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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION (UNIDO)

FINAL REPORT

ASSISTANCE PROVIDED TO  
DIRECÇÃO GERAL DA ENERGIA E INDUSTRIA  
UPGRADING SKILLS OF STAFF IN PROJECT APPRAISAL

SHORT TERM TECHNICAL ADVISORY SERVICES (STAS)

HELD IN  
MINISTRY OF ENERGY, INDUSTRY AND NATURAL RESOURCES  
BISSAU, GUINEA BISSAU

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*Backlog off Mr. Kucowski  
17/02/95/TEAS*

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## INTRODUCTION

The purpose of this Project was to provide assistance to DGEI (Direçcao Geral da Energia e Indústria)<sup>1</sup>, in the field of upgrading skills of their staff in project appraisal.

Two main outputs had been envisaged for this mission:

1. a certain number of investment projects of small and medium size had to be appraised with comments and recommendations for future action,
2. experts of Guinea Bissau had to be trained on investment appraisal.

To accomplish these targets, specific tasks were undertaken:

- In the morning hours (April 25 to May 10), a Seminar on Project Preparation and Appraisal was implemented and addressed to staff of DGEI and other Guinean organizations involved in the process of investment appraisal. Participants were instructed with respect to the UNIDO methodology for the preparation and evaluation of industrial opportunity, pre feasibility and feasibility studies;
- In the afternoon (April 24 to May 11), investment projects were individually analysed and discussed with DGEI staff. These sessions provided also the chance to emphasize certain aspects of the subjects presented during the morning lectures.

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<sup>1</sup>.- General Direction of Energy and Industry

## RECOMMENDATIONS

1. Twenty five participants attended the Seminar, with diverse background, knowledge and experience in the field. It was noted that staff from organizations which are at the moment involved in the process of investment appraisal (notably DGEI), profited much more. It is recommended to select participants taking into consideration these conditions, for future seminars,
2. Needs for training are very different from one organization to another. A small group of persons with theoretical background and experience who participated in this opportunity, could be part of an advanced Seminar, devoted mainly to Financial Analysis and discussion of case studies. This follow up Seminar could be the beginning of a systematic training of trainers, since the new acquired skills could later be used to instruct staff from other organizations,
3. As a next step, the training on the UNIDO software COMFAR would be advisable in order to develop a standard presentation-methodology of the appraised projects in search for foreign investors. Appropriate hardware would have to be provided, as well.
4. The Guinean organizations involved in project formulation and appraisal lack appropriate materials (mainly books) for their personnel. It is recommended that several copies of the UNIDO Manual for the Preparation of Industrial Feasibility Studies (edited in 1994 in Spanish) be sent to Bissau as soon as possible. Other support publications would be of use also, as long as they are published in Spanish or French, when versions in Portuguese language are not available.
5. It was noted that only few participants owned pocket calculators, none of them with the possibility to work with financial functions. In order to estimate IRR, for instance, the graphic method is used, with the logic difficulties, imprecisions and waste of valuable time. It would be important if UNIDO could find a way to cover this need.
6. The analysis of projects in process of formulation or appraisal showed general weaknesses in the areas of market study and selection of equipment/technology. Inexistent, insufficient or unreliable data makes it very difficult for local experts to analyse present information and/or forecast future trends. It is also almost impossible for them, to get to know prices of foreign equipment. It is advisable that UNIDO be involved more efficiently in the process of supporting the work of local experts through the implementation of data bases and/or other ways of making information available.

## ABSTRACT

Under the provisions of Short Term Technical Advisory Services (STAS), this project aimed at providing assistance to the Direcção Geral da Energia e Indústria of Guinea Bissau (DGEI), in the field of improving the qualifications of personnel involved in the process of investment analysis.

Two main objectives were envisaged:

1. to help DGEI staff in the formulation and appraisal of projects under consideration and
2. training personnel of DGEI and other Guinean organizations on project preparation and appraisal, in line with the methodology and approach used by UNIDO.

The results were considered profitable. Twenty five experts received training and eleven local projects were analyzed and discussed applying UNIDO methodology.

More training is considered useful. It would be advisable, in order to gain efficiency, to start to train the future trainers through follow-up seminars and the presentation of the COMFAR software.

