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# THE LAND AND PEOPLE OF BAYELSA STATE:

Central Niger Delta



Edited by  
Ebiegberi Joe Alagoa

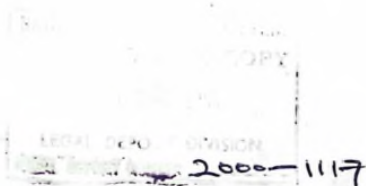
### **Cover Design**

Map of Bayelsa State and the bird, *Pínáḅou/Boí*  
(The White Swamp Dweller). The Great White Egret,  
*Egretta alba*, representing life dependent on a  
healthy delta environment.

Conceived by J. A Ombu, E. J. Alagoa,  
and Kay Williamson.  
Drawn by Isaac Ohene-Boi

**THE LAND AND PEOPLE  
OF BAYELSA STATE :  
CENTRAL NIGER DELTA**

*Edited by*  
**Ebiegberi Joe Alagoa**



**Onyoma Research Publications**

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This book is dedicated to  
Adaka Boro  
George Amangala  
Esinkuma Nyananyo  
Their companions  
And all others then and since  
Who gave their lives  
For the liberation of  
The land and people  
Of the Niger Delta  
And to Charles Bruce Powell  
The Canadian scientist  
Who willed his ashes  
Interred in the central Niger Delta

## PREFACE

*Land and People of Bayelsa State: Central Niger Delta* has been modelled on *Land and People of Nigeria: Rivers State*, published in 1989; and has the same objectives, namely, to be "a simple but authoritative interdisciplinary introductory history written by specialists; but directed to a lay readership, especially at the school level..., to Nigerians in general; and to visitors from outside Nigeria".

The needs of Bayelsa State for a book of this type in 1999 are even greater than they were for Rivers State in 1989. The new state is in more desperate need of self definition and understanding. The hope of the editor and contributors is, that knowledge of what the state is, would lead to greater tolerance within and between communities in the state and to acceptance and support by other Nigerians and the world.

The contributors have sacrificed time, energy and resources to research and outline the present state of knowledge on Bayelsa State in their disciplines. The objective has been to present a general view of the state, and something of the enormous amount of work remaining to be done in every single discipline in this Central Niger Delta region of Nigeria. The extent of our ignorance was revealed to each participant at the public workshop conducted at Yenagoa from Wednesday 4th February to Thursday 5th February, 1998. *Land and People of Bayelsa State: Central Niger Delta*, is indeed, no more than an introductory effort to encourage governments at all levels, the multinational companies and non-governmental organizations to support research in the Niger Delta. Our eventual target is a Niger Delta Research Institute to create a data bank, and realise all the projects recommended in the papers, and more.

It is time to acknowledge all who supported the work through advice, encouragement, and in kind. It is not possible to name everyone. The contributors are listed separately, but only those whose papers were eventually selected for publication. Many more took part in the initial planning meetings, and some even submitted draft papers. We are

grateful to Dr (Mrs) Miriam Isoun, Director, Riverside Communications, publishers of *Land and People of Nigeria: Rivers State*, (1989) who served actively as adviser to the Bayelsa Project.

We are grateful to the public spirited people who made donations to support the Yenagoa Workshop: Mr Sylva Alaseikigimo N. Asuku, Professor Kay Williamson, Mrs. M. Ebikake (Chairman, Brass Local Government Area), Mr. Vincent Egbuson (Provost, College of Arts & Science), HRM C. B. Agulata, (the Ibenibe of Epie), Dr. Gesiye S. Angaye and others.

We thank the Commissioner of Women Affairs, Mrs. Flora Ebi, and the Director, Mrs. Ella Douglas for providing the venue and setting it up with chairs etc. We are grateful to the Commissioner for Information, Youth and Sports, Mr. Paul Oriewari for making the state troupe available to do a drama sketch, *Die*; the Evala Dance, Ngusei, and the Fisherman Dance. We remain eternally grateful to HRM Chief C. B. Agulata, Ibenibe of Epie, for leaving a state function to serve as Royal Father at the opening ceremony of the Yenagoa Workshop. The Secretary to the State Government, Mr P. S. Obhuo and his staff facilitated the Workshop, providing vital secretarial services. We are grateful to all those who served as chairmen, rapporteurs at the workshop, especially to Justice K. D. Ungbuku, Chief Judge, Engr. A. R. S. Dienagha, Commissioner for Lands and Housing and Chief Frank Opigo. Messrs Atei M. Okorobia and R. G. Obomanu served as secretaries to the project and to the editor. We are grateful to Canon Obuoforibo and others who prayed for our success, Mrs. Mispah Poku who fed us, the transporter who provided bus service between Port Harcourt and Yenagoa, Mr Opia the video recorder, our Master of Ceremonies, Mr. Claudius Ibegi, Mr. Inemo Daniel and to Radio Rivers.

Ebiegberi Joe Alagoa  
March, 1999

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The editor acknowledges with gratitude the financial and moral support provided towards the publication of this book

by

Chief Diepreye S.P. Alamiyeseigha, JP,  
first Civilian Governor, Bayelsa State,

and

Dr Goodluck Jonathan,  
Deputy Governor, Bayelsa State

who acted creatively on behalf of the people of Bayelsa State,

and by

Chief Ebitimi E. Banigo, Minister of Science and Technology

## **INTRODUCTION**

## CHAPTER ONE

# INTRODUCTION

*Ebiegberi Joe Alagoa*

### **Bayelsa**

The name Ba-yel-sa is derived from the three acronyms BALGA for Brass Local Government Area, YELGA for Yenagoa Local Government Area, and SALGA for Sagbama Local Government Area. It is thus composed of the first two letters of BALGA, the first three letters of YELGA, and the first two letters of SALGA. The three local governments were combined to form a Senatorial District for the purposes of elections into the federal Senate at the 1979 national elections. Since then, Brass Local Government Area has been subdivided into Ogbia Local Government Area, Nembe Local Government Area, and Brass Local Government Area. Yenagoa Local Government Area of 1979 has become Southern Ijaw Local Government Area, Yenagoa Local Government Area, and Kolokuma/Opokuma Local Government Area. Sagbama Local Government area has been subdivided into Ekeremor Local Government Area and Sagbama Local Government Area.

The manner of creating names or acronyms to designate administrative units is not new. In 1967, one of the twelve new states created by General Gowon was Bendel State, the name Bendel being derived from the names Benin and Delta. That state has now been split into Edo and Delta States. Rivers State out of which Bayelsa State was created on October 1, 1996 by General Abacha, was itself fondly known in some circles as PABOD State, from the first letters of the administrative units out of which it was created in 1967, namely, Port Harcourt, Ahoada, Brass, Ogoni, and Degema Divisions. The word PABOD is still enshrined in the Rivers State company names Pabod Supplies and Supabod Stores.



We note from the original Divisions comprising Rivers State, that the unit identified as "Brass" represented the bulk of the present Bayelsa State less Sagbama, which was then part of Bendel State. Sagbama was moved into Rivers State following the Justices Irikefe Commission to define state boundaries and the criteria for the creation of new states in 1975. Some of the history of the fragmentation, transformation, and creation of administrative and political units leading to the emergence of Bayelsa State is told in Chapter 18, "State Movements", of this volume. It is likely that the current eight local government authority areas of the state would have been considerably increased in number before the end of 1999.

The name Bayelsa is, therefore, a recent arbitrary creation of the political class. It was only a local expression used within political circles and among political activists as recently as 1996 at the time of the public announcement of the realization of the state. Yet it covers a real geographical area, and comprises real communities with age-old historical relations, common problems and hopes. Accordingly, the name quickly gained popular currency across the Niger Delta and within the state. Bayelsa is now known by the proverbial man-in-the-street throughout the new state, as well as in the neighbouring Rivers and Delta States. The name gained national Nigeria-wide currency during the disturbances following the youth protests against the exploitation of oil resources, political marginalization, and neglect of the Niger Delta region by Nigerian governments and the multinational corporations extracting its oil wealth. The massive movements of Nigerian troops into the state capital, Yenagoa, to Kaiama, and other parts of Bayelsa state since December 30, 1998 drew Nigerian and international media attention. As a result, Bayelsa is no longer an obscure name to the Nigerian public, and is no longer unknown to the major international news agencies.

## **Geography**

Bayelsa State is located in the heart of the Niger Delta, and is the centre of the crude oil which sustains the Nigerian nation. The term *Central Niger*

## Introduction

*Delta* used as a subtitle of this volume fully describes and identifies Bayelsa State in its geographical aspects. The Niger River flows south and breaks up into the Forcados and Nun Rivers precisely at the northern extremity of the state, and begins to define the triangular shape of the delta at this point. The Nun River, running north and south down the middle of the state, remains the most direct distributary of the Niger, while the Forcados demarcates the western borders of the state. As we discover from the papers in the environment section of this volume, Bayelsa state comprises the core of the present Niger Delta, embracing the vast majority of rivers still directly discharging waters of the Niger into the Bight of Benin. On the other hand, most of the Delta rivers to the east and west in Rivers and Delta states no longer receive waters of the Niger, or does so only indirectly. Accordingly, Bayelsa state represents the most characteristic geology, soils, flora and fauna of the Niger Delta, inherited from all the distant and diverse sources of the Niger River and Benue River basins, and the basins of the other Nigerian and West African rivers that flow into them.

Bayelsa state is dissected centrally by Longitude 6 degrees East, and Latitude 4 degrees 30 minutes North. By the 1991 census, Bayelsa state had a population of 1,121,693 spread over a land area of 12,000 square kilometers, most of which is in fact, water or wetland. Its only definitive border is the 185 kilometers of coastline through which its many rivers issue into the Atlantic, namely, the Ramos, Dodo, Pennington, Digatoru, Middleton, Koluama, Fishtown, Sangana, the Nun, Brass, St. Nicholas, and Santa Barbara. The Ramos River which marks the effective demarcation with Delta State actually cuts several Ijo communities into unequal parts between the two states. It places a few Urhobo and Isoko communities in Bayelsa State, isolating them from the rest of their kin in Delta State. The Santa Barbara which demarcates Bayelsa from Rivers State does an even less satisfactory job, since the section that is intended to separate the Nembe of Bayelsa from the Kalabari of Rivers State has remained contested territory. The two states are yet to settle the dispute

between the warring parties, aggravated as it has become in recent times by the operations of oil companies in the area.

### People

The Niger Delta is peopled predominantly by the Ijo ethnic nationality, and Bayelsa State now constitutes the largest concentration of Ijo communities to be found in Rivers State in the Eastern Niger Delta, and in Delta and Ondo States in the Western Niger Delta. This concentration of Ijo communities has given birth to the erroneous perception that the state is homogeneously populated by Ijo peoples. Chapter 6, "Traditions of Origin" and Chapter 7, "Languages", which outline the historical traditions of the communities, and classifying the languages spoken in Bayelsa State, demonstrate that the state has a mix of languages of different families. There are a small number of Urhobo and Isoko speakers, languages classified as Edoid, that is, related to the Edo language of Benin. The Epie-Atissa of Yenagoa, the capital city, are indeed, speakers of an Edoid language. The Ogbia to the east of Yenagoa speak a Central Delta language, related to languages in Rivers State and the Cross River Valley.

In terms of history, the Central Niger Delta region served as a melting pot of Ijo communities, and a high way of contact among communities of the Eastern and Western Delta, as well as up the Niger. In the period of the Atlantic slave and palm oil trade, commercial contacts between the peoples of the Niger Delta and the Igbo, Edo and Yoruba hinterlands was considerable. The sciences of archaeology, palynology, and linguistics have assisted the historians to reconstruct some of the prehistory, confirming that the Niger Delta has never been completely isolated from the rest of Nigeria and West Africa.

### Conception

This book is conceived as a history covering environment and people, culture, politics, economy, and recent social developments. Accordingly, it

## **Introduction**

has been brought together by scholars of many disciplines speaking in their different voices. Although Bayelsa State have come into being only in 1996, the land and the people of the Central Niger Delta have a history going back several millennia. The history of those millennia defines the present condition of the land and people of Bayelsa State.

The Niger Delta was an important region of Nigeria, perhaps the most important, in the period of the Atlantic trade. It is now virtually a backwater, in spite of producing the oil wealth that keeps Nigeria afloat. It is also a very poorly known region. In these circumstances, this book is intended to define Bayelsa State, first to its own people, second, to other Nigerians, and finally to the rest of the world. It should show us what we know, and what we do not know. It should reveal the depth of our ignorance, so that the authorities of the state may take steps to fund new research for mutual self knowledge and understanding among its communities, for education, and for planning.

## **A. THE ENVIRONMENT**

## CHAPTER TWO

# GEOLOGY AND SOILS

*I. P. Okonny, Gaskin Ayolagha  
and  
Achimota Ayadei Dickson*

## I. GEOLOGY

### Introduction

In size Bayelsa State is a shade smaller than the Rivers State. Both, of course, have a common geology as they lie in the Niger Delta.

The understanding of the geology of the Niger Delta owes its success to the successful exploration and exploitation of crude oil in the Niger Delta. This exploration started back in the late 1950s. In geological parlance, the Niger Delta is a modern Delta as it is under 100 million years old. It ranks 10th among the world's most prominent Deltas (Galloway, 1975). The Niger River traverses some five other countries namely: Guinea, Mali, Niger, Burkina Faso and Benin before entering Nigerian territory. It traverses across Nigeria in a northwest to southeastern direction. These thousands of kilometres of drainage with the attendant sediment load has ensured that the delta platform ends up as flat terrain, bearing in mind, the number of years, that this process of deposition has been going on. The sediment profile, vegetation and the fact that the Niger Delta is essentially a wave and tide dominated delta (Coleman, 1976), makes the Niger Delta, of which Bayelsa is member, a unique geological environment. This environment is as delicate and fragile as a desert in as much as deltas and deserts are controlled by wind, sand, silt, water and temperature. The only difference is that while one is vegetation rich the other is vegetation poor. Again while one has no water the other is full of water; most of it not potable except below ground surface. The humid

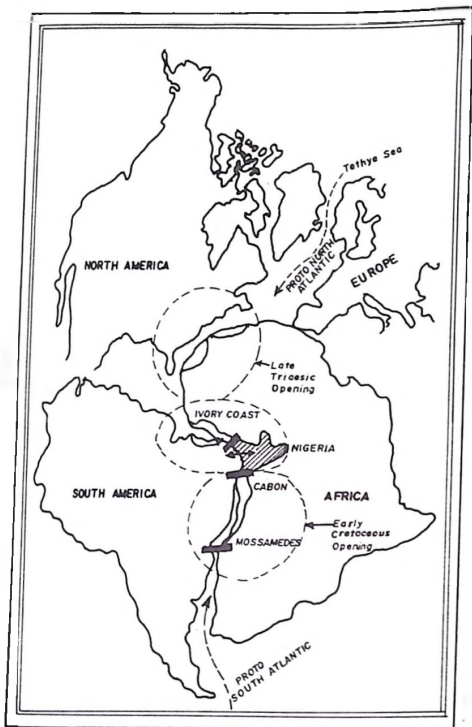


Fig 2-1: STAGES OF ATLANTIC OPENING  
 (AFTER EVANS MODEL 1978)  
 SHOWING NON-EXISTENCE OF  
 EVAPORITES IN NIGERIA'S  
 NIGER DELTA DEPOSITES

- Evaporites
- ↔ Albian Separation
- ▨ Benue Valley (an oulacogen)
- ▬ Extent of the Proto Atlantic

tropical weather ensures heavy rainfall in this part of the country, due to the diurnal fluctuation of the tides. Most deltaic clouds are almost always saturated with moisture. The above situation ensures quick seeding of the clouds with the prevailing, relatively dry northeast trade winds blowing across the southern part of the country. The result is often convectional rains that cause flash flooding. Such episodic natural events in the delta account for the difficulty of living in this very aquatic terrain, just as it is difficult in living in a desert situation.

