *Some glassware and reagents	At least, one more room: 40 m(2).			
					1 Atomic absorption 305A s		x											
					1 MPLC Dupont with UV & Fluorometrix Detector		x											
					1 Spectrophotometer		x											
					3 ovens, 3 furnaces, pH meter,		x											
					2 freezers, 2 refrigerators,		x											
					3 analytical balances, glassware for pesticide analysis.		x											
LUCAM	Fis.Quim.	02	05	02	01	GLC con FID		x		Fisical Analysis Sensorial Refraction index Calories Microscopio	02	04	02				GLC 1 HPLC Computadora Cristaleria Repuestos	Espacio fisico para bodegas de papeleria, reactivos y muestras. Espacio para computo.
						MPLC UV Iref.		x										
						Espectrofotometro Uv/vis		x										

67

DIV.	SECTION	PERSONNEL				EQUIPMENT			CAPABILITIES	NEEDED FOR EXPANSION									
		Prof.	Tech.	Help.	Stud.	Name	Out/Order	Oper.		PERSONNEL				EQUIPMENT	SPACE				
										Prof.	Tech.	Help.	Stud.						
									Entidades estatales y privadas que manejan donaciones de alimentos. Asistencia técnica interpaíses en organización y administración de laboratorios. Sistemas de información de alimentos.										
MM	Food Mic.	02	02	02	01	4 autoclaves		x	Determination of:	01	02	01							
						1 Oven		x	Salmonella					1 Incubator					
						4 Incubators		x	Vibrio cholerae					1 Balance					
						7 Water Bath		x	Shigella					1 Oven					
						3 Vortex		x	E. Coli					Glassware					
						1 pHmeter		x	S. aureus					Culture Medium and Reagents					
						3 Balances		x	Clostridium (botulinum, perfringens)										
									Bacillus cereus										
									Molds										
									Total Count										
									Coliforms										

5-

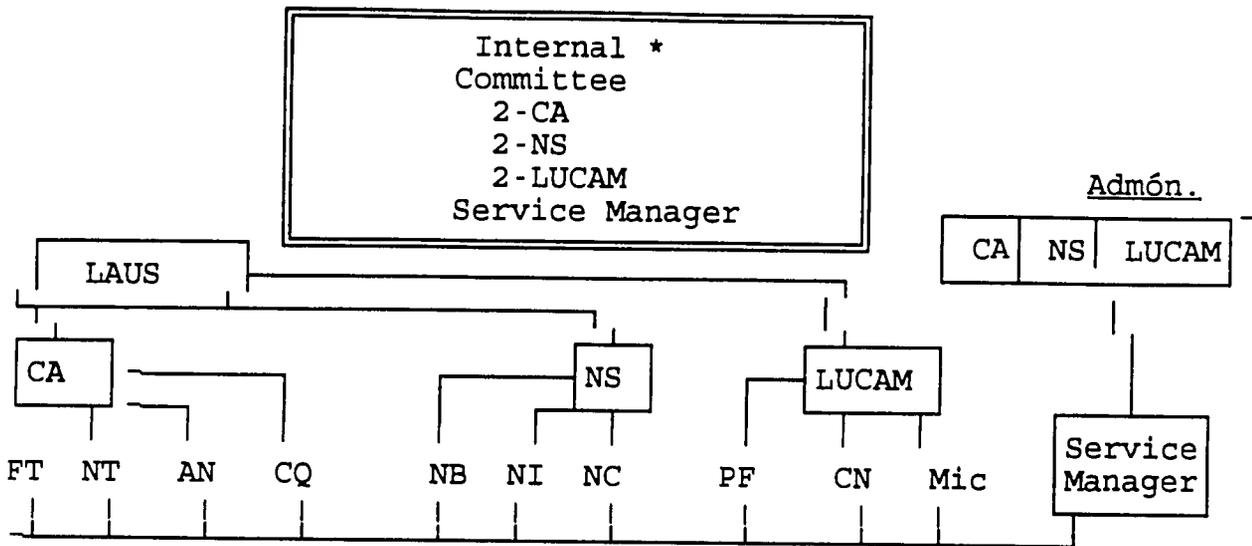
DIV.	SECTION	PERSONNEL				EQUIPMENT			CAPABILITIES	NEEDED FOR EXPANSION							
		Prof.	Tech.	Help.	Stud.	Name	Out/Order	Oper.		PERSONNEL				EQUIPMENT	SPACE		
										Prof.	Tech.	Help.	Stud.				
						1 stomacher		x	Training personal in service								
					1 freezer		x										
					3 refrigerators		x										
HW	Nut.Bio.	01	03	01	02	Analytical balance (2)		x	Analysis of metabolites in human thirds and biomolecules (ghucose, creative, retinol, ferretine, iron, iodide).	02							
					Atomic absorption		x										
					Ca(2)+ Analyzer		x										
					Fluorimeter		x										
					Scintillation Counter		x										
					Preparative centrifuges		x										
					Ovens		x										
					Water baths		x										
					Gamma counter		x										

