



**REPUBLIC OF GHANA**

**THE NATIONAL PORTFOLIO FORMULATION DOCUMENT  
(NPFD)**

**GEF-NPFE Grant No. TF098497**

**Prepared by:**

**The Ministry of Environment, Science and Technology**

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**Ghana**

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## **Preface**

The continuous exploitation of Ghana's rich natural resources has contributed to the loss of ecological integrity and compromised the ability of the ecosystem to sustainably support the life of many local communities which directly depend on natural resources for their livelihoods.

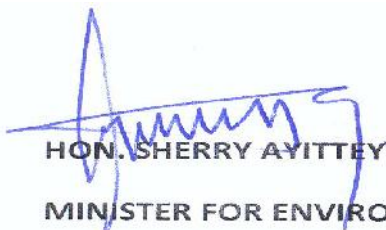
Cognizant of the pivotal role of a sound environment and a healthy ecosystem in the sustenance of the country's economic and social development, the Ministry of Environment, Science and Technology and the people of Ghana have made policy decisions to reverse the deterioration of the environment. The need to ensure sustainability in the use of the country's natural resources through the use of science, technology and innovation was captured in Ghana's Medium Term Development Framework, Ghana Shared Growth and Development Agenda (GSGDA, 2010-2013).

Since its inception as a financial mechanism to facilitate access to funds for developing countries to tackle environmental problems, the Global environment Facility (GEF) has provided considerable assistance to Ghana to implement projects within the GEF focal areas. The GEF focal areas under the fifth replenishment cycle namely: Biodiversity, Climate Change and Land Degradation coincide with priority areas identified by the Ministry of Environment, Science and Technology for immediate to medium term action.

Under the leadership of the Ministry of Environment Science and Technology, there has been development of national policy documents to address the challenges associated with land degradation, Biodiversity loss and Climate Change. The development of these documents has been consultative and participatory to facilitate their implementation.

The interest demonstrated by stakeholders in issues related to the environment especially the focal areas under GEF 5 has been instrumental in the quest to undertake the National Portfolio Formulation Exercise with consultation of major stakeholders. The consultation process was carried out in two phases involving the northern and southern sectors of the country under the auspices of the National GEF Committee.

The Ministry of Environment, Science and Technology and the people of Ghana are therefore ready to leverage support that will be provided under GEF 5 STAR allocation to tackle environmental challenges that have implication for national development and poverty alleviation and also generate global environmental benefits.



**HON. SHERRY AYITTEY**

**MINISTER FOR ENVIRONMENT, SCIENCE AND TECHNOLOGY**

**GHANA**

## **ACKNOWLEDGEMENTS**

The Ministry of Environment, Science and Technology would like to express its gratitude to all stakeholders for their active participations in the activities of the National Portfolio Formulation Exercise. The Ministry also acknowledges the financial support of the Global Environment Facility that made possible for the Ministry to engage of a consultant and organize Stakeholder Consultation Meetings and Workshops towards the preparation of this document.

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## Acronyms

AfDB	African Development Bank
CDM	Clean Development Mechanism
CSOs	Civil Society Organizations
EAs	Executing Agencies
EC	Energy Commission
EPA	Environmental Protection Agency
GEF	Global Environment Facility
FAO	Food and Agriculture Organization
FC	Forestry Commission
FP	Focal Point
IAs	Implementing Agencies
MEST	Ministry of Environment, Science and Technology
MOFA	Ministry of Food and Agriculture
MOFEP	Ministry of Finance and Economic Planning
MLNR	Ministry of Land and Natural Resources
NBC	National Biodiversity Committee
NCCC	National Committee on Climate Change
NCCD	National Committee to Combat Desertification
NPFE	National Portfolio Formulation Exercise
NTFPs	Non Timber Forest Products
NREG	Natural Resource and Environmental Governance
REDD	Reduced Emissions from Deforestation and Degradation
SLM	Sustainable Land Management
SGP	Small Grants Programme

STAR	System of Transparent Allocation of Resources
UG	University of Ghana
UNCCD	United Nations Convention to Combat Desertification
UNCBD	United Nations Convention on Biological Diversity
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial and Development Organization
WD	Wildlife Division
WRC	Water Resources Commission