All contacted institutions are badly in need of UNIDO support: books, sector studies, pocket calculators, information on markets, prices of technology and equipment, selection of alternatives, etc. Local experts enthusiasm and good will cannot overcome these drawbacks which are crucial when it comes to formulate and/or appraise a project.

ACKNOWLEDGEMENTS

The consultant would like to express her sincere gratitude to the authorities and personnel of the Direcçao Geral da Energia e Indústria in Bissau, for their efficient support to this mission.

Special acknowledgement is addressed to the National Expert of the Project YA/RAF/94/043/17-03 and Chief of Division at DGEI, Mr. Suleimane Djaló for his enormous effort and excellent cooperation.

## I. PROJECTS EVALUATED

### I.1. INTRODUCTION

As one of the outputs of this mission, a list of possible projects identified by DGEI or other development governmental agencies had to be analysed in order to advise future action.

All projects but one were under study at DGEI. All are small to medium sized and refer to the local market, although some prospective export activities were considered, most aim to process available local resources (ex. fruits, fish, wood).

The analysis was performed during the afternoon sessions, working together with the local team of DGEI experts, who also attended the seminar in the morning. Projects were studied and discussed one by one, and it must be noted that - in general- investment proposals had been carefully studied. However, in some cases, a complete reformulation was advised in order to comply with UNIDO methodology.

General weaknesses are noted in market studies. New ideas were discussed so as to complete data on consumption levels, analysis of demand and supply. The work of local experts faces enormous difficulties due to lack of information, notably regarding:

- inexistent or insufficient statistical data of past-present levels of production, imports and exports for a given product,
- levels of supply and installed capacity,
- requirements to be observed to enter foreign markets,
- costs of foreign equipment and technology, f.i.<sup>2</sup> Guinea Bissau communication difficulties restrict the chances of obtaining information in order to appraise different equipment alternatives. Special attention and support is required from UNIDO at this respect.

For some projects it was advised a complete reformulation, for others an update of costs (production and investment) is required. For many, market studies should be carefully evaluated.

A list of the projects analysed and the respective recommendation is shown in the following page.

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<sup>2</sup>.- Some projects estimate investment costs through proforma invoices dated three years ago.



## 1.2. LIST OF EVALUATED PROJECTS

PROJECT	ENTREPRENEUR	STAGE
1. Fruits juice	P. Barreto	Formulation
2. Construction materials	I. Gomes	Updating. Invest.review
3. Praiamar. Fisheries	Monta Carmo	Reformulation Methodology to be reviewed
4. Tijogui. Briques Production	Serifo Baldé	Update
5. Fruits juice and jams	A. Monteiro	Update
6. Mandioc flour production	Rui Mendes	Review market study and financial statements
7. Fruits juice	A. Sané	Update
8. Fruits industrialization	Pinto-Martins	Update Reformulate market study
9. Oil and soap production	?	Review financial analysis
10. Carpentry	?	Formulation
11. Rabbit meat production (*)	?	Investment idea

(\*) Investment opportunity presented by GAI. All other projects belong to DGEI.

## II. THE SEMINAR

### II. 1. THE PARTICIPANTS

Twenty five participants (five women) attended the course, fifteen of them staff of DGEI (See annex 1).

Other institutions invited to attend the Seminar were: Chamber of Commerce, Industry and Agriculture, ANAG (Guinean National Association of Farmers), GAI (Ministry of Planning, Department of Investment Support), AGUIPEC (Guinean Association of Small Industries) and INITA (National Institution of Research and Applied Technology).

Seven participants are economists, eight engineers, five chemists, one agricultural expert, one accountant, two private entrepreneurs and one private consultant.

Twenty three persons had earned their professional degrees in foreign countries, mainly in Cuba, ex USSR, Romania, ex Democratic Republic of Germany, Yugoslavia, Bulgaria, Algeria, Portugal and Panama.

Participants who in their daily work are engaged in the preparation and appraisal of opportunity studies, prefeasibility and feasibility analysis said to have profited from the Seminar to a great extent.

### II.2. METHODOLOGY OF THE COURSE

The programme developed is shown in Annex 2.

The theory of the Project Development Cycle and different chapters of feasibility studies were introduced mainly during the first week. Special attention was devoted to Market Analysis due to the importance of the subject for the Guinean economy.

The theory of financial analysis was developed during the second week.

