THE GEO SCIENCES IN INTERNATIONAL DEVELOPMENT

AGID Report No. 8

STRATEGIES FOR SMALL-SCALE MINING
AND MINERAL INDUSTRIES

Report of a Regional Workshop
held at Mombasa, Kenya
April 14 – 25, 1980

Supported by
UNESCO
Canadian International Development Agency
Australian Development Assistance Bureau
Geosurveys International
Government of Kenya

Compiled and Edited
by

James M. Neilson

on behalf of the National Organizing Committee of AGID
(Chairman, Mr. C.Y.O. Owayo)

ASSOCIATION OF GEO SCIENTISTS FOR INTERNATIONAL DEVELOPMENT
1982
STRATEGIES FOR SMALL-SCALE MINING AND MINERAL INDUSTRIES

CONTENTS

Dedication vii
Preamble viii

Background and format of the Workshop

Welcoming Address x

H.E. The Hon. J.A. Omanga: Minister for Environment and Natural Resources

I. INTRODUCTION

A.R. Berger: The Importance of Small Scale Mining: A General Review 1

II. COUNTRY REVIEWS AND CASE HISTORIES


2. P.M. Afenya: Ghana's Mineral Resources for Small-Scale Mining Industries. 28

3. Kwasli Baring: The Future of Small-Scale Mining in Ghana. 36


Alhaji Sale Bima: Small-Scale Mining in the Nigeria Tincfield: Past, Present, and the Future. 48

R.M.S. Maphalala: Problems of Small-Scale Mining in Swaziland. 55

F.E. Nkunangwa: Potential of Small-Scale Mining in Tanzania. 61

K.L. Mazimhaka: The Role of Small Deposits in Mineral Production in Uganda. 70

LEG: The Role of the Zambian Geological Survey Department Small Mines Development.
III. INDUSTRIAL MINERALS: CASE HISTORIES

1. Neville R. Hill: Developing Countries and the "Third World" of the Minerals Industry. 78
2. Asher Shadmon: Guide to Mineral Affairs in Developing Countries: Structural Materials. 80
4. F.G. Theuri: Problems Related to Kenya's Development of Small-Scale Industrial Minerals Mining. 92
7. D.S. Richardson: Small-Scale Mining of Gypsum at Mkomazi, Tanzania. 112
8. W.B. Sikombe: Lochinvar Gypsum Mine, Zambia. 121

IV. PRECIOUS METALS AND GEMS: CASE HISTORIES

2. R.E.A. Okelo: Development of Small-Scale Mining in Western Kenya with Special Reference to the Migori Gold Belt. 135
3. C.R. Bridges: Green Grossularite Garnet in East Africa (Synopsis). 144
4. P.E. Morgan: The Importance of Security in Gemstone Mining in Kenya. 146
5. A. Sakele: Small-Scale Cooperative Mining in Lesotho: Background Information. 148

V. HEAVY METALS AND BEACH PLACERS

1. A.R.T. Hove: Heavy Minerals and Beach Placers of the North Kenya Coast: Their Potential for Small-Scale Exploitation. 152
VI. FINANCING SMALL-SCALE MINING


VII. TRAINING AND THE ENVIRONMENT

1. W.J. Martin: Education of Middle Level Earth Science Manpower in East Africa.

2. J.G. Makinya: Environmental Impact: Major Issues

VIII. WORKSHOP FIELD TRIPS

Vitengeni (Barytes) Mine
Arabuko Sokoke Glass Sand
Roka Gypsum
Laulenyi (Tsavorite) Mine

IX. RECOMMENDATIONS

Summary of Recommendations

X. CONSOLIDATED BIBLIOGRAPHY

XI. LIST OF PARTICIPANTS