



# Eastern Africa Atlas of Coastal Resources



# TANZANIA

# **Eastern Africa Atlas of Coastal Resources**

## **TANZANIA**

# Eastern Africa Atlas of Coastal Resources

A project of the United Nations Environment Programme with the support of the Government of Belgium

Published by the United Nations Environment Programme

This publication may be reproduced in whole or in part and in any form, for educational or non-profit purposes, without special permission from the copyright holder, provided that acknowledgement of the source is made. UNEP would also appreciate receiving a copy of any publication that uses this publication as a source. No use of this book may be made for resale or for any other commercial purpose whatsoever without prior permission in writing from UNEP.

© 2001 United Nations Environment Programme  
P.O. Box 30552, Nairobi, Kenya

ISBN: 92 807 2061 9

# Eastern Africa Atlas of Coastal Resources

## Tanzania



United Nations Environment Programme



Directorate-General for International Cooperation (DGIC)  
Ministry of Foreign Affairs, External Trade and International Cooperation  
Kingdom of Belgium



United Republic of Tanzania

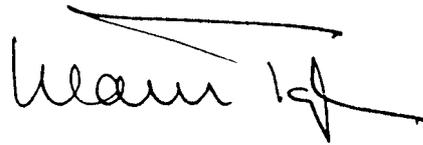


Institute of Marine Sciences, University of Dar es Salaam  
Zanzibar, Tanzania

The Government of Belgium, through its Directorate-General for International Cooperation, and the United Nations Environment Programme are pleased to be associated with this worthwhile project under the auspices of the Division of Early Warning and Assessment. We have always had a special interest in the Eastern African Action Plan activities and we see this project as providing a sound information management basis for the sustainable management of the coastal and marine resources of this region.



H. E. Mr Leo Willems  
*Ambassador of Belgium in Nairobi,  
Permanent Representative to UNEP*



Klaus Töpfer  
*Executive director  
United Nations Environment Programme*

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the United Nations Environment Programme (UNEP) or the Government of Belgium concerning the legal status of any state, territory, city or area, or of its authorities, or concerning the delimitations of its frontiers or boundaries. This publication contains the views expressed by the authors and experts involved acting in their individual capacity and may not necessarily reflect the views of the co-sponsors.

The information contained in this book is as accurate as possible within the limitations of scale and is supplied in good faith. However, any indication of legal status of land, the delimitation of gazetted protected areas, the existence of public roads and access, depth of water, or any such information, cannot be presumed to be proof of the same and the publishers cannot be held responsible for errors.

# Contents

<i>Foreword</i> .....	<i>vii</i>
<i>Acknowledgements</i> .....	<i>viii</i>
<b>Introduction</b>	
The Eastern African Region .....	1
The Eastern African Coastal and Marine Environment Resources Database and Atlas (EAF/14 Project) .....	2
<b>Tanzania: An Overview</b> .....	5
<b>PART 1: THE COASTAL ENVIRONMENT</b>	
Physical Characteristics .....	9
Coastal Ecosystems .....	24
Coastal Forests .....	24
Seagrass Meadows and Seaweeds .....	31
Coral Reefs .....	33
Marine Turtles .....	38
Marine Mammals .....	39
Migratory and Other Birds .....	40
Species at Risk .....	40
The Human Dimension .....	41
<b>PART 2: COASTAL RESOURCES AND THEIR USE</b>	
Historical and Cultural Resources .....	49
Fisheries and Aquaculture .....	51
Minerals and Energy Resources .....	57
Ports and Shipping .....	62
Recreation and Tourism .....	65
Industry .....	68
Agriculture .....	68
Environmental Pressures .....	69
<b>PART 3: MANAGEMENT OF THE COASTAL AND MARINE ENVIRONMENT: LEGAL AND INSTITUTIONAL FRAMEWORK</b>	
Introduction .....	77
Traditional Management Systems .....	77
Policies and Legislation .....	79
Coastal Planning .....	83
Marine Protected Areas and Reserves .....	90
International Perspective .....	98
Administration: Institutional and Governance Structures .....	99
Research and Training Institutions .....	102
Bibliography .....	105
<b>ANNEX 1: THE EAF/14 DATABASE IN TANZANIA</b>	
Available Information and Structure of the Database .....	A-1
Achievements and Problems .....	A-2

