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ASSISTANCE TO THE NIGERIA-NIGER JOINT COMMISSION
FOR CO-OPERATION - PHASE II

DP/RAF/77/020

Terminal report*

Prepared for the Nigeria-Niger Joint Commission for Co-operation
by the United Nations Industrial Development Organization,
acting as executing agency for the United Nations
Development Programme

Based on the work of Z. Svejnar, Chief technical adviser

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I. INTRODUCTION

The Nigeria-Niger Joint Commission for Cooperation was created by the signature of a Convention to that aim by the two Governments in Niamey on 3 March 1971. The functions and duties of the NNJC are stated in article 2 of the Convention which reads as follows:-

"The Commission is hereby vested with general and exclusive competence to identify the several ways and means of co-ordinating and harmonising the economies of the two countries with a view to achieving increased and more effective co-operation between the two countries. The Commission shall also be responsible for proposing to the two Governments, parties to this Agreement, measures and projects capable of stimulating the general establishment of full harmonious and balanced co-operation between the two countries."

In pursuance of those duties, the Secretary-General of the NNJC presented, in April 1977, an Official request to UNDP, for technical assistance for the development of the Komadougou/Yobe river basin and for the execution of studies in order to promote industrial projects.

UNDP entrusted UNIDO with execution of the Project in the capacity of the Executing Agency, initially with FAO acting as Associated Agency. Later, the FAO assistance was sponsored under a separate project. The relevant Project Document was signed in August 1978.

The Project was envisaged to start in July 1978 but actually it was launched only in June 1979 with the recruitment of the experts on the Project, the Principal Technical Adviser on behalf of UNIDO and the Agro-industrial Economist on behalf of FAO.

However, the incumbent on the post of the Principal Technical Adviser had to be replaced after one year by another Project Manager. The third Project Manager was appointed in March 1983. His assignment terminates by the end of Phase II of the Project in June 1985. The Project as such got in full gear only from July 1980 on.

It has been executed since then from 1980 to 1982 by Mr. Guy Lambert-Daynac, Agro-industrial Economist, and by Mr. Vladimir Kaigl, Principal Technical Adviser, and from 1983 to 1985 by Mr. Zdenek Svejnar, Principal Technical Adviser.

More details concerning some official arrangements and the history of the Project are stated in Mr. Kaiql's Technical Report DP/ID/SER:A/375 of 1 September 1982.

II. CONTRIBUTIONS

According to the budget attached to the Project Document, the contributions agreed upon were as follows:-

UNDP input :	US \$359,625
Governments cost sharing input :	US \$372,125
Governments input in kind :	F.CFA 126,450,000

The Governments cost sharing input was fully paid right at the start of the Project, as mentioned under II above.

Due to the inflationary increase in the standard accounting figures and in the actual expenditure as well, Revision D brought the final budgetary expenditure to US \$846,883.

Following the inclusion of the extension of the Project in the Third Regional Programme for Africa, the respective share for the first six months of 1982 amounting to US \$256,888 of the original budget was allocated for the whole year 1982 within the overall amount of US \$886,467 appropriated for the years 1982-1984. However, this whole amount represents the UNDP input, the cost sharing having been discontinued in the Third Cycle for the Project.

Ultimately, following the agreement mentioned above in Chapter II, Official Arrangements about transferring the FAO share to Project RAF/79/030, the total allotment of US \$886,467 for the period of the Third Regional Programme for Africa was reduced to

US \$596,617 representing wholly the UNDP input in the extended Project which has been executed solely by UNIDO from 1 October 1982 on.

Actually, revision H, signed in October 1983 brought the final budgetary expenditures, calculated up to the end of Phase II, to US \$1,193,596.

III. OBJECTIVES AND DEVELOPMENT PROBLEMS

According to the Project Document, the development objective of the Project is the realization of a rational economic zone and the promotion of common projects and programmes leading to the development of the resources of the two member States. To this effect, the Joint Commission will reinforce its personnel capabilities in order to assist the two Governments in their selections and options in investment propositions.

