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# **ASSISTANCE TO THE STATE MINING CORPORATION**

**DP/URT/72/086**

**UNITED REPUBLIC  
OF TANZANIA .**

**ANNUAL REPORT**

**Prepared for the Government  
of the United Republic of Tanzania by the  
United Nations Industrial Development Organization,  
executing agency for the  
United Nations Development Programme**

**United Nations Industrial Development Organization**

United Nations Development Programme

ASSISTANCE TO THE STATE MINING CORPORATION

DP/URT/72/026

UNITED REPUBLIC OF TANZANIA

Project findings and recommendations

Prepared for the Government of the United Republic of Tanzania  
by the United Nations Industrial Development Organisation,  
executing agency for the United Nations Development Programme

Based on the work of S. R. Harstrom, economist

United Nations Industrial Development Organisation  
Vienna, 1976

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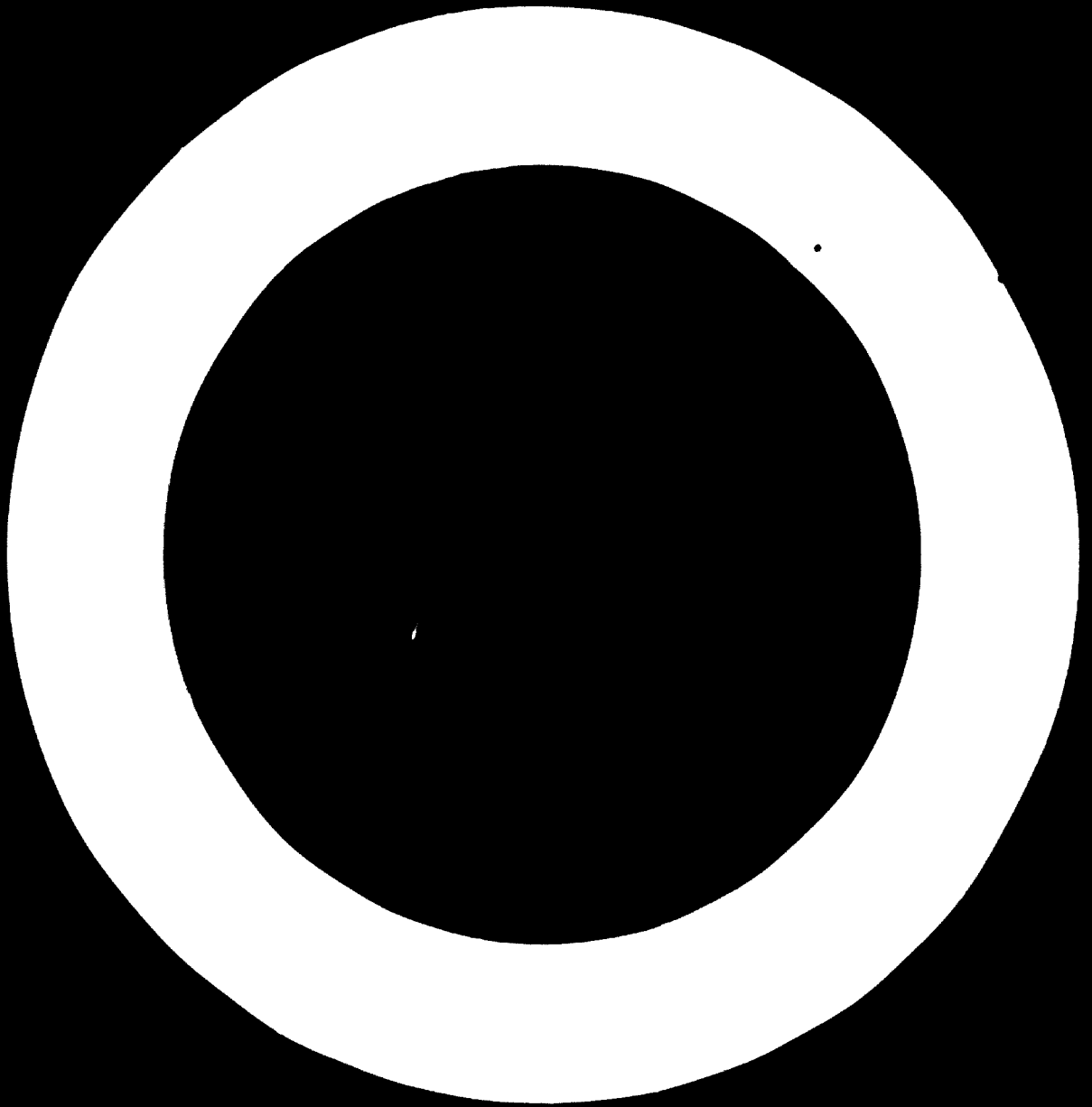
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**ABSTRACT**

