



FEDERAL REPUBLIC OF NIGERIA

**COMBATING DESERTIFICATION AND MITIGATING
THE EFFECTS OF DROUGHT IN NIGERIA**

*The Revised National Report on the Implementation of the
United Nations Convention to Combat Desertification in
those Countries Experiencing Serious Drought and/or
Desertification, Particularly in Africa (CCD)*



Submitted to the Secretariat of the UNCCD
Bonn, Federal Republic of Germany

For The Attention of The
Committee for the Review of the Implementation of the Convention
(CRIC))

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ACRONYMS

ADB - African Development Bank

AGRYMET – AGROMET, Niamey

CBOs – Community Based Organizations

(UN) CCD – (United Nations) Convention to Combat Desertification

CIDA – Canadian International Development Agency

CILSS – Permanent Inter-State Committee for Drought Control in the Sahel

COP – Conference of Parties

DFID – Department for International Development

ECN – Energy Commission of Nigeria

ECOWAS – Economic Community for West African States

EIA – Environmental Impact Assessment

EU – European Union

FAO – Food and Agricultural Organization

FMA & RD – Federal Ministry of Agriculture and Rural Development

FMENV – Federal Ministry of Environment

FMST – Federal Ministry of Science and Technology

FMWA – Federal Ministry of Women Affairs

FMWR - Federal Ministry of Water Resources

FORMECU – Forestry Monitoring, Evaluation and Coordinating Unit

GIS – Geographic Information System

GDP – Gross Domestic Product

GEF – Global Environment Facility

GM – Global Mechanism of the CCD

GNP – Gross National Product

IFAD – International Food and Agricultural Development

JICA – Japanese International Cooperation Agency

JWL – Jigawa (State) Wetland Livelihood

LCBC – Lake Chad Basin Commission

NAP – National Action Programme/National Policy on Agriculture

NASRDA – National Airspace Research and Development Agency

NBSAP – National Biodiversity Strategy and Action Plan

NCB – National Coordinating Body
NCF – Nigerian Conservation Foundation
NCCDC – National Coordinating Committee on Desertification Control
NDE – National Directorate of Employment
NDVI – Normalized Difference Vegetation Index
NEAP – National Environmental Action Plan
NEPAD – New Partnership for African Development
NEST – Nigerian Environmental Action/Study Team
NFAP – National Forestry Action Plan
NFP – National Focal Point
NGO – Non-Governmental Organization
NIMET – Nigerian Meteorological Agency
NNJCC – Nigerian-Niger Joint Commission for Cooperation
NPC – National Planning Commission (National Population Commission)
NPE – National Policy on Environmental
NWRMP – National Water Resources Action Plan
ODA – Oversea Development Agency
OECD – Organization for European Community Development
RAP – Regional Action Programme
RET – Renewable Energy Technology
SEPA – State Environmental Protection Agency
SRAP/WA – Sub-Regional Action Programme for West Africa
UNCED – United Nations Conference on Environment and Development
UNEP – United Nations Environment Programme
UNDP – United Nations Development Programme
UNIDO – United Nations Industrial Development Organization
WB – World Bank

IMPLEMENTATION STATUS AT A GLANCE (SUMMARY)

The following table summarizes the status of implementation of NAP in Nigeria.

1. **Focal Point Institution:** Federal Ministry of Environment, Drought and Desertification Amelioration Department, Abuja, Nigeria.

Name of Focal Point	Dr. Bukar Hassan
Address including email address	Department of Drought & Desertification Amelioration, Environment House, Independence Way (South), Federal Ministry of Environment, Abuja, Nigeria bukar_hassan@yahoo.co.uk
Country-specific websites relating to desertification	1. NIL
	2.
	3.

2. **Status of NAP**

Date of Validation of NAP December, 2000	Federal Executive Council, NCB, Representatives of relevant Local, State and Federal Governments, NGOs, CBOs and other stakeholders
NAP reviews (Dates?)	Not yet
NAP has been integrated into the Poverty Reduction Strategy (PRSP)	currently under way
NAP has been integrated into National Development Strategy	Currently underway
NAP implementation started with or without the conclusion of Partnership agreements	Yes
Expected NAP Validation	Validated in 2000
Final Draft of a NAP exists	Yes

3. **Member of SRAP/RAP**

<i>Name of Sub-regional and/or regional Cooperation Frame-work</i>		<i>Involvement specifically in topics such as water harvesting techniques, soil erosion etc.</i>
1.	Sub-regional Action Programme for West Africa	All eight Thematic Areas
2.	RAP	All Thematic Network Programmes

4. **Composition of the NCB**

<i>Name of Institution</i>		<i>Government</i>	<i>NGO</i>	<i>Male/Female</i>
1.	Federal Ministry of Environment	Government		Male
2.	Federal Ministry of Agriculture & Rural Development	Government		Male
3.	Federal Ministry of Water Resources	Government		Male
4.	National Planning Commission	Government		Female
5.	Federal Ministry of Women Affairs	Government		Female
6.	Ecological Funds Office	Government		Male
7.	Federal Ministry of Finance	Government		Male
8.	Energy Commission of Nigeria	Government		Male
9.	Centre of Arid Zone Studies, University of Maiduguri	Government		Male
10.	State Ministries Responsible for Combating Drought and Desertification in the 11 Affected States	Government		Males/Females
11.	Nigerian Environment Study/Action Team		Non-Governmental Organization	Male
12.	Nature Trust International		Non-Governmental Organization	Male
13.	Sahel Conservation		Non-Governmental Organization	Male

5. **Total Number of NGOs**
Accredited to the process –**Four**

Has an NGO National Coordinating Committee on Desertification been established?	No
If Yes, how many NGOs or Civil Society organizations participate in it?	-

6. **Total Number of acts and laws**
Passed relating to the UNCCD ____SEVEN

(Name up to five most relevant acts and laws and/or regulations)

<i>S/No.</i>	<i>Title of the Law</i>	<i>Date of Adoption</i>
1.	Land Use Act	1978
2.	National Water Resources Act	1993
3.	National Forestry Act	Before National Assembly for Review
4.	National Parks Service Act	1991
5.	Endangered Species (CITES) Act	1985

- 7.(a) **The Consultative Process: Number of Partnership Agreements that have been concluded and/or are being initiated within the framework of the UNCCD**

<i>S/No.</i>	<i>Official Title of Partnership</i>	<i>Donors, International Organizations and/or agencies of the UN system involved</i>	<i>Date of Expected Conclusion</i>
1.	Nigeria-Niger Joint Commission for Cooperation	Nigeria and Niger Republic	1972
2.	Niger Basin Act	ADB, CIDA, French Govt.	1980
3.	Lake Chad Basin Commission	UNEP, UNDP, World Bank	