## Executive Summary

After extensive consultation that involved a cross section of the Ghanaian stakeholders, a STAR allocation distribution was made based on the Focal areas and Small Grants Program (SGP) on the following percentages of the national STAR allocation of US\$8.85M:

- Climate Change : US\$2.17M (24.52%)
- Biodiversity : US\$2.32M (26.21%)
- Land Degradation : US\$ 3.35M (37.85%)
- Small Grants Program : US\$ 1.00M (11.3%)

The priority projects/ programs selected under the three STAR focal areas for GEF 5 are listed below. A number of activities that benefit the CSOs, in particular, those that promote livelihoods and gender mainstreaming at the grass roots level were suggested for the Small Grants Program (SGP).

### STAR Focal Areas:

- a. **Climate Change:** REDD+ readiness in all its forms including gender mainstreaming and CDM in all the natural and agro-ecological zones
- b. **Biodiversity:** mainstreaming Biodiversity conservation and utilization across the country in all the natural and agro-ecological zones in:
  - i) Agriculture and forestry sector using the ecosystem approach, especially pollinator conservation and biology, and livestock park system
  - ii) Wetlands: knowledge base, management and restoration
  - iii) In-situ areas for Non Timber Forest Products (NTFPs)
  - iv) Soil microbiology,
  - v) Community-based Natural Resources Management
  - vi) Traditional Protected Areas (Sacred Groves)
- c. **Land degradation:** mainstreaming and scaling-up sustainable land management practices across the country in all natural and agro-ecological zones in:
  - i) Improving the governance of land management decisions and secure ecosystem services to improve rural livelihoods in the country;
  - ii) Massive and sustained educational campaign mounted on all aspects of bushfire;
  - iii) Capacity of key institutions/actors to develop and support SLM planning, cross-sectoral integration and on-the -ground implementation/enforcement strengthened at all levels, particularly at decentralized level.
  - iv) Rate of adoption of soil and water conservation measures by farmers improved.
  - v) All new and or reviewed policies, program/projects and plans related to SLM subjected to the “sustainability test” based on the procedures of strategic environmental assessment (SEA)
  - vi) Fertility and productivity of soils on smallholder farms improved
  - vii) Use of simple agronomic soil and water conservation measures promoted

## **Non-STAR Focal Areas**

**Small Grants Program:** The SGP in Ghana, belonging to Category II.II, has graduated from direct funding from GEF/SGP portfolio. Funding allocation must be made from the country's STAR allocation to undertake activities that secure global environmental benefits through community-based institutions in key terrestrial and marine ecosystems.

The following areas under the Star focal areas are suggested for SGP Ghana:

- i) Climate Change
- ii) Biodiversity: mainstreaming biodiversity conservation and sustainable use into production landscapes and seascapes (Satoyama Initiative)
- iii) Land degradation: improving the flow and resilience of agro-ecological systems to sustain livelihoods of local communities
- iv) Capacity Development : improving the technological and other knowledge systems for climate change mitigation and adaptation, biodiversity conservation and sustainable use, and land and water management

## **Non-STAR focal areas:**

Ghana has indicated the desire to participate in Non-STAR focal areas as and when the opportunities for these arise.

## **Implementing and Executing Agencies:**

Ghana is happy in working with the traditional IAs and EAs. However, there are plans to initiate a country based Implementing Agency using the facilities created by the National Portfolio Formulation Exercise through the Ministry Of Finance and Economic Planning.



## 1.0 Introduction

The Government of Ghana made a request for financial assistance to the CEO of the Global Environment Facility to undertake a project to conduct a broad consultation process to set priorities for the GEF resource programming covering the GEF 5<sup>th</sup> replenishment period.