## Geological History

The geological history of the Niger Delta is linked to the opening of the Atlantic Ocean during Aptian times (120 million years ago). According to Professor Burke, 1972; in affirmation of the Plate Tectonics theory, a triple rift junction (RRr) happened at the position of the present Niger Delta during Cretaceous times. Two arms of the rift (RR) representing the North and South of the Atlantic Ocean and the third rift (r) initiated a split of the African plate, through the Benue trough (Fig. 2.1).

However, the third arm of the rift (r) aborted creating the Benue trough (an aulacogen). The continued opening and activity of the north and south Atlantic Ocean ensured the final separation of South America and the African plate (Burke, 1972). For another 100 million years, a series of regressions and transgressions of the sea ensured the filling up of the Benue Trough. Confirmative evidence of this theory exists today in the very thick pile of sediments in the Benue Trough, the fossil records dominated by *Ammonite* sp. and the coal deposits. And above all, the radio-carbon dates obtained from rocks of the Benue trough, confirm a Cretaceous age (Fig. 2.2).

If the Benue trough existed and is confirmed, the present day Niger Delta happens then to be the trailing margin of that trough as its sediments are all relatively younger than the Benue trough sediments and are dated Tertiary (60 million years old). Evidence of this younger age are confirmable by fossil records (*Foraminifera* sp.). Seismic profiles showing

## The Environment

a wedge-shaped pile of sediments and radio-carbon dates of the sediments attest to these geologic events (Fig. 2.2)

The sedimentary profile shows three main formations that are mappable and distinct rock units. Beginning from the bottom are mainly shales from a marine source called the Akata Formation. Next this unit is the Agbada Formation: a mix of sand and shale units confirming marine and continental mix of sediments. This mix suggests a salt water and fresh water mix (brackish zone) source for these sediments. This unit is incidentally, the unit commonly found to be bearing crude oil and gas reserves. At the top of this unit is the Benin Formation, a typically reddish clayey sand that is very thick and found exposed in most parts of the Niger Delta. It is on top of this Benin Formation that we find Quaternary deposits of alluvium, soils and sands of various colours and compositions. Farming is mostly done on the Quaternary deposits. Present day deposition is considered Recent (Fig. 2.3).

As stated earlier, the Niger River and its tributary the Benue carry a heavy sediment load to the Atlantic Ocean and as these areas get heavily laden, they bifurcate and display braiding, meandering and switching. These features are typical of all fluvial dynamic systems. It thus follows that the meanders in the delta have a natural character. The rivers cut a profile, fill it up and move to another channel. It cuts again and fills it up, and these continuous switchings make up the depositional profiles of Bayelsa sedimentary geology.

Eventually the two main trunks of the Niger and Benue rivers form one trunk, the Niger River, which at its full load just after Samabiri, bifurcates into the Forcados and Nun Rivers. These two rivers eventually lead to some twenty other rivers that fan out into a lobate structure. They all debouch into the Atlantic Ocean, whatever is left of their sediment load. The interplay of waves and tides account for the Bonny bar, in Rivers State, where sand is literally dropped without reaching the ocean and creates a nuisance to ships entering the inland Port Harcourt Wharf. On the other hand, the fluvial dynamics at Fishtown river show total loss of sediments to the ocean.

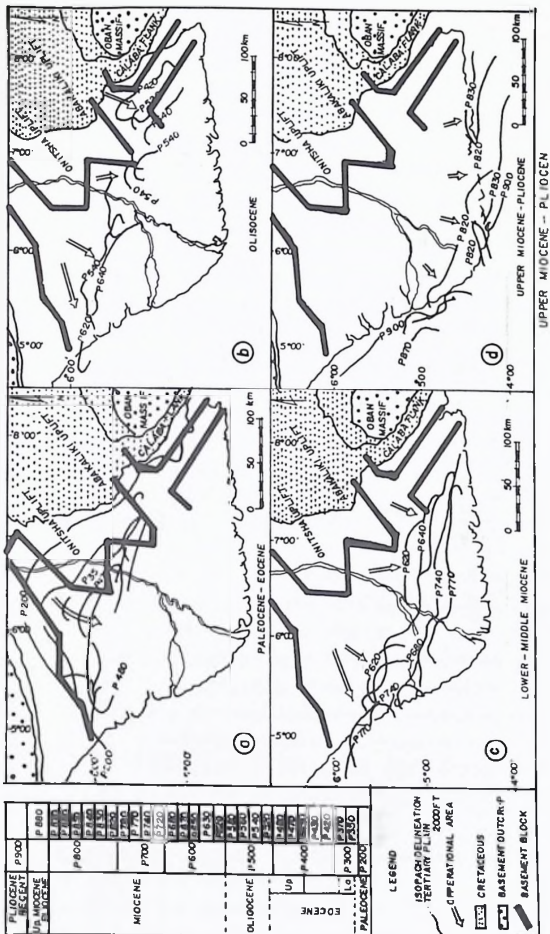


Fig. 2.2: Stratigraphic evolution of tertiary Niger Delta (after Evans et al. 1978)

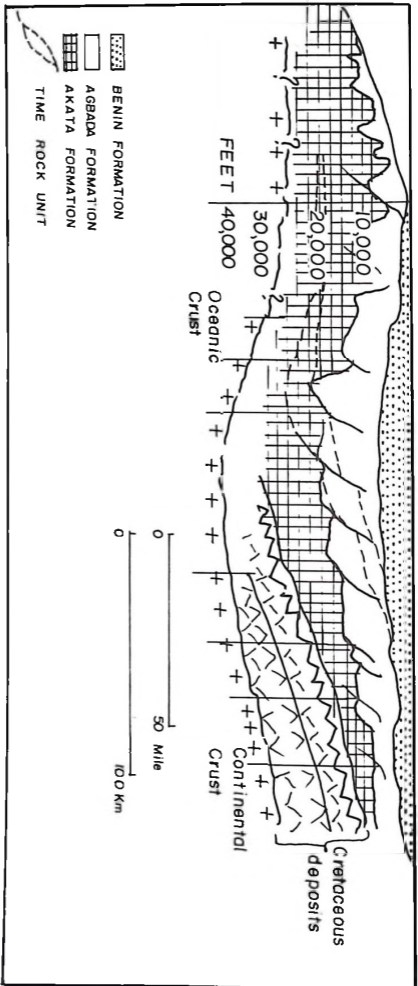


Fig. 2.3: Schematic cross section showing principal stratigraphic units of tertiary Niger Delta (after Burke 1972)

The unequal erosional pattern of **loss** and **gain** of land in the delta is consequent to the construction work done on their shorelines by our neighbouring West African countries. By stopping the natural flow of the longshore currents, erosion down the Gulf of Guinea has been exacerbated and the shores of Bayelsa are taking the brunt of what remedial processes are also taking place west of it, even in nearby Lagos shores. This continuity in shoreline erosion confirms the interrelatedness of the offshore tidal dynamics and our incomplete understanding of this complex natural ecosystem of the delta.

### Economic Geology

Bayelsa State is blessed with minerals, some of which are yet to be fully harnessed.

(i) **Potable Water** for domestic use and partially industrial purposes is one of the problems of Bayelsa's economic geology. Due to the factors of the rate and processes of sedimentation, most aquifers, in Bayelsa and in the delta as a whole, are not fully oxidised. In other words, the sands bearing these waters were quickly buried. That is why waters from such boreholes turn brown when exposed to atmospheric air. However, deeper aquifers do exist and past governments of Rivers State have identified some (Dr. Isukul, personal communication). The locally dug out well water is not often potable, due to surface run off contamination, tidal influences and the recent use of fertilizers that pollute most streams.

(ii) **Sand and Gravel Quarry** Is the second most important industry in Bayelsa. In as much as embarkments, jetties and civil constructions are concerned, the sand and gravel industry will continue to be relevant. The only snag is that some rivers and tributaries in Bayelsa are so sluggish that mud is accumulated in such rivers. Channelization becomes imperative in such areas in order to promote the building industry.

## The Environment

(iii) **Shales and Clays** are abundant as Quaternary deposits in the State. Clays in Bayelsa are utilized for pottery, brick making and roof tiles. The last usage is very important and needs to be encouraged as salt sprays from the ocean and, lately, acid rain from gas flares are causing a lot of havoc to the corrugated aluminium roofs in the State.

(iv) **Crude Oil (Petroleum and Gas)**. This is the last but not the least of the economic assets causing embarrassment to Bayelsa. Huge profits are accruing to the Oil Industries and the Nigerian nation, but little of it gets to Bayelsa. And of course, petroleum is a wasting asset; as it is non-renewable. A case will have to be made for this prolific producer of crude oil. Nigeria as the sixth or seventh world producer of petroleum owes this huge production mainly to three giant oil reservoirs. A giant reservoir in the oil industry is one with a potential for one billion barrels production. These giant oil wells are Nembe Creek, Gbaran and Okan fields.

Incidentally the first two fields are in Bayelsa and Okan field is an offshore facility at Eket in Akwa Ibom State.

Despite this huge production, Bayelsa has mostly environmental pollution and poverty to show for her wealth. This is a paradox.

(v) **Other Exotic Energy/Economics**. There is need to look into wind and wave harnessing for energy for the purely coastal dwellers. An investment for solar energy is also advisable as solar panels erected on shorelines have no obstruction in these parts from any vegetation cover. Manganese nodules can also be mined from the sea. Shows of heavy mineral along the beaches of Brass indicate potentials for these minerals.

## Environmental Geology

The environment of the delta and Bayelsa especially is very fragile inasmuch as there is so much water as a medium for transporting pollution from one location to the other. The wind vector is also very dominant from

the waves of the ocean making air pollution difficult to contain. Rain is dominant in this part of the country and also presents a medium for easy dissemination of pollutants.

Engineering construction works must consider the geology of the delta in any venture embarked upon. The recent use of sharp sands and Reno-blankets as sub-base to the asphalted roads in Otuokpoti - Imiringi access way is commendable. The use of burnt bricks and tiled roof tops is recommended as this suits the environment.

Canalization and channelization ought to be done with the environment in mind, as river meanders and river captures are natural phenomena.

## II. SOILS

The soils of Bayelsa State vary from sandy through loam to clay (Ilaco-Nedeco, 1966). Depending on the parent materials from which they were formed, some soils are relatively low in fertility while others are medium to high fertility (Anderson, 1966; Ilaco-Nedeco, 1966). Based on the geomorphological units in the State, the following soil associations have been identified.

### 1. Soils of the beach ridge zone

This is the area that separates the mangrove zone from the sea and consists of relatively high-lying sandy ridges alternating with low-lying troughs. The bulk of the sand load carried by the Niger River is discharged into the sea at the mouths of its numerous tributaries. The soils of the Beach Ridges can be divided into:

- (i) Sands on the ridges with 60 cm or more of well drained soil all year round.
- (ii) Seasonally water-logged soils of the troughs and low ridges.
- (iii) Swamp soils with *Raphia hookeri* forest.

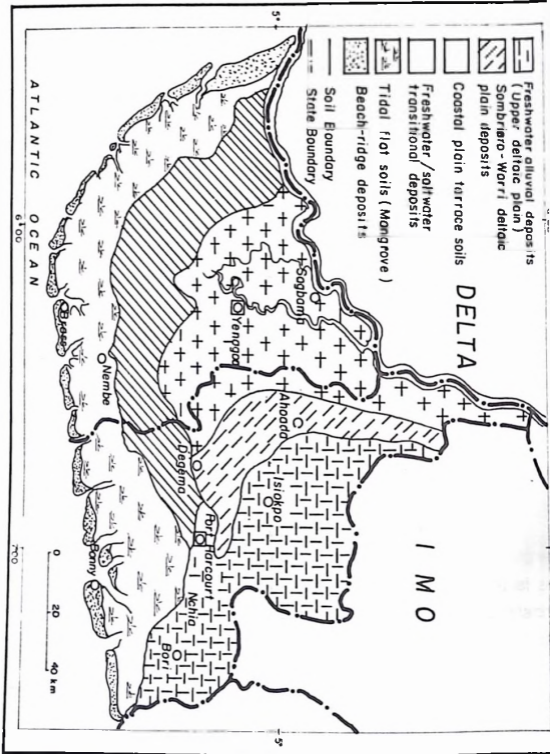


Fig. 2.4: Soil geomorphological units of Bayelsa and Rivers States

(i) **Sands on the ridges with 60 cm or more of well drained soil all year round**

These are well drained soils by the estuaries of small channels. They can be subdivided into: (a) Soils without Iron/humus pan; and (b) Soils with Iron/humus pan.

(a) **Soils without iron/humus pan**

They occur on the crests which are well drained. The top soil depth is 0-18 cm and are very dark greyish brown when moist, changing to greyish brown when dry. The sub soils are brown to yellowish brown. The seasonally high water table is at 145 cm depth. They are dominantly fine sand (95-97%). They are strongly acid and the organic matter content and CEC are very low, hence they are of low fertility.

(b) **Soils with iron/humus pan**

The iron pan occurs about 1-1.10m below the soil surface i.e. at the surface of the wet season water table. They occur on low lying soils of the Beach Ridges. They are single grained sands formed in the Beach. The soils are dominantly fine sand (91-97%), and are very acidic. The organic carbon CEC are very low to moderate.

(ii) **Seasonally water logged soils, of the troughs and low ridges**

These soils have high water table. They, especially the troughs, are usually flooded during the wet season. The sides of the ridges and crests of the lower ridges have seasonal high water table. The soils are dominantly fine sand (90%). However, the clay and silt contents on the average are slightly higher than those of the ridge soils. They have iron pan which is 44 cm thick at depth, between 42-86 cm. These trough soils are slightly more acidic than the ridge soils. However, they are slightly more fertile and have much higher organic matter, phosphorous and exchangeable bases. These soils are also of low fertility and their susceptibility to flooding and/or their high water table limits their value.

## The Environment

The dominant vegetation is oil palm and a few *Raphia hookeri* palms and *Brassica*. Water which is made stagnant by the iron pan hinders the growth of coconuts.

### (iii) Swamp soils with *Raphia hookeri* forest

Unlike the water logged trough soils which harbour few *Raphia hookeri*, these soils are very swampy and have *Raphia hookeri* as the dominant vegetation. These soils are saturated for over 9 months. The soils are dominantly fine sand (51-88%) while coarse sand range from 4-8%.

## 2. Soils of the mangrove zone (tidal flats)

The tidal flats or mangrove zone connects the beach-ridge zone to the fresh water alluvial zone. The mangrove swamp zone is intersected by a network of large and small creeks which are kept in continuous existence by the flow of water along them during ebb and flow tide. This tidal flow prevents the complete silting-up of the channels. Tidal flow between the mangrove zone and the beach ridge zone is connected by the numerous outlets of the Niger tributaries. Some of the soils in this zone, which are known as acid sulphate soils under tidal influence have in situ pH varying between 6.1 (slightly acid) and 7.3 (neutral).