## MAPS

Map 1.	Tanzania—regional administrative boundaries .....	6
Map 2.	Prevailing winds and approximate location of the inter-tropical convergence zone (ITCZ) over Africa, January (left) and July (right) (after Ker et al., 1978) .....	10
Map 3.	Map and graphs showing average annual rainfall distribution and monthly average windspeed .....	12
Map 4.	Geological map of coastal Tanzania (numbers indicate year of last earthquake) .....	14
Map 5.	River systems in coastal Tanzania .....	16
Map 6.	Distribution of coastal habitats (corals and mangroves) and selected terrestrial land cover types .....	25
Map 7.	Marine turtles main distribution areas by species .....	38
Map 8.	Population projections (estimates) for settlements and districts in Zanzibar for the year 2000 .....	42
Map 9.	Gross domestic product in Coastal districts of Tanzania and the gross national product per capita in Africa .....	44
Map 10.	Infrastructure in the coastal areas of Tanzania .....	46
Map 11.	Mariculture sites and prawn trawling grounds and zones .....	54
Map 12.	Location of hydrocarbon exploration wells, mining of minerals and powerplants in coastal Tanzania .....	61
Map 13.	Industry and tourism areas .....	67
Map 14.	Coral mining, sand mining and shell collection .....	71
Map 15.	Conservation areas in coastal Tanzania .....	92
Map 16.	Zoning of the Mafia Island Marine Park .....	93
Map 17.	Menai Bay conservation area .....	96

# Foreword

Tanzania has over 800 km of coastline, characterised by a mixture of beautiful sandy beaches, rocky outcrops, extensive coral reefs, and dense mangrove stands, especially around river deltas. Among the more famous of these natural resources are the beaches of Bagamoyo, the Jozani Forest Reserve, the coral reefs of Mafia, Zanzibar and Pemba, and the Amboni Caves. These coastal ecosystems support a wide variety of marine life. In addition, the coastal area's historical attractions, including old buildings, ruins, and monuments, particularly those in Zanzibar and Bagamoyo, are among the finest in the region. It is also rich in cultural attractions, mainly related to people's values, customs and traditions.

Coastal resources are valuable assets to the country and the coastal and marine environment provides numerous opportunities, thus encouraging concentrations of people and development activities there. In Tanzania over 20% of the population lives in its five coastal administrative regions, which encompass about 15% of the country's land area. These areas are subjected to increasing pressures from a variety of activities, such as fishing, coastal aquaculture, salt making, waste disposal and the indiscriminate cutting of mangroves and coastal forests for fuel and timber.

Environmental challenges such as marine pollution, the use of destructive fishing methods and over-fishing, habitat destruction, coastal erosion and coastal urbanisation are highly complex issues, and require an integrated approach to address them. In this regard, the availability of relevant information and expert advice from various disciplines is necessary for the formulation of appropriate management actions. A number of marine environmental studies have been conducted in the country on aspects such as fisheries, mangroves, coral reefs, erosion and coastal tourism, among others. However, most of the information generated is not accessible for management purposes.

Through the Eastern African Coastal Resources Database and Atlas project, some of the data and information gathered have been processed and transformed into base maps on land and water use and functional zones using geographical information systems (GIS). Other data and information have been stored in the database established at the Institute of Marine Sciences of the University of Dar es Salaam and will be updated regularly. The database will help in achieving improved description, assessment, analysis and management of environmental issues.

This Atlas of marine and coastal resources in Tanzania is designed to raise the awareness and understanding of non-specialists, particularly decision makers, resource managers, students, and the general populace, on coastal and marine environmental issues and related challenges in Tanzania. It is written in non-technical language to make it easy to understand and use. It is hoped that the information contained in it will establish a new baseline of practical information to guide the research and planning of management initiatives in the coastal areas.

The book underlines the importance of the coastal and marine environment, not only as an environmental concern, but also as a political, social and economic issue. Used appropriately, I believe that it will go a long

预览已结束，完整报告链接和二维码如下：

[https://www.yunbaogao.cn/report/index/report?reportId=5\\_12227](https://www.yunbaogao.cn/report/index/report?reportId=5_12227)