(b) **List of Consultative Meetings on UNCCD Implementation**

<i>S/No.</i>	<i>Name of Consultative Meeting</i>	<i>Date/Year</i>	<i>Donor Countries Involved</i>	<i>International Organization or UN Agency involved</i>
1.	NCB meeting to validate priority projects developed from NAP	2002-2003		Commonwealth Secretariat
2.	Nigeria/Niger Transboundary Management Project consultative meetings	2001 – 2003 (several)	Several	WB, UNDP, UNEP, FAO, AGRHYMET, IFAD
3.	International Seminar on drought & desertification	April, 2001	-	-
4.	National Sensitization Seminar on drought & desertification	May, 2004	-	-
5.	Stakeholders' meeting on the development of National Policy on Drought & Desertification and Drought Preparedness Strategy	December, 2004	-	UNDP

8. **Projects under Implementation which are directly or indirectly related to the UNCCD**

<i>S/No.</i>	<i>Name of Project</i>	<i>Project implemented within the framework of NAP or SRAP or RAP?</i>	<i>Time-frame</i>	<i>Partnership Involved</i>	<i>Overall budget (US \$)</i>
1.	Nigeria/Niger Transboundary Management Project	NAP and SRAP/WA	8 years	GEF, UNEP, UNDP, GM of CCD etc. as well as Nigeria and Niger	\$34m
2.	Assessment of Desertification in Nigeria	NAP	2 years	-	\$42,000
3.	Establishment of Drought Early Warning system	NAP	2 years	-	\$65,000
4.	Rangeland Management	NAP	3 years	-	\$3.1m
5.	Model Village Project	NAP	3 years	-	\$4.0m
6.	Sand Dune Fixation Projects	NAP	5 years	-	\$3.1m

7.	Establishment of Community Forest/Woodlots	NAP	5 years	-	\$36,000
8.	Greenbelt & Afforestation Establishment	NAP	12 years	-	\$3.6m
9.	Oasis management Project	NAP	3 years +	-	\$0.035m
10.	Enhancing Conservation and Rational Utilization of Medicinal, Aromatic and Pesticidal Plants Through Sustainable Land Conservation	SRAP/WA	3 years	UNIDO/ UNEP/GEF	
11.	JWL (Joint Wetlands Livelihoods)	NAP	6 years	DFID	\$6.5m

1.0 BACKGROUND

Nigeria is the most populous country in Africa with an estimated population of over 100 million and a total land area of 923,773 km². It is richly endowed with abundant natural resources, both renewable and non-renewable. The major renewable natural resources in Nigeria are land, water, soil, vegetation and fauna such as wildlife, fish, and domesticated animals.

The geographical location of the country as well as its shape and large size allow it to experience nearly all the different types of weather and climate to be found in the West African sub region. The vegetation varies regionally in consonance with the climatic pattern. Thus, ecologically, the Nigerian landscape encompasses the mangrove swamps and freshwater swamps forest and savanna communities including their montane and sub-montane varieties: and scrublands characteristic of the semi-arid Sahel zones.

The entire semi-arid zone of Nigeria lies approximately between Latitude 11⁰N and 14⁰N and is affected by desertification. It has consistently suffered most from all recorded drought episodes in Nigeria's recent history. The situation is being aggravated by the increase in human population, which appears to be stressing the natural support system. In many areas, sustainable-yield threshold of the vegetation and soils are being breached.

Today, the problems of desertification in Nigeria are now being addressed in a holistic manner to ensure that the semi-arid zone continues to support the human and natural resources.

2.0. STRATEGIES AND PRIORITIES ESTABLISHED WITHIN THE FRAMEWORK OF SUSTAINABLE DEVELOPMENT PLANS AND/OR POLICIES

In the process of preparing the NAP, several sectoral Policies have been identified as relevant to policy issues relating to combating drought and desertification. These sectoral policies, which among others include the National Policy on Environment, the National Agricultural Policy, National Energy Policy, National Forestry Policy & Action Plan, National Conservation Strategy and National Resources Conservation Action Plan, are also considered important elements for effective implementation of the NAP. Detailed information on the relationships between the Policies and NAP are given in the Table 2.1.

2.1 Strategies and Priorities established within the Framework of Sustainable Development Plans and/or Policies

S/No	National Policy/Plan Strategy	Content of NAP-related objectives/activities	Implementing Ministries/Agencies	Relationship with NFP and/or NCB	Remarks
1.	National Policy on Environment	<ul style="list-style-type: none"> ▪ Drought & desertification is a key priority area ▪ Based on participatory process consistent with NAP ▪ Addresses population growth and resources consumption in an integrated manner ▪ Biodiversity management ▪ Landuse and soil conservation ▪ Development of alternative to energy sources ▪ Public awareness and environmental education ▪ Contains major elements of poverty reduction in line with NAP objectives ▪ Places great emphasis on gender-related 	<ul style="list-style-type: none"> ▪ Federal Ministry of Environment as Lead Implementing Ministry ▪ Other Line Ministries and Agencies such as Fed. Ministries of Agric., Finance, Water Resources, Women Affairs, Housing, Education, Information, Energy Commission of Nigeria, etc. ▪ State EPAs, Local Government Authorities etc. ▪ Nigerian Meteorological Agency (NIMET) 	The Lead Implementing Ministry is the supervising ministry	Provisions of the NAP are harmonized with the objectives and priorities of the National Policy on Environment

		<ul style="list-style-type: none"> ▪ issues ▪ Addresses climate change as it affects drought and desertification 			
2.	National Agricultural Policy	<ul style="list-style-type: none"> ▪ Protection of agric lands against drought, desertification, soil erosion and flood ▪ Protection and conservation of forests ▪ Promotion of alternative sources of energy ▪ Integrated Water Resources Management ▪ Promotion of appropriate farming system 	<ul style="list-style-type: none"> ▪ Federal Ministry of Agric as Lead Agency ▪ Other Federal and Line Ministries and Agencies (Environment, Water Resources, Women Affairs, Industries, Finance, Education, Science & Technology, Energy Commission of Nigeria etc.) ▪ Nigerian Meteorological Agency (NIMET) 	The Lead Agency and other line ministries are members of the NCB	NAP activities are in harmony with the National Agricultural Policy
3.	National Energy Policy	<ul style="list-style-type: none"> ▪ Promotion of the use of Renewable Energy Resources (RETs) (Wind, Water, Biomass) ▪ Improving efficiency of domestic energy utilization ▪ Minimizing and mitigating harmful 	<ul style="list-style-type: none"> ▪ Federal Ministries of Science & Technology (Energy Commission of Nigeria) as Lead Agency ▪ Other Line Federal Ministries and Agencies including Environment, Power & Steel, Solid Minerals Agric, Women Affairs, Education, Industry, etc. 	The lead agency and other line ministries are members of the NCB	NAP activities are in harmony with the Policy