46

46

Appendix IV, "K"

ORGANIZATIONAL STRUCTURE



Services for fee

- . Technical Assistance
- . Laboratory Services
(These areas will be managed by Service Manager.)

* **Purpose of Internal Committee:** To make decisions about internal operations and coordinator of laboratories.

Appendix IV, "K" (continued)

SERVICE MANAGER CONSULTANT *

Options for Scope of Work

The service manager of the project could be viewed as a contractor. He/she gets the services by sub-contracting with the head of each laboratory who has agreed to participate in this project. Each laboratory head would then decide how to deliver the services including whether or not new resources are required.

- Identify fee for service activities under reference lab, analytic lab, and technical assistance.
 - He/she makes a decision regarding the timing, scope of work, etc. for market research.
 - He/she meets with all laboratory heads to ask if they want to participate.
 - Those that do decide what analyses they can do, the price they must charge, the number they can do, the turn around time, etc.
 - Decide from the market research data and the laboratory discussions what services to offer.
 - It may be necessary to subcontract for specific analyses.
 - Prepare and execute marketing; sales; and financial plan.
 - After paying each section expenses to cover the full cost of service, service manager decides how the profits are distributed.
- * Must have strong business, finance, and marketing skills.

Appendix IV, "L"

WORK PLAN: SERVICE LABORATORY

<u>PHASE</u>	<u>ACTIVITY</u>	<u>PARTICIPANTS</u>
PHASE I March 31	Prepare proposal Consult with legal counsel on proposed organizational structure Develop budget for market research and consultant (acting service manager) Circulate draft proposal and budget Administrative decision to proceed	CCI O. Dary C. de Bosque Admin. Resp.
PHASE II May 31 May 31	Scope of work for consultant (acting service manager) Hire consultant must have strong business, finance, marketing management experience) Contract for market research	Administ. O. Dary C. de Bosque L. Velasquez L. G. Elias Berkley Z. Gonzalez LUCAM
PHASE III August 31	Receive market research report Capability analysis Market/sales plan and budget Financial plan Final administration decision Decision on hiring Service Manager	Consultant
PHASE IV September 30	Final Administrative Decision	CCI
PHASE V December 31	<u>Execution:</u> Hire service manager (must have strong business, finance, marketing, management experience) Acquire needed resources Start operation	Administration

QUE ES AGTA?

La Asociación Guatemalteca de Tecnólogos en Alimentos (AGTA), es una entidad privada, científico tecnológica, cultural y educativa, no lucrativa, apolítica, no religiosa. Agrupa tanto a profesionales como a personas que trabajan en la industria alimenticia y por supuesto a estudiantes de las ramas afines a la misma.

Fue fundada en octubre de 1987 por profesionales que trabajan en la industria alimenticia, que vieron la necesidad de profesionalizar a la industria, como adelantar el desarrollo industrial y técnico de nuestro país en el "Área de la Ciencia y Tecnología de Alimentos" trayendo como consecuencia el mejoramiento de la calidad de los alimentos. Siendo a la fecha la única Asociación guatemalteca que agrupa a este gremio de profesionales. Goza de personalidad jurídica desde el 3 de agosto de 1991 y cuenta a la fecha con 75 socios individuales y 10 empresas asociadas.