The consultation process involved the following activities:

- a. Consultative meetings with a broad range of stakeholders
- b. Workshops with the participation of a broad range of stakeholders
- c. Development of a national portfolio formulation document that describes Ghana's priorities and projects/programs to be proposed for financing

## 1.1 Description of the National Steering Committee

The activities of the National Portfolio Formulation Exercise were undertaken under the direction and guidance of the National GEF Committee. The Committee comprises representatives from the academia, civil society organizations and relevant government institutions: Ministries and agencies. The membership of this Committee is as indicated below:

No.	NAME	INSTITUTION
1	PROF. ALFRED OTENG-YEBOAH	UG/NBC
2	Mr. Daniel Amlalo	EPA
3	Madam Salimata Abdul-Salam	MEST
4	MR. GEORGE AHADZIE	Green Earth Organization
5	MR. SAMUEL CONFIDENCE DOTSE	HATOF Foundation
6	GEORGE ORTSIN	UNDP GEF/ SGP
7	MR. BEN AMPOMAH	WRC
8	NANA ADU NSIAH	FC/WD
9	DR. ROSE MENSAH- KUTI	Abantu for Development
10	Mr. Osie Amakye	EPA/UNCCD FP
11	Mr. Opong Boadi	EPA/UNFCCC FP
12	Mr. Eric A. Okoree	MEST/UNCBD FP

13	Mrs. Gladys Gharthey	MOFEP
14	Mr. Delali Nutsukpo	MOFA/NCCD
15	Mr. R. S. Kuuzegh	MEST/NCCC
16	Mr. Yaw Kwakye	FC
17	Mr. K.A. Otu- Danquah	EC
18	Mr. Joseph Asiakwa	MLNR
19	Prof. Ofori- Danson P.K	UG
20	Prof. Yaa Ntiamoah-Baidu	UG
21	Mr. Wisdom Togobo	MoE
22	DR. Nicholas Iddi	MEST
23	Dr. Raymond Babanawo	MEST/ GEF OFF

## 1.2 Description of the Stakeholder Consultations

Reports of a previous stakeholder consultation undertaken in the early period of the GEF 5-STAR allocation (July 2010) were consulted. After several weeks of consultations with the relevant stakeholders (September through October to November 2011), the following stakeholder groups were identified and invited to a series of workshops in December 2011.

- i. Ghana National Biodiversity Committee
- ii. National Climate Change Committee
- iii. National Committee to Combat Desertification
- iv. Energy Commission
- v. Forestry Commission
- vi. Environmental Protection Agency
- vii. UNDP/SGP
- viii. Ministry of Food and Agriculture
- ix. Ministry of Environment, Science and Technology
- x. Ministry of Finance and Economic Planning

- xi. Water Resources Commission
- xii. Green Earth Organization
- xiii. Ghana Wildlife Society
- xiv. HATOF foundation
- xv. Green Building Council
- xvi. Universities in Ghana representatives
- xvii. The Council for Scientific and Industrial Research (CSIR)

During the period of the workshops, a number of presentations specifically on the NPFE but generally including GEF funding systems and operations were made. Specific to the NPFE, the work programmes of the three Rio Conventions, namely: Convention on Biological Diversity, the UN Framework Convention on Climate Change and the UN Convention to Combat Desertification were discussed and the Focal Points led in identifying the priority activities for the country for the next 4 years of the GEF-5 replenishment, commonly referred to as the STAR allocation.

### **1.3 The Country Profile**

The Republic of Ghana lies along the Gulf of Guinea in West Africa and covers a land area of 238,539 km<sup>2</sup> and a 550 km long coastline. It lies between latitudes 4° 44' and 11° 15' N and longitude 3° 15' W and 1° 12' E. The Exclusive Economic Zone (EEZ) adds an extra 110,000 km<sup>2</sup> of the sea to the territorial area of Ghana. The country is bordered on the east by Togo, on the west by Cote d'Ivoire and on the north by Burkina Faso. The country is divided into 10 administrative regions and one hundred and seventy (170) districts.

Of the total geographical area of 238,539 km<sup>2</sup> in Ghana, about 82,258 km<sup>2</sup> is classified as forest, and 155, 614 km<sup>2</sup> as savanna land. The total inland water area, which includes the Volta Lake, Lake Bosomtwi, etc., is about 11,800 km<sup>2</sup>

### **1.4 The Ghanaian Environment**

The country is divided into six agro-ecological zones defined on the basis of climate, reflected by the natural vegetation and influenced by the soils. These zones are Sudan, Guinea and Coastal Savannas, the Forest-Savanna Transitional, the Semi-deciduous Forest and the High Forest zones (Figs. 1 and 2). The characteristics of the soils of Ghana are due to the influence of local climate, vegetation, including other organisms, which act on the various geological materials as modified by local relief or topography over periods of time. In all these zones the natural vegetation has undergone a considerable change through human activities.