		environmental impact of energy production and utilization			
4.	National Environmental Action Plan (NEAP) and State Environmental Action Plans (SEAPs)	<ul style="list-style-type: none"> ▪ Overall Protection of the Nigerian Environment ▪ Promotion of RETs ▪ Conservation of threatened flora and fauna species ▪ Environmental education and awareness creation ▪ Reduction of resource use conflict among land users 	<ul style="list-style-type: none"> ▪ Federal and State Ministries of Environment as Lead Agencies ▪ Other Line Ministries and Agencies (Federal Ministries of Agric, Education, Water Resources, Finance, Energy Commission of Nigeria, Women Affairs etc. 	The Lead Agencies are members of the NCB	NAP activities are in harmony with the Policy
5.	National Tropical Forestry Action Plan	<ul style="list-style-type: none"> ▪ Protection of forest resources ▪ Goal of achieving 25 percent forest coverage in Nigeria ▪ Sustainable Utilization of forest products 	<ul style="list-style-type: none"> ▪ Federal Ministry of Environment as Lead Agency ▪ Other Line Ministries & Agencies (Agric, Education., Women Affairs, Energy Commission etc.) 	The NCB supervising ministry is the Lead Implementation Agency	NAP activities are in harmony with the Plan
6.	National Conservation Strategy	<ul style="list-style-type: none"> ▪ Conservation of forest, marine, fisheries, forage, wildlife and soil resources ▪ Application of indigenous knowledge system in conservation of natural resources 	<ul style="list-style-type: none"> ▪ Federal Ministry of Environment as Lead Agency ▪ Other Line Ministries and Agencies (Agric., Education, Women Affairs, Commerce, Industries, Energy Commission of Nigeria etc) 	The NCB supervising ministry is the Lead Implementing Agency	NAP objectives are in harmony with the Strategy

7.	Natural Resources Conservation Action Plan	<ul style="list-style-type: none"> ▪ Collation and evaluation of data on natural resources in support of sustainable utilization of these resources 	<ul style="list-style-type: none"> ▪ Federal Ministry of Environment as Lead Agency ▪ Other Line Ministries and Agencies (Agric., Water Resources, Energy Commission, Industries, Education, Women Affairs etc. 	The NCB is the Lead Implementation Agency	Provisions of the Plan are well harmonized with NAP activities
8.	National Water Resources Master Plan (1995-2020)	<ul style="list-style-type: none"> ▪ Sustainable utilization of water resources with particular emphasis on the drylands of Nigeria 	<ul style="list-style-type: none"> ▪ Federal Ministry of Water Resources as Lead Agency ▪ Other Line Ministries and Agencies (Environment, Agric, Women Affairs, etc. ▪ Nigerian Meteorological Agency (NIMET) 	The Lead Agency is a member of the NCB	NAP objectives and activities are in harmony with the Plan
9.	National Biodiversity strategy and Action Plan	<ul style="list-style-type: none"> ▪ Conservation and Sustainable use of the nation's biodiversity resources ▪ Harnessing indigenous knowledge in biodiversity conservation 	<ul style="list-style-type: none"> ▪ Federal Ministry of Environment as Lead Ministry ▪ Other Line Ministries and Agencies (Agric, Education, Women Affairs, Water Resources etc.) 	The NCB is the Lead Implementing Ministry	NAP objectives and activities are in harmony with the Strategy and Action Plan.
10.	The Green Agenda of the VISION 2010 Report	<ul style="list-style-type: none"> ▪ Sustainable human development ▪ Control and Management of ecological problems including drought and desertification 	<ul style="list-style-type: none"> ▪ Federal Ministry of Environment as Lead Ministry ▪ Other Line and Agencies (Agric, Finance, Water Resources, Women Affairs, Energy Commission, National Planning Commission, etc) 	The NCB is the supervising Ministry	Provisions of the Agenda are well harmonized with NAP objectives

11.	National AGENDA 21	<ul style="list-style-type: none"> ▪ Poverty reduction, ▪ Promotion of afforestation ▪ Drought mitigation and desertification control ▪ Soil erosion control 	<ul style="list-style-type: none"> ▪ Federal Ministry of Environment as Lead Ministry ▪ Other Line Ministries and Agencies (Agric, Water Resources, Women Affairs, Energy Commission, National Planning Commission, etc.) 	The NCB supervising ministry is the Lead Implementing Agency	NAP objectives and activities are in harmony with the AGENDA
12.	National Action Programme to Combat Desertification	<ul style="list-style-type: none"> ▪ Poverty reduction ▪ Integrated approach for drought mitigation and desertification control ▪ Participatory approach in planning, Implementation and Monitoring of activities 	<ul style="list-style-type: none"> ▪ Federal Ministry of Environment as Lead Ministry ▪ Other Line Ministries and Agencies (Agric, Water Resources, Women Affairs, Finance, Energy Commission, National Poverty Eradication Programme (NAPEP), etc.) 	The NCB supervising Ministry is the Lead Implementing Agency	
13.	National Economic Empowerment and Development Strategy (NEEDS)	<ul style="list-style-type: none"> ▪ Reducing deforestation and increasing forest cover to the recommended 25% ▪ Conservation of unique habitats especially in wetlands ▪ Revision of enforcement of environmental laws to conform with present day realities 	<ul style="list-style-type: none"> ▪ Lead Agency is the National Planning Commission ▪ Other Ministries and Agencies at Federal and State level also participate in the implementation 	The lead Ministry is member of the NCB	NAP objectives and activities are in harmony with NEEDS
14.	National Policy on Women	<ul style="list-style-type: none"> ▪ Women's participation in National Ecosystem management and control of 	<ul style="list-style-type: none"> ▪ Federal Ministry Of Women Affairs is the lead Ministry others include: ▪ Federal Ministry Of 	The Lead Agency is a member of the NCB	NAP objectives and activities are in harmony

		<p>environmental degradation</p> <ul style="list-style-type: none"> ▪ Awareness of environmental issues and women's role in environmental improvement ▪ Development of appropriate alternative and environmentally friendly sources of energy ▪ Coordination of local efforts and collaboration with international agencies in the control of desertification and erosion and development of water resources 	<p>Environment</p> <ul style="list-style-type: none"> ▪ Federal Ministry Of Education ▪ Federal Ministry Of Water Resources ▪ Federal Ministry Of Agriculture & Rural Development ▪ National Planning Commission ▪ Relevant State Ministries 		with the Policy
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3.0 INSTITUTIONAL MEASURES TAKEN TO IMPLEMENT THE CONVENTION

3.1 NAP as part of the National Economic and Social Development and Environmental Protection plan

3.1.1 Making the NAP coherent with other Environmental Strategy and Planning Framework

Since the development of the NAP in 2000, it has not been integrated into the National sustainable development strategies and plans. Some of the major institutional and/or programmatic obstacles in integrating the objectives of the NAP into such strategies include:

- Inadequate awareness among the policy makers
- Sectoral approach
- Inadequate funding

Government has been encouraging private participation in desertification control, notably with regard to technological and Scientific Cooperation. Of note are.