The immediate objectives of the Project are :

1. To assist the Commission in the preparation, evaluation and implementation of industrial and agro-industrial projects common to the two member States, by means of execution of techno-economic feasibility studies.
2. To assist the Joint Commission in the organisation and training of the necessary staff needed for its functioning. This training will take place either in the two member States or in other countries.

The Project's main task is to contribute directly to strengthen the cooperation between the two countries in technical and economic matters, as this is the main objective of the Commission. It aims at the integration of population groups at both sides of the border through a coordinated development programme.

A number of activities aimed at achieving the above objectives were tentatively enumerated in the Project Document which, however,

could be modified during the execution of the Project according to the priorities set by the Commission and the new request for studies submitted by the two member States.

Toward the first objective, the following activities were indicated:-

1. Identification of potential investment projects determining the necessary inputs and the priorities in function of a balanced utilization of the mineral and agricultural resources.
2. Proposals for alternate locations of selected projects in the context of development policies of the regions concerned.
3. Elaboration of feasibility studies for the selected projects and preparation of terms of reference for consultants and contractors, supervision and evaluation of feasibility studies.
4. Analysis and evaluation of the projects from a social and regional development point of view.
5. Promotion of the projects selected by the Commission for the preparation of financing profiles and submission to development banking institutions, preparation of industrial profiles and brochures.
6. Study of an incentive system to channel public and private investment towards the priority projects.

7. Evaluation of appropriate technologies for the industrial project selection.

And the following activities were indicated toward the second objective:

1. Study and analysis of the needs and availability of personnel at the Commission and project level.
2. Preparation of a detailed plan of the needs of staff training as well as of a complete training programme by means of fellowships organized in the member States and abroad.
3. Eventual proposals and organization of study trips abroad for the staff of the Commission.

Problems :

The project has not started well (phase I and beginning phase II). It took much time to identify industrial projects and some of those identified are not viable. We had to suspend two projects and propose a reduction in volume of production and investment outlays in the case of another two projects. In this way, the project have wasted initially a part of its funds and time.

Further, certain chapters of our consultants studies were not properly elaborated.

Governments experts meeting, evaluating industrial projects, was supposed to take place in Niamey during first term of 1984. The meeting has not been convened. The studies, distributed to Governments 6 months ago, or much ealier, were not evaluated and commented as yet.

It would be probably useful if the technical ministries (industry, commerce, mines, agriculture) get much more involved in the two countries economic cooperation problems. For instance the experts meetings preceeding the Council's Sessions are sometimes not attended by officials of certain ministries which might be vitally concerned in certain points of the agenda.

Further, the contacts between both countries technical staff (experts) are rather rare, or not enough frequent. The same applies to contacts (formal and mainly informal) between project staff and both countries experts.

It might be useful to shift the two countries and project staff consultations from a high and abstract level to more concrete and technical level with the aim to evaluate the studies promptly by all sides, thus clearing easier the way to ad hoc experts meetings and to decisions on project promotion.

It will be seen later that two of our five projects could be already considered for promotion, if the relevant reports had been evaluated and submitted to both countries financial institutions for their promotional commitments.

Training : There are factors which have diminished the effect of the Project's training assistance. Most of the courses offered to the Commission's highest staff took place before 1983 as mentioned in Mr. Kaigl's Terminal Report, quoted above.

The factors which made the training assistance problematic are :

- 1) Commission employed until end of 1984 only the top management cadres which are not profiled to deal with the micro-economic and technical problems connected with projects evaluation and promotion;
- 2) There is a considerable staff fluctuation in the Commission's Secretariat.

Thus during the last two years the Project offered only on job training, which proved to be useful.

IV. OUTPUTS PRODUCED AND OBJECTIVES ACHIEVED OR LIKELY TO BE ACHIEVED; PHASE III OF THE PROJECT

The immediate objectives of the Project, as enumerated in chapter III under point one were achieved, or can be soon achieved. We elaborate below why certain objectives (point 1) will be achieved with a delay and why those under point 2 (training) has been achieved in view of the slow recruitment of the Commission's staff, only to certain extent.

