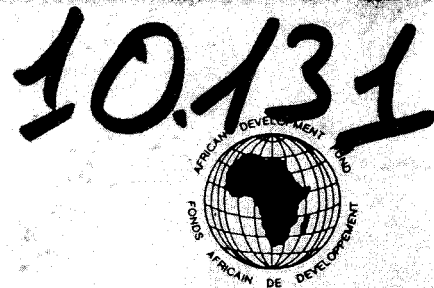
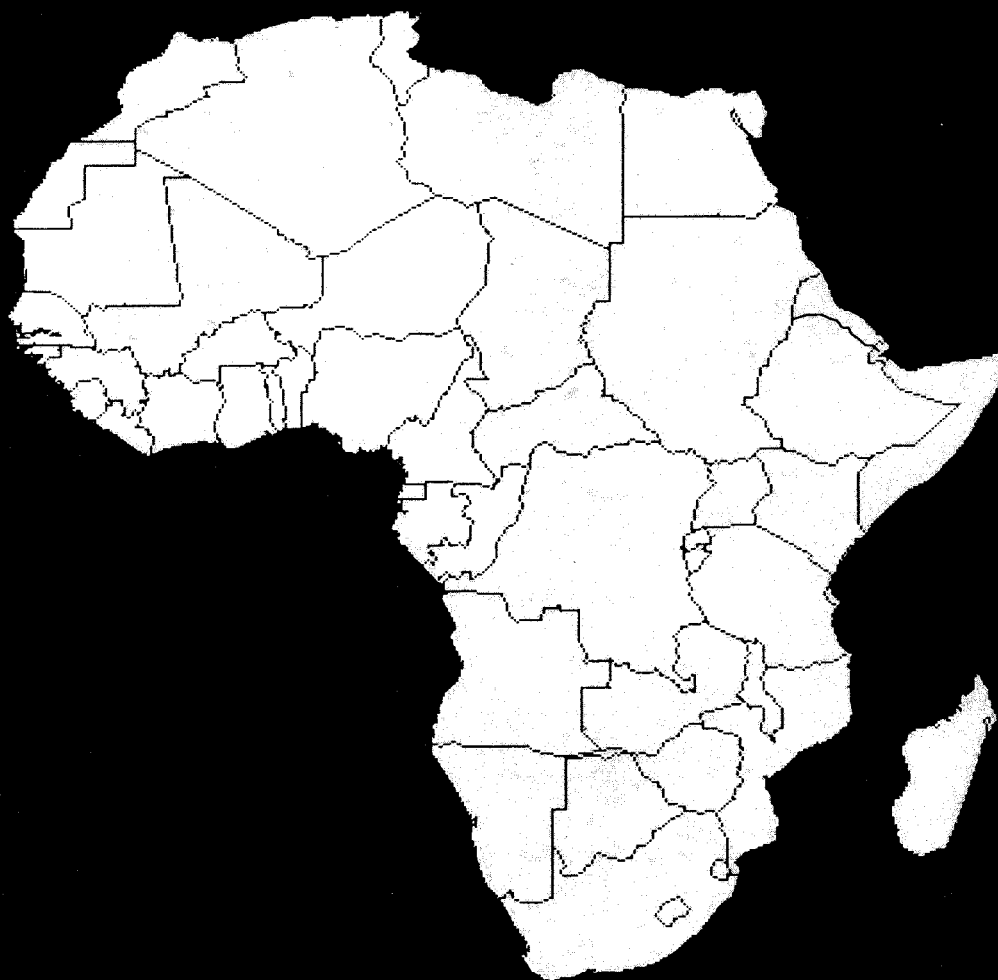




AFRICAN DEVELOPMENT BANK
AFRICAN DEVELOPMENT FUND



**FORESTS AND BIOMASS SUB-SECTOR
IN AFRICA**



AFRICAN ENERGY PROGRAMME

Energy Sector Technical Paper Series
Technical Paper N° ES3

The findings, interpretations, conclusions, and recommendations expressed in this publication are entirely those of the author(s), and should not be attributed in any manner to the African Development Bank Group. In addition, any maps that accompany this text have been prepared solely for the convenience of the readers; the designations and presentations of material in them do not imply the expression of opinion whatsoever on the part of the African Development Bank Group concerning the legal status of any country or concerning the delimitation of its boundaries or its national affiliations.

Copyright C 1996

African Development Bank Group
01 B.P. 1387
ABIDJAN 01 CÔTE D'IVOIRE

The material in this publication is copyrighted. Requests for permission to reproduce portions of it should be sent to the Coordinator of the African Energy Programme at the address shown in the copyright notice above. The Bank encourages dissemination of its work and will normally give permission promptly and, when the reproduction is for non-commercial purposes, without asking a fee.

TABLE OF CONTENTS

	PAGE
TABLE OF CONTENTS	i
LIST OF TABLES	iii
ABBREVIATIONS	iv
SYMBOLS AND UNITS	v
DEFINITION OF TERMS	vi
LIST OF INSTITUTIONS OR ORGANIZATIONS	vii
EXECUTIVE SUMMARY	viii
 Chapter One INTRODUCTION	 1
1.1 Background	1
1.2 Study Objectives	3
1.3 Methodology	4
1.3.1 Methods	4
1.3.2 Implementation	7
1.3.3 Constraints and Limitations	7
1.4 Structure of the Document	9
 Chapter Two BIOMASS RESOURCE POTENTIAL	 11
2.1 Woody Biomass Resources	11
2.1.1 Natural Forests	11
2.1.2 Forest Plantations	19
2.2 Residue Base Potential	21
 Chapter Three BIOMASS RESOURCE AND SUSTAINABILITY	 24
3.1 Biomass Resource Change Assessment	24
3.1.1 Biomass Change Assessment : A Regional Perspective	24
3.1.2 Biomass Change Assessment : National and Sub-regional Perspective	26
3.2 Current Biomass Energy Supply and Consumption	29
3.2.1 Fuel-wood Supply and Production	29
3.2.2 Fuel-wood Consumption	31
3.3 Fuel-wood Demand/Supply Balance	33