- UNIDO supported capacity building Workshop on transfer of technology and resources for sustainable development through the Clean Development Mechanism (CDM) of the Kyoto Protocol.
- Government /Private sector Collaboration in establishment of Plantation for Gum Arabic production etc.
- Government initiative in raising and distribution of seedlings free to the public for establishment of Community woodlots and other productive activities.
- Promotion of public sector participation in irrigation.

However the NAP allocates roles and responsibilities to key stakeholders including the private sector. Section 6.3 of the NAP spells out clearly the roles of private sector and these include identification of projects and funding of desertification projects.

3.1.2 Linkages of the NAP with National, Intra-Regional and Local Approaches

In order to encourage the integration of the NAP into the National Economic and Social development and Environmental protection planning system, the Federal Ministry of Environment has been organizing sensitization workshops for policy makers at National, State and Local Government levels. In addition State and Local Governments threatened by desertification are encouraged to develop their action programmes as guiding tools for combating desertification. Many of these states are in the process of developing such programme.

3.2 Linkage Achieved with Sub-Regional and Regional Action Programmes (SRAP and RAP)

3.2.1 Development at the National level Programmes of a Sub-Regional or Regional Character.

Some activities are being pursued which have a sub-regional dimension and are directly linked with activities pursued under SRAP thematic programme network and prominent among them are:

- i. Nigeria – Niger Transboundary Ecosystem Management project.
- ii. Mega Chad Project. This project is aimed at conserving threatened flora species and popularizing the use of renewable sources of energy in four member States of the Lake Chad Basin Commission (Nigeria, Niger, Cameroon and Chad)
- iii. UNEP/UNIDO/GEF Project on Medicinal, Aromatic and Pesticidal Plants
- iv. Niger Basin Initiative
- v. Fouta Djallon Watershed Management project
- vi. ADB assisted Silting Control Master plan for the Niger River
- vii. UNEP/UNDP/GEF project on Land Degradation in the Lake Chad Basin
- viii. New Partnership for African Development (NEPAD)
- ix. UNDP/GEF funded project on preparation of Nigeria's second National Communication on Climate Change

All these projects are in line with the NAP objectives of promoting alternative means of livelihood, eradication of poverty and ensuring food security, sustainable management of natural resources and development and efficient use of various energy sources.

3.2.2 Strengthening of relevant Scientific Networks at the National, Sub-Regional and Regional Levels

Few national scientific and technical institutions participate actively and effectively in sub – regional and regional international networks. These include the Center for Arid Zone Studies, University of Maiduguri, Nigerian Meteorological Agency, AGRHYMET, National Air Space Research and Development Agency, IITA, Forestry Research Institute of Nigeria.

3.2.3 Government's Agreement

The Federal Government of Nigeria has officially adopted the country's NAP since 2000. Funds have been approved for a number of projects that are consistent with the NAP objectives. Details are shown below:

S/No	Project	Approved Budget (\$m)
1.	Sand dune fixation pilot projects	3.14
2.	Rangeland Development Project	2.42
3.	Assessment of the magnitude and severity of Desertification in Nigeria	2.11
4.	Sustainable Model village Development Projects	4.0
5.	Procurement and Establishment of Drought Early warning System in Nigeria	0.68
6	Greenbelt Programme	83.97
7	Inventory of existing oasis	0.26
8.	Community Woodlots	0.12
9.	Drought Vulnerability Mapping	0.27

3.3 Established and Functional National Coordinating Body (NCB)

3.3.1 Legal status

In line with the relevant provisions of UNCCD, NFP and NCB have been established for the country to coordinate the implementation of the Convention.

The NCB is linked to the Government department responsible for development partners and it is influential on matters of policy and legislation. It is however not autonomous in terms of financial, human and material resources. The NFP is equally not autonomous in terms of resources and decision making. Despite these constraints, efforts are being made to strengthen the secretariat of the NCB

3.3.2 Resources

Since the last report, the NCB resource status has not improved appreciably. However, the NCB has continued to catalyze the preparation, implementation and review of the NAP. In order to strengthen their capacity, both the NCB and NFP require appropriate equipment, technical and financial support.

3.3.3 Cross-Cutting and Multi-Disciplinary Issues

After the last report, membership of the NCB has been enlarged to ensure participation from other stakeholders including National Focal Points of relevant environmental conventions such as the United Nations Convention on Climate Change and Biodiversity Convention. With its enlarged membership, the NCB continues to supervise the implementation of UNCCD programmes. The modality of nominating members to the NCB is quite transparent. Civil society organizations are also represented on the NCB. At present, the NFP communicates with members of the NCB through postages, courier telephones and e-mail.

3.3.4 Ensuring Synergy with relevant Multilateral Conventions

For any meaningful, national desertification control, it is essential that synergies be encouraged among various relevant Multilateral Environmental Agreements.

The UNFCCC, UNCCD and CBD share a common focus on promoting sustainability either through the achievement of sustainable development in drought affected areas, the sustainable use of biological diversity or the assurance of sustainable economic development through the mitigation of the impact of climate change. Each convention aims to increase the robustness and resilience of ecosystem, which in turn promote a reduction in the economic and social vulnerability of a country and its people. This objective is explicitly stated in the UNCCD, which seeks to ensure the rehabilitations, conservation and sustainable management of land and water resources in order to improve living conditions at the community level. Similarly, the UNFCCC seeks to address climate change so as to enable sustainable economic development and continuous food production. By decreasing their Vulnerability, Countries will be better equipped to withstand external shocks (ecological and economic) and adapt to climate change.

Better coordination between Multilateral Environmental Agreements that Nigeria has achieved has resulted in a number of practical benefits particularly in the area of capacity development. Others include:

- More efficient use of financial resources by avoiding unnecessary duplication of efforts.
- Better Utilization of available human resources within the Government, the scientific and academic Community, helping to ensure efficient use of limited capacity and access to the best skilled manpower available.

3.3.5 Status of Information Data

Although the NCB has continued to develop its Secretariat, there is the need for more concerted effort in developing its capacity through the provision of information technology facilities. This will facilitate the development and maintenance of a comprehensive data base for decision making, planning and project implementation. Such data include meteorological information desertification status as well as trend in land, water and vegetation changes among others.

3.4 Institutional Framework for coherent and functional Desertification control

3.4.1 Measures adopted to adjust or strengthen the Institutional Framework since the last report

In view of the importance attached to the implementation of activities contained in the NAP, the Federal Ministry of Environment has committed increasing level of resources to strengthening the National Coordination Body and the National Focal Point.