This report covers the work done by an expert appointed as principal development adviser to the Tanzanian State Mining Corporation (STAMICO) from October 1974 to October 1975. The project, entitled "Assistance to the State Mining Corporation" (DP/URT/72/026) was carried out by the United Nations Industrial Development Organisation (UNIDO) as executing agency for the United Nations Development Programme (UNDP).

Because of a shortage of suitable staff, the expert had to spend much of his time doing work that could otherwise have been delegated. The time available for giving advice and helping with on-the-job training was therefore limited.

The expert came to the conclusion that the role to be played by the principal development adviser in the STAMICO management should be more clearly defined. The adviser's services might be utilised more rationally if they were provided through a central consultancy institution.



**CONTENTS**

<b>Chapter</b>		<b>Page</b>
	<b>INTRODUCTION.....</b>	<b>6</b>
<b>I.</b>	<b>CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>7</b>
<b>II.</b>	<b>FINDINGS.....</b>	<b>8</b>
<b>Annex.</b>	<b>General organization of STANICO.....</b>	<b>13</b>

## INTRODUCTION

### Background

The Ministry of Commerce and Industry of the United Republic of Tanzania created the State Mining Corporation (STAMICO) in 1972. The Corporation's purpose was to develop Tanzania's considerable mineral resources and, in particular, to increase the added value of minerals by establishing new production facilities for industrial processing. While Tanzania has young qualified mining engineers and geologists, it lacks senior personnel with the financial and business-management experience required for the evaluation and running of projects. Some key planning and operating posts therefore have to be filled by recruiting operational assistance (OPAS) or other advisory personnel from overseas.

A project "Assistance to the State Mining Corporation" (DP/URT/72/026) was launched in 1973 following a request from the Government of Tanzania to the United Nations Development Programme (UNDP) to provide a principal development adviser for a period of two years. The United Nations Industrial Development Organization (UNIDO) was appointed executing agency. The Government subsequently requested an extension of the project, and a second expert was recruited. His mission is the subject of this report.

### Objectives of the project

The objective of the project was to assist in establishing and organizing the Development Division of STAMICO. With that end in view, the expert was to advise the general manager of STAMICO. His specific tasks were to be the following:

- (a) To assist in elaborating a concept and strategy for the mining-based industry sector;
- (b) To assist in preparing a work programme for the Development Division, defining the responsibilities and duties of the staff;
- (c) To advise on the staffing of the Development Division and assist in developing an effective work-force;
- (d) To prepare an internal manual for the main activities of the Division;
- (e) To introduce and provide guidance on appropriate methods for preparing development plans for the industrial sector in question, preparing and evaluating investment projects, and running projects;
- (f) To help the general manager prepare papers for the Board.



## I. CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

The expert concurred with STANICO's own conclusion that, although UNDP/UNIDO had increased assistance to STANICO by providing a number of technical experts, the Corporation still needed an adviser on over-all development, management policy, programming and staff development, who could also advise the Director of Development on the preparation, evaluation and running of projects. His contribution to STANICO's development effort would depend, however, on the present organisation, staff and performance.

There was a need for proper information to ensure effective collaboration between divisions and to permit an evaluation of performance in terms of government objectives and priorities. The management meetings held within STANICO did not provide an adequate flow of information.

The existing organisation, staff and management of STANICO were unable to cope adequately with the full range of tasks entrusted to the Corporation by the Government. There was a considerable discrepancy between STANICO's operational capacity and the number of senior technical experts available under multilateral and bilateral development programmes.

### Recommendations

1. STANICO should concentrate on a few projects that it could service productively with the limited staff and funds at its disposal.
2. The role to be played by the principal development adviser in the management of STANICO should be more clearly defined. The adviser's services might be utilized more rationally if they were provided through a central consultancy institution.

