



TOGETHER
for a sustainable future

OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.



TOGETHER
for a sustainable future

DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

CONTACT

Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org



08463



Distr.
LIMITED

ID/WG.289/3
24 November 1978

ENGLISH

United Nations Industrial Development Organization

Expert Group Meeting on Evaluation and
Follow-up of Feasibility Studies in
Selected Least Developed Countries

Vienna, 4-8 December 1978

COUNTRY PAPER

SOMALI DEMOCRATIC REPUBLIC ✓

by

O. Horsi* and N. Sheikh Hassan**

✓ The views and opinions expressed in this paper are those of the authors and do not necessarily reflect the views of the secretariat of UNIDO. This document has been reproduced without formal editing.

* Head of Industrial Planning Department, Ministry of Industry.

** Head of Technical Department, State Planning Commission,
Somali Democratic Republic.

id.78-8253

PART - 1

INITIATING AND CONCEIVING INDUSTRIAL PROJECTS

Present Situation

Somalia is still in its initial stage of industrial development and lacks institutional infrastructure required for undertaking and evaluating feasibility studies. There is however a Department of Industrial Planning in the Ministry of Industry which organises all work in this field and ensures the appropriate follow up in the manner described below.

Project Identification

Industrial Projects for detailed feasibility studies are identified on the basis of :

- a) Industrial Survey of Somalia carried out by UNIDO in 1973.
- b) Industrial Reviews prepared periodically with the assistance of UNIDO Experts in the Ministry.
- c) Pre-feasibility and prospect studies carried out from time to time by UNIDO experts.
- d) Proposals received from foreign investors, multi-national companies, suppliers of plant and machinery abroad, and consulting firms.
- e) Studies undertaken by different aid giving countries and agencies related to the field of industrial development
- f) Studies undertaken directly by the Department of Industrial Planning in the Ministry of Industry with assistance of UNIDO Experts.

An abstract of feasibility and industrial prospect studies undertaken in Somalia was produced in 1975, and is on the country file of UNIDO. A list of such studies carried out since 1975 is annexed.

/...

Project Selection.

Projects are selected by the Department of Industrial Planning in the Ministry of Industry on the basis of the criteria already established. Projects identified are rated as Class A, B and C in the manner described below :

- A. Projects rated as 'A' include those which fulfill the following requirements:
- i) Resource based, export oriented Projects.
 - ii) Resource based projects for producing building material and
 - iii) Projects for the balancing and modernisation of existing industries.
- B. Projects rated as 'B' are selected in the following manner:
- i) Other resource based projects.
 - ii) Projects which support primary sectors of economy like Pesticide Production and formulation, fertilizers, boat building etc.
 - iii) Building material industries based on imported materials like rolling mill for iron bars and other profiles.
 - iv) Assembly industries.
- C. Projects classed as 'C' include.
- i) Import substitutions industries based wholly or partly on imported materials.
 - ii) Small industries projects.
 - iii) Handicrafts development projects.

Subsequent to project rating, final selection is made keeping in view the likely availability of capital resources and the capacity of government/ private enterprise to finance, and manage the projects. This leads to the development of a programme for undertaking prefeasibility studies.

/...

Prefeasibility studies.

Prefeasibility studies are undertaken by Somali expertise with or without the assistance of foreign experts. UNIDO Project DP/SOM/72/007 is also used for undertaking such studies.

Prefeasibility studies are evaluated in the Department of Industrial Planning Ministry of Industry with or without UNIDO Experts. On the basis of this evaluation, Projects are chosen for detailed feasibility/ Project design. The Ministry has now adopted a procedure by which tender documents are issued inviting foreign consulting firms to make their bids. Simultaneously or separately for :

- a) Feasibility study and
- b) Tender Specifications.

Feasibility Studies.

A standard form has been devised for inviting foreign consulting firms to bid for this purpose. This form includes the general conditions of tender, scope of work, background information and data schedule to be completed by tenderers.

Evaluation of Feasibility Study

Each feasibility study is appropriately evaluated with the help of UNIDO Project DP/SOM/72/007 posted in the Ministry of Industry. Evaluation covers verification of market data as well as investment and operating costs. The technology chosen is also evaluated keeping in view the conditions prevalent in Somalia. The consulting firms, as is evident from the standard form of tender documents, are also required to provide / propose financing arrangements, cash flow tables for financial planning and project evaluation data indicating break-even point, debt repayment of the project, value added, balance of payment effect and internal rate of return. This data is also evaluated and checked prior to final approval of the project for implementation.

/...