## 1.5 The Environmental Challenges

Biodiversity in Ghana is under severe pressure in some ecosystems and this has made it impossible to pronounce a uniform status situation. While forest and dry and sub-humid (savanna) biodiversity in protected areas are in very good condition, those in some reserves and off-reserve areas are in good through fair to bad conditions. This is the result of the intense pressure these ecosystems are made to experience on a routine basis.

There is evidence of declining trends, especially in forest, dry and sub-humid, marine and coastal and inland water biodiversity. Many biodiversity components including special species of these ecosystems have been noted to have declined in their composition, numbers, density, dispersion and distribution.

The major threats to biodiversity come largely from land-use conversions, habitat degradation, over exploitation, pollution, invasive alien species, climate change effects, predation, misapplication of chemicals into the environment, wild fires etc.

The land use conversions involve large scale farming, mono-cultural plantations e.g. for teak, settlement siting, traditional farming practices of food and cash crops with the use of fire. Habitat degradation comes from such activities as pollution, misuse of fire, over harvesting of genetic resources, misapplication of chemicals.

Over exploitation involve excessive cutting of trees in stressed environments for fire wood as energy source, by-catch and use of inappropriate harvesting techniques such as pair trawling and beach seine.

Climate change effects include sea level rise leading to sea water intrusion into fresh water habitats, intense drought and flooding.

### 1.5.1 Forest Biodiversity

There is very heavy pressure on Ghanaian forests, stemming from various aspects of land use. Many forest reserves are a poor shadow of themselves as a result of excessive extraction of timber and other resources. Some forest reserves have undergone replanting with exotic species such as Teak (*Tectona grandis*).

While there is evidence of increase in populations of some forest species, there is also evidence of decline in populations of some other species, especially those that are over-utilized. Generally there is a decrease in the land area of forest estates.

The condition of Ghana's forests has been in decline for many years, particularly since the 1970s.

Many forest reserves are heavily encroached and degraded, and the off-reserve stocks are being rapidly depleted.

By and large, the problem is one of gradual 'degradation' rather than 'deforestation', and is incremental rather than dramatic, with no single dominant driver. The underlying causes involve a complex of demographic, economic and policy influences. The immediate drivers include: forest industry over-capacity; policy/market failures in the timber sector; burgeoning population in both rural and urban areas; increasing local demand for agricultural and wood products; high demand for wood and forest products on the international market; heavy dependence on charcoal and woodfuel for rural and urban energy; limited technology development in farming systems and continued reliance on cyclical 'slash and burn' methods to maintain soil fertility and fire as a tool in land management.

Arresting deforestation and forest degradation is an important priority for the country, and Ghana has already embarked on a series of forest and natural resource governance initiatives to address these challenges. The most prominent of these are the Forest Law Enforcement, Governance and Trade (FLEGT) Initiative, and the multi donor sector budget support through the Natural Resources and Environmental Governance Program (NREG).

### **1.5.2 Agricultural Biodiversity**

There is erosion of crops biodiversity. Particular examples of this erosion can be seen in declining numbers of the local banana, cocoa and some yam species. Some yam species have completely disappeared from the system. For livestock, some cattle breeds are on the decline. The West African short horn cattle which used to constitute about 80% of the national cattle population in the 1990s now constitutes about 47% of the national cattle herd by the dawn of the millennium.

Generally, there is decline in biodiversity. However there are some positive developments that have contributed to encouraging increases in the quality of biodiversity. Some crops have had their diversity enhanced as a result of introduction of other varieties from outside the country.

### **1.5.3 Dry and sub-humid lands biodiversity**

#### **a) Coastal savanna**

There is severe reduction in the production of ecosystems goods and services through loss of fishing grounds, housing materials, grazing lands, farmlands and productivity, wildlife habitats, energy sources, local displacement of species and scarcity of water sources

Consequent to the pressure on the ecosystem, there is loss of livelihood options and a decline in living standards of the people leading to worsening poverty.