## II. FINDINGS

In the third quarter of 1975 STAMICO's general organizational pattern followed the outline drawn up at the start of the project. The Corporation was still a para-state-owned concern under the Ministry of Commerce and Industry. The Minister for Commerce and Industry was chairman of the Board. Decision making was to some extent shared between the Board of Directors and the executive management. The general manager was the chief executive officer. (For the general organization of STAMICO see annex.) Of the 65 or so employees at the Dar-es-Salaam office, one third were watchmen, cleaners and drivers; one third were operative staff, messengers, receptionists, telephone operators, transport officers, typists, secretaries and clerical officers; and one third were senior and professional staff. The Directors of Operations, Development and Finance were provided through bilateral aid agencies and took up their positions at about the same time as did the expert - towards the end of 1974. At the end of 1974 the management team envisaged under the formal organization plan was complete except for the Director of Administration; the Directors had counterpart deputies. The principal development adviser was administratively located in the Development Division.

During 1974 the general manager convened management meetings at which the management team was able to exchange information and discuss problems. The expert was initially a member of the team. At the beginning of 1975 it was proposed that the meetings should be held regularly, once a fortnight, and should have brief agendas to facilitate preparatory work and the submission of documents needed as a background for management decisions. The meetings were intended to provide a means of keeping management informed systematically. Their function was a vital one, since there was no equivalent administrative system to take their place. There was a need for proper information to ensure effective collaboration between divisions and to permit an evaluation of performance in terms of government objectives and priorities. Information on the latter was usually channelled through the general manager's office.

After the arrival of the Director, the Development Division continued its work without divisional staff meetings and without complete co-ordination of the Division's activities with those of other divisions. This placed an

additional burden on the expert, who received very little assistance in his work on project preparation and implementation. There was practically no opportunity to provide on-the-job training, although it was clear that staff at all levels could have benefited from the expert's training.

During the first two months of the expert's assignment, STAMICO was engaged in compiling material for the third five-year plan (1975/76-1979/80). The short time available and the lack of appropriate data limited any substantive contribution the expert might have made to the drafting of the concept and strategy for the mining-based industry sector. It became clear at an early stage that there was a need for the expert to concentrate on providing guidance on appropriate methods for preparing, evaluating and implementing investment projects.

#### Expert's work programme

The following work programme was approved by STAMICO's general manager on 23 December 1974:

- (a) Preparation of final feasibility report on Lupa Gold Mines Ltd.; preparation and issue of inquiries for tenders;
- (b) Preparation of final feasibility report on Minjingu phosphate proposal; preparation and issue of inquiries for tenders; drafting of tentative long-term programme of deliveries to Tanga fertiliser plant;
- (c) Follow-up of feasibility reports and programmes for Tanga cement plant; preparation and issue of inquiries for tenders;
- (d) Preparation of recommendations on STAMICO procedures and forms for tender inquiries, contracts and purchases, and routines for the procurement of equipment and materials for STAMICO's projects and operations;
- (e) Preparation of recommendations on standard requirements, terms of reference and the like for agreements with engineering consultancy agencies;
- (f) Preparation of recommendations on the development of a management-oriented accounting and information system. (The formal rules for the appropriation of government funds were to be reconciled with a managerial accounting system for operations and project management. A direct relationship was to be established between operating accounts and reports, project appraisals and DEVPLAN guidelines.)
- (g) Participation in the preparation of the STAMICO annual report.

The priority accorded to the various tasks varied. The expert tried from the outset to see where conclusions regarding work done on individual projects could be used as general guidelines for the administration of STAMICO. An improved management information system was needed urgently to provide and co-ordinate the data required as a basis for management action on operating units and development projects. STAMICO would have to co-ordinate its management policies on the regeneration and development of current and future resources and on compliance with national performance guidelines.

STAMICO organization and management systems. The management systems in use were rudimentary. The expert tried to persuade the management to use a project-oriented organization chart. According to the chart, STAMICO staff or contracted consultancy agencies should be attached to identified projects. The identification should be used as the basis for the allocation of funds, cost-centre diversification in accounts and reports, progress charts, and so forth. Inputs could be provided, in principle, from any division, depending on the professional skills available and subject to the priorities for the budget and financial management resources planning period established by government directives. A more flexible and systematic approach was clearly necessary in view of the special nature of STAMICO's responsibilities: although STAMICO is responsible for a number of easily identifiable subsidiaries, it is also in charge of several development projects of varying sizes, usually with unidentified input requirements.