The Project has carried out pre-feasibility and feasibility studies in order to prepare as soon as possible most of the industrial projects for implementation.

Concretely, the following studies have been completed and evaluated: Feasibility Study on :

- (1) Three Mills for Millet and Sorghum

Pre-feasibility Studies on :

- (2) Manufacturing of Village Mills for Millet and Sorghum
- (3) Manufacture of Glass Containers
- (4) Solar Energy Devices

Further, viability of the project :

- (5) Production of Plastics for Agriculture

has to be reconsidered.

Project and Secretariat's Staff had to apply more strict feasibility criteria on the selected projects. Consequently, certain ambiguous points of the three mills and the village mills studies have been reconsidered, and there are good reasons to change the terms of reference of the solar energy devices project.

There were also the budgetary reasons which led us to suspend for the time being the sub-contracting of the studies on production of plastics and solar energy devices.

We estimate that about US \$ 120,000 - against about US \$ 40,000 left in the UNIDO budget - would be needed for sub-contracting in 1985/86. If the funds from all potential sources (including project promoters funds) were insufficient to cover the cost of sub-contracting, then certain projects (solar energy devices and production of plastics) would have to be kept suspended.

As yet, we have taken steps to promote two projects:

- three industrial mills
- manufacturing of village mills.

In order to solve our above mentioned budgetary problems, the potential investors were requested to finance also the village mills feasibility study. To this end, the OPEC Fund has already offered a contribution of US \$ 15,000 to cover about a half of the cost of the study.

At present, our priority goal is to prepare as soon as possible all the feasible projects which are being studied for implementation.

In accordance with the Council of Ministers decision, we want to stress further that member states should bring their support in the search for funds by bringing about greater awareness through their national structures for the promotion of the industrial projects in order to facilitate the participation of private, public concerns and parastatals.

A) Preparation and evaluation of studies; Project Promotion

1.0 Three Industrial Mills for Millet and Sorghum

The Secretariat evaluated the feasibility study and sent its informal comments to UNIDO. The study leaves some doubts concerning the problem of price, flour-quality and some other questions, which are now being consulted with competent milling technologists and cereal chemists.

In order to implement the project, certain parts of the study and conclusions (namely chapter X - Financial and economic evaluation) should be re-examined and amended, as suggested below.

(1) The study assumes that the estimated price of flour (in Niamey 197.4 F/kg) and further product development effort and other measures would stimulate a fast growth of demand for industrial flour. It is advisable to erect initially only one pilot mill (in Kano or Niamey), and examine later the effect of the product development effort on the market development with the aim of deciding on the construction of the remaining two mills.

(2) Baking techniques, pastry production and other product development work should precede the construction of the remaining two pilot mills to develop at least a minimum market size prior to the plants-erection.

(3) The food research institutes in Zaria and Dakar (ITA)*

*Intitut de Technologie Alimentaire (ITA), Dakar

could be requested :

- a) to examine and develop production of bread, pastry and other products from composite wheat/millet flour,
- b) to compare (in Zaria Institute only) the quality of Sotramil flour with the samples of pilot mill flour (to be supplied by pilot mills equipment producer prior to the erection of the mills) with the aim to finding out if the proposed "Sudan" equipment can mill better flour than Sotramil.

(4) The NNJC Secretariat, guided by positive results of the two research institutes, recommends that the Governments direct their policies toward the product development and diversification, i.e. to mix millet with wheat flour in production of pastries, bread and other products. Governments should agree to regulations to discourage or restrict wheat and pastries imports and ask bakeries to produce obligatorily mixed flour bread, with a share at first of only a small percentage, and later, up to 10% (if possible ?) of millet flour.

The Project has got, at least if (initially) only one of the three mills were erected, a good chance for implementation. The Topfer Company informed the Secretariat that the German Bank K.F.W. would be interested to provide an investment credit in order to facilitate the implementation.