## **b) Transition Zone**

This zone was formerly a forested area but now rapidly turning into savanna and expanding further into the moist forest zone. There is rapid deforestation and loss of watersheds. There is decline in soil fertility. All the other issues mentioned in coastal savanna also apply here. The trend is as has been recorded for the coastal savanna.

## **c) Sudan and Northern Guinea Savannas**

The situation is as in coastal savanna with rapid deforestation. There is high intensity of wild fires and human emigration into the forest zone. There are also the increasing incidents of floods and droughts (leading to land degradation and desertification).

The trend leads to food insecurity, water scarcity, disruption of social structure (emigration) as the young ones desert home leaving the old people behind, loss of cultural heritage eg. totems, loss of energy sources, loss of lives and property. All the issues raised on coastal savanna biodiversity also apply here.

The trend is also leading to loss of habitats, decline in species populations, local species extinctions, increasing vulnerability to climate change impact, increasing incidence of alien invasive species, human emigration from savanna to southern forest zones, increasing transhumance leading to local and national insecurity, increasing poverty incidence as a result of loss of livelihood options, declining living standards, decline in soil fertility and productivity, increasing food insecurity, decline in the contribution to the GDP, increasing urbanizations leading to expansion in some areas and decline in others.

The trend that is general to all the savanna ecosystems are: Decline in species, Increasing poverty levels, Over-exploitation of natural resources (e.g. fuel wood harvesting), Vulnerability to Climate change and desertification and land degradation, Degradation and loss of water sources, Decline in agricultural productivity leading to agricultural land expansion, Population increase and pressure, Non application of improved agricultural and sustainable land management practices, land use conversions into mono-cultures for mango cultivation and other highly sought after agricultural produce, Increasing incidence of invasive species, Pollution of water bodies, High intensity of wild fires and, Increasing human migration into forest zone, Increasing incidents of floods and droughts.

## 2.0 Priority Projects, Programs and Plans

### 2.1 STAR Focal Areas:

- a. **Climate Change:** REDD+ readiness in all its forms including gender mainstreaming and CDM in all the natural and agro-ecological zones
- b. **Biodiversity:** mainstreaming Biodiversity conservation and utilization across the country in all the natural and agro-ecological zones in:
  - i) Agriculture and forestry sector using the ecosystem approach, especially pollinator conservation and biology, and livestock Park system
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  - iv) Soil microbiology: the state of knowledge
  - v) Community-based Natural Resources Management
  - vi) Traditional Protected Areas (Sacred Groves)
- c. **Land Degradation:** mainstreaming and scaling-up sustainable land management practices across the country in all natural and agro-ecological zones in:
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### 2.2 Non-STAR Focal Areas

**Small Grants Program:** The SGP in Ghana, belonging to Category II.II, has graduated from direct funding from GEF/SGP portfolio. Funding allocation must be made from the country’s STAR allocation to undertake activities that secure global environmental benefits through community-based institutions in key terrestrial and marine ecosystems.

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- c. Land degradation: improving the flow and resilience of agro-ecological systems to sustain livelihoods of local communities
- d. Capacity Development : improving the technological and other knowledge systems for climate change mitigation and adaptation, biodiversity conservation and sustainable use, and land and water management

### **3.0 The STAR Allocation Distribution**

Based on the priorities identified and agreed by the stakeholders, the following funds distribution has been made from the STAR allocation of US\$ 8.85M to Ghana:

- Climate Change : US\$2.17M (24.52%)
- Biodiversity : US\$2.32M (26.21%)
- Land Degradation : US\$ 3.35M (37.85%)
- Small Grants Program : US\$ 1.00M (11.3%)

### **4.0 Non-STAR Areas and Ghana's Interests**

Ghana is interested in the other non-STAR areas including International Waters, Persistent Organic Pollutants and Sound Chemicals Management, Corporate budgets, Country Support Program, Regional and global projects/programs, Earth Fund (private sector).

Ghana will participate in these areas as and when the opportunity arises.

### **5.0 Discussion on Implementing and Executing Agencies**

There is a desire of Ghana, through the NPFE, to present the Ministry of Finance and Economic Planning, as an Implementing Agency alongside the traditional agencies such as the AfDB, FAO, UNDP, UNEP, UNIDO, the World Bank, etc. Ghana has had very cordial relationship with these Implementing and Executing Agencies for a very long time and wants to continue with the relationship in areas that are mutually beneficial.