They contain pyrite ( $\text{FeS}_2$ ) and polysulphides produced by bacterial reduction of sulphate in the saline water. The abundant mangrove rootlets or fibres provide an excellent organic substrate for the bacterium *Thiobacillus ferro-oxidans* which cause the oxidation of the sulphides in the pyrite and polysulphides to sulphuric acid once the drainage condition of the soils is improved. This results in increased soil acidity i.e. a gradual drop in pH from about neutral (7.3) to an extremely acid (pH 2 or less) condition. In the United States Soil Taxonomy, these soils are classified as Sulfaquept while in the FAO/UNESCO Soil Legend, they are classified as Thionic Fluvisol.

Generally speaking, soils of the mangrove swamp zone are rich in organic matter and have high concentration of nutrients but low in nitrogen and phosphorus. The following three soil types can be recognised:

- (i) Recently deposited soft mud
- (ii) Peaty clays or "Chikoko"
- (iii) Saline sands

### (i) Recently Deposited Soft Mud

The soft mud are black to dark grey in colour and support the tall mangrove species, *Rhizophora racemosa*. Known as cat clay, the soft mud are dominantly silt and clay, both of which make up about 41-97% while the rest is fine sand. When disturbed, bubbles of hydrogen sulphide gas is given off which produces the characteristic rotten egg smell of this soil. On exposure to air at low tide the soil usually has a thin brown surface layer.

The soft mud can be subdivided into those having completely decomposed and those of partially decomposed organic matter. These types of soils are common in the tidal flats of Nembe in NELGA, Akassa in BALGA and in parts of Ekeremor, and Southern Ijaw Local Government Areas.

### (ii) Peaty Clays (Chikoko)

These are greyish brown in colour and consists of mud covered by a dense network of *Rhizophora* rootlets that form a thick felt raft of peaty texture which are strongly fibroid and spongy. After 2 or more generations of tall mangrove, (*Rhizophora racemosa*), a very dense accumulation of roots remain as undecomposed organic fibres. These fibrous material in combination with clay deposits form the peaty clay known locally as 'chikoko' or 'otjikoko'. The 'chikoko', though high in organic matter, does not support vigorous growth of *Rhizophora racemosa* but supports the dwarf mangrove species such as *Rhizophora harrisonii* and *Rhizophora mangle*.

## The Environment

Quite unlike the soft mud, this soil is quite stable and can support the movement of mechanical equipment.

### (iii) Saline Sands

These are transitional soils between the beach-ridges and the mangrove swamps proper. They were developed by the erosion of sandy deposits from the beach-ridge barriers into the tidal flats producing a level stretch of sand slightly below high water level. The saline sands are dominantly sandy (75%) but support mangrove species which some times cause accumulation of peat. Apart from their sandy nature, the saline sands are lower in organic matter and nutrient content than the soft mud and brackish. They also have serious management problems in terms of water control, drainage and reclamation.

## 3. Soils of the salt water/fresh water transition zone

The fresh water/salt water transitional zone is the area where the salt water from the ocean meets the fresh water from the Niger River. Usually, the river water which overflows its banks during the rainy season carrying with it alluvium, is salty in the dry season and fresh in the rainy season. The alluvium is deposited on the banks to form levees. Once the banks are raised above the usual high tide level of the dry season, they are never flooded again by salt water. Gradually, there is decrease in salinity of the soil and raffia palms begin to emerge among stunted mangrove trees. Thus, a brackish environment with characteristic soil and vegetation develops as a belt between the tidal flats and the river banks. Like soils of the tidal flat zone, three soil types can be recognised, namely:

- (i) Former mangrove soils being colonised by *Raphia vinifera* palms
- (ii) Former mangrove soils being colonised by *Dalbergia ecastaphyllum*.
- (iii) Tidal fresh water.

(i) **Former mangrove soils being colonised by *Raphia vinifera* palm**

The constant deposition of the sediment load carried by the fresh water in rainy seasons result in levees that are raised above the usually high tide level of the dry season which are never flooded again by salt water. Gradual decrease in the salinity of such soils encourage the displacement of mangrove vegetation by *Raphia vinifera* palms. In such soils, the mature mangrove continue in existence whilst an under storey of the *Raphia* palm appears. These soils are clayed silts (silt content exceeding clay) with black to dark grey colours. pH is moderately acid (5.5-6.0) which becomes strongly acid if allowed to dry. Organic matter is high but low in phosphorus. Exchangeable bases are similar to the 'chikoko' soils; the magnesium and sodium are much lower reflecting reduction in salinity on removal of salt water.

(ii) **Former mangrove soils being colonised by *Dalbergia ecastaphyllum***

These soils having similar characteristics with soils under stunted mangrove species (*Rhizophora mangle*) occupy a small area. The *Dalbergia* seems to be more tolerant to salt than the *Raphia* and possibly colonises soils which give some setback to colonisation by mangroves.

(iii) **Tidal freshwater swamps soils**

These were formerly mangrove swamps but have lost contact with salt water due to the constant seaward advancement of the fresh water alluvial zone. The salt has been leached out of the soil. Only low-lying levees which are flooded at high tide are formed because the sediment load is insufficient. They are flooded by fresh water both in the wet and dry seasons hence the low salinity. These soils are high in organic matter and nutrient status except phosphorous and sometimes manganese and nutrient status which are low. The tidal swamp soils are acid, probably due to oxidation of the sulphides they inherited from their mangrove stage. Several of these swamps exists near Igbematoru on the Sangana river

## The Environment

and Seibiri in SILGA. They are also found in Okoroba and Idema in BALGA, and Etiema, Agirisaba, Sabatoru and Okokokiri in NELGA. The natural vegetation is a sparsely growing *Pandanus*, *Raphia vinifera*, *Phoenix reclinata*, etc.

### 4. Soils of the fresh water alluvial plain (the meander belt zone)

The fresh water alluvial zone or the meander belt soils occupy a greater portion of Bayelsa State. The area covers the upper and lower delta plains that form the relatively low-lying, broad and more gently sloping portion of the Niger Delta basin, comprising small meander oxbow lakes, flood plains, alluvia cones, alluvial fans, natural levees of rivers and creeks, and back swamps. The freshwater alluvial soils can be subdivided into northern freshwater alluvial soils for those in the upper delta plain, and southern freshwater alluvial soils for those in the lower delta plain. Based on texture and length of flooding experienced, the following soil types can be recognised:

- (i) Levee-crest soils
- (ii) Levee-slope soils
- (iii) Flood plain soils
- (iv) Backswamp soils
- (v) Basin Swamp Forest soils (Permanent Swamps)
- (vi) Recent alluvial soils in silted up channels
- (vii) Recent alluvial soils in channels of present active rivers.

#### (i) Levee Crest Soils

The levee crest soils are those occupying the highest position of the land in the Meander Belt and are located near the rivers or creeks. The heights above sea level make them the least flooded soils hence, most towns and villages in the State are located on them. Those in the upper delta are well above water level (8m or more) for most part of the year with depth to groundwater table of about 3m or more. The levee crests

the lower delta plain are much lower with only about 1m above groundwater table, thus for a long period, the water table is very near the surface during the floods. Some levee crest soils are flooded at the peak of heavy floods to a depth of 10-15 cm for about 2-3 weeks. During low flood years, the levee crest soils are never flooded.

Essentially, the levee crest soils vary in texture ranging from coarse sandy loams through fine sandy/silt loams to varying mixtures of clay. This rather fine texture gives them low permeability, thus downward movement of water after rains is slow, causing ponding (Ayolagha, 1997). Surface soil colours are dark greyish brown to light greyish brown. They are strongly acid (pH 4.4.-5.0) and low in organic matter, nitrogen and sometimes phosphorus. The levee crest soils are generally high in basic cations.

Their height above seal level has made them the main agricultural soils of Bayelsa and of the Niger Delta.

### (ii) **Levee Slope Soils**

The levee slope soils occur at the back slope of the levee between the levee crest and the flood plains. Some are submerged at the peak of heavy floods up to 2m or more. Generally, the heights of the levees decline from the upper delta plain, southwards, towards the sea where the levee slope is narrower. In the Peremabiri and Igbematoru area in SILGA, the levee crests are only 50-10cm above flood plain and the levee slope is very narrow thus the relief difference between the crest and the slope is hardly noticed.

Some of the levee slope soils, once flooded like the ones above, are now better drained. The levee slope soils in the vicinity of Otuaka and Kolo Creeks are now not flooded more than a few centimetres deep in the wet season. This is because the Niger Flood no longer extends across this part of the delta and the Orashi River is not large enough to flood the area. Though not deeply flooded, these soils remain very wet in the rainy season because their natural drainage channels - Otuaka Creek, Kolo creek etc. have been silted up and get swollen with the rain water. Such

## The Environment

water cannot get away easily and becomes ponded in depressions on the levee slopes.

The levee slope soils are less sandy than the levee crest soils. Textures vary from fine sandy loam to clay loam. Surface soil colours are dark grey or olive brown changing to greyish brown or yellowish brown in the subsoil. The pH is similar to the levee crest soils while organic matter content is slightly higher. Available phosphorus is low in some of the soils but high in those around the vicinity of Kolo Creek (Ayolagha, 1994). Because of the low organic matter, nitrogen and phosphorus, the soils are fertile.

### (iii) Flood Plain Soils

The flood plain soils are the low-lying stretches of land bounded by levees. When flood waters start rising, they usually pass through several breaches through the levees allowing the flood-water which fills the flood-plain to drain away when the river water level falls. Therefore the flood plains are better drained than the backswamps.

The floodplain soils are slightly more acid than the levee soils (pH 4.1-4.6). Surface soil colours are pale brown changing to brown or pale yellow in the subsoil. Textures range from fine loam through clay loam to silty clay in the surface, while subsurface textures are clay loams to clay. The high organic matter and exchange bases content make these soils more fertile soils than the levee soils. Phosphorus is low in these soils but high in the Oruma flood plains in Ogbia LGA (Dickson et al, 1997). These soils are, however, highly dissected by creeklets, river beds and seasonal and permanent lakes creating a rather uneven surface making it impossible for effective flood control, which restricts their use for large scale rice cultivation.

### (iv) Backswamp Soils

The backswamps are soils flooded for more than 3 months in a year. Due to the low heights of the levees, especially in the southern delta, the flood water in some flood plains is very close to the dry season river level making it difficult for the water to flow back into the river even when the

floods recede in October/November. Such areas are called backswamps. In some cases the flood plains lack channels connecting them with the river and do not drain easily after floods.

Two types of backswamp soils exist in Bayelsa State. There is the backswamp soil with fairly pure *Raphia* forest found in the lowest parts of the plain where swamp conditions prevail for about 6 months in a year. The second is the backswamp soil carrying broad-leaved forest with an appreciable proportion of *Raphia hookeri* or *R. vinifera* which occurs in areas with somewhat shorter period of swamp conditions. Backswamps are found from Yenegoa southwards including Oporoma, Peremabiri, Ekowe, Angiama, Diebu, etc. They also occur in Otuaka and most villages along Ekole creek as well as in Ekeremor, Kolokuma/Opokuma and Sagbama Local Government Areas. These soils have grey to very dark brown colours at the surface which grades from grey into light brownish grey in the subsoil. Soil texture, pH, organic matter and other soil characteristics are not significantly different from the flood plain soils.

These soils are better for rice production than the floodplain soils. Other forest trees found in the backswamps include *Symphonia globulifera*, *Nitragyna ciliata*, *Lophira alata*, *Irvinga gabonensis*, *Uapaca* sp, etc.

### (v) Permanent Swamp Forest Soils (Permanent Swamps)

These are soils that have standing water all the year round and are too wet even for the *Raphia* Palm. They are under deep water during the wet season, most of which drains away when the flood recedes but some remain for most, if not all, of the dry season. The *Raphia hookerii* palms often occupy the edges of the swamp due to excessive wetness. One example of this soil type is in Ekowe in SILGA.

Such swamps usually support tall grasses and reeds standing a few metres out of the water in the dry. Another feature is the presence of floating mat of grass and herbs which only rises a few centimetres above the water surface.

### vi) Recent Alluvial Soils in Silted-up Channels

These soils are of small extent in the State but are of great agricultural value. They are found in Kolo Creek in OLGA and in Epie and Tay Creeks in YELGA. The alluvium occurs in banks in the bed of the channels and on the sloping sides.

The texture of these soils vary from sandy loam to clay. They are strongly to moderately acid with low organic matter and phosphorus contents. Exchangeable basic cations are however high (Ayolagha, 1997). These soils are intensively cultivated because they have adequate moisture and high nutrient concentration introduced by the young alluvial soil deposited by the flood. It is, however, necessary for the crops to be removed before the peak of the floods.

### (vii) Recent Alluvial Soils in the Channels of Present Active Rivers

The soils develop from alluvium at banks on the insides of bends of the rivers and creeks. They are found along Ekole Creek, Nun River, and are usually submerged for about 3 months at the peak of the floods. They have characteristics similar to soils of the silted-up channels, but for their higher phosphorus content (Ayolagha, 1997). They are also of great agricultural value in Bayelsa State.

The top layer of these soils is usually high in sand but silty to clayey in the subsurface layers. The natural vegetation is grass which sprouts after the floods recede. With continuous deposition of alluvial materials, these soils develop into levee slope or levee crest soils.

## PRESENT/POTENTIAL USES OF THE SOILS

Various types of arable and cash crops are produced from these soils at present. With improvement in the present level of technology, investment climate and incentives to potential investors, the soils in Bayelsa State have great potential and can turn the State into the pride of the nation in food production apart from oil. The present uses of these soils as well as their potential uses are now discussed under the different geomorphological zones.

### (a) The Beach-Ridge Zone

The fertility status of the beach-ridge sands is very low. For now, cassava is the main crop grown. Due to nutrient contributions from household wastes plantains, pawpaws, sugar cane etc. are grown near houses. Coconut, the main cash crop in the zone, grows mostly at the water edges of the ridges. Oil palms also grow wild in the forest and around the communities.

Food production in these soils can be increased by improving the fertility of the soils through the use of inorganic fertiliser and organic fertiliser sources such as fish wastes which are readily available. The troughs are more fertile than the ridges and could be used for rice production with further fertilisation and improved water control.

The problems associated with coconut production can be overcome by:

- (i) Providing drains to lower the water table in the wet season.
- (ii) Breaking up the pan before planting the seedlings.
- (iii) Planting nearer the sea where there is no pan.
- (iv) Fertilisation of the palms based on soil/leaf tests.

### (b) The Mangrove Swamp Zone

For now, the mud flats are not utilised extensively for agriculture but extensive rice cultivation was practised at Mbiakpaba in NELGA. Most of the population live on fishing. But rice seems the most promising crop. With empoldering of the soils and the removal of the acidity which results from the oxidation of the sulphides by leaching and liming, extensive rice farms can be established in this zone.

Reclamation of the mud flats by sand filling is a possibility. But this task is unrealisable in the nearest future because of the high cost and the low level technology available. However, the dredge spoils created by canals dug by Government or oil companies after being irrigated by rain water and drained, support luxuriant growth of tree crops like coconut and oil palm as well as arable crops including cassava, pineapples, sugarcane and vegetables.

## The Environment

### (c) The Fresh Water Alluvial Zone

The chief crops in the levee crest soil for now are cassava, plantain, yams, cocoyams, vegetables and sugar cane. Maize and groundnuts are also produced. These crops are also produced in the levee slope soils but to lesser extent because of problems of water logging during the rains and annual floods. Oil palm grows wild in these soil types. The low land palm estate at Yenagoa also occupies parts of these soil types. Rice is extensively cultivated in the flood plain soils and backswamps. Raphia palms also grow wild in the backswamps which are being exploited for g (ogogoro) production. Soils of the silted-up channels and those channels of present active rivers are also used in the production of crops except plantain.