2.0 Manufacturing of Village Mills for Millet and Sorghum

The SOPRECO pre-feasibility study has already dealt with the following topics:

- market and plant size
- materials and production factors
- location and site
- project technical aspects
- manpower
- implementation schedule
- financial and economic evaluation.

The pre-feasibility study estimates the yearly requirements for mills at about 700 for Niger and 3,800 for Nigeria. However, the effective annual demand respectively for each of these countries is estimated at about 320 and 1,700 i.e. a yearly total of 2,020 grinders, to which also 600 dehullers can be added.

With this demand figures in view (even if they were lower) it is desirable to carry out this market oriented project, i.e. to consider setting up local manufacturing of village mills and to introduce their use on a large scale throughout the region.

However, first of all, the Governments and both countries institution should commit themselves to promote the project. Foreign institutions expert that this would be done as a first step.

3 .0 Manufacturing of Glass Containers

The draft Polimex pre-feasibility study and Humboldt Wedag raw materials study were evaluated in April 1984. The Polimex pre-feasibility study, and the raw materials study, were finalized last October. The same reports have been made available to member states for their close study and comments.

3 .1 Comments on the Pre-feasibility Study

Since the raw-materials prospection proved to be positive, we believe that the manufacturing of glass containers could be a promising resource-based project. However, in our view, the pre-feasibility study overestimates the market capacity and, consequently, the production capacity as well.

Implementation of the Project

We are facing the problem of acquiring funds to finance the feasibility study, which may cost about US \$45,000.

The feasibility study should be negotiated together with the promotion of the project during 1985. To this end, the Governments and financial institutions will be invited at the same time to consult the pre-feasibility study and assist in the promotion of the project.

It might be advisable to consider an erection of a small scale glass work, if the market survey results were negative in respect of bigger plant.

4.0 Manufacture of Appliances Based on the Utilization of Solar Energy

In view of the controversial conclusions of the study, decisions should be taken on follow-up actions, mainly those to be undertaken in the framework of the feasibility study.

Manufacturing and use of solar appliances in remote areas and in special situations (in the absence of the infrastructure needed to instal classical energy devices) should be identified. To this end, we have consulted certain institutions dealing with solar energy application.

Follow-up recommendations

It is worthwhile to view our Solar appliances project from the point of view of non-availability of conventional energy infrastructure for most of the sahelian population. For this reason, it would be worthy to consider introducing shadow pricing on fuel, electricity and other classical energy (mainly imported) items in the cost calculation for application of solar devices. The above

experiences can serve as one source of information needed to propose more viable terms of reference for the follow-up of the project - as soon as the financial situation permits us to undertake the necessary study.

Most of the available devices are still in prototype stage, particularly if we want to adapt and use them under the SAHEL-conditions. Still, certain of the solar devices have been tested in Africa already for some time. We can probably identify two or three devices which have shown, during their field testing, some promising results. They can be further tested and developed in our small project, conducted jointly with another Niger/Nigerian institution, with the aim of developing two/three devices for a wide-spread, economically or socially justifiable, use.

We would still need to conduct for this purpose a small feasibility study. However, instead of spending about US \$ 45,000 for a comprehensive study, which may still offer some dubious conclusions, our study with a limited scope may cost only \$15,000 to \$20,000. Provided we secure \$60,000 for the project, the remaining \$40,000 funds can be used for testing and developing of prototypes in the mentioned pilot project.

The two countries (Governments) financial means should be secured to share partly the cost of carrying out the feasibility study and the implementation of the project, initially in the form of a pilot project. US \$30,000 would help the Secretariat to cover about a half of the above cost. Further, we would try to secure the remaining funds from donor institutions.

5.0 Production of Plastics for Application in Agriculture

The project was suspended. Viability of the project should be discussed with a plastic industry expert before the final decision is taken to allocate funds for the pre-feasibility study. The expert should also take into account the plastics production capacities available in Nigeria. They may be largely sufficient to cover both countries' market.

