

ONUDI

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Capacity building for the rehabilitation of the food industry in Angola

Report of the Mission

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From September 18th to October 17th

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Letter of the Director of IIM

1. Introduction

The mission took place in Angola, from 18th September to 17th October 2003, where were developed activities in concordance with the reference terms.

The mission was carried out in Luanda and in Tombwa (Namibe) cities. In Luanda city the IIM (Instituto de Investigaciones Marinas) has its headquarters and one of the pilot plant is located, and in Tombwa there are two pilot companies and a laboratory of the IIM.

The activities were developed in coordination with national representants: Eng. Homar Simao from Angolan Institute of Quality (IANORQ), Lic. Barros Licenca, from Ministry of Industry and Biol. Isaac Cativa Herculano from Department of Fishing of Namibe. It was conformed "a good work team".

The national representatives participated in all the developed activities in Luanda and Tombwa and due to the complementary work of the consultant Dr. Amador Ripoll, all the activities were developed in closely collaboration with him.

2. Developed activities:

2.1 *GMP and HACCP: practical follow up of the activities conducted during the previous mission, preparation of manuals and in-plant training/support activities to be carried out in the selected enterprises*

The developed activities were mainly in pilot enterprises: PESINAGRI, PESTOMBWA Group, and CRUCEIRO DO SUL

These activities consisted substantially on a combined work directed by the consultant, among the technicians of the companies, the technicians of the IMM and the participation of the national representatives Homar Simao and Isaac Cativa. The advance reached in each company was different, due to the varied situations of each one. For example, PESINAGRI gathered conditions that allowed advancing substantially in HACCP System implementation, so we can affirm that is the first Angolan Food Industry to implement and to start HACCP system.

In PESTOMBWA Group, canned plant, it was emphasized the concept of Food Safety. For the type of product, it should work to raise the company conscience about the necessity of have exhaustive controls on the sterilization, recommending better controls in cans closing systems and to take thermal - graphic records in the process of sterilization.

CRUCEIRO DO SUL is dedicated to elaborate dried-salted products. For this reason, they have very low sanitary risk (practically 0), and they know

deeply all the technological aspects of the products. In this case, the advice was guided to good practices of manufacture implementation and personal hygiene.

2.1.1 PESINAGRI

Of these three selected companies, PESINAGRI, is the one that is under better conditions from a hygienic - sanitary point of view (see mission's report 23/04/2003).

During the mission, we worked jointly with *Helena Jardim Marinho*, Technical Director responsible for quality control system of the company, the staff from IIM and Mr. Isaac Cativa Herculano, support technician in Namibe.

Due to consultant's application, this technician traveled to Luanda to participate in the Seminar of Sensibilization.

This company is in the list proposed by IIM to export to EU. For this reason during 4 days, it was concentrated the activity on the elaboration of its HACCP Plan (Annex I) and in instructing on application and implementation in the practice of the Plan.

2.1.2 PESTOMBWA Group (Canned)

Contact: Miguel José Nunes Director

Enterprise Profile

Raw Material: Carapau (Jurel), Cavala, Sardina (several species), Tunas.

Suppliers: They do not have own ships, the raw material comes from ship owner companies: Fropesca, Dourado, Empromar. Artisanal Fishery (1% of the total).

Tunas are captured with purse-seiner and small pelagic like: Carapau, Cavalat, and Sardine with purse seining. They are fresh vessels. They do not have freezer equipments and the time from capture to processing plant is few hours.

Elaborated products: Carapau fillets, Tuna in vegetable oil, Tuna paste, sardine fillets, Cavala fillets, etc. (See Annex II)

Installed capacity: The plant has a capacity of processing of 17 tons of raw material /day, which represents 21.000 cans of 460 grams each one (9,5 tons/ day of canned products).

Marketing: The company sells with difficulty the products in the local market, due to the competition with imported products and

because they have problems in the distribution of them. "In the moment of our visit they had 30.000 cans of different products without being able to marketed.