These crops are not produced in large quantities because of the subsistence nature of the farmers. An improvement in the present level of production may be achieved when small holder farmers form cooperative groups. Apart from these, rubber and cocoa plantations abound on the levee soils of this zone.

The present production level of the freshwater alluvial soil can be increased by the use of fertilisers, measures to control pests and diseases, effective control of water in the swamps, introduction of new/improved varieties of crops and the introduction of some farm machinery. The soils support various timber-producing trees which through effective forest management could be of tremendous benefit to the State. In the levees and flood plain soils, *Irvingia gabonensis*, *Treculia africana*, and other useful forest tree species that are currently growing in the wild could be raised and managed as plantation crops, as is now the case with the oil palm. Even in the backswamps, there is the possibility of developing Raffia palm estates instead of relying solely on the raffia growing in the wild. The backswamp soils of this zone are potentially good rice lands. Presently, a lot of rice is produced from these soils in the State. The major limitation of their use for this purpose is that they are deep ponded for a long time. Nevertheless, with improved drainage and reclamation of the soils, their full potentials would be realised.

## CHAPTER THREE

# CLIMATE, RELIEF AND DRAINAGE

*C. U. Oyegun*

### **Introduction**

The land area of Bayelsa State describes the geometric shape of a triangle with its apex in the area north east of the bifurcation of the River Niger into the Forcados and Nun River systems in Sagbama Local Government Area. The northwestern limit of the state is at the estuary of the Ramos River, a distributary of the Forcados River System. The south eastern margin of the region is at the mouth of the Santa Barbara River in the environs of Kula. This delimitation covers an area of over 12,000 km<sup>2</sup> with over 185 km of coastline which describes the arc of the Niger Delta.

### **Climate: Rainfall**

The climate of Bayelsa State has been identified as a humid semi-hot equatorial climate of the Af type of Koppen's system of climate classification. Weather conditions over the state are brought about by the moist tropical maritime air mass and the dry and dust laden tropical continental air mass. The former is prevalent during the rainy season and blows from the Atlantic Ocean while the latter originates from the high pressure belt of the Sahara Desert and blows over the state in the dry season.

The mean annual rainfall ranges from 2,000 to 4,000mm and spreads over 8 to 10 months of the year between the months of March and November which coincide with the wet season. There is a slight break between July and September. This short dry season is called the August break. The duration of the dry season is comparatively short beginning from December and extending to February - a period of three months. It is

## The Environment

not uncommon to experience occasional rainy days and storms even during this short dry season. The direct effect of the extensive wet season is that over 70% of the total area of the state is inundated with floodwater during the wet season. This condition is exacerbated by the semi-diurnal tidal regime which ensures two high tidal floods and two low ebb tides within the course of each day all over the State. Under these conditions, bases are continuously elutriated from the surface to sub-surface layers of the soil.

A striking feature of rain day distribution in the region is its pronounced spatial variation in magnitude. A rain day is defined as a day in which incident rainfall equals or exceeds 0.25mm. This variation is such that the coastal locations like Brass receive more rainfall than locations further inland

### Humidity

Relative humidity assesses the moisture content of the air of any particular place at a given time period. Relative humidity is comparatively uniform over the state because of the proximity of the region to the Atlantic Ocean. The months of June and October record a monthly mean of over 80%. The dry season month of January records a lower value of 65%. This value rises with the onset of the rains, peaking at 78% in the month of May.

Coastal locations like Brass and Nembe have relatively high values for most of the year with an average relative humidity of 90%. Relative humidity is reduced considerably in the month of December with values ranging between 55 and 65%. The reduction in the moisture content of the air at this time derives from the prevalence over the state, of the north-east trade winds (harmattan winds) which are dry, cold and dust laden.

### Temperature and Sunshine Hours

Temperature is fairly constant throughout the year over the entire state with a maximum of 30°C. The latitudinal location of the state in the equatorial belt ensures that high temperature values are recorded all year round. Seasonal and latitudinal variations affect the extremes of recorded temperature and also, diurnal and seasonal ranges.

The highest temperature is normally recorded between the months of February and March each year while the lowest values occur at the peak of the rainy season in the months of June and July. Variation in temperature begins in the month of February and peaks at 30°C in the month of September only to decrease to 26°C in November at the onset of the harmattan winds.

Sunshine hours are reduced to a minimum over the state because of uniform and continuous cloud cover. The region receives less than twenty (20) hours of sunshine per month between the months of June and September each year.

### Relief

The land surface of Bayelsa State slopes gently in a north-south direction to the sea. This topographic configuration has evolved from the sedimentation patterns of the last 75,000 years (Allen, 1970). It is tempting to describe the Niger Delta of which Bayelsa State is part, as a flat monotonous landform region. The notion is held that it is a horizontal structure of low relief formed from aggradational materials (Ofomata, 1975). A close examination of the micro-relief of the region shows the plains as homoclinal (gently inclined) geomorphic structures which trend westwards and south-westwards and are broken in many places by small hogback ridges and shallow basins. The trend is arrested at the coast by sandy beach-ridge barriers lying between the tidal basins and the open sea.

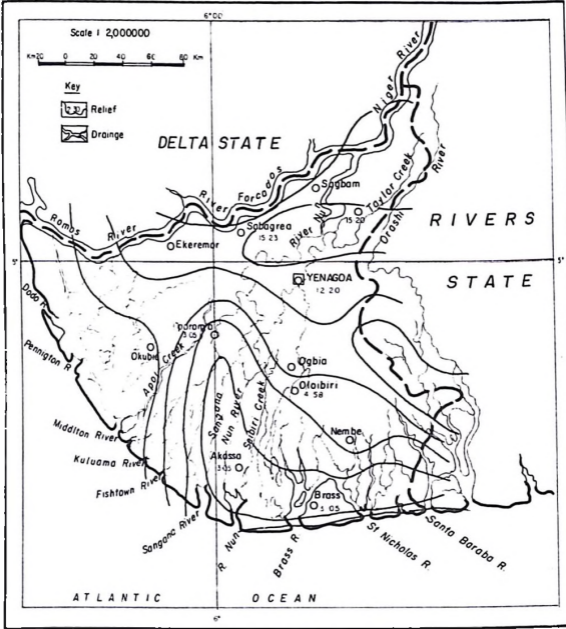


Fig. 3.1 Relief and drainage of Bayelsa State

The gently undulating coastal lowland to the interior of this beach-ridge barrier zone shows height ranges between 3.05 and just over 15 metres above sea level. These local variations in micro relief have evolved in response to erosional processes, lithological differences in the rock groups and differences in the diagenesis of such groups.

The topographical map of Bayelsa State - see fig. 3.1 showing areas of equal heights or isohytes, indicates parts of Sabagrea and Yenagoa as places with land surfaces between 12 and 15.5 metres above sea level. Other towns like Akassa, Brass and Oporoma are 3.05 metres above sea level while Oloibiri is 4.58 metres above mean sea level. The western half of the state with its most eastern margins at Oporoma and Brass have the same relative relief with a south west gentle inclination. A steep terrace-like descent in relief can be observed as a north-south traverse through the region. In the same vein a coastal plain topography is observable from Joinkrama across Yenagoa to Warri areas in Delta State trending in a northwest-southeast (NW-SE) direction.

### Surface Morphology

Bayelsa State consists of two broad morphologic regions identifiable as the older Coastal sands of about Cretaceous age making up the higher land and the relatively more recent Deltaic plain sand associated with the Sombreiro-Warri plain. These more recent deposits are the outcome of a transgressive phase which occurred about 30,000-10,000 years before present, during a recessive stage in the Pleistocene Ice-age (Nedeco, 1961 p. 109). Thus, the Sombreiro-Warri plain constitutes a distinct terrace between the older Coastal Plain Sands of the Benin Formation and the more recent Niger Delta which is mainly under water. The higher Coastal Plain Sands are dissected into several extensions southwards by the several rivers and creeks of this zone.

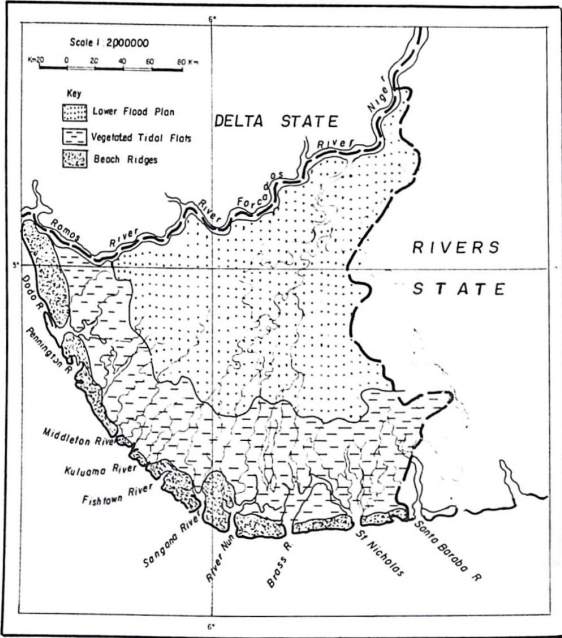


Fig. 3.2: Geomorphic units of Bayelsa State

While gradients are fairly steep descent from the Coastal Plain Sands to the creeks with mean gradients at 1:22, they grade through 1:74 to 1:457 and 1:575 in the predominantly younger sedimentary suites. One characteristic which is readily observable in the region is the sharp descent from the coastal plain sands to the surrounding and adjoining creeks with an average gradient of 1.22 metre. It is probable that the cliff structure represents initial forms of the surface consequent on the drowning and dissection of the mainland during the recent transgression. Nedeco (1961), affirm that the drainage system of the Eastern Niger Delta in the state, is better characterised with the development of well defined natural levees and river bluffs.

The deltaic plains of the main drainage systems of the state generally lie below 2.5 metres above sea level unless at sections where the swamp has been reclaimed. It is interesting to note that a considerable land area in the state, is under water at hightide. This implies that as much as 60% of the region is inundated at every floodtide.

### **Drainage Characteristics of the Region**

The entire Niger Delta topography is characterised by a maze of effluents, creeks and swamps criss-crossing the uniclinal, low lying plains in varying dimensions. The prevalence of these has been enhanced by the low relief of the region. The drainage of the region has changed with the shifting distributaries of the Niger River. Hence, many of the drainage systems, for example, the Orashi-Sombreiro river systems occupy mature channels in spite of their relatively small sizes. The inference from here is that in the recent geologic past these rivers which were active branches of the Niger River have today been severed from the Niger River, thus making them misfits in their erstwhile channels.

Nedeco (ibid), hold the view that the drainage lines of the western Niger Delta are actively deepening their channels at the expense of drainage systems in the eastern Delta. It is highly probable that this trend is a passing phase which is reversible as threshold conditions are attained.

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The large rivers like the Nun, Brass, St. Nicholas and Santa Barbara have channels often in excess of 0.5 km even at their more northerly reaches. The medium sized creeks like the Apoi, Seibiri, Sagbama and Taylor Creek are more than 100 metres in width. Arising from this, drainage density in the Deltaic plain is 6 km/km<sup>2</sup>. It follows that for the lower morphologic unit, there are six kilometre of channel length for every square kilometre of space.

### Geomorphic Units of Bayelsa State

The deposits of the modern Niger Delta in the state overlie older sediments which range in age from the Cretaceous to early Quaternary. The deltaic plain slopes seawards at a gradient of about 1:12,500 and extends into the continental shelf for several kilometre Offshore. Allen (1970), Ibe (1988) and Mosunmola (1990) recognise four morphological units in the subaerial Niger Delta. These, from the sea to landward include the following:

- (i) The outer barrier island complexes
- (ii) The vegetated tidal flats.
- (iii) The lower flood plain formed by the numerous distributaries of the Niger, and
- (iv) The narrow upper flood plain between Onitsha and the first bifurcation of the Niger - this segment is outside the boundaries of Bayelsa State.

The section which follows details the characteristics of these morphological units - see figure 3.2 for locations.

### The Barrier-Island Complexes

The beach ridge-barrier island complex forms an outer chain of sediment which help to protect the tidal basins of the Niger Delta from the direct

impact of breaking swell waves. These waves of the Atlantic ocean possess wave energy of about  $3.7 \times 10^4$  joules of wave energy per metre of wave length (Oyegun 1990, 1991). The barrier islands range in length from 5 to 37 km and from a few metre to more than 10 km in width. Two types of barrier ridges can be observed. These are the outer barrier bar complexes and, the inner narrow sand bars. While these narrow ridges are found at the flanks of the Delta, the wider ones characterise the central portion of the arcuate Niger Delta. About 20 barrier island complexes form an outer ring for the subaerial Niger Delta. Their continuity is only broken at the river mouths even though they are linked in the sub-surface by river mouth bars. The northwest flank of the Niger Delta between the Escravos and the Ramos Rivers consists of several narrow sand ridges about 1.2 km in width that alternate with muddy tidal flat and swamp depressions.

The beach section between Ramos and Dodo Rivers has bars that are 3-7 km in width and are forest covered. The shore area here is about 1km wide and is fringed by swampy terrain and the ridge and hollow topography east of the Brass Creek. The west-east trending outer sand bars attain their maximum width of about 8 km between Sangana and Brass Rivers. Its northern boundary is being severely eroded by the creeks with a drainage that flows west-east. Extensive sand beaches occur on either side of the Nun estuary with a recurred spit forming Cape Nun. The barrier-island complex forms a spit about 0.8 km wide and over 10 km long between St. Nicholas and Santa Barbara. This spit encloses the Odioma Creek. The barrier beach increases to 5 km in width east of the Batholomeo River where it is severely eroded at the northern fringe by gullies draining into the Kula and Abissa Flats (Mosunmola 1990).

### **Vegetated Tidal Flats**

The vegetated tidal flats of the Niger Delta are also the mangrove swamps sandwiched between the outer barrier island complex and the older sands of the Benin formation. Allen (1965) affirms that the tidal basins are at least 1m below sea level and as such, are able to store vast water and

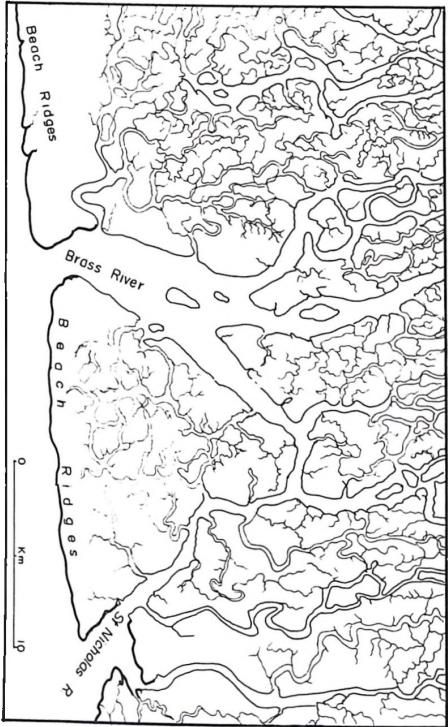


Fig. 3.3: Vegetated tidal flats of the Brass River (after Allen 1965)

sediment discharges of the semi-diurnal tidal regime. The tidal flats have evolved primarily through the process of repeated bifurcation of the River Niger and its distributaries. Fig 3.3 taken from Allen (1965) shows the reticulate drainage pattern which characterises the tidal flats of the Brass River. This drainage pattern is due mainly to the higher elevation at the edges than at the centre of the flats. The vegetated tidal flats extend over an area of 9,000 km<sup>2</sup> between its western limits at the mouth of the Benin River and the Calabar-Rio del Rey estuary in the east. Maximum widths of between 30 and 40 km obtain at the Delta flanks and across the Delta, the tidal flats situate between mean low and high water marks. This makes them inundated at high tide.