The National Coordinating Body (National Coordinating Committee on Desertification Control (NCCDC)) which comprises of members from the relevant Institutions and Agencies has continued to meet regularly. Such meetings facilitate the coordination and harmonization of the activities of the various Institutions represented by members of the NCCDC in relation to the implementation of NAP activities.

Although the Federal Government of Nigeria has adopted and has begun the process of implementing the NAP, the country considers appropriate to have a National Policy on Drought and Desertification. Consequently, the Federal Government of Nigeria with the assistance of the United Nations Development Programme (UNDP) has initiated the process of preparing a National Policy on Drought and Desertification and Drought preparedness Strategy using a participatory approach. The process is expected to be completed by the end of March 2005.

3.4.2 Measures adopted to Strengthen Existing Institutions at the Local and National Levels since the last Report

Since the last report of 2002, measures are being taken to address human capacity and institutional strengthening despite financial constraints. Furthermore, the National Meteorological Services was upgraded to an agency status namely Nigerian Meteorological Agency (NIMET) in order to enable it perform its services more effectively in combating desertification and mitigation of the effects of drought among others.

3.5 Coherent and Functional Legal and Regulatory Framework

3.5.1 Analysis of Legislation on the Environment and Related field

Nigeria has a number of environmental laws including those relating to desertification. However, enforcement of such laws has not been effective due to some factors which include, inadequate funding, insufficient trained personnel and inadequate facilities. Improvement of law enforcement will require the following:

- Regular training of the enforcement personnel to update their knowledge
- Provision of adequate facilities (communication equipment, funds and other logistics)
- Reviewing and updating relevant environmental laws and regulations to conform to present day realities.

3.5.2 Measures to Adapt Current Legislation or Introduce New Enactment

One of the fundamental measures taken to strengthen the capacity of the local population and local authorities to participate in decision making relevant to desertification is regular sensitization campaigns and consultations. The local populations are always involved in policy development and implementation. This has been achieved through periodic rural participatory dialogue. The new Forestry Act before the National Assembly proposes community ownership and management of land and forest resources. Furthermore, the country has put in place a National Water Supply Policy, which encourages private sector and community participation. Furthermore, sensitization workshop to educate the legislators are being organized by the Federal Ministry of Environment and by the National Assembly.

The NAP spells out the need for compliance with environmental impact assessment (EIA) legislations for land based development projects and the capacity of the NCB supervising ministry is being strengthened to enforce the provisions of the EIA.

4.0 PARTICIPATORY PROCESSES IN SUPPORT OF PREPARATION AND IMPLEMENTATION OF ACTION PROGRAMME

4.1 Effective participation of Actors in defining National Priorities

4.1.1 Methods of Participation of various Actors in regular consultations, meetings and regular exchange of information.

Participatory processes have been very effective in the formulation and implementation of the country's NAP and its related activities. In the NAP formulation, various stakeholders were involved and these include relevant Federal and State Ministries and agencies, private sector, NGOs, CBOs, farmers, pastoralists and research Institutions. Through participatory appraisal, the local populations are involved in defining NAP priorities and implementation. The Model Village project at Nangere in Yobe state involving the provision of water supply, community woodlot establishment and provision of alternative sources of energy is a very good example of the involvement of the local people from project conceptualization to implementation to ensure sustainability

Some of the capacity needs required for maintaining and/or establishing a mechanism for active involvement of national and local stakeholders with regard to the planning and implementation of NAP activities include training and provision of loan or credit facilities for off-farm activities.

4.1.2 Gender Balance of Actors involved in defining NAP priorities.

Recognizing the fundamental role women play in the management of dryland areas, the Federal, State and Local Governments have committed themselves to promoting awareness and facilitating the participation of the local people, particularly women in decision making process.

In order to advance the role of women and to promote gender equity, women are always involved in project identification, planning and implementation. The Federal Ministry of Women Affairs is represented in the National Coordinating Committee for Desertification Control (NCCDC) and is always represented on related technical committees and meetings of expert groups.

The success of NAP depends on the effective participation of women at all levels of implementation process. Gender issues were addressed in the preparatory activities for the country's NAP process and at least 30 – 40% of the participants in these activities were women.

4.1.3 Representation of various actors in National Priority Identification Process

The selection of various actors in the national priority identification Process is based on Consultation with various stakeholders including the Local Communities, NGOs, relevant training institutions (Universities), Federal ,State and Local Government Agencies .

4.1.4 Nature and scope of Information, Education and communication

In order to reach the grassroots, traditional knowledge is effectively used as a guide for exchange, circulation, transfer and dissemination of information. This involves the use of

traditional and religious leaders, town criers, dance, drama and music that convey precise messages.

Traditional knowledge/technology play a role in the framework of the country's NAP. One of the guiding principles of the NAP as spelt out in section 6.1 is the use of indigenous technology.

In order to further promote environmental education relating to combating desertification, linkages have been established with relevant education centers. Radio jingles and television programmes are also used to ensure that, various categories of actors are involved in the dissemination of information.

Since the last report, awareness campaigns have been conducted by the Federal Ministry of Environment and NGOs on the following themes;

- Growing threat to ecosystems and sustainable livelihood

- Participatory Rural development

- Prevention of land degradation.

4.2 Private Sector Participation

In recent years, there has been an encouraging participation and collaboration of private sector organizations in NAP implementation and promotion of appropriate technologies for combating desertification and poverty alleviation through provisions of assorted tree seedlings for the establishment of community woodlots in affected areas. Furthermore, the private sector involvement in promoting alternative energy sources has continued to increase.

5.0 CONSULTATIVE PROCESS IN SUPPORT OF THE PREPARATION AND IMPLEMENTATION OF THE NATIONAL ACTION PROGRAMME.

5.1 Effective Support from International Partners for Cooperation

5.1.1 Degree of Participation from International Partners

A number of international Development partners and Developed country parties have been assisting the Federal and state governments in NAP implementation. In recognition of their fundamental role, the Federal Government of Nigeria is in the process of concluding partnership agreement with some of the International Development partners. Consultations are regularly held with these partners to ensure their continuous involvement in the NAP implementation process. Both the NFP and NCB participate fully in all the meetings and discussions with these partners. Some of the International Development partners and Developed country parties that specifically support NAP implementation process or support desertification control related projects in Nigeria include UNDP, JICA, GEF, DFID, World Bank, African Development Bank, EU, FAO, UNIDO ECOWAS, Commonwealth Secretariat, CIDA, USAID, IUCN, Spain, France, Israel and China. Some of the areas supported by the International Development partners and Developed country parties in Nigeria are shown in Table 5.1.