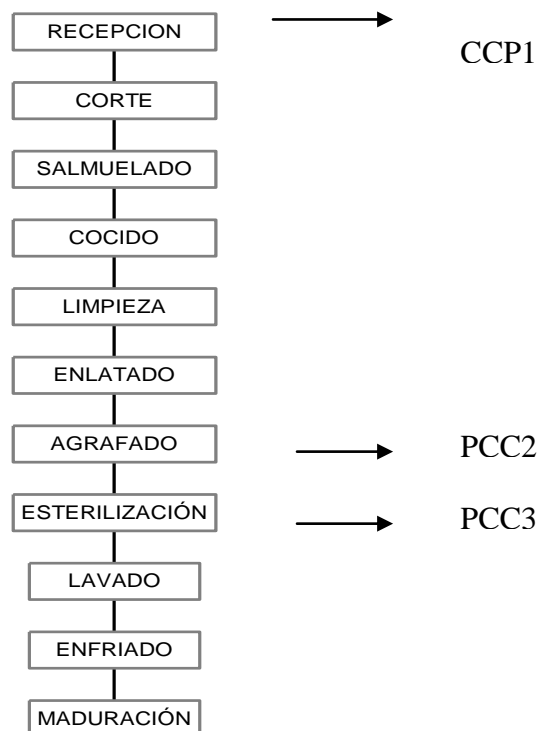
Aspects related with food safety: it was carried out an inspection – audit of the processing plant accompanied by Isaac Cativa and Homar Simao, being detected the following aspects:

- Facilities: old, problems in roofs and openings.
- Entry: lack of entry with facilities for toilet and the personnel's hygiene (neither washbasin neither foot-baths).
- Clothing: a lot of people with street clothes in the process area.
- Teams: adequate process lines of steel inox
- Sterilizers: appropriate
- Process: lack of control of process of hygiene, lack of control of thermographic records of sterilization (critical defect)
- Water: lack of cloration analysis and potability (critical defect)

The enterprise has a modern processing line with “automatic” sterilizers. Usually the IIM Laboratory retires samples (or they are sent). The samples are analyzed and a certificate is emitted for its qualification for marketing.

The technicians from IIM do not carry out hygienic - sanitary inspections. It lacks implementation of auto control HACCP System, so it was implemented and discussed which should be the minimum aspects to be included. It was carried out a production flow chart and CCP's were determined

FLOW CHART OF ELABORATION OF CANNED PRODUCTS



It was recommended to the company that the Critical Control Points identified (CCP2 and CCP3) require special attention. The elaboration of canned products determines that a defect in the control of the two CCPs is automatically a potential hazard for the consumer health, even they death due to ingestion of botulin toxin (*Clostridium botulinum*). So, the implementation of controls in the systems of closing and sterilization with thermo-grafic records are inevitable.

There were treated and carried out recommendations on aspects related with the GMP and SSOP like: control of entries, personnel's clothing, wardrobes, water quality, facilities, equipments, etc

2.1.3 CRUZEIRO DO SUL LDA

Contact: Joao José Alves Baptista - Sub Director
Enterprise Profile

Raw Material: carapao 80%, cavalla 10%, sardine 10%, They do not have own ships and they have a great dependence of other people.

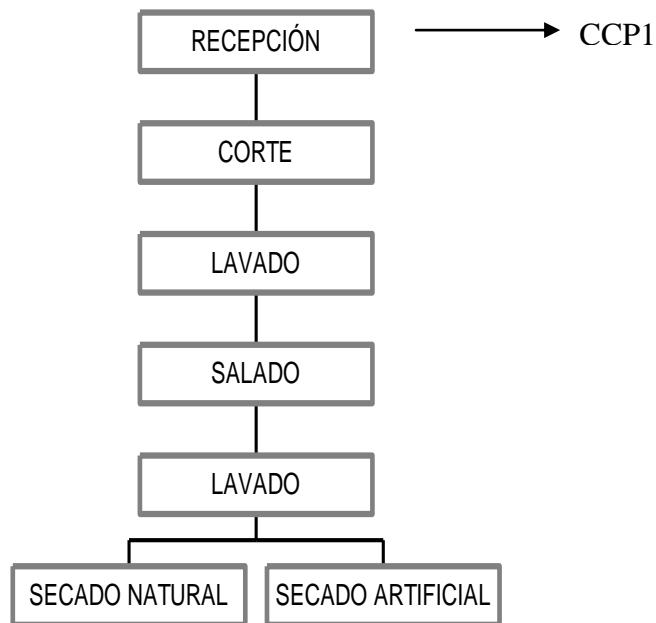
Suppliers: Fropesca y Pestran are the supplying companies of raw material but they only supply 10% of the installed capacity, what generates an inactive capacity of 90%.