According to Ibe (1988), open ended channels connect the feeder channels which have widths varying from 100 to 1 km with a characteristic drainage pattern which is reticulate in shape. Ibe (ibid) further affirms that the open channels define the inter-channel flats which lie between low and high tide. These inter-channel flats display a dendritic surface drainage and are characterised with narrow creeks which end in blind gullies. Allen (op cit) draws some interesting contrasts and similarities between the mangrove swamps of the tropics and those of Europe which flank the coastal stretches of the Netherlands and Germany

The vegetated tidal flats are composed of three elements viz. the main feeding channels which derive from fresh water sources en route to the sea, smaller channels which connect them together and elevated tidal flats exposed only at low tide. It is believed by researchers that the western Niger Delta receives more fresh water than the eastern Delta. It follows therefore that whilst the deposition of fines in the western half of the Delta owes its sources to fluvial activity, most of the fines deposited in the tidal flats of the eastern Delta in Bayelsa State, derive from the tidal influx of the sea.

The tidal flats vary in size from about 1.5 km in length to about 12 km. These dimensions compare favourably with those of the tidal flats in Europe even though the Niger Delta has a tidal range of between 1 and 2m in comparison with that of western Europe which ranges between 2 -

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4m (Allen, 1965). RPI (1985) reports that the variety of vegetation found on the tidal flats include climbers, grasses, herbs, shrubs and trees. The predominant and prevalent tree specie is the red mangrove *Rhizophora racemosa*. Others include, *Terminal cattapa: syzygim sp.*, *Carthorium altissimum: Ficus vogeliana* and *Avicennia africana*. Tree stands tend to be taller at the edges of the flats than in the middle and the tallest mangrove trees attain heights of between 30 and 45m. The mangrove forest is usually dense with thick undergrowth which impedes visibility through the forest.

## The Lower Flood Plain

This morphologic unit extends from the first bifurcation of the Niger River in the Aboh area to a jagged seaward margin where levees on the sides of the major distributaries of the Niger indent the landward boundaries of the vegetated tidal flats (see fig 3.3). The flatness of this morphologic unit leads to a continuous process of bifurcation of the main distributaries with stream depths averaging 10 metres. The river alluvium of the lower flood plain is deposited in five sub-environments which include river channels, point-bars, levees, back swamps and cut-off channels. The distinct recognition of these sub-units is often blurred by the thick vegetation when viewed on aerial photographs.

In this morphologic unit, river meanders range from 0.7 to 7.5 kilometres with point bars enclosed by meander loops sloping gently into the stream channel. The river bluffs in the outer meander bank are generally about 3-5m above the stage of the rivers in the dry season. At the height of the wet season these steep river bluffs are over flooded and most of the lower flood plain is under water at this time of the year. Only the very high grounds on the levee ridges on which settlements are located are spared from flooding. Allen (1965), reports that sediments moving on or close to the bed and incorporated into the point bars are mostly well sorted fine, medium and coarse grained sand. He further affirms that the coarsest sand is generally found in the channel deeps and

in the lower parts of the bars where currents are strongest. The suspension load of micaceous fine and very fine sand and clayey silt classics, are found in the shallows and on the upper bar slopes. Nedeco (1961) and Simons and Richardson (1961) hold the view that stream flows in this morphologic unit are mainly in the lower flow regime.

Stream channels in the lower flood plain are bordered by narrow levees which often reach 2m in height and descend away into freshwater backswamps. Large interdistributary basins occupied by fresh water backswamps extend between levee toes and separate active stream channels which occupy meander belt ridges (Allen, 1965). Many of the back swamps in this morphologic zone are permanent while others only receive their water from the seasonal flooding of the wet season. The deposits of the back swamps are mainly fine classics with the coarser ones deposited near the levees of the main stream channel. Nedeco (1961) reports that there are a few cut-off channels and meander loops in this morphologic zone with several occurring between the Nun River, Seibiri Creek and Ekole River. Other cut-off channels and meander loops are found bordering the Bomadi Creek and Forcados River system

### Conclusion

The imperatives of the natural terrain which is criss-crossed by several distributaries of the eastern Niger Delta, dictate that a comprehensive land capability assessment be built into the master plan for the physical development of the state. It may be necessary for plodders to be constructed along the margins of some of the tidal flats with a view to draining them for agricultural landuse

A system of canals may also be put in place and integrated into the drainage system of the region to ease transportation problems. This will enhance the scenic beauty of the area and thus, make the region comparable to what obtains on the Rhine Delta in north-western Europe.

## CHAPTER FOUR

# VEGETATION

*B. L. Nyananyo*

### Introduction

The cartographic Niger Delta covers the area supplied with water from the Rivers Niger and Benue as they flow together after Lokoja (the confluence) to empty their contents in the Atlantic ocean. These rivers (now joined) break up at Abuetor into the Rivers Nun and Forcados. The Niger Delta proper thus is that portion of the land mass (including water) traversed by the Rivers Nun and Forcados (including their tributaries). Bayelsa State is that portion of the land mass (including water) traversed by the River Nun which again breaks out into many rivers and creeks that empty into the Atlantic ocean. The rivers include Santa Barbara, St Nicholas, Brass, Nun, Sangana, Fishtown, Koluama, Middleton, Digatou, Pennington, Dodo and Ramos. The portion of the Niger Delta traversed by the River Forcados is part of the present Delta State.

The Niger Delta is Africa's largest delta covering some 7,000 square kilometres. About one third of this area is made up of wetlands, and it contains the largest mangrove forest in the world (5,400-6,000 km<sup>2</sup>) (Afolabi, 1998). In addition, it consists of a number of distinct ecological zones such as coastal ridges, barriers, freshwater swamp forests and lowland rain forests. A lot of activities currently being carried out in the Niger Delta have introduced considerable changes in this delicate ecosystem. Such activities include coastal zone modifications, upstream dam construction and urban growth, agriculture (including fishing), industrial development, population pressure and exploitation of natural resources. It is noteworthy that the Niger Delta could probably be the least exploited in the world and the least known scientifically.

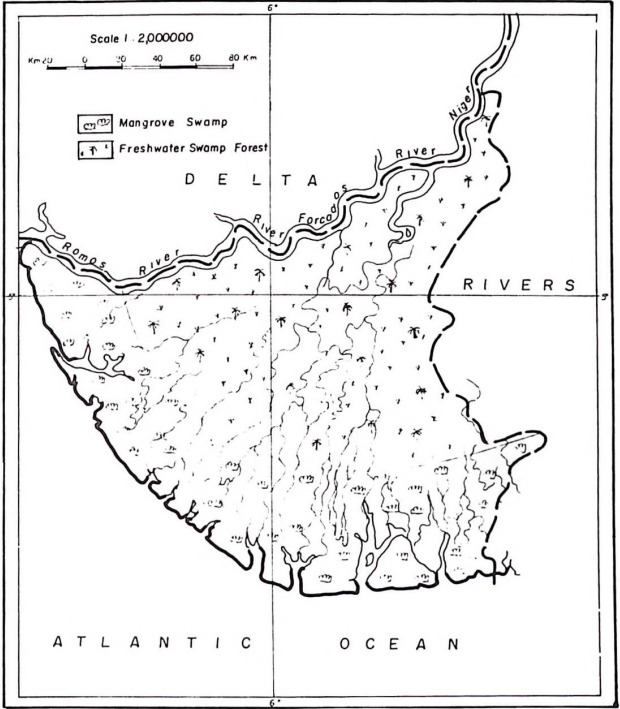


Fig. 4.1: Vegetation map of Bayelsa State

The term flora is used in science collectively for the kinds of plants present in a region, habitat or period. The term vegetation on the other hand is for all plants collectively, i.e. plant life. For the purposes of this chapter we use the term vegetation to take a holistic view.

The vegetation of Bayelsa State is dynamic in its composition. The information of the relatively few early explorers (Hooker, Hutchinson and Dalziel, 1954; Ainslie, 1926; Rosevear, 1947; Keay, 1953, 1959; Savory 1951, 1953) and those of later explorers and workers (Sowunmi, 1988, Kinako, 1977, Okoli, Nyananyo & Wilcox, 1992; Nyananyo, 1986, 1988, 1990; Olowokudejo, 1986, 1993) shows that the vegetation has changed in its composition, albeit positively, as species hitherto unrecorded for the area have since been recorded. This is in conformity with the growth of the recent Niger Delta which was initiated in the Early Tertiary by sedimentation. Much of this sedimentation is believed to have occurred in the last 4,000 years, (Allen 1965; Allen, *et al.* 1962).

The major vegetation zones in Nigeria (Keay 1959) are determined mainly by the mean monthly relative humidity and rainfall distribution rather than mean annual rainfall per se, and temperature (Sowunmi, 1981).

Three major forest formations occur within the Niger Delta. These include.

- (a) Brackish water swamp forest (comprising mangrove forests and coastal vegetation);
- (b) Fresh water swamp forests and
- (c) Riparian forests (Onochie, 1979).

### (a) **Brackish Water Swamp Forest**

Mangrove forests form a characteristically dense evergreen and seemingly impenetrable mass of low shrubs and trees of even height (Anon 1976). The word "mangrove" is usually used to cover vegetational and edaphic concepts. The vegetation concept describes a group of halophytes covering about forty species belonging to very different and often

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unrelated plant families. They all, however, exhibit similar adaptations, habitat preferences and physiological characteristics. The edaphic concept on the other hand refers to a complex ecosystem with plant communities living in strips along sheltered shores of tropical estuaries. These edaphic communities are a result of natural coastal accretion brought about by river deposits, tidal movements of salty and brackish water, and even the effects of wave action along the coasts on the deposition of silt and sand (Savoy, 1953; Anon, 1976, Anon, 1985).

Mangrove ecosystems exist in all tropical and subtropical areas, in Asia, North America, Africa, Australia and New Zealand, and in arid areas in the Middle East along the Arabian Peninsula (Mercer and Hamilton, 1984; Anon, 1985). There are, however, two distinct mangrove formations differentiated on the basis of species composition. There is the New World Mangrove formation located on the West Coast of Africa and on the tropical and subtropical coasts of America *sensu lato* and there is the Old World Mangrove formation of East Africa and Australia in the Indo-Pacific region. Factors governing the development of mangroves are climate, oceanic influence, fresh water influence, sediment which is relatively homogenous dominated by soil containing very low amounts of calcium, bases and trace elements (Watson, 1920; McNae, 1968, Amon, 1976, Adegbehin *et. al.* 1991; Marius and Lucas 1991). Mangrove formation constitutes a reservoir, refuge, feeding ground, and nursery for many useful and unusual plants and animals (Mercer and Hamilton, 1984).

The Mangrove forests of Bayelsa State occupy the brackish and marine river systems of St. Nicholas, Brass, Nun, Sangana, Fishtown, Pennington, Ramos, Forcados and Santa Barbara. The composition of this forest is *Rhizophora racemosa* Meyer; *R. Harrisonii* Leechman and *R. mangle* L (species of the red mangrove). *Avicennia africana* (the white mangrove), *Laguncularia racemosa* and the salt tolerant fern *Acrostichum aureum*. New additions to this composition have however, been noticed due to the dredging by both oil companies and government for canalisation. These new additions which are all established initially on

Other species include *Chrysobalanus orbiculare*; *Alchornea cordifolia*; *Cola latifolia*; *Bartera nigriflora*; *Ipomoea pes-caprae*; *Hibiscus tiliaceus*.

### 2. Freshwater Swamp Forests

Mangroves and associated plants are replaced by fresh water vegetation as one moves inland from the coast. These are areas that have "fresh water" vegetation including floating plant species such as *Vossia cuspidata*, *Nymphaea lotus*, grasses and sedges such as *Mariscus* sp, *Pectum vaginatum* and other plant species such as *Pandanus tanzelabranum*, *Raphia vinifera*, *R. Hookeri*, *Podococcus barteni*, *Machaerum lunatus* and *Dalbergia ecastyphyllum* in the creeks with fresh water. Further inland and with a rise in the level of the land there are extensive fresh water swamp forests characterised by trees such as *Carapa procera*, *Alstonia boonei*, *Musanga cecropoides*, *Alchornea cordifolia*, *Anthocleista* sp., *Baphia nitida*, *Mitragyna ciliata*, *Uapaca guineensis*.

Climbing palms, shrubs, lianes and ferns together with floating grasses and sedges occur on the outer fringes. These fresh water swamp forests are broadly edaphic variants of the Guinean lowland rain forests. This view is supported by the occurrence of similar plant species in both forest types.

The edaphic conditions in the areas where this type of forest exists are water logged as a result of having been developed under the influence of the presence of sufficient quantities of water to suppress the oxidation and other physiological processes of micro-organisms. The maintenance of the fertility of the soil is however, enhanced by the periodic flooding of this forest especially during the rainy season. This is achieved by the smothering of organic detritus with clay and silt.

The vegetation in this forest in Bayelsa State is dominated by the economically important raffia palms (*Raphia vinifera*, *R. Hookeri*). The sap of these plant species, produces palm wine which, on processing produces gin. There are also other economic trees within this forest. These include the wild or African mango that produces *ogbono* (*Irvingia*

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*gabonensis*), the oil palm *Elaeis guineensis*, *Opepe* (*Nauclea diderrichii* and *N. venderguchtii*), bau (*Anthorclesta* sp.)

In addition to these, the forest is richly supplied with streams and pools which are home to reptiles, fishes and water plants (*hydrophytes*). Such hydrophytes include the water lettuce (*Pistia stratiotes*), water hyacinth (*Eichhornia crassipes*), water lily (*Nymphaea lotus*, *N. alba*), *Cytosperma senegalense*. Of particular economic importance to inhabitants of this area is the screw pine (*Pandanus candelabrum*). The stem of this plant is succulent and when cut and retted produces a rope which is used in weaving mats, fishing gear and local hats. Other plants include *Phoenix reclinata* and *Syzigium guineense*.

### (c) Riparian Forests

This is the most complex in terms of species diversity, number and structure of the three vegetation types present in Bayelsa State. This was a definite structure and actually has no dominant species but at first glance it appears intimidating as if composed of a mass of vegetation enclosing numerous and probably uncountable numbers of wild animals and even venomous creatures. The truth however is that this forest though not intimidating is home to some rare and endangered animal and plant species. Some of these animals have only been recorded as present in this part of the world for the very first time. Also for the plant species, one climber thought to be very rare - *Strophanthus gratisu* (Hook.) fil., and the grains of paradise also called alligator pepper (*Aframomum melegueta*) which formed a good part of the export earnings of the present Bayelsa State at the end of the 19th century.

Structurally, the forest is multi-storeyed and as many as seven vegetation strata or layers may be recognized.

The vegetation of Bayelsa State in addition to having rare and endemic plant species also have, attached to these plants or covered by their leaf litters, a lot of animal species. For instance, the big mangrove plant stands provide home for the African grey parrot, (*Psittacus*



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term endemic as used in biogeography, as in this Chapter, is different from its every day use (especially in the description of diseases). The sense in which endemism is used in medical and every day cases is equivalent to the meaning of the biogeographic term "indigenous (native)." There are basically two types of endemism.