5.1.2 Establishment of an Informal Consultation and Harmonization process for Action between Partner Countries.

Consultative mechanism has not been established among partners. However, consultations which address some cross-cutting issues relevant to both the UNCCD and UNFCCC are held occasionally between the Federal Ministry of Environment and some of the partners (UNIDO, DFID, CIDA, UNDP etc).

Table 5.1: Cooperation with Development Partners in the Area of Drought and Desertification control

Development Partner	Area of support	Type of Support	Duration	Remark
Japan International Cooperation Agency (JICA)	Pilot Arid Zone Afforestation Project using Peruvian Algarrobo tree species	Technical and Financial Support	2000 - 2003	Pilot Algarrobo plantations have been established at the University of Maiduguri and APCU Kano
UNEP/GEF	Nigeria – Niger Transboundary Ecosystem Management	Incremental cost Financing	2005-2013	First phase of the project has been approved by GEF Council and implementation to take-off in 2005
UNEP/Belgium	Conservation of threatened flora species and promotion renewable energy in the Mega – Chad area	Financial and Technical Support	2001 - 2004	completed
Commonwealth Scientific Council	Projects development from NAP	Financial Assistance	2003	Completed
World Bank	Local Environmental Empowerment Management Programme	Loan	2004 - 2010	On Going
CILLS	Sub Regional Action Programme	Technical Assistance	1998 - Date	On Going
UNDP	Development of Drought and Desertification Policy and Drought Preparedness strategy	Financial assistance	2004 - 2005	On going
CIDA	Nigeria – Niger Transboundary Ecosystem Management Project	Co-financing	2005-2008	To take off in 2005
Spain	Desertification control techniques	Capacity Building	2003	4 Officers benefited
China	Desertification control techniques and Biogas technology	Capacity Building	2001- Date	Manpower training yearly
DFID	Environmental governance	Technical and	2002-2007	On going

		financial assistance		
DFID-JWL	Livelihood, natural resource management	Technical and financial assistance	2002-2007	On going
(DFID) Pro-poor Growth	Sustainable poverty alleviation	Technical and financial assistance	2005-2010	On going
World Bank	Fadama ii Development Project	Loan	2004-2009	On going
CIDA	Community Woodlot	Financial assistance	2002- 2003	Completed
UNIDO	Clean Development	Capacity building	2003	Completed
IFAD	Sustainable dryland Agriculture	Financial assistance	2003- Date	On going
GEF	Protected area management	Financial assistance	2004- 2009	On going
UNDP	Development of National Renewable Energy Master Plan	Financial assistance	2004 – 2005	On going
IAEA	Sustainable Energy Development – National Energy Master Plan	Financial & technical assistance	2001 – 2006	On going
UNIDO	Small Scale Hydropower development	Technical assistance	2003 – 2005	On going
China	Small scale hydropower development	Technical assistance	2003 – 2005	On going

6.0 MEASURES TAKEN OR PLANNED WITHIN THE FRAMEWORK OF THE NATIONAL ACTION PROGRAMME

6.1 Adequate Diagnosis of Past Experience

Exhaustive diagnosis or reevaluation has been made of past experience and used for the NAP process. Some of the experiences identified to have militated against effective desertification control in the country include, top-down approach that limits consultation between and among the various stakeholders, inconsistency of government policy, neglect of indigenous knowledge, use of inappropriate technology, sectoral approach, inadequate funding, inadequate awareness, and rural poverty which compels the people to rely heavily on the environment.

These experiences coupled with inadequate facilities constrained data collection towards the establishment of the country profile.

In the light of the new findings and increasing interest received from the international community, the NAP needs to be reviewed.

6.2 New Projects Initiated as Part of Implementation Process since the last Report of 2002

The following projects have been approved for implementation by the Federal Government of Nigeria since the last report submitted in the year 2002.

6.2.1 *The Greenbelt Programme*

In order to combat desertification and increase vegetative cover and soil productivity in the drylands of the country, Government has approved the greenbelt programme which, includes the establishment of a shelterbelt across the extreme strip of the northern parts of the country (i.e. from the Sokoto basin in the Northwest to the Lake Chad Basin in the Northeast). The project is to be jointly executed by the Federal, State and Local Governments, and will spread over a period of 14 years. The project has since taken off with 51 nurseries being established in the frontline and buffer states. Each of the nurseries is capable of producing 1 million seedlings per annum

The Greenbelt Project is an integrated and participatory scheme with the following components: nursery development, poverty reduction, promotion of livelihood, watershed management, rural water supply, micro-credit facility, eco-tourism, rural energy, biodiversity conservation, environmental education and awareness creation, capacity building and research.

6.2.2 *Model Village Development (Integrated, Community-based approach for Combating Desertification)*

Fourteen communities spread over the eleven desertification frontline states have been selected for this project, which is now being implemented. This project which is estimated to cost about five hundred and fifty million naira (equivalent of US \$4.0m) consists of the following components:

- Rural water supply through the provision of solar-powered boreholes
- Environmental education and awareness creation through the construction of Viewing Centres equipped with necessary facilities
- Sanitation through the provision of landfills and public conveniences

- Popularisation of Renewable Energy Technologies (RETs) such as Biogas digesters and Box-solar cookers. In addition, fuel-efficient clay stoves and sawdust stoves are being popularised
- Establishment of Community plant nurseries
- Establishment of woodlots
- Establishment of wind breaks
- Establishment of botanical gardens for conservation of threatened and fauna species

6.2.3 Pilot Project on Sand-dune fixation

This pilot project is being implemented to raise awareness level and demonstrate the appropriate technologies for sand-dune fixation for adoption by the communities. Two pilot sites have been selected in each of the following arid states: Borno, Jigawa, Kebbi, Kano, Katsina, Zamfara, Sokoto and Yobe. This Pilot project is expected to cost about four hundred million naira (equivalent to US \$3.9m).

6.2.4 Pilot Project on rangelands

This project is designed to demonstrate to communities in the drylands of Nigeria technologies for establishing rangelands in order to improve the carrying capacity of the land for livestock, particularly cattle, goats and sheep that have been implicated in land degradation.

The project is also an attempt to sedentarize the nomadic herdsmen. This project covers the eleven desertification Frontline States of Adamawa, Bauchi, Borno, Gombe, Jigawa, Katsina, Kano, Kebbi, Sokoto, Yobe and Zamfara. The project will cost about three hundred and ninety three million naira (equivalent to US \$2.8m).

6.2.5 Development of National Drought Forecasting and Early warning System

The capacity to predict the occurrence of drought will no doubt facilitate timely development of early warning systems for effective adoption of appropriate mitigation measures. Consequently, the Federal Government of Nigeria has approved the provision of state-of-the-art meteorological instrumentations at various locations in the country for drought forecasting. Subsequent to the forecasting other biological and socio economy component of early warning system will be identified and developed. Capacity-building programme for drought forecasting and early warning is also being developed. This project, which is expected to cost about seventy nine million naira (equivalent to US \$564,285.00), is being implemented in collaboration with the Nigerian Meteorological Agency (NIMET).