At the moment, they are in negotiations with a Sudafrican company that would provide the vessels in form of technical attendance and with the possibly of conforming a mixed company.

Processing: The raw material used comes from vessels that not belong to the company. The quality is acceptable since the travels do not overcome 6 hours. The process is carried out in combined form, the cut is automatic. The salted process is carried out in appropriate deposits and later is dried in natural or artificial form. They have a tunnel of drying with a capacity of 4 ton/day. The yield obtained during the whole process is 33%. The salt used comes from local salines, has good quality and there is abundant quantity of the same.

Marketing: 100% of the production is marketed in the country where the products have good reception. There was in some moment intentions without success to export to Democratic Congo. The sale system is “in front of the door of the plant” not having quality problems. The price of the raw material is U\$S 130-160 and the sale price is around U\$S 830 ton.

FLOW CHART OF ELABORATION OF DRIED –SALTED PRODUCT



3. Seminars on hazards related to fish processing (from fishing to the table), Training of trainers on GMP, SSOP and HACCP as well as auditing *Seminars on hazards related to fish processing (from fishing to the table)*

These two activities were developed in complementary and combined form in several training instances.

13 people participated in the seminar on Auditing of HACCP System (from 1 to 3 November). All of them participated in workshops of previous missions.

The topics developed in this seminar were:

ETA (Food-Borned Illness.)

Refreshment of HACCP principles (practical exercises)

Importance and promotion of CODEX ALIMENTARIUS

AUDITS: Introduction - Definitions and terminology - General vision of the productive chain of the fishery products - Objectives of the audit - Characteristics of the audit (concepts) - The auditor - The ten commandments of the effective communication - Classification or types of audits - Frequency of the audits and classifications of the enterprises - Activities of pre – audit - Organization of the team, which will act in the audit - Desirable attitude during an audit, Activities or phases of the audit - Step by Step of the audit - Initial Meeting - Preliminary Verification "in situ" - of the "layout" of the establishment and confirmation in the production line - of the diagram(s) of flow(s) of the products in the HACCP Plan - Audit of the pre-requirements (Good Manufacturing

Practices - GMP) - and the Sanitation Standard Operating Procedures (SSOP) for the implementation of the HACCP System - Audit of the Critical Control Points – CCP's, The audit of the procedures of the records - Preparation of the, report of audit of HACCP System - Final Meeting with the - General Direction of the Company and the team, Schedule of the Report of the audit of the HACCP System - Evaluation of HACCP Plan, Hygienic - Sanitary Control of the establishment - Control of Good Manufacturing Practices GMP - List of classification of defects.

The technicians trained were (trainers of trainers):

Maria de Fatima Da Conceicao de Melo Director of Laboratory Ministerio de Agricultura y desarrollo Rural	Evaristo Manuel Lourenco Inspector IIM Joao da Conceicao Gomez Inspector IIM
Helana Jardim Marinho Biologist – PESINAGRI	Manuela Raquel Jaime Inspector IIM
Maria de Conceicao Camacho Viera Inspector IIM	Osvaldo Serafim da Costa Inspector IIM
Cidalina Gomes Manuel da Costa Tecnologist	Maria Manuela Hung de Oliveira Pinto Director of laboratory of marketing
Clotilde Lida S.R. Economist - Ministerio Industria	Homar Simao IANORQ
María Antonia Sanazenge Inspection of Health Maria Pedro Gaspar Sobrino INSP MINSA	Tungu Silvain Control Quality Chief IIM Gregorio Victor Neto IIM of Tombwa Namibe

4 Workshop on the needs for updated and international acknowledged food safety regulations

El Workshop *on the needs for updated and international acknowledged food safety regulations* was held on October 14th in the IIM. It was carried out an exhibition on technical and bureaucratic aspects of the international legislation (EU and USA), discussing practical aspects related with the requirements that should be completed to be accepted fundamentally by the EU, because on November 17th they will receive a new evaluatory visit.

The different regulations were revised, fundamentally the Directive of the European Union 91/493 that makes reference specify to fishery products.