AGTA a su vez se encuentra afiliada al "Institute of Food Technologist (IFT) de los E.E.U.U. y a la Asociación Latinoamericana y del Caribe de Ciencia y Tecnología de Alimentos. (ALCCTA).

Entre los principales objetivos de AGTA se encuentran los siguientes: (a) Elevar el nivel de conocimientos científicos y tecnológicos de los profesionales relacionados con la industria de alimentos; (b) Estimular el intercambio de información e ideas relacionadas con la Ciencias y Tecnología de Alimentos, así como la colaboración técnico científica entre los sectores involucrados mediante la organización periódica de seminarios y conferencias; (c) Proveer y difundir las investigaciones en la

Ciencia y Tecnología de Alimentos y (d) Operar como organismo de opinión y asesoría en materias relacionadas con la Ciencia y Tecnología de Alimentos.

AGTA, edita bimensualmente la revista informativa de la Asociación, con noticias científicas y tecnológicas de importancia en la Industria de Alimentos del país y del área de Centro América, así como eventos a realizarse en el ámbito de la Ciencia y Tecnología de Alimentos. La Revista acepta para su publicación artículos relevantes a este área de la ciencia y publica además gratuitamente noticias y empleos disponibles y eventos de otras asociaciones similares. La revista se distribuye al personal de la Industria Alimentaria de Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica y Panamá.

Actualmente AGTA está organizando el Primer Congreso de la Industria de Alimentos- AGTA 92, a realizarse del 12 al 15 de febrero de 1992 en el Hotel "El Dorado". Todo se encuentra listo para que por primera vez en Guatemala se den cita industriales y empresarios, técnicos y profesionales, científicos y estudiantes, proveedores e interesados del fascinante mundo de los alimentos. El reto lo ha tomado AGTA, sin embargo el compromiso es de todos los que estamos empeñados en producir alimentos en cantidad suficiente y de calidad óptima para la población guatemalteca.

Si desea mayor información sobre como asociarse a AGTA, búsqenos en el stand número 5, solicítela al Apartado Postal 8F 01910, Guatemala, Guatemala, o con el Lic. Clark MacDonald, actual Presidente de la Asociación a los teléfonos: 310654 y 318362, Fax: 502-2-310167.

EVENTOS QUE AGTA HA ORGANIZADO

(Oct. 1990 a Dic. 1991)

- Seminario "Desarrollo de Productos Nuevos en la Industria de Alimentos". Oct. 15 y 16, 1990
- Convivio Navideño Dic. 1990
- Conferencia "Técnica Moderna en Lecherías" Feb. 1991 (Colaborando con la Cámara de Industria de Guatemala - CIG - ICAITI)
- Seminario "Gerencia de Calidad en la Industria de Alimentos" marzo 5, 6 y 7 1991 (Colaborando con CIG y Universidad de San. Carlos de Guatemala - USAC).
- Conferencia "Estadística y Control de Calidad, Mayo 1991.
- Excursión a IFT 91, Dallas, Texas, Junio 1-6 1991.
- Conferencia "Procesamiento Aséptico de Vegetales" Junio 1991.
- Seminario "Etiquetado de Productos Alimenticios" Julio 2 y 3, 1991.
- Asamblea General, Sept. 1991.
- Exhibición de Catálogos de IFT 91, Nov. 1991.
- Conferencia de Prensa AGTA 92, Nov. 1991.
- Seminario "Higiene en la Industria de Alimentos", Dic. 6, 9, 11 y 12 1991. (Copatrocinado por CIG, USAC y AGTA).
- Convivio Navideño, Dic. 1991.