- (i) Neo-endemism - where the plant is evolutionarily young and has not yet been able to spread to other areas. These include schizoendemisms, patroendemisms and apoendemisms and
- (ii) Palaeoendemism - where the plant is now restricted but once enjoyed a far wider distribution.

There are intermediate cases between these two extremes. These are the *haloendemisms* (plants which are not of recent origin but have retained a narrow distribution) and the *active epibiotics*. These are palaeoendemisms which have been reactivated by local conditions resulting in the evolution of new endemics after a long period of range extraction.

Within the Bayelsa State is one good example of palaeoendemism, *angoloi* (*Machaerium lunatus*, formerly *Drepanocarpus Innatus*) which now occurs only along the coast of Bayelsa State and the top eastern coast of Brazil. These two land masses were thought to be together as one continuous land mass before the continental drift. *Paka* (*Clappertonia ficifolia*) (a ditypic genus) which was thought to have been widespread in West Africa but is now restricted to the Niger Delta *sensu lato* and the coastal areas of Liberia. An example of a Neoendemism in Bayelsa State is pepper fruit (*Dennetia tripetala*), which is now spreading all over the Niger Delta *sensu lato*.

## Conservation of the Forest Resources

Forests and indeed all vegetation is for the people. The reasons for the conservation of our vegetation are numerous but two of them readily come to mind:

(i) We are in a world where hunger threatens hundreds of millions of people and many potentially useful wild plant species which could be domesticated and thus serve as food crops may be lost as habitats are damaged by the uncontrolled activities of oil exploring and exploiting companies, timber merchants and government activities in the construction of unsuitable industrial and non-industrial activities and foreign companies out here to exploit our resources with careless abandon.

(ii) Yields of food crops can be increased through disease-resistant strains. For instance, a fungal disease, the black sigatoka not too long ago destroyed large plantations of plantain (*Musa paradisiaca*) in some States in Nigeria including Bayelsa State. Coincidentally, plantain is one of the staple foods of Bayelsa State indigenes resident in and out of the State.

### Establishment of Botanical Gardens

One good avenue for the conservation of our vegetational resources is the establishment of Botanical Gardens in strategic areas of the State. Botanical Gardens of the world are an important facet of the conservation of genetic diversity. Basic research into plant mechanisms can provide economic leverage (Ayensu et al. 1984). A chance discovery of a "lost" species of teosinte, a form of wild corn in 1978 which was presumed extinct since 1910 has opened new opportunities for Mexicans and all the peoples of the world. This species *Zea diploperennis*, a perennial, was found growing on three acres of a hillside near Jalisco, Mexico, with a population of only one or two thousand individuals, on land scheduled to be cleared to plant domesticated corn. This species, *Z. diploperennis* has the same chromosome number as corn (*Zea mays*) of twenty and thus makes hybridization theoretically possible. Because *Z. diploperennis* resists some diseases, one day its genes may contribute to varieties of corn which are disease resistant as well as perennial. Had the Jalisco field been plowed up, humanity might have forever lost a remarkable

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opportunity. Thus, unless serious efforts are made to conserve the Bayelsa vegetation other important new products - such as oils, gums, and waxes for industry; proteins for food and feed and chemicals for pest control - are likely to be lost forever through our neglect.

### Establishment of Herbaria

Herbaria (sing. Herbarium) are museums, store houses, and data banks of the plant scientists, constant sources of reference. Their effectiveness and value depend on the care with which the specimens were preserved and mounted; the accuracy and completeness of identification and labelling and the satisfactory arrangement and maintenance of the collections so that they do not deteriorate and can be readily referred to. Although the world is now a global village, tropical seeds are usually too large and moist to survive in present day seed banks, live plantings and properly preserved herbarium specimens are especially valuable for viewing and exchange purposes. Herbaria should therefore be set up alongside the botanic gardens in strategic places.

Table 4.1  
Some common plants in the forests of Bayelsa State

Name	Family
<i>Myrianthus serratus</i>	Moraceae
<i>Musanga cecropioides</i>	Moraceae
<i>Cassia alata</i> (now <i>Senna alata</i> )	Caesalpinaceae
<i>Treulia africana</i>	Moraceae
<i>Fleurya aestuans</i>	Urticaceae
<i>Pentadesma butyraceae</i>	Guttiferae
<i>Uapaca heudelotii</i>	Euphorbiaceae
<i>Bridelia speciosa</i>	Euphorbiaceae
<i>Bridelia heudelotii</i>	Euphorbiaceae
<i>Podococcus barteri</i>	Palmae (Arecaceae)

Name	Family
<i>Smeathmannia pubescens</i>	Passifloraceae
<i>Lasianthera africana</i>	lcacinaceae
<i>Klainedoxa gabonensis</i>	Irvingaceae
<i>Nauclea diderrichii</i>	Rubiaceae
<i>Hallea ciliata</i>	Rubiaceae
<i>Nauclea vanderguchtii</i>	Rubiaceae
<i>Afroseralisia afzelii</i>	Saptoaceae
<i>Hevea brasiliensis</i>	Euphorbiaceae
<i>Pentaclethra macrophylla</i>	Mimosaceae
<i>Alchornea cordifolia</i>	Euphorbiaceae
<i>Anthostema aubruvanum</i>	Euphorbiaceae
<i>Anthocleista dalonesis</i>	Loganiaceae
<i>Irvingia gabonensis</i>	Irvingiaceae
<i>Raphia hookeri</i>	Palmae (Arecaceae)
<i>Cleistopholis patens</i>	Annonaceae
<i>Ancistrophyllum secundiflorum</i>	Palmae (Arecaceae)
<i>Panda oleosa</i>	Pandaceae
<i>Lygodium sp.</i>	Schizeaeceae
<i>Begonia sp.</i>	Begoniaceae
<i>Tetracera alnifolia</i>	Dilleniaceae
<i>Ficus sp.</i>	Moraceae
<i>Barteria nigriflora</i>	Passifloraceae
<i>Carapa procera</i>	Meliaceae
<i>Clerodendrum volubile</i>	Verbannaceae
<i>Tetrorchidium didymestemon</i>	Euphorbiaceae
<i>Terminalia ivorensis</i>	Combretaceae
<i>Fagara macrophylla</i>	Rutaceae
<i>Lophira alata</i>	Ochnaceae
<i>Ceiba pentandra</i>	Bombacaceae
<i>Xylopia staudtii</i>	Annonaceae

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Name	Family
<i>Thalia geniculata</i>	Maranthaceae
<i>Albizia adianthifolia</i>	Mimosaceae
<i>Antidesma venosum</i>	Euphorbiaceae
<i>Cissus barbeyana</i>	Vitaceae
<i>Callichilia stenosepala</i>	Apocynaceae
<i>Reuolfia macrophylla</i>	Apocynaceae
<i>Rauvolfia vomitoria</i>	Apocynaceae
<i>Raphia hookeri</i>	Palmae (Arecaceae)
<i>Strophanthus gratus</i>	(Hook) fil. Apocynaceae
<i>Elaeis guineensis</i>	Palmae (Arecaceae)

## Biodiversity and Conservation

Each plant species on earth is itself a reservoir of genetically encoded biological variability. Genetic diversity is the sum of this heritable variation occurring within each plant species. We have not characterized each plant species let alone the full range of genetic variation.

Species richness is not uniformly distributed across Nigeria. The most consistent geographic pattern is for greater species diversity in the rain forest region where Bayelsa State lies. Groups of species are assembled at a higher level in characteristic patterns of communities and ecosystems. These assemblages exist either because the component species have similar physical and climatic requirements or because some of the component species are dependent on the presence of other species in assemblages. Ecosystem diversity relates to the variety of habitats, biological communities and ecological processes in the biosphere. It is thus a complex abstraction including the diversity of communities of plants and animals e.g. rain forests, and mangroves which occur in Bayelsa State.

The direct economic benefits of biodiversity concern the use of biological species for direct economic benefit. Humanity has already obtained

enormous direct benefits of this kind in the form of foods, medicine and industrial products and has the potential to gain more especially as the techniques of molecular biology offer the possibility of incorporating genes from wild stock to enhance the performance of cultivated relatives. In Bayelsa State some indigenous plants have been used for various economic benefits. These include but are not limited to:

### (a) Food Plants

- (i) *Vernonia amygdalya* - Bitter leaf
- (ii) *Monodora myristica* - African nutmeg (okogolo)
- (iii) *Dennetia tripetata* - Pepper fruit
- (iv) *Iringia gabonensis* - Wild mango or Akpakpa ogboin.
- (v) *Aframomum melegueta* - Grains of Paradise or Fisani
- (vi) *Manihot esculentum* - Cassava or ebiaburu
- (vii) *Xanthosoma saggitifolia* - Cocoyam or akwakwa ikereburu
- (viii) *Musa paradisaca* - plantain or abanga
- (ix) *M. paradisaca* -var, sapientum - banana or idu
- (x) *Colocasia esculentum* - white cocoyam or pọpọ ikereburu
- (xi) *Dioscorea sp.* - Yam or buru
- (xii) *Tetrapleura tetraptera* - Opakipaki

### (b) Timber

- (i) *Anthocleista sp.* - bau
- (ii) *Khaya sp.* - mahogany
- (iii) *Newbouldia laevis* - iron tree or iginiga
- (iv) *Chlorophora excelsa* - Iroko (now *Milicia excelsa*)
- (v) *Rhizophora sp.* - mangrove or angala

### (c) Medicine

- (i) *Alchornea cordifolia* - Christmas bush or epie
- (ii) *Ageratum conyzoides* - Goat weed or furu ituka
- (iii) *Costus afer* - Ogbodoin

### (d) Industrial but under exploited

- (i) *Rhizophora sp.* - mangrove or angala

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(ii) *Clappertonia ficifolia* - paka

Also the crown of tall trees in the forest provides cover for others, and prevents massive undergrowth from emerging. This enables the optimal growth of bryophytes and pteridophytes in addition to providing home for animals.

All these have however, not been preserved as frequent oil spillage, exploration and exploitation activities have all contributed to the elimination of propagules and mature trees. There is therefore need for urgent conservation efforts to prevent the loss of these important plants.

## CHAPTER FIVE

# AQUATIC FAUNA

*A. J. T. Otobotekere and F. D. Sikoki*

### 1.1 Brackish and Marine Fauna

#### 1.1.1 Introduction

The coastal marine and brackish waters of Bayelsa State fall entirely within the Niger Delta basin and its adjoining coastal waters. On account of the Niger Delta being a flood plain, the area is not only very productive but also serves as a nursery ground for offshore and upstream organisms (EOD, 1995). Its fishery is made up of a large assemblage of pelagic, semi-pelagic and demersal species which are being exploited by artisanal fishermen employing various types of traditional fishing gear, and by offshore operators using modern fishing techniques.

#### 1.1.2 Continental shelf

The extent of the continental shelf along the Nigerian coastline is quite variable ranging from about 14 km in the Lagos area to about 49km in the Niger Delta. Its area is approximately 41,000 km<sup>2</sup>.

In Bayelsa State, between the Dodo River at the western extreme and the Delta-Berbersa River at the eastern limit, it is fairly constant ranging between 35 and 45km respectively with a mean value of 41.33km (Table 5.1).

Bayelsa State also has the longest coastline among the maritime states, measuring approximately, 200km. This feature along with its wide continental shelf present opportunity for the occurrence of a wide assemblage of fishery resources making it the home of active artisanal and industrial fishing activities.

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Table 5.1. Limits of the Continental Shelf in Bayelsa State

Zone	Distance Offshore (km)	Depth of edge of Shelf (m)
Western extreme (Dodo River)	36	220
Middle region (Nun River)	39	150
Eastern extreme (Santa Barbara R)	49	280
	$\bar{x} = 41.33$	$\bar{x} = 217$

### 1.3 Brackish water zone

The brackish water zone of Bayelsa State is made up of:

- (i) estuaries (semi-closed coastal water which has free connection with the open sea.
- (ii) beach ridges,
- (iii) Intertidal mangrove swamps
- (iv) rivers and saline creeks.

The estimated area of the brackish water zone is 449km<sup>2</sup> (Table 5.2)

These estuaries, the adjoining rivers and neighbouring continental shelf areas are the major fishing grounds for a variety of fish species but principally for bonga and shrimps.

### 1.4 Major exploited species

The numerous estuaries, creeks and the long coastline of Bayelsa State provide for ecological and microgeographical heterogeneity of fish communities and opportunity for migration of species from one ecological zone to the other. The principal fish communities include:

- (1) the estuarine and creek subcommunity,
- (2i) the pelagic subcommunity; and
- (3) the demersal subcommunity.

Table 5. 2. Estimated area of the brackish water zone of Bayelsa State

Estuaries and Rivers	Brackish water Area (km <sup>2</sup> )
Ramos River	50
Dodo River	47
Pennington River	21
Koluama River	10
Digituru/Middleton Rivers	25
Fishtown River	5
Sangana River	37
Nun River	67
Brass River	94
St Nicholas River	44
Santa Barbara River	49
Total	449

### (1) Estuarine and creek subcommunity

The fish community inhabiting the estuaries, creeks and other brackish water areas consists of freshwater and marine fish species. The bonga (*Ethmalosa fimbriata*) are the most abundant and valuable species in the artisanal fisheries (Dublin - Green and Tobor, 1992). *Sadinella* spp are also important but are relatively less abundant than the bonga.

The estuarine *sciaenidae* (croakers) are particularly abundant in the immediate inshore areas off the mouths of the various rivers and is dominated by *Pseudotolithus elongatus*. The other sciaenids, *P. senegalensis* and *P. typus* although common in the catch of the coastal open waters are also found in the estuaries.

The other families which contribute to estuarine and creek fisheries include:

- (i) Polynemidae (threadfin) - *Galeoides decadactylus*, *Polynemus quadrifilis* and *Pentanemus quinquarius*.
- (ii) Marine species such as:

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- (a) drum - *Pterocion peli* which extends from the sea to the freshwater areas;
- (b) snappers - *Lutjanus dentatus*
- (c) soles - *Cynoglossus* spp
- (d) grunters - *Pomadasy jubelini* and
- (e) shrimps - *Penaecus notialis* (pink shrimp)
  - *Parapenaepsis atlantica* (Guinea shrimp)
  - *Palaemon* sp. (white shrimp)
  - *Macrobrachium* sp (river prawn)

(iii) The other exploitable fish species in the estuaries and creeks are:

- (a) Mudskipper - *Periophthalmus koelreuteni*;
- (b) Brackish water catfish - *Chrisichthys nigrodigitalus*;
- (c) Marine catfish - *Arius* spp;
- (d) Hairtail/silver fish - *Trichiurus lepturus*;
- (e) Spanish mackerel - *Cybiium tritor*;
- (f) Sardines - *Sardinella* spp;
- (g) Barracuda - *Sphyaena* spp; and
- (h) Tilapia - various species

### (iv) Molluscs

(a) **Oysters:** Large population of the oyster, *crassostrea gasar* are found in most of the creeks growing on the roots of mangrove trees. These are usually harvested by cutting off the mangrove prop roots.

(b) **Periwinkles:** The intertidal mangrove swamps support large populations of periwinkles (*Tympanotus fuscatus* and *Pachymelania* spp). *I. fuscatus* is especially important as a fishery species

(c) **Whelks:** Two genera of whelks - *Thais* sp and *Pugilina* sp are important food items but their low abundance limits their commercial importance.

(d) **Blood Cockle:** The genus *Anadara* is harvested year-round on mud flats in most locations.