Constraints

The scope of work included in the tender documents for consultants reproduced in para 5 above has been introduced only recently. Prior to this the consultants used to prepare their own plan of work. Resultantly the Feasibility Studies were found, on evaluation lacking in many respects. Thus the bankability of the Project was hardly established.

Secondly feasibility studies are carried out prior to finalizing financing arrangements. Of course the Consultants do propose a notional financing arrangements. This could be at the most taken as a model. It is evident that the resources of developing countries are hardly adequate to meet the needs of current budgetary expenses and the entire development budget is financed from external sources. The flow of aid from external sources is never uniform. Again development projects of all the Sectors of economy compete with each other for financing from the aid. Periodical national Plan provide a guide line for the use of external source of funds which is always scarce and inadequate. Thus the first difficulty is lack of adequate funds for financing development programme. Second difficulty is inadequate allocation of available funds for the industrial sector. Third difficulty is caused by Project appraisal by the financing agency. In this appraisal profitability is the main criterion, Other considerations of national importance like utilizations of indigenous materials eradication of unemployment, development of least developed areas in a country etc. do not weigh much. Thus projects the viability of which is established also remain unimplemented due to the refusal of aid giving countries/ agencies to finance industrial projects conceived to achieve national objectives.

PART - II

CASE STUDY

However this meeting is mainly concerned with the quality of feasibility studies carried out in developing countries. A proper assessment of the situation requires a case study. For this purpose a study carried out by a German Consulting Firm on the

/....

establishment of Lime Plant in Somalia has been selected. The evaluation of this study reveals that the consultants have proposed a plant for producing 85 tons of calcined lime per day. Since the existing and projected demand does not justify such a large capacity, the consultant has proposed the utilisation of surplus capacity by establishing another plant requiring additional investment for producing Gas Concrete blocks for use as walling material. Even this does not enable the proposed plant to run on full capacity. As a consequence it is proposed to export the surplus to Yemen without undertaking an appropriate export market study. Both the plants proposed are capital intensive based on advanced technology. Material handling is completely mechanised. In making such a proposal conditions prevalent in Somalia have not been fully kept in view. The study does not carry out a comparison of the 2 technologies available nor provides comparative costs of large as well as small sized plant.

The Feasibility aforesaid also does not observe the pattern normally followed for such a purpose. If the report is read with the standard pattern in view, the following observations emerge:

a) Project background and history

The purpose for which the Somali Government selected 'Lime Plant' for a feasibility study is not provided in definite terms.

It is important to state that before assigning the feasibility study to the German Consulting firm, a preliminary assessment of the project ideas was not made in a prefeasibility study to determine its investment opportunity as well as its critical aspects. To quote from the study, the quality and quantity of lime produced already at present is adequate for the building industry. However the quality is not adequate for the production of lime sand bricks, gas formed concrete and chemical industry. The first 2 items are not produced in Somalia and the requirements of chemical industry are negligible. This obliged the

/...

consultant to obtain from the Ministry a Charter to produce a feasibility study on Gas formed concrete material.

b) Market and Plant capacity

As already explained to synchronise market and plant capacity another lime consuming project requiring heavy investment is proposed. Thus feasibility established and the capacity proposed is made conditional and decision for its approval/financing difficulty.

Details of market and plant capacity have been elaborated in the study., It was assumed in the study, however, that existing domestic lime production amounting to 8500 tons per annum will stop completely in the year 1990. No justified reasons are given to substantiate production stoppage at that year. It is not likely that existing lime production facilities (shaft and open kilns), as claimed in the study, will be terminated in future because of the illegal felling of trees for use as fuel in these facilities.

Fuel oil obtained from the new petroleum refinery will be burnt in the existing and future kilns in place of wood. As local demand for lime increases more open kilns burning fuel oil will be installed to justify domestic demand. This being so on account of low capital requirements and low production costs of open kilns as compared to those of the mechanised shaft kiln proposed in the study.

As low grade lime obtained from open kilns can be utilised in almost all purposes with the exception of sugar industry and sand bricks including gas concrete blocks, it would be advisable, therefore, to limit the new production of lime, proposed in the study under consideration, to the two above mentioned purposes namely gas concrete blocks and sugar industry. On

this basis the proposed lime plant may be installed as a captive unit to the gas concrete with a capacity not exceeding 10 to 15 thousand tons of lime per annum.

c) Materials and inputs

The selection and description of materials and inputs required for production of lime is given in details in the the study. Materials and inputs needed include limestone, fuel oil, electric power, process water and compressed air. Description of materials and inputs is given with particular emphasis on their physical and chemical properties, quantity, sources of supply and their unit costs delivered to the lime plant.

d) Location and Site.