1991
JUSTY
OLD

AGTA is Very Active

The Guatemalan Association of Food Technologists (AGTA) held their very successful First National Congress of the Food Industry and Industrial Exhibit in Guatemala City, February 12-15, 1992. The program, attended by about 130 food professionals from 8 countries, consisted of symposia, papers, and an exhibit. About 35 presentations dealt with: "Shelf Life of Foods", "Industrialization of Soybean Foods and Byproducts" (the 2 symposia) and a series of papers on food export opportunities, standards and regulations, quality control, packaging, product development, marketing and amaranth utilization. Affiliate organization, IFT and ATAM (Mexican Association of Food Technologists) were represented on the program by Bob Bates and Carlos Alvarez, Chairman and Secretary of IFT's International Division respectively and past president of ATAM. The Food Industry Exhibit by about 35 Guatemalan and International food companies, and related organizations was well designed and presented.

The Executive Committee of AGTA and President Clark MacDonald are to be congratulated for a very well orchestrated conference. The symposia, papers, exhibit and social events would all do justice to a successful IFT Annual Meeting. AGTA certainly put the Guatemala Food Industry in a favorable light and set a high standard for Guatemalan hospitality.

Particularly impressive was the enthusiasm and dedication of AGTA's Executive Committee. This bodes well for the future of AGTA and the Guatemalan Food Industry. Excluding Dr. Ricardo Bressani, Scientific Program Coordinator, the average age of the group was about 35 (roughly the same length as Ricardo's impressive career). Ricardo was recognized for his appreciable contribution to Food Science and Nutrition in Guatemala and Internationally by being awarded AGTA's first honorary membership.

IFT is proud to be affiliated with such an enthusiastic and proficient group as AGTA. They are an important regional resource and an excellent model for food industry/institutional cooperation and development in LDC's. Look for the next AGTA Congress scheduled for 1994. It will be well worth attending.

Bob Bates

Appendix VI

RESULTS OF QUESTIONNAIRE*
MARCH, 1992

TO BE USED TO PROMOTE

EDUCATION

BUSINESS

Service Manager

AGENDA PLANNING
MEETING

WORKSHOP/ROUNDTABLE
INCAP

SEMINAR
SEPT, 1992

MARKET RESEARCH

DECIDE IF INCAP
CAN OFFER
SERVICE

* A questionnaire will be developed by INCAP (and reviewed by AGTA), to identify technical problems and needs among food processing companies in Central America. The questionnaire will be given to participants at the AGTA'92, I Congreso Nacional de la Industria Alimentaria y Exposición Industrial, February 12-15, 1992.

Appendix VII

TO DO BY INCAP

1. Maggie, Luis Reyes and Dr. Luiz Elías to develop a draft questionnaire* by February 5 (limited to 2 pages).
2. Take draft to AGTA on February 5 (preferably in the morning).
3. AGTA to review draft. INCAP to pick up comments by February 7 in the morning.
4. Have 200 copies of final questionnaire delivered to the Hotel El Dorado by 2 p.m., February 12.
5. Letter to AGTA by February 12 stating results of questionnaire will be shared with them.
6. Letter from Dr. Elías to AGTA summarizing areas of agreement for sharing information, workshop planning, etc. (February 7).
7. Ask pre-requisite for participating in the lottery, attendees must fill out questionnaire and have card stamped by 15 exhibitors.
8. Final product - results compiled, tabulated summarized by INCAP by March 1, 1992.

* A questionnaire will be developed by INCAP (and reviewed by AGTA), to identify technical problems and needs among food processing companies in Central America. The questionnaire will be given to participants at the AGTA'92, I Congreso Nacional de la Industria Alimentaria y Exposición Industrial, February 12-15, 1992.

Appendix VIII

AGTA/INCAP: PROJECT

INCAP CAN PROVIDE:

- . Continuing Education
- . Coordination with USAID'S University Linkage Program (U.C. Davis)
- . Publications
- . BITNET
- . Use of library
- . Technical assistance to help AGTA establish library

AGTA CAN PROVIDE:

- . Identify Needs of Private Sector, including requests for:
 - . Information material
 - . Technical Assistance
 - . Workshops

- . Access to AGTA data, including mailing list and questionnaire

- . Publish information in notices, etc., in AGTA magazine.

