

IRON-ORE
MINING AND PROCESSING
POSSIBILITIES
IN
ERITREA

A preliminary study with the aim of
Encouraging Eritrean professionals and students of earth science to engage themselves in
the intermediate studies.

Prepared
By
Emnetu Tesfay

Content

Introduction

Preperation of studies

Preliminary valuation

Feasibility study

Cost estimation versus benefit to EPLF

Geological survey

Rock quantity and quality




Dynamite blasting

Crushing to fine powder

Melting by sun-surface

Chemical seperation

Molding iron-bars

	Subject:	CONCEPTUAL STUDY	Date:	15-10-89
	Action:	EPLF Economy Department	From:	Emnetu Tesfay 
	Info. :	Dr. Nerayo Teklemicael	Ref. No.:	012/89

Please find enclosed the final outline of the conceptual study regarding "mining and processing possibilities of iron-ore in the Sahel region of Eritrea for E.P.L.F. domestic consumption."

Steps to follow

- Blast the area with dynamite
- Crush the rocks with hammers using labor intensive, or mechanical rotating tools to crush it to fine powder.
- Melt it by using furnace, sun furnace is possible or charcoal.
- You get iron in the slag (there is a chemical process of separation using floatation)
- Oil can be used to melt but it could be expensive for the front.
- Other alternatives that can generate heat have to be evaluated.