Two areas namely Mogadiscio North and Merca south were investigated as possible location of lime plant. Both areas have adequate limestone deposits for the operation of a lime kiln. These two areas were selected on the basis of general criteria which includes availability of quality limestone, existence of limestone quarries, and unspecified economic and sales reasons. The final location of the plant, as stated in the study, is to be decided by the question of the addition of the gas concrete blocks plant, since in this case only Merca is suitable as a location where quality sand can be obtained.

This conclusion is not, however, supported by adequate economic data on the two sites proposed. The primary reason for the plant location study is to find a site at which the plant can produce the highest return on invested capital. For chemical plants including lime kilns, the question of location

/...

is not readily reducible to a few major controlling factors. In these cases all possible aspects of cost must be studied. The check list given in the " Manual for the preparation of industrial feasibility study " may prove helpful.

e) Project engineering

The study under discussion provides a comprehensive approach to the engineering of the project including project layout, civil works, machinery and equipment, cost estimates, selected process and technical description.

Two main comments may be stated in relation to the technology selected and estimated costs. First capital intensive technology was selected in preference to labour intensive technology; no reasons were given for such preference. Secondly capital investment of the proposed lime plant (35 tons per day) amounts to 14.93 million D.M. This high investment would eventually lead to high capital charges (depreciation and interest on capital) amounting to So.Sh. 194 per ton of calcined lime. The current selling price of lime produced locally is about So.Sh. 200 per ton, as compared to So.Sh. 400 per ton produced in the proposed plant. In other words the lime project would increase the selling price of lime by almost 100 per cent and would have an adverse effect on the future development of the building industry.

In fact the project under consideration would increase the selling price of lime by more than 100 per cent in case current prices of diesel and fuel oils as well as current wages of skilled and semi-skilled workers are to be adopted in estimating lime production cost. Price of fuel oil (So.Sh. 0.63 per Kg.) and diesel Oil

/...

(So.Sh. 1.1 per Kg.) mentioned in the study is lower than the current price amounting to So.Sh. 1.55 per Kg. Further, wages of skilled workers (So.Sh. 5760 per annum) and semi-skilled workers (So.Sh. 3900 per year) used in study are on the low side.

Lime to be produced in the proposed project although of high grade yet it may not be able to compete with existing lime production as local consumers are mostly price minded.

An alternative cost estimate for a smaller lime plant with a capacity of 30-50 tons per day should have been included in the study in case the competent authorities decide against the stoppage of the existing domestic lime production in 1990.

f) Plant organisation and overhead costs.

No observations.

g) Manpower:

This part is adequately covered giving the organisation of the firm, personnel breakdown into functional areas, personnel qualifications including lime specialists, responsible heads of departments, skilled and semi-skilled workers. Training requirements for various levels of plant personnel are emphasised.

h) Implementation scheduling.

No implementation plan is included in the study under discussion. An implementation programme should be elaborated, comprising projections for further technical collaboration service, project management, recruitment and training of personnel, infrastructural requirements, legislative actions needed. Time Schedule proposed for major implementation activities covering contracting and other pre-construction activities, construction schedules, start up and extension

/...

phase is to be given.

k) Financial and economic evaluation.

Cash flow calculations were based on two variants namely free of tax and tax paid. Internal rate of return was calculated and a rate of 13-19 % could be attained.

Other commercial profitability criteria were not computed in the study. These include : net present value, pay-back period, simple rate of return, break-even analysis and sensitivity analysis.

National economic evaluation was not carried out, in particular, direct value added and employment effects, balance of payment effect, social marginal productivity of capital, backward and forward effects and benefit cost analysis.

PART - III

RECOMMENDATIONS

In the light of the foregoing it is recommended that :

- a) Somalia should gradually develop its institutional structure, staffed by its own expertise, to undertake pre-investment studies. The Industrial Planning Department of the Ministry of Industry should be strengthened to :
 - i) prepare in co-ordination with the State Planning Commission a strategy of industrial development in line with the Lima Declaration and Plan of Action.
 - ii) Collect industrial studies already made to avoid risk of repetition;
 - iii) Publicise and co-ordinate current studies, harmonizing them with the country's industrial strategy and development plan;

/...

- iv) identify new or potential projects which would be desirable within that strategy and plan;
- v) promote new studies, publicize them, and stimulate their use in the acceptance, financing, and establishment of new industry.