## (2) Pelagic sub-community

The pelagic sub-community is found throughout the marine zone of Bayelsa State. They occur over the shallow shelves where there is abundance of food supply. This sub-community falls under two groups namely - *Clupeids* and *Scombrids*.

(i) **Clupeids (Sardines):** They are represented by the bonga, *Ethmalosa* spp. and the sardines, *Sardinella* spp and many other species commonly referred to as bonga fish. *Ethmalosa* spp. occur in large numbers in river mouths and show seasonal migration pattern in and out of estuaries corresponding to dry and wet seasons respectively. The *Sardinella* spp on the other hand inhabit mostly off-shore waters and are particularly abundant in areas of up-welling.

(ii) **Scombrids (Mackerels):** This group is made up of a wider variety of species including:

- |                          |                                 |
|--------------------------|---------------------------------|
| (a) Horse-eyed mackerel  | - <i>Caranx carangus</i>        |
| (b) Jack fish            | - <i>Selar crymenophthalmus</i> |
| (c) Barracuda            | - <i>Sphyraena spp</i>          |
| (d) Skip jack            | - <i>Katsuwonus pelamis</i>     |
| (e) Yellowfin            | - <i>Thumus labacares</i>       |
| (f) Big eye              | - <i>Thunnus albacares</i>      |
| (g) Atlantic little tuna | - <i>Euthynus alleteratus</i>   |
| (h) Frigate tuna         | - <i>Auxis thazard</i>          |
| (i) Bullet tuna          | - <i>Aucis rochei</i>           |
| (j) Atlantic bonito      | - <i>Sanda sarda</i>            |

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The other pelagic species of importance include barracuda (*Sphyraena* spp) some *Caranx* spp, *Scomber* spp, *Trachurus* spp and *Decapterus* spp.

### 1.5 Demersal fishery resources

The first stocks under this category fall under two main faunistic groups; the sciaenids and the sparids.

(i) **Sciaenids:** Two assemblages - the estuarine and the continental assemblage can be identified. They occur from the surface to about two metres depth. The estuarine assemblage is characteristic of the coastal estuarine area while the continental shelf sciaenid population is associated with shallow, muddy substrates.

The dominant families in the sciaenid group include:

- (a) *Sciacridae* (Croakers)
- (b) *Polynemidae* (Threadfins)
- (c) *Pomasyridae* (Grunters)
- (d) *Arridae* (Catfishes), and
- (e) *Cynoglossidae* (Soles)

(ii) **Sparids** This group occurs both above and below the thermocline. It is made up of two distinct subcommunities namely - shallow water suprathermocline and deep water subthermocline sparid communities.

The shallow water community is restricted to sandy and rocky bottom substrates while the deep water population occurs on both sandy and rocky and muddy substrates below the thermocline and extended to the edge of the continental shelf

The most important families under this group include.

- (a) *Sparidae* (Breams)
- (b) *Lutianidae* (Snappers)
- (c) *Mullidae* (Mullids)
- (d) *Frigidae* (Granards) and
- (e) *Frcanthidae*

## 1.6 Biology and ecology of commercially important fish resources

### (i) Chepeidae

The chupids are the most important target of the pelagic and semipelagic component of the coastal artisanal fishery. The ponga, *sthnialosa timbriatn* sardines *sardinlla* spp and shad (*Ilisha africana*) are the principal species (Ibe, 1990).

They grow to a size of about 60cm but most species are less than 25cm. They occur in coastal marine waters, estuaries and fresh waters.

### (ii) Carangidae

This group include the jacks (*Caranx* spp), atlantic bumber (*Chloroscombrus chrysurus*), false scad, (*Decapterus rhonchus* = *Caranx tonchus*) and the house mackerel (*Trachurus* spp).

They attain a maximum size of about 140cm and occur from the coastline to depths in excess of 200m. Although they are mainly coastal or oceanic pelagic, some of them venture into brackish water during the early stages of their life history. Their principal food items include fish, shrimps, crab and other invertebrates.

### (iii) Polynemidae (Threadfin)

Polynemidae are widely distributed in estuaries, coastal lagoons and freshwater ecosystems. They attain a maximum size of 200cm.

The African threadfin (*Galeoidacius*) and giant african threadfin (*Polydactylus quadrifilis*) are important members of the families.

*Galeoides decadactylus* is semi-diadromous, undertaking spawning migrations into estuaries and the lower reaches of rivers. They feed mainly on benthic organisms and is a major target species of the artisanal fishery employing gillnets, and beach seines, and by industrial fishermen using trawls in inshore waters.

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### (iv) Sciaenidae

This family includes the croakers and the drums. Although they are primarily marine, they may also be found in brackish waters seasonally. They attain a maximum size of about 200cm. Most species inhabit sandy and muddy bottoms in coastal areas with large river mouths.

The bobo croaker (*Pseudotolithus elongatus*) moves far offshore to spawn during the rainy season. The long neck croaker (*Peudotolithus elongatus*) attains a maximum length of about 100 cm and is the most important commercial sciaenid in Bayelsa state.

## 2.0 Freshwater Fauna

### 2.1 Introduction

#### (i) Topographic description

Freshwaters constitute 37% of the total water area of the Niger Delta (Ita, 1993) and are contained in rivers, creeks, floodplain swamps and lakes. A greater fraction of the fresh water section lies within Bayelsa State (Otobotekere, 1997a). Mainly a low lying wetland environment, the rivers and creeks of the freshwater zone are interconnected and linked to national and international water-ways outside the delta area (Otobotekere, 1997b). The physical, chemical and biological attributes of the fresh water ecosystem are dynamic and dependent to a large extent on the annual flood regime and its sources.

The flood phenomenon controls the brackish water-fresh water boundary, with resultant changes or shifts in biota especially at the transition zone (World Bank 1995). Flow patterns and rates change with changes in flood levels. The change from fluvial to standing conditions is enhanced by the activities of man through the construction of dams upstream of Bayelsa State and other civil works. Natural phenomena such as erosion and weed encroachment have also altered the fresh water environment, and is accelerated by man's interference with the natural environment (Otobo, 1996).

**(ii) Water systems and types**

The fresh waters in Bayelsa consist of running (lotic) and standing (lentic) water bodies. The lotic waters include the rivers, streams and creeks while the lentic waters are the swamps which may also contain floodplain lakes (Otobotekere, 1997a).

**(iii) Rivers, streams and creeks**

Rivers are linear systems which serve to evacuate water falling on the continental masses towards the coast (Welcome, 1995). In Bayelsa State most rivers run in a north-south direction and discharge into the Atlantic Ocean or through creeks that join estuaries of larger rivers (Otobo, 1996b). The Nun and Forcados River which are distributaries of the Niger River constitute the main sources of fresh water input in Bayelsa State. Extending from the apex of the Niger Delta, the two fan out and empty into the sea or are connected to other rivers and rivulets before emptying into the sea. Other fresh water rivers arise from marsh swamps towards the bottom of the fresh water zone. River levels in the fresh water section are determined by the annual flood.

Fresh waters in the tropics generally have conductivity values less than 900  $\mu\text{m}/\text{cm}$  (Courant, *et al*, 1985). They however, fall into the "black" and "white" types based on Sioli's classification. In Bayelsa State three water types are recognisable including black, white and clear waters (Courant, *et al*, 1981; Dahlin *et al*, 1985). White waters which are hard and derived from the Niger River system predominate. Black and clear waters occur as small streams in high forest areas that are cut off from the Nun-Forcados system especially in the dry season and early flood. These waters are found off the Apoi Creek westwards to the Ramos River (Powell, 1997a). They are soft and lack a molluscan fauna (Powell, 1995). The different water types influence the distribution, diversity and density of organisms (RPI, 1985; UNI. IFE, 1987).

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### **Swamps**

Fresh water swamps are complex environments and occur on floodplains behind rivers and in barrier islands. In Bayelsa State two main types are identified including the Tidal fresh water or "marsh forest", swamp and the inland or flood forest swamp (Powell, 1997b). The "Marsh forest" swamp is almost permanently waterlogged and lies to the south of the flood forest swamp zone within the fresh water tidal area. Inland of the "marsh forest" swamp, the flood forest swamp is a zone characterised by annual inundation of large expanses of forest by the Niger flood. In the dry season the soil dries out (Powell, 1997a). More than 400 floodplain lakes at various stages of gradation were enumerated in Bayelsa State (Otobo and Alagoa, 1990).

The flora and fauna of fresh water swamps are very diversified. Important economic species of timber, and non-timber forest products are associated with the fresh water swamps and their adjoining land areas. Floodplain lakes and pools and other inundated areas are the main sources of fish production in fresh water areas and are believed to be more productive than the rivers (Scott; Otobo, 19986; Alfred-Ockiya and Otobo, 1990). These areas are also believed to harbour some species of endangered wildlife (Otobo, 1990). Several uses were recommended for the floodplain lakes depending on their physical and morphological characteristics. They could be used for aquaculture; managed under improved conditions or developed for tourism (Wokoma, and Otobo, 1988; Isaac - Harry and Alagoa, 1988).

### **2.2 Major exploited species**

Holistic investigations of fresh water fauna are few, the key ones being the RPI (1985) and University of Ife (1987) studies. Reports of these groups centred more on the different river sections or water types. The distribution, abundance and diversity of organisms are presented in relation to river sections or water types. Besides these, few individuals have investigated fresh water systems in the state (Powell, 1982; Otobo, 1986; 1995; Elakhame, 1995).

The major exploited species are the fishes (*Pisces*) and shrimps (crustaceans). Majority of the molluscs are of no economic importance beside being vectors of disease parasites (University of Ife, 1987). Recently the clam (*Egeria radiata*) has become important in the white waters especially in tidal fresh water areas (Powell, 1993; Otobo, 1996b).

The fish species known from the fresh waters of Bayelsa State have been presented by Leveque, *et al*, 1991 and Powell, 1993. The fish fauna consist of 196 species belonging to 105 genera and contained in 46 families.

Table 5.3. Fresh water shrimps occurring in Bayelsa State

**Family: Atyidae**

- 1 *Atya gabonensis*
- 2 *Caridina africanus*

**Family: Palaemonidae**

- 3 *Desmocarid trispinosa*
- 4 *Macrobrachium dux*
- 5 *Macrobrachium felicinum*
- 6 *Macrobrachium macrobrachion*
- 7 *Macrobrachium vollehovenii*

### Biology of commercially important species

Several species are taken in the artisanal catch but relatively few species are of commercial importance. The families of most commercial importance include Clupeidae, Mormyridae, Citharinidae, Claridae, and Cichlidae.

#### Family - Clupeidae

The fresh water clupeids are small sized pelagic river fishes and are of economic and ecological importance.

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They are cheap sources of protein to rural inhabitants and form a link in the aquatic food chain between zooplankton and larger fishes (Otobo, 1997, Otobo and Imevbore, 1979; Otobo, 1995). *Pellonula leonensis* and *sierrathrissa leonensis* are of commercial importance with the former widely exploited with small meshed gill nets mainly by women and children. The latter occurs more seasonally and is exploited by means of the local *atalla* lift net. Both clupeids are more or less annual fishes and their effective exploitation is essential for their proper utilisation. They feed on zooplankton and form food for a wide variety of other fishes.

### Family - *Mormyridae*

Several species of Mormyrids occur in the fresh waters of Bayelsa State. Mainly river fishes, they are bottom dwellers and migrate to the flood plains to spawn and may be retained within the swamp or flood plain lakes. The species of commercial importance are *Mormyrus rume* and *Hyperopisus bebe*. Few species can grow to large sizes. Generally, the mormyrids have small scales, tiny eyes, narrow gill openings with the opercular bones hidden beneath a layer of skin and have small mouths (Reed, et al, 1967; Holden and Reed, 1972). The feeding habits of the mormyrids vary ranging from detritus to invertebrates and fishes. The electrical impulses aid the fish in electro-locating objects. Smaller species of mormyrids are suitable as aquarium fish.

### Family - *Citharinidae*

Members of the genus *Citharinus* are most common in the family. Mainly swamp dwellers, they are caught in large numbers in flood plain lakes; but also occur in rivers during the low flood period. They are strongly compressed with terminal or sub-inferior mouths and small cycloid scales that are easily peeled off the skin. The commonest species is *Citharinus citharius* which makes up an important part of commercial catches. *Citharinus* spp. feed chiefly on insect larvae, aquatic plants and plankton. They grow rapidly in the first year reaching up to 80-120 within a few months.

### Family - Clariidae

Members of this family have broad, flattened heads that are rough and granular with characteristically wide mouths. The pectoral fins are preceded by strong barbel spines but the dorsal fins are devoid of spines. The anal fin extends from the anus to the base of the tail. They have accessory air breathing structures located close to the gills that enable them to survive in poor oxygen conditions or out of water for long periods of time (Holden and Reed, 1972). Two genera *Clarias* and *Heterobranchus* are important, the latter is distinguished by the possession of an adipose fin. *Clarias* constitutes a significant catch of the swamp fishery. Both genera are omnivorous and feed virtually on everything found in the water including insect larvae, snails, fruit, crustaceans, worms, fish etc. Several species of *Clarias* have been described and their identification is very difficult. Two species of *Heterobranchus* are more commonly known in the area. They are caught mainly in the receding flood with trigger hooks.

### Family - Cichlidae

This family includes several hundred species of fresh water period fishes and form a great fraction of fish fauna in Africa (Reed *et al*, 1967). The species of importance in Bayelsa's fresh waters are *Tilapia zilli*, *Sarotherodon qalileus* and *Oreochromis niloticus*. All the species grow large enough to be important food fish and contribute to the commercial catch of artisanal fishermen. They are also important for aquaculture. The three species have wide food range with *Tilapia zilli* feeding on coarse vegetable matter while *Sarotherodon qalilaeus* and *Oreochromis Niloticus* feed on planktonic organisms. Cichlids generally practice parental care. *Tilapia* are substrate breeders while *Sarotherodon* and *Oreochromis* practice mouth breeding.

### Conclusion

The fresh water environment consists of running and standing waters contained in rivers, streams, and swamps. Mainly of low conductivity, the rivers are classified into "white", "black" and "clear" waters. The swamps

## **The Environment**

are classified into "marsh swamps" with waterlogging all year round, and "forest swamps" with annual draining of the surrounding forest. The dynamics of fresh waters are under the influence of the annual flood. These waters contain several species of finfish and shellfish some of which are of commercial importance and contribute to the economic well-being of the rural population.

## **B. THE PEOPLE**

## CHAPTER SIX

# TRADITIONS OF ORIGIN

*Ebiegberi Joe Alagoa*

### 1. Introduction

The diversity of languages spoken in Bayelsa State provides some indication of the diversity of ethnic communities living side by side in it. The linguistic classification outlined by Williamson & Efere (Chapter 7) does confirm the predominance of the Ijo nationality, but shows diversity of dialects even within this family. The group of Ijoid languages, is thus subdivided into:

- (1) Nembe-Akaha, comprising the dialects of Nembe and Akaha (Akassa)
- (2) Izon, comprising 19 dialects, namely, Bumo (Buma, Bomo), Tarakiri (East), Tarakiri (West), Oporomo (Oporoma), Olodiama (East), Basan (Bassan), Apoi (East), Ogboin, Ekpetiama, Gbarain (Gbaran), Kolokuma, Tungbo, Ibeni or Oyakiri (Oiakiri), Kabou (Kabo, Kabowei), Kumbo (Kumbowei), Mein, Ekeremo (Oporomo, Operemo), Iduwini.
- (3) Inland Ijo, comprising Biseni (Buseni), Akita (Okordia), and Oruma (Tugbene).