B. Insufficient funding to finance studies: Preparation of the Phase III.

The project funds for sub-contracting to carry out the necessary feasibility studies, have been mostly exhausted. Still, there is an urgent need to prepare most of the industrial projects (mentioned above) for implementation. The additional funds needed for financing the above feasibility studies are estimated as follows:

Manufacturing of village mills	15,000 (half of the total cost only)
Manufacture of glass containers	45,000
Solar energy devices (includes contribution to carry our testing)	60,000
Total.....	<u>120,000</u>

The amount of \$120,000 does not include the cost of additional technical studies needed to implement the projects.

We are trying to solve financial problem in two ways:

- Secretariat entered into negotiation with numerous donors and investors, requesting assistance in the projects

promotion, as well as studies financing; now we wish to expose the problem more clearly also to both Governments with the aim of mobilising some local funds, both public and private;

- steps have been undertaken to extend the UNIDO/UNDP Project and request assistance in the framework of the Phase III. To this end, the Project Document, Phase III has been formulated and submitted to the competent UN institutions.

V. TRIPARTITE REVIEW MEETING

Since the minutes are not yet available we can only state some highlights from the meeting.

The Meeting was submitted a Progress Report, content of which is summarised in the preceeding chapter (IV).

The Meeting recommended follow up (and promotional) actions in case of the following projects :

- 1) Manufacturing of Village mills : It has been recommended to follow up the cooperation - negotiations with SISMAR and with other institutions, with the aim to promote the project.
- 2) Solar energy devices : Suggestion is to prepare the feasibility study
- 3) Production of plastic for agriculture, where a (opportunity) study is proposed to be prepared.

UNDP is unlikely to support the projects :

- Three pilot mills
- Glass containers manufacturing

There are doubt that there would be a sufficient market for the both project's products.

The Project management and the Commission does not share the

above view. We have not yet reached reliable conclusions about market capacity for the above products and, as shown in chapter IV, we are dealing with important resource - based projects, where additional enquiries should be still carried on before final decision is reached.

VI. CONCLUSIONS AND RECOMMENDATIONS

- 1) Most of the foreign institutions contacted are interested to consider assistance in our projects promotion under one condition : Both countries' financial/economic institutions should first commit themselves financially, and show other intentions in the project promotion. NNJC should also make sure that the regulations allow both countries banks to invest in neighbouring country.

- 2) It follows that the ad hoc Meeting of both countries experts should be convened urgently to review our industrial projects and propose promotional actions to be undertaken by both Governments and relevant institutions.

- 3) When the local banks and other institutions promise to participate in our projects promotion, NNJC could enter again in negotiation with our foreign promoters with the aim to engage them in concrete assistance.

- 4) Efforts should be made to reduce our projects investment cost. Abandoned factory halls should be eventually acquired and the second hand equipment installed to reduce investment and unit cost. This can be more clearly, stressed in our studies - terms of reference.

- 5) Our consultation with millet milling technologists and cereal chemists/bakers provided us with certain detailed information (which we have missed in the Toepfer feasibility study on industrial mills and) which we needed very much to assess more safely the probability of success in composit flour (quality and) promotion.

The above news are encouraging in the sense that there is a good prospect in the composit flour promotion (through ITA bread baking). This is mainly because (Government) price policy can be always reconsidered and bakers should be trained. With a sound Governments price policy and with introduction of the necessary regulations on mixed flour bread baking, we can probably found an industrial flour market big enough to erect one or two millet mills in the project region.

6) Since UNDP may not support the glass containers project, NNJC may wish to request UNIDO Fund to finance the feasibility study.

7) UNDP should be approached to provide support, in the framework of the Phase III, for the projects as recommended by the Tripartite Review Meeting (viz chapter V.).

8) It is indispensable to acheive a full professional staffing of the Commission. First of all, it is necessary to fill the gap in the present manning table by the recruitment of an Industrial Economist.

9) The Economic Affairs Officer should be granted a fellowship to attend the twelve-week course on Planning and Appraisal of Industrial Projects organised annually in cooperation with UNIDO by Bradford University, Centre for Developing Countries, in the United Kingdom.