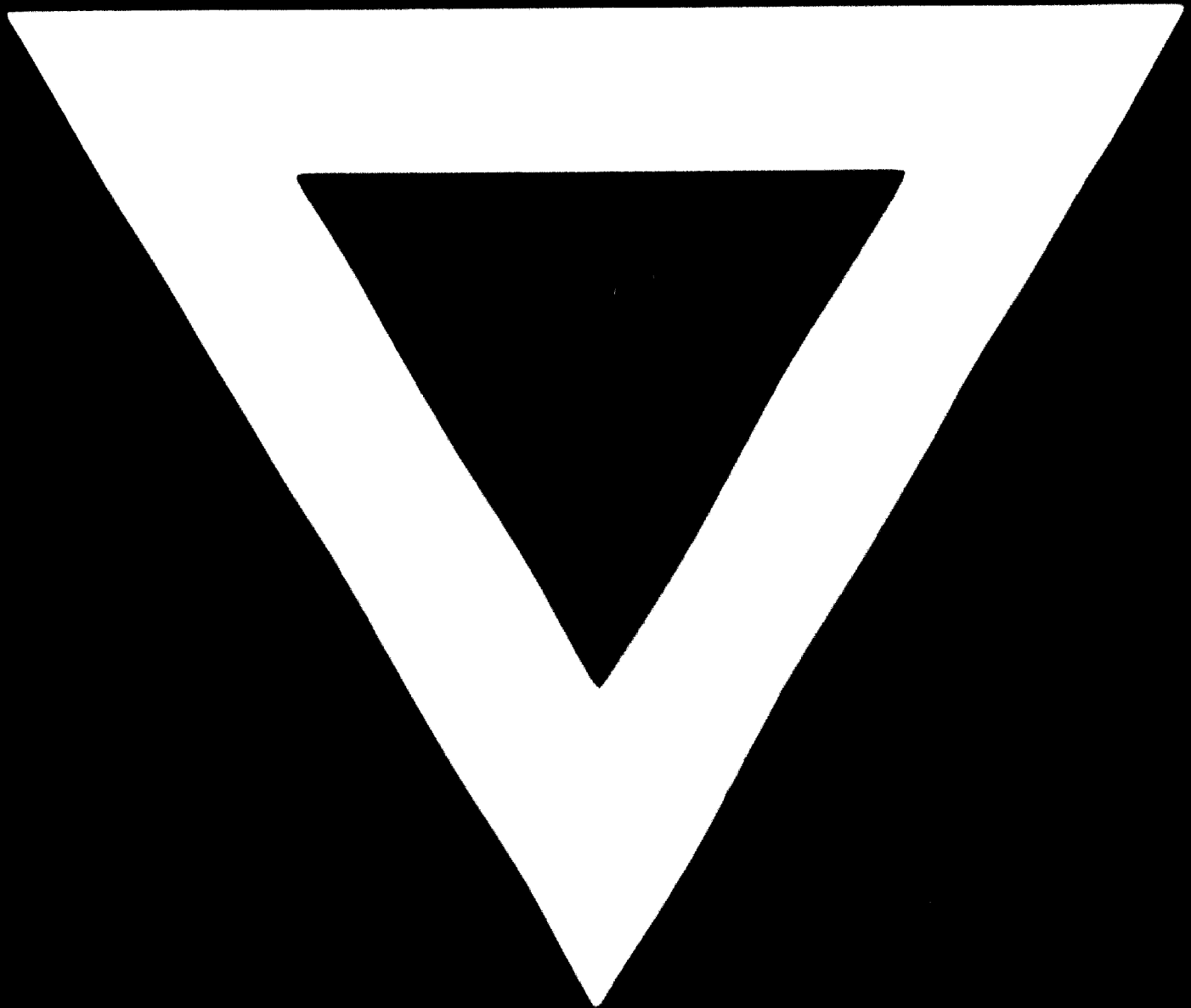
UNIDO may provide assistance for developing this institutional structure and till such time this is raised and gets going, UNIDO may continue to offer expertise for undertaking pre-investment studies.

- b) Decision to go ahead with a full feasibility study should be made only after the pre-feasibility study has demonstrated the preliminary project viability.
- c) UNIDO should intensify and expand its present activities towards the preparation of a unified tender document for feasibility studies, contract format for their contracting as well as rosters compiling competent consulting firms for carrying out such studies for all industry groups and sub-groups.
- d) UNIDO may also consider the allocation of annual funds to finance feasibility studies of priority projects in the Least Developed Countries.

oooOooo



C-8



79.11.13