In the end it was not possible to develop a consistent project-oriented organizational structure during the assignment. Attempts were being made in the Operations Division to devise a functioning budget system, but no concerted effort was made to set up a system for the whole of STAMICO. Since the expert was not part of the executive management group, it was not possible to make further recommendations on the matter.

Lupa Gold Mines project. The expert found that there was an urgent need for a cash-flow analysis based on available data and consistent with customary usage and DEVPLAN recommendations. A more realistic set of capital and operating cost data was also needed. For its first presentation, the project team had used misleading repayment calculations based on indicative investment cost figures for a single source of investment. STAMICO was therefore unable to base its decision on a proper selection of substantiated investment alternatives ranked by economic advantage in terms of investment cost, payment conditions, maintenance support, possibility of equipment standardization, operating costs and other determining factors.

The expert submitted an outline cash-flow statement that was subsequently used as part of the project presentation by the local project officer. The expert also recommended that provision should be made in the organization for the systematic acquisition of essential data for investment planning and decisions.

Minjingu phosphate project and Buck Reef gold. The expert found that the feasibility conclusions of a project report on the Minjingu phosphate deposit were incomplete. Although it appeared that the project would benefit the country's economy, the consulting engineers had based their engineering layout and capital cost estimates on a single source of supply and had not assessed the findings of previous, and partly differing, surveys of the deposit. It was not until the end of the expert's assignment that a systematic compilation of the geological data was undertaken - a task that should have been completed earlier as a background for the engineering report.

A similar lack of geological data appeared to be holding up orderly progress on the Buck Reef gold mine project. Although a shaft was being sunk, the necessary background for the establishment of suitable mining and beneficiation systems was lacking. The two projects underlined the need to improve STANICO's ability to prepare for projects by a systematic approach to feasibility assessments before making implementation commitments.

Tanga cement project. A feasibility assessment was needed for STANICO's submission of the project to the Government and request for funds. STANICO's other commitments at the time included a substantial expansion of the cement works operating in Dar-es-Salaam and preparations for a possible new cement factory in the Mbeya region. The available engineering information on the Tanga cement project was far from complete. It had been provided by the Yugoslav consulting firm, EnergoProjekt; a short-term cement expert; and the Tanzanian project manager. The expert had to prepare most of the report himself. Information had to be collected and organized on the following: market, plant location and transport; sources of supply of all raw materials and other production consumables; process, manufacturing and personnel costs. The Tanga cement project offered a good opportunity to apply project evaluation techniques and to establish areas of managerial responsibility for the planning and contracting of inputs and markets.

A number of possible alternative projects were drafted, but they were not typed owing to a shortage of secretarial services and to cost considerations. After a meeting originally intended to produce an acceptable final version, the expert was not called on to do further work on the project and did not receive copies of later revisions.

Procurement system. The expert's contribution to the establishment of a functioning procurement system for STANICO consisted of two parts. The first was a model for a purchasing system. It included the drafts of suitable forms and a recommended set of general conditions intended to establish a reasonable but firm negotiating position at the inquiry stage. No action was taken. The second part of the contribution was a draft standard form for turn-key contracts. A planned standard form for civil engineering works was not completed. The turn-key contract form had initially been developed as a revision of the contract form used by the consulting engineers in their recommended tender documents for the Tanga cement project. The revised documents later become part of the consulting engineer's final version of the tender documents. Further revision to produce a standard STANICO version was not completed, and efforts to discuss the system with legal experts outside STANICO proved fruitless.

Annex

GENERAL ORGANIZATION OF STAMICO

Office of General Manager

General manager

Corporation secretary

Development Division

Director

Planning and research department

Manager

Senior mining engineer/mineral dresser

Senior geologist (vacant)

Geologist (vacant)

Senior mineral resources economist (vacant)

Economist (vacant)

Cement expert

Phosphate expert/chemical engineer

Coal expert

Iron expert (vacant)

Salt expert

Exploration and economic geology department (Dodoma)

Manager

Senior geologist

Seven geologists (one vacant)

Two geological superintendents (one vacant)

Two geological inspectors (one vacant)

Four field officers (two vacant)

Draughtsmen

Mines design department

Manager (vacant)

Civil engineer

Draughtsmen

Operations Division

Director

Marketing and research department

Manager

Marketing officer

Research officer

Operation group department

Managers (vacant)

Senior operations officers

Three operations officers (one vacant)