Long - Term-goals

- . Develop Central America IFT
- . Consumer behavior and research



Appendix IX

Intercham

International Chamber of Commerce

HONDURAS

Cámara Internacional de Comercio



Sun Pedro Sula, Cortés
January 7, 1992

Mr.
Weldon Blanton
PROJECT SUSTAIN
1401 New York Ave.
N.W. Suite 1100
Washington, D.C., 20005-2160
U.S.A.

FAX: (202) 638-1374

Dear Mr. Blanton:

I take this opportunity to wish you a very happy New Year, hoping it will be filled with happiness and success in every moment.

Mr. Henry Fransen has asked me to get in touch with you regarding the conversation that you had some days ago, with reference to our (INTERCHAM) intention to continue acting as a liaison of PROJECT SUSTAIN here in Honduras and to have a tight follow-up missions to Honduras in 1992.

FPX has requested us to serve as the mechanism to obtain help from you:

They would like to know if through Project Sustain could offer the seminar given by Dr. Ronald Jowitt, Ph. D., Professor of Food Science Section of King's College in London, about "Hygienic Design and Operations of Food Plants", this course was given by Dr. Jowitt in Costa Rica and with the financial assistance of AID. *gms*

Also, they are in need of a seminar on "Packaging of frozen and dehydrated products for export"; these seminars will be organized by both institutions, INTERCHAM & FPX and would like to offer them in the next months.- Pls. advise us if it's possible for Project Sustain to assist us in this matter.

Pls. let us know if you have been able to get us some information on "Dehydrated Eggs".

In case you need Dr. Ronald Jowitt address:

King's College London
University of London
Food Science Section

London, England FAX: 71 937 7783

P.O. Box 1145, San Pedro Sula, Honduras, C.A. Tele 57-4994 / 57- 5656 FAX (504) 52-2438

Regards,
Ana L. de Medina

INDUSTRIAS SULA

S. de R.L. de C.V.

PLANTA, ALMACENES Y OFICINAS EN:
KILOMETRO N.º. 6
CARRETERA A LA LIMA
SAN PEDRO SULA, HONDURAS, C. A.
TELEFONOS: 53-1626 / 57-8668
TELEFAX: 5701 PUBLICO HO
CABLE "SULAIMPEX"
FAX: (504) 57-1881

APARTADO POSTAL 374 • SAN PEDRO SULA, HONDURAS, C.A.



November 25, 1991

SUSTAIN MAGAZINE
Editor: Elizabeth Turner
National Cooperative Business Association
1401 New York Ave. N.W.
Suite 1100
Washington, D.C. 20005,
U.S.A.

Dear Miss Turner:

We read an interesting information in your volume 4, number 2, August 1991 about Infant & Children's Food Projects by Jee Vee Food Industries in India and Weaning Foods comment by different USA Food Technologists and please be advised that our firm with 22 years in the Food Processing Business is very interested in to develop new products to feed the children of low income families all over this Central America Area.

Unfortunately the facilities to obtain US Dollars are very difficult at this moment in Honduras; but we have practically all the necessary equipment at hand, as cooking, frying, extruding, dehydrating, freezing and packing machinery and the main raw materials for the processing are cultivated in Honduras.

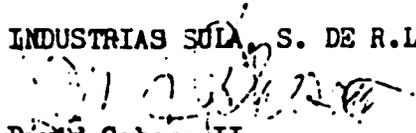
What we really need is the technical assistance and to develop a project in detail with all data information as process, equipment and raw materials. need in order to work later under the assistance of a qualified technician.

We are writing to you, asking your help in this project, with the main idea to fulfill the feeding necessities of thousands of poor children with an adequate nutritive food diet at cheap cost.

Thanking your kind attention to these lines, and hoping to receive your news soon, we remain

Sincerely yours,

INDUSTRIAS SULA S. DE R.L. DE C.V.


David Cabeza II
President.

51