6.2.6 Assessment of the Severity and Extent of Desertification and Preparation of Desertification Map for Nigeria.

This project which is expected to cost three hundred and thirty million naira (equivalent to US \$2.85m) has been approved for implementation. It is expected that a major output of the project will be the production of a National Desertification Map using satellite imagery and GIS. This is of course in addition to yielding credible data on the extent, severity and rate of desertification in Nigeria.

6.2.7 Nigeria-Niger Transboundary Ecosystem Management Project

Integrated Ecosystem Management of Transboundary Areas between Nigeria and Niger is a GEF funded project aimed at creating conditions for sustainable integrated ecosystem management and thereby improve livelihoods in areas covered by the Maiduguri Agreement between the two countries. This will be achieved through:

- (1) Developing an integrated legal and institutional framework for collaboration and coordinated financing from the Nigeria – Niger Joint Commission for Cooperation to community-based organizations;
- (2) Harnessing and improving on research-based and indigenous knowledge, and cultural values, to support natural resource management, conservation and productivity; and
- (3) Developing and implementing sub regional catchments and community level ecosystem management plans through participatory and inclusive processes. These plans when implemented will consolidate regional cooperation, conserve habitats and biodiversity, manage water resources, promote sustainable land use practices, control degradation trends, build institutional capacity, improve equity and reduce the vulnerability of local communities to environmental change.

6.2.8 Nigeria-Japan (JICA) Master Plan for Utilization of Solar Energy in Nigeria

A master plan study for utilization of solar energy in Nigeria will be carried out by the Japan International Cooperation Agency from June, 2005 in collaboration with the Energy Commission of Nigeria, Federal Ministry of Power and Steel, and the National Planning Commission. The study will be carried out Jigawa, Ondo and Imo States as well as the Federal Capital Territory. A socio-economic study will be carried out in 20 - 30 villages from the States.

A pilot project will be designed to implement sustainable solar energy supply models in two villages (Solar Villages) in Jigawa and Ondo States.

6.2.9 UNIDO-Energy Commission of Nigeria Small Hydro Power (SHP) Programme

ECN, with assistance of UNIDO, is carrying out activities in the area of small hydropower, such as training of trainers in the River Basin Development Authorities, survey of potential sites, preparation of feasibility reports and detailed project reports, advice, guidance and assistance to Local Government Councils, communities, State Governments and private individuals for taking up SHP projects. Two pilot and two re-furbishing SHP project is being implemented with assistance from China.

7.0 FINANCIAL ALLOCATIONS FROM NATIONAL BUDGET AND FINANCIAL ASSISTANCE RECEIVED

7.1 Financing the NAP

The Federal Ministry of Environment is the key institution responsible for the implementation of desertification control programme in the country. The Ministry is responsible for policy formulation, coordination and environmental assessment. These responsibilities are carried out in close collaboration with line ministries and agencies. However, these Institutions derive their funding from annual grants-in-aid through the Federal Ministry of Finance, special grants from the Ecological Fund Office and residual funding assistance either in cash or in kind from bilateral and multilateral organizations. The national desertification fund advocated by the UNCCD and NAP is yet to be established, however desertification control projects continued to enjoy financing by the Ecological Funds Office in addition to the regular budgetary allocations.

7.1.1 Budgetary allocations

Funds are released only for projects that have been admitted in the 3-yearly National Rolling Plan. Desertification control programmes have been admitted in the National Rolling Plan since its inception in 1975. The allocations for desertification control are channeled through projects in the Federal Ministry of Environment.

As shown in the table below, at Federal level, the financial allocation to combat desertification since the year 2002 has been relatively low.

Budgetary Allocation to Combat Desertification (2002 – 2004)

Year	Budgetary Allocation (₦)	US\$ Equivalent	Special Intervention		
			₦	US\$	Remark
2002	150m	1.1m			
2003	100m	720,000			
2004	236m	1.7m	2.23b	17.02 m	Ecological Funds
			140m	1m	Co-financing of Nigeria/Niger Transboundary Project

7.1.2 Ecological Funds

This is a special fund set aside by the Federal Government in 1981 for the amelioration of ecological problems. Originally, it was 1% of the Federation Account but was later increased to 2%. Funds have been released from this special vote to finance desertification and drought relief projects either through Federal Institutions or State Governments. It is an extra-budgetary source of funding addressed to mitigating

environmental degradation. The Secretariat of the Fund is located in the Presidency and is responsible for processing all requests for funds, documentation of all disbursement, monitoring and coordination and general administration of the funds. A total sum of 7.3 billion Naira (US 64 million Dollars) was disbursed by the Ecological Fund Office to the 11-desertification frontline lines between 1999 and 2001. However, following a recent Supreme Court judgment on the constitutional status of the Ecological Funds, the 2% set aside for the Funds has been reduced to about 0.76%. The implication of this includes a drastic reduction in total accruable amount to the Fund for combating ecological problems including drought and desertification.

7.1.3 Bilateral and Multilateral Sources

These organizations make their funds available to projects through the National Planning Commission as grants and to the Federal Ministry of Finance in case of loans. The funds are meant to finance various aspects of desertification control including policy, afforestation, poverty alleviation, awareness campaigns and other socio-economic activities. The key institutions financing desertification control in Nigeria include World Bank, European Community, African Development Bank, United Nations Industrial Development Organization and the Secretariat of the Convention to Combat Desertification and the United Nations Development Programme.

7.1.4 Promoting Technical Cooperation and Capacity Building

A plan has been formulated for requesting technical co-operation using the UNEP/GEF funded Nigeria-Niger Transboundary Project as a platform. Several multilateral and bilateral agencies have indicated intentions to contribute technical expertise in the area of natural resources management in addition to financial support.

8.0 REVIEW OF INDICATORS

8.1 Operational Mechanisms for Monitoring and Evaluation

8.1.1 Establishment and/or strengthening of National Environmental Monitoring and Observation Capacities.

Since the last report of 2002, some measures have been put in place to monitor drought and desertification in Nigeria. The Federal Government on 27th September 2003 launched its first satellite (NIGERIASAT 1) into space. The satellite is to monitor and provide real time information on the distribution of environmental resources and incidence of land degradation. A Ground Station has been established in Abuja to receive and collate data from the satellite. In addition a Remote Sensing Center (Centre for Remote Sensing) has been established in Jos, in Plateau state to analyze and interpret satellite imageries. The National Space Research and Development Agency (NASRDA) manage this facility. In addition, the Nigerian Meteorological Agency (NIMET) has a drought forecasting system and is in the process of developing early warning system in collaboration with the Federal Ministry of Environment. In addition, approval has been granted for desertification mapping and auditing in Nigeria using satellite technology. Further more, annual State of the Environment report, facilitates monitoring and evaluation of projects.