# ECOLOGICAL ZONES OF GHANA



Fig 1

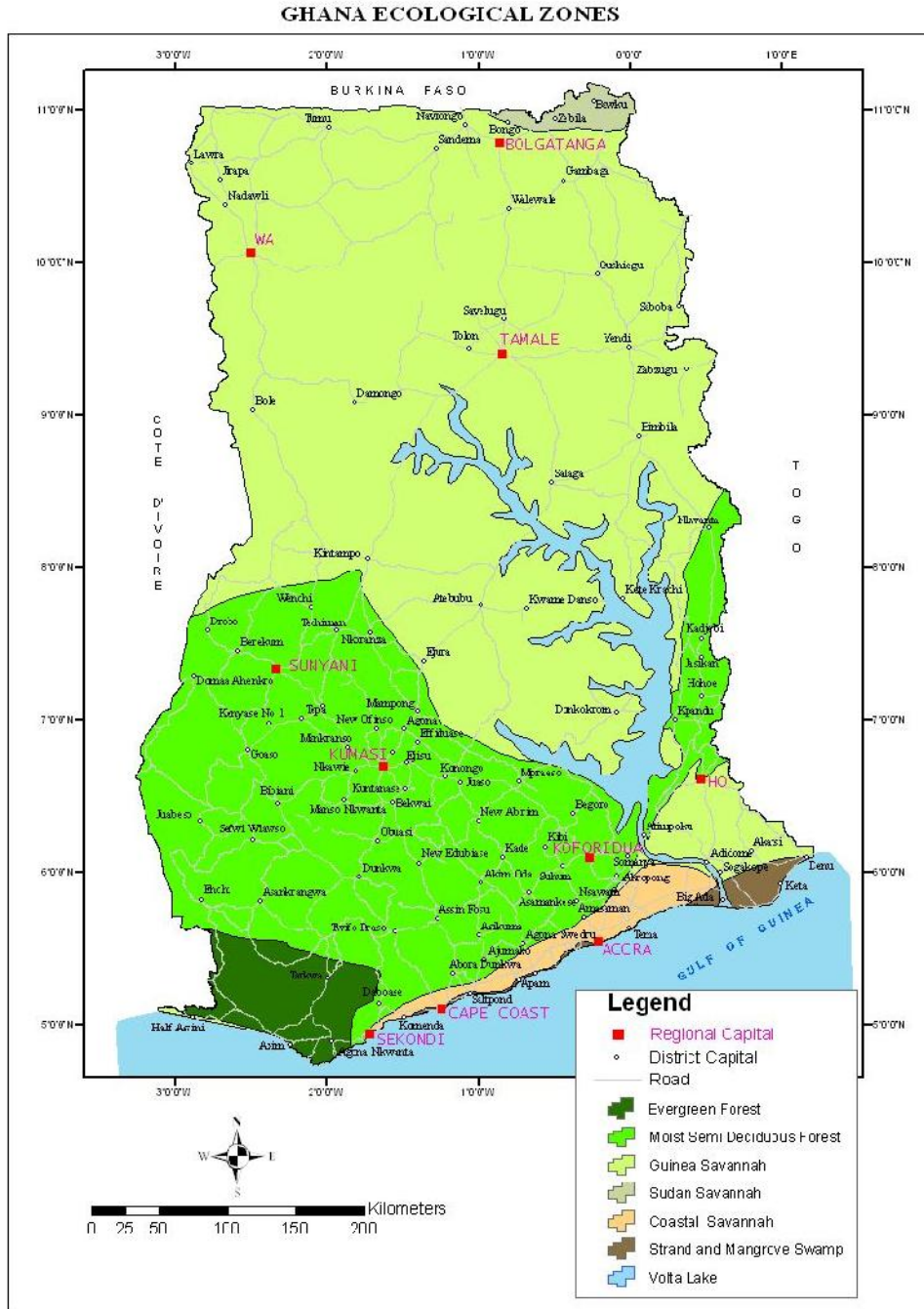


Figure 2