Industrial accounting department

Industrial accountant

Financial Division

Director

Financial accounting

Chief accountant

Senior accountant (vacant)

Accountants

Financial analysis

Chief financial analyst (vacant)

Manpower and Administration Division

Director (vacant)

Manpower development

Manager

Personnel officer

Training officer (vacant)



Administration

Manager (vacant)

Public relations officer (vacant)

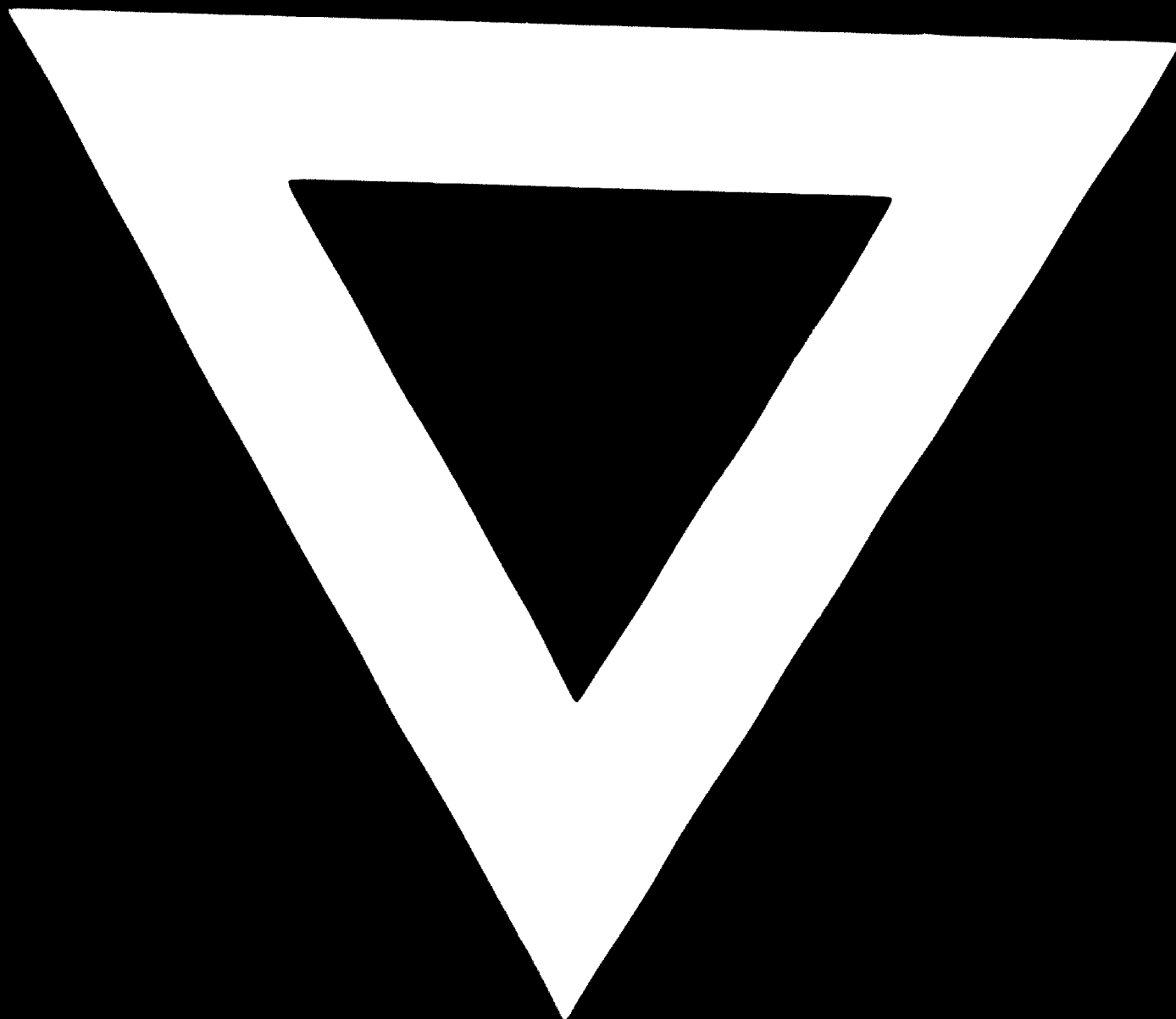
Buildings and housing officer (vacant)

Office manager

Administrative officer



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