8.1.2 Scientific and Technical Desertification Control Activities

Efforts are in progress to implement scientific and technical activities for desertification control and drought mitigation. Some of the efforts include the promotion of appropriate water harvesting technologies, efficient utilization of fuel wood as well as development and popularization of alternative and renewable energy technologies (solar, biogas, coal briquette etc). These activities have been acknowledged to be in conformity with the convention by members of the NCB representing the scientific community. In this regard UNEP/Belgium-funded Mega-Chad Pilot Project has developed and popularized appropriate water harvesting and renewable energy technologies. Three stakeholder workshops have been held under this project to facilitate consultations among all stakeholders.

8.1.3 Implementation of the Recommendations of the Committee on Science and Technology

Some progress has been made with respect to implementation of the recommendations of the Committee on Science and Technology. With the assistance of the UNDP, the country is currently developing drought and desertification indicators that will take into consideration physical, biological, institutional, legislative as well as social and economic factors. Furthermore, a drought early warning system is being established through collaboration between the Federal Ministry of Environment, the Nigerian Meteorological Agency (NIMET), the National Emergency Management Agency (NEMA), the National Airspace Research and Development Agency (NASRDA), the organized private sector, civil society organizations and other stakeholders. The promotion of the use of traditional knowledge requires a compilation of such knowledge systems. This is the aspect that is being currently addressed and for which professionals drawn from the Roster of Experts will play an important role

9. CONCLUSION

The Nigerian National Report on desertification control contains a synopsis of the state of desertification in the country, as well as on-going and planned measures for combating the menace of desertification. It has highlighted the gaps in policy formulation and strategies especially the treatment of desertification concern as a sub-sectoral issue rather than an integrated, holistic issue with synergies with other relevant sub-sectors. The report also noted the inability of Government to provide adequate funds for desertification control and emphasized the need for the review and streamlining of legislation targeted at arresting the menace of desertification in the country. Furthermore, the report has highlighted a number of on going and planned projects that address some of the activities proposed for implementation in our National Action Programme.

There is no doubt that some achievements have also been recorded in the implementation of the NAP. Major projects discussed in Chapter 6 have also been initiated since the last report submitted in the year 2002. However, more still need to be done. It is hoped that increased funding of desertification projects advocated from both budgetary allocation and from the Ecological Funds Office will be available in due course.

COUNTRY PROFILE

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Biophysical Indicators Relating to Desertification and Drought

1 Climate

1.1 Index of Aridity (Annual) 0.2-0.6

1.2 Rainfall

Nigeria's Ecological Zones	Minimum/Maximum	Annual Range (mm)
1. Coastal Zone	Min = 580mm Max = 3,100mm	1300 – 2500mm
2. Tropical Equatorial Zone	Min = 500mm Max = 1,800mm	700 – 1,600mm
3. Savanna Zone	Min = 600mm Max = 1,800mm	710 - 1,400mm
4. Sahel Savanna	Min = 200mm Max = 1,700mm	200 – 1,700mm

2 Vegetation and Landuse

2.1 NDVI (Normalized Difference Vegetation Index)

2.2 Vegetation Cover (% of total land area)

2.3 Land use (% of total land)

Land use	1990 - 1999	2000 - 2003
Arable land	298,500km ²	
Irrigated	2,091.65km ²	2,201km ²
Rain-fed	296,408.35km ²	
Pasture land	400,000km ²	
Forest and Woodland	175,010km ²	135,170km ²
Other land	50,490km ²	

Surface Albedo

0.2

* Adamawa, Bauchi, Borno, Gombe, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe and Zamfara States.

3. Water Resources

3.1	Fresh water availability (mcm)	267,330
3.2	Fresh water resources per capital (m ³)	37
3.3	Agricultural water use (mcm)	144,343
3.4	Industrial water use (mcm)	40,095

4. Energy

Consumption

4.1	Energy use per capita (kg oil equivalent)	315
4.2	Agricultural Energy use per hectare (kg oil equivalent)	51.5

Production

4.3	Energy from renewable excluding combustible Renewable and waste (% of total supply)	N/A
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Renewable Consumption by sector

4.4	Industry (% of total renewable consumption)	N/A
4.5	Residential (% of total renewable consumption)	N/A
4.6	Agriculture (% of total renewable consumption)	N/A

5. Land Degradation

S/NO	INDICATORS	AREA AFFECTED	
		1990-1999	2000-2003
5.1	Erosion		
	<ul style="list-style-type: none"> • Wind • Water 	6,500,000ha 86,500,000ha	9,000,000ha 92,000,000ha
5.2	Deforestation	350,000ha/annum	400,000ha/annum
5.3	Forest fire		
	<ul style="list-style-type: none"> • Forest lands • Savannah Lands 	260,000ha/annum 100,000ha/annum	310,000ha/annum 120,000ha/annum
5.4	Others		
	<ul style="list-style-type: none"> • Total areas degraded lands (mine wasteland, salinized lands etc) 	93,000,000ha	95,000,000ha

6. Rehabilitation

Land under rehabilitation	N/A	N/A
Rehabilitation of degraded cropland (km ²)	N/A	N/A
Rehabilitation of degraded rangeland (km ²)	N/A	N/A
Rehabilitation of degraded forest (km ²)	N/A	N/A

7. People and Economy

7.1	Population	114,401,196 (2000 estimate)
	▪ Population: Urban (% of total)	36.28%
	▪ Population: Rural (% of total)	63.72%
7.2	Population growth (annual %)	3.0%
7.3	Life expectancy (years)	52 years
7.4	Infant mortality rate (per 1,000 live birth)	45 per 1,000
7.5	GDP (current US\$)	US\$ 35.08 billion (Yr. 2000)
7.6	GNP per capita (current US\$)	US\$320
7.7	National poverty rate (% of population)	51%
7.8	Crop production (metric tons)	90,164 (1999/2000)
7.9	Livestock production (metric tons)	673,000

8. Human Development

8.1	Primary education completion rate (% age group)	72.5%
8.2	Number of women in rural development (total number)	N/A
8.3	Unemployment (% of total)	N/A
8.4	Youth unemployment rate (age 15 - 24)	52.8% (2000)
8.5	Illiteracy total (% age 15 and above)	51%
8.6	Illiteracy male (% age 15 and above)	40%
8.7	Illiteracy female (% age 15 and above)	60%

9. Science and Technology (Number of Institutions)

19

10. Source of Data

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- 7) NIGERIA 2003 Demographic and Health Survey – 2003, National Population Commission, 2004,
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- 10) United nations Development Programme (UNDP) Country Office
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