During the third week two case studies were analysed and discussed, one of them being a real situation under study in Guinea Bissau. The participants worked in groups of four/five persons.

- The first case ("Production of granite tiles") provided the chance to practice depreciation and residual value calculations, estimation of working capital requirements, debt service calculation (constant amortization), preparation of income statements and cash flow for liquidity planning, as well as analysis of NPV on total investment and on equity.

- The second case ("Production of materials for road construction in Guinea Bissau") analysed depreciation and residual value with periodic re-investment, debt service calculation (equal payments), development of income statements, cash flow tables, analysis of NPV and IRR (graphic method), sensitivity analysis and break even point.

The theory of Economic Analysis was presented at the end of the Seminar. This subject was new for many participants.

Special attention was devoted to subjects of interest to the country (ex. inflation, devaluation, etc. and their influence in the process of appraisal).

The guidelines for these lectures were the UNIDO "Manual for the Preparation of Industrial Feasibility Studies", the "Guidelines for Project Evaluation" and the "Guide to Practical Project Appraisal".

The last day of the seminar was spent on:

- evaluating to what extent the participants had profit from the Seminar (through forms with set of questions to be answered)
- general evaluation of the Seminar
- closing ceremony.

Participants were all very cooperative and the proceedings of the course were enriched by their willingness to discuss alternative methods of work which could be applied to the local environment.

### II.3. FACILITIES AND TIME SHCEDULE

The Seminar was conducted in the premises of the DGEI in Bissau, where a blackboard and a paper-panel with color dry-pens were provided.

Service of photocopying was available.

Official lecture hours were from 08.30 am till 12.30 pm. (See annex 2.)

### II.4. TEACHING MATERIALS

The participants received photocopies of materials prepared by the consultant on the subjects analysed during the lectures, case studies with their respective solutions, and support notes when needed (ex. on simple and compounded interest, compounding and discounting and inflation).

The consultant's copies of the Manual for the Preparation of

Industrial Feasibility Studies and of the Manual for the Evaluation of Industrial Projects (UNIDO publications translated into Portuguese) were given to the DGEI authorities, so that interested participants could have the chance to photocopy them.

## II.5. RESULTS

Two kind of evaluation forms were distributed to the participants on the last day of the Seminar:

1. one with a set of questions on the content of some lectures considered of importance. The results were considered satisfactory, although with important differences according to the experience of participants. It was noted that those participants who are engaged in the process of appraisal, profited much more.

2. the other, with multiple choices, was completed by 17 participants<sup>3</sup>, whose answers were:

- how the content of the Seminar had evolved in relation to your daily work?

- very well : 12
- well: 4
- satisfactory: 1

- which subjects would be advisable to emphasize?<sup>4</sup>

- project development cycle: 1
- engineering studies: 4
- financial analysis: 13
- economic analysis: 10
- case studies: 5
- others: marketing: 2

- how do you evaluate the consultant's work?

- very good: 16
- satisfactory: 1

- what recommendations would you stress for the future?

- more seminars of this kind to be implemented,
- more time for each seminar and to discuss cases,
- lectures scheduled at different hours, so as not to collide with normal work,
- to receive the materials before the beginning of seminar, especially books,
- to select consultants from developing countries

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<sup>3</sup>.- Original forms were given to DGEI authorities.

<sup>4</sup>.- More than an answer possible

At the Closing Ceremony, the participants received certificates, which were handed by Ms. Siv Tokle on behalf of UNIDO/UNDP, Mr. Filomeno Cuino (Chefe do Gabinete Ministerial), Mr. Henrique Meneses D'Alva (Director Geral da Energia e Indústria), Mr. Ernesto Dabo (Director do Gabinete de Apoio ao Investimento), as well as by the consultant.

Ms. Tokle, Mr. Meneses D'Alva, Mr. Cuino and Mr. Dabo delivered speeches on behalf of their respective organizations/offices. Two participants, Mr. Sané and Mr. Iamedi, from invited organizations (ANAG and AGUIPEC) thanked DGEI for having been given the chance to attend the Seminar. Ms. Tomasia Manjuba spoke on behalf of the participants.

## II.6. CONCLUSIONS

The Seminar was considered profitable by participants and local authorities, as well as by the consultant.

All participants expect to benefit from the Seminar in their daily work and to continue working with UNIDO in the future.