Besides formal aspects, it was made a special point of the attitude that it should be assumed by the inspection service in front of the European inspectors, further away of the strict execution of the normative.

The participants of the Workshop were:

Maria da Conceicao	IIM
Manuela Raquel Jaime	IIM
Evaristo Manuel Lourenco	IIM
Joao da Conceicao Gomes	IIM
Oswaldo serafim da costa	IIM
Homar Simao	IANORQ
Isaac Cativa Herculano	Departamet of Fisheries, Namibe

5 *National awareness seminars on food safety*

The seminar of sensibilization on food safety was carried out in October 13 in the auditory of the IIM. 46 persons attended to the event from public and private entities.

The contents of the seminar were: Why is the inspection of food necessary and who should carry out it?; the role of the government and the private sector in the food safety; Food-Borned Illness; traditional inspection and HACCP System; exports control; imports and internal market.

The participants of the Seminar were:

Manuela Raquel Inspector IIM	Cidalina Gomes Manuel da Costa Tecnichian Ministerio de Pesca	Antonio N. Ndengoloka Técnico IIA
Albertina Cecilia Inspector IIM	Rita María L. Santos Chief of Department Instituto do Café	Antonio Manuil Laboratorio Ministerio de Industria
Maria de Conceicao Camacho Viera Inspector IIM	Desidelia Viegas Technician IIA	Lourenco da Cunha Directora Nacional Ministerio de Industria

Jose Miguel
Ambrosio
Gestor
Dirección Nacional de
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Maria Oliveira
Chemical Analyst
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Fernanda Silva
Director
IANORQ

Marcelino Camina
ADECOR

Assuncao Pereiri
CODEX

Domingo Miguel
DNCI/CODEX

Clotilde Fancony
Técnico superior
MIND

Augusta Murias
SONANGOL

Cugacia Higuél
Technician senior
MINCO

Pedro Guiaungte
Manager
AROSFRAM

Fonseca Chiqueu
Chief of Department
DNI MIND

Antonio Lopez
Chief of Department
DNI MIND

Antonio Sems
MIND

Helana Jardim
Marinho
Directora Técnica
PESINAGRI

Avelina Carra
IIM

Isabel Barros
IIM

Antonia Maria Gomes
IIM

Amtonia Camadia
IIM

Jao Amntonio Manuel
GSA MINADER

María Fatima de Melo
MINADER

Santos Felix Pedro
GSA MINADER

Tungu Silvan
Jefe de departamento
IIM

Homar Simao
IANORQ

Isaac Cativa
Herculano
Departamento de
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Victor Manuel da
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Directora RH
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Clelia Coletto Freitas
Jefe Departamento
MIND

Manuel Jose
MIND UTICEP

Marcelo dos
kumoleha

Coimbra da Cosata

Evaristo Manuel
Lourenco
Inspector
IIM

Joao da Conceicao
Gomes
Inspector
IIM

Bento Junior
Inspector
IIM

Osvaldo Serafim da
Costa
Inspector
IIM

Maria Manuela Hung
Ministerio de
Comercio

6 Recommendations:

- Beginning of training activities and implementation of autocontrol systems directed to control organisms (Health, Agriculture, INANORQ,...) technicians and middle - management of the selected enterprises LACTANGOL, FAL, GREEN TERRA *, AGROAVES *
(*) *subject to visit for eventual incorporation*
- Follow -up of the activities carried out until the present in the fishery sector (fishery enterprises and IIM) see attached letter of the Director of IIM asking for more help.
- Follow –up of the activities at PESTOMBLUA AND CRUZEIRO DO SUL companies in Namibe city.
- The necessity to provide to technicians from Angola (formed into the framework of the project), visits to countries where the HACCP system is implemented (for example: companies in Brazil)
- Train to IANORQ on HACCP System and Audits
- Preparation of support manuals:
 - *MANUAL OF FISHERY PRODUCTS INSPECTION*
“Focus from the point of view of HACCP System, directed to Fishery Inspectors and technicians.
 - *MANUAL OF HYGIENE for WORKERS AND MIDDLE - MANAGEMENT of the FISHING INDUSTRY.*
 - *MANUAL OF INSPECTION AND FOOD SAMPLING.*