In addition to the Ijoid languages, Bayelsa State also has two groups of languages of the Benue-Congo family, namely, languages of the Edoid group, and the Central Delta group. The Edoid group has been subdivided into:

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- (1) Southern Edoid, comprising speakers of Isoko in six communities of Sagbama Local Government Area, and the speakers of Urhobo in Ofoni.
- (2) Delta Edo, comprising the Epie-Atissa, and the Zarama.

The Central Delta group of languages in Bayelsa State comprise the Ogbia subdivided into the Oloibiri, Anyama, Agholo (Kolo), the Kugbo, and Abureni (Mini).

The historical origins of each community as they have been recorded in their own oral traditions will be outlined in a geographical coverage from west to east. Thereafter, an attempt will be made to interpret them and relate them to the evidence of other sources, namely, linguistics, archaeology, and palynology.

## II. Community Traditions

The accounts have been derived mainly from *A History of the Niger Delta* (Alagoa 1972), with only a few updates. This presentation, therefore, reveals, with others in this book, the poor state of our present research and knowledge of Bayelsa State. We are, however, able to provide basic information on the majority Ijoid communities as well as on the Delta Edoid and Central Delta, but not on the few Isoko and Urhobo settlements separated from their fellows in Delta State.

### 1. Iduwini

The Iduwini occupy the stretch of coast between the Forcados estuary in Delta State, and the Pennington River in Bayelsa State. The presence of Ijo in this locality was attested by the Portuguese pilot, Pereira (circa 1508). The Forcados estuary was already a centre of international commerce attracting Itsekiri, Yoruba, Ijo and the Portuguese. But the Ramos River, in the centre of Iduwini country, was not yet a place of trade, although reported to be densely populated, and communicating by large

canoes with the hinterland. The Iduwini port of Aghoro (Agoro), was to become a centre of the overseas slave trade in later centuries.

According to Iduwini oral traditions, the town of Amatu in Bayelsa State was the place out of which all other settlements originated, many moving westward across the Ramos towards the Forcados. However, the town of Orobiri and its related settlements did not derive from Amatu, and are known by the collective name of Kou.

In addition to its participation in the overseas trade, and mention in the Ginuwa traditions of the Itsekiri, concrete evidence of Iduwini external relations is provided by the bronzes to be found at Amatu. Horton (1965:83) saw four bronze bells "in the shrine of Suogbosu" (Suo Egbesu), national god of the Iduwini, hung round the neck of a wooden figure representing Suo Egbesu. These bronzes suggest importation, possibly from Benin or a related source, but the institution of the *pere* or priest of Suo Egbesu remained distinct from the Benin political system. The office was purely religious, the priest being appointed directly by the god, forbidden to travel outside Iduwini territory, especially northwards outside the saltwater delta into the fresh water zone.

These traditions call for further study among the little known Iduwini of Ekeremor Local Government Area.

## 2. Ekeremo (Operemo, Oporomo)

Some Ekeremo settlements are in Delta State, the rest being in Ekeremor Local Government Area of Bayelsa State.

Ekeremo traditions trace the origin of the eponymous ancestor, Ekeremo, to Oporoma (Oporomo), in Southern Ijaw Local Government Area. The quarter in which Ekeremo was leader was driven out by the Angiama ward. Ekeremo first settled at Oru-Ekeremo, from which the present Ekeremo settlements of Amabilo, Ndoro, Ekeremo, and Ogbe-Ijo (Delta State), were founded. The large town of Ojobo (Ozobo) in Delta State was founded from Amabilo, the seat of Ekeremo Egbesu, the national god.

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The worship of Ekeremo Egbesu unified the group, through attendance of all communities at the annual festival at the shrine in Amabilo. It also establishes the historical relationship with Olodiama (East and West), which also have traditions related to Oporoma, and both of which also possess Egbesu cults.

### 3. Oyakiri (Oiakiri, Beni, Ibeni)

Oyakiri settlements are widely scattered over Sagbama and Ekeremor Local Government Areas of Bayelsa State.

According to Oyakiri traditions recorded by Fellows (1930), the original ancestor was a man named Ijaw (Ijo), who lived at Benin and moved to Aboh on the Niger. His son, Orumo, was driven from Aboh at the death of Ijaw. Orumo founded Toru-Ibeni, and his son, Oyakiri, moved into the Kunu Creek to found Ayama-Ibeni. The group eventually derived its name from Oyakiri, whose sons founded the component towns of the group. The alternative name of Ibeni or Beni, apparently belonged to Oyakiri's wife, and mother of the group.

The migrations out of Ayama-Ibeni apparently destroyed any corporate religious or political organisation. According to Fellows (1930), a priest of Ibeni Egbesu used to organise annual festivals from a shrine in the town of Adagbabiri until it was destroyed by a British force in 1911. No priests had been appointed up to 1930, and not all the settlements had returned to attend the festivals even prior to 1911. In recent times memory of Ibeni Egbesu was generally dim or lost, and the major unifying factors among the Oyakiri were the traditions of common origin and culture.

### 4. Mein

The majority of Mein now live along the Forcados River in Delta State, but the five towns now comprising the Ogobiri Mein in Sagbama Local Area of Bayelsa State constitute an important core group.

According to one influential tradition, the eponymous ancestor, Mein, lived at Benin and moved to Aboh to avoid wars. Mein again left Aboh with a large following due to conflicts, and settled at Ogobiri in the

Sagbama-Igbedi Creek. It was here that the major elements of Mein cultural identity were forged, namely, the worship of the god Dirimoagbiya, symbolised by an elephant tusk, and the institution of Mein Okosuwei or Elder, passed on from father to eldest son. In the generation of Mein's grandson, there were new disputes and over-population, leading to emigrations out of Ogobiri. Kalanama became leader of the Akugbene Mein, Ngbile of the Ngbilebiri Mein at Kiagbodo, and Ogbolu, of the Ogbolubiri Mein at Ogbodobiri. Only a minority were left at Ogobiri.

The movement into the Forcados area posed new challenges to the groups that moved. One was the need to create a new institution in place of Mein Okosuwei, which apparently coincided with the title of *pere* or priest. These groups sent emissaries to Benin to acquire new bronze insignia of authority to create new political power bases under the title of *pere*. The groups eventually came to exercise influence over the overseas trade along the Forcados River through the late sixteenth through the nineteenth centuries.

### 5. Tarakiri (West)

The western Tarakiri are widely spread out in Sagbama and Ekeremor Local Government Areas of Bayelsa State and in Delta State.

According to Tarakiri traditions, the eponymous ancestor, Tara or Tarakiriowei, was a brother of the founders of the Kolokuma and Opokuma. Their father, Ondo, lived at Benin, but fled to Aboh, and eventually to the site of the present Ogboin town of Amatolo in the Sagbama-Igbedi Creek. The Kolokuma and Opokuma left the Tarakiri at this site for the Igbedi end of the Creek. The Tarakiri were then attacked by the Mein of Ogobiri, and forced to move, first to Oruassa near Angalabiri, and finally to Orua. The shrine of Sene, the national god of the Tarakiri, is to be found at Toru-Orua, the waterside settlement.

The frequent movements of the Tarakiri have brought them into contact with many other groups. For example, the Tarakiri towns of Ofoni (in Sagbama Local Government Area), Oduophori and Odorubu (in Delta

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State) are Urhobo-speaking. The Urhobo groups of Owha, and Ughelli in Delta State also recount traditions of origin from Tarakiri.

The exercise of central authority over the dispersed settlements of the Tarakiri is not practicable. But, according to Fellows (1932), the Orukarowei, Chief Priest, could summon meetings of the whole Tarakiri at Orua. The Tarakiri have also been publicised by the publication of Clark's *The Ozidi Saga* and of his play, *Ozidi*. There is evidence of the wide-ranging cultural contacts of the Tarakiri in the number of versions of this saga across the Niger Delta extending as far east as Nembe.

### 6. Kumbowei (Kumbo)

The headquarters of Sagbama Local Government Area is located at the home community of the *pere* of Kumbowei, namely, Sagbama (Agbedi), but only one other settlement of the group, Owounbiri, is placed along with it in Bayelsa State. All the other towns of the Kumbowei group are in Delta State.

According to the oral traditions of the group, its founder, Kumbowei, was the brother of Kabowei, both being closely related to the Gbaramatu of the Escravos River (Delta State), and Gbaran (Gbarain) of Yenagoa Local Government Area in Bayelsa State. We note that the female national deity of the Kumbowei, namely, Kumbowei Ziba, is paralleled by the female deities of the Kabo and of the Gbarain, namely, Gbaran Ziba, and Kabo Ziba.

Sagbama, the home of the *pere* is further distinguished by being one of the few Niger Delta sites where caches of ancient bronzes are to be found. The provenance, history and significance of these bronzes require further study. The existence of a *pere* at Sagbama possessing bronze insignia, and apparently supported by the cult of a national female deity did not concentrate political power more than in neighbouring groups. Thus, when the British consul, Alexander Bedford arrived in the area in 1884 to sign treaties of protection, he found it necessary to sign independent treaties with Agoloma and Angiama as well as with Sagbama.

### 7. Kabowei (Kabo, Kabou)

The Kabowei group is divided almost equally between the Sagbama Local Government Area of Bayelsa State and Delta State, its principal town, Patani, being located in Delta State.

According to Kabo and Kumbo traditions collected by Rutherford (1929), the Kabo, Kumbo, and Gbaran all came out of a single settlement in the Kabobulou Creek founded by Okita, son of Oproza (founder of Gbaramatu *ibe* on the Escravos River). When Kabo, Okita's first son, succeeded his father, he made things difficult for his brothers Kumbo and Gbaran. Gbaran moved out first to Taylor Creek, followed by Kumbo who moved only a short distance away to the mouth of Sagbama Creek.

In the time of Kabo's son Obodangha, and of Obodangha's son Eleme, the Kabo also began to move out of Kabobulou Creek. The Kabo reacted to a false rumour of an impending European slave raid by damming the creek, thus diverting the flow into the current Forcados River. This transformed the advantage previously enjoyed by the Kabo as owners of the major highway, to the Mein who now became dominant in the overseas trade as occupants of the banks of the Forcados River. The Kabo also began to break out of the Kabobulou Creek. First, Elemebiri (Ofonibeingha) fought the Mein, and established on the Forcados, followed by Patani, Asamabiri, and Ekperiwari.

The *pere* moved to Patani, but because of the dispersal, each settlement gained greater autonomy. In the event, the religious authority of the priest of Kabo Ziba became more relevant than the political authority of the *pere*.

Some Kabo contributed migrants to Ogo (Owha-Urhobo), Odoni (Tarakiri), and Okparabe (Urhobo). But the inhabitants of Aven in the Kabobulou Creek apparently came from Epie-Atissa in Yenagoa Local Government Area of Bayelsa State.

### 8. Kolokuma

The Kolokuma share a common ancestor with the Tarakiri (West) and the Opokuma. He has been named variously Ndo, Indo, and Ondo, and

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derived variously from Benin (Newington 1938) and Ile-Ife (Owonaro 1949). He eventually settled within the Igbedi Creek. The ancient site of Agadagbabou on Wilberforce Island is named as one early place of origin. Another old site was Orubou or Oruamatoru. The 'sons' of the eponymous ancestor of the Kolokuma, named in various versions of traditions as Kolokumaowei, Kala-Okun, and Aluku, eventually led the people out of the Igbedi Creek into the Nun River.

Of the identified nine lineages or *dani* that came to be established on the Nun, five have been named as founded by sons of Kolokumaowei without variant accounts of origin, namely, Egbebiridani, Isedani, Ofodani, Oloudani, and Opidani. The other four lineages have variant versions naming outside places of origin. Thus Egbedani is stated to have been founded by Egbe, "son of Uge and grandson of Mein, the founder of Mein clan", Osumadani by "Eweli, an emigrant from Awka in Ibo land"; Abadani from Ayama in Tarakiri (East); and Burudani from Awka.

The use of the term *dani* is peculiar to the Kolokuma, and has not been satisfactorily explained. But more significant is the ordering of the lineages in a prescribed order of precedence or seniority at the *yengidie* ceremony as follows.

1. Burudani
2. Egbedani
3. Abadani
4. Isedani
5. Osumadani, Opidani, Ofodani, and Egbebiridani

Increasing the complexity of the institution, it is stated that Ofodani is "an imaginary *dani*" created in memory of the last son of Kolokumawei who had died young; Opidani is also no longer in existence, having migrated to Apoi (East); and Egbebiridani also disappeared in a catastrophe or absorbed into other *dani*.

The pre-eminent position accorded Burudani apparently derives from the fact that priests of Kolokuma Egbesu were chosen from this lineage

from the time of settlement at Orubou, and recently from the settlements of Oloubiri and Foubiri. Similarly, Egbedani owed its second place ranking to the fact that priests of the god Okpotu, "one of the principal (if not the chief) idols" of the Kolokuma was chosen from the lineage (Owonaro 1949: 20,23). The worship of Okpotu could, indeed, have preceded the ascendancy of Kolokuma Egbesu.

Kolokuma territory served as a highway of movement up the Niger and into the Niger Delta down the River Nun. The Kolokuma established relations with Aboh and other Igbo groups up the Niger as well as with Awka and other groups in the Igbo hinterland. Kolokuma relations with Ijo groups within the Niger Delta have been wide and diverse.

### 9. Opokuma

Opokuma traditions run parallel to those of Kolokuma, Opokumaawei or Opu-Okun being the senior brother of Kolokumaawei or Kala-Okun. Indeed, Opokumaawei moved out of Agadagbabou and the Igbedi Creek into the Nun ahead of the Kolokuma. Opokumaawei first settled at Ofonitoru, but later founded the principal town of the group, which eventually took the name of his giant son, Oko, and became Okowari. Variant traditions even credit the foundation of Okowari to another son of Opokumaawei, Ise.

The Opokuma were joined on the Nun by immigrants from Ikibiri (Eketiama) to found Akaranbiri, from Oyakiri (Ibeni) to found Gbaranbiri, and from Ogobiri Mein to found Oyobu.

The Opokuma apparently first worshipped the god Egbelekwe, which they abandoned for Opokuma Egbesu (Newington 1938 : 10).

### 10. Epie-Atissa

The Epie-Atissa occupying the neighbourhood of Yenagoa, the Bayelsa State capital, speak a Delta Edoid language, along with the Zarama, and the Engenni and Degema (Udekama) of Rivers State. Their traditions indicate migrations from Edo (Benin), and the Urhobo/Isoko region of Delta State, to the Engenni area; from there to the Epie Creek from the dispersal centre of Yenizue-Epie, to the Atissa Creek opening unto the

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Nun River, for example, to Onopa from Ikibiri (Ekpetiama), and Swali from Tombia (Ekpetiama); and from internal migrations within the area, for example, to Famgbe (Atissa) from Amarata (Sorgwe 1990). In the process, they have incorporated Ijo, Ogbia and other elements.

The comparative diversity of places of origin is evident from the fact that 15 villages tell traditions of Engenni origin, 6 villages Ogbia origin, 5 Ijo and 1 village recounts traditions of Odual origin:

*Ogbia*: Igbogene, Kpansia, Ogu, Edepie, Yenaka, Opolo.

*Ijo*: Onopa and Swali (Ekpetiama), Ikolo (Kolokuma), Ekenfa (Oruma), Yanagoa (Aguobiri, Oporoma)

*Odual*: Biogbolo.

On balance however, Ijo influence predominates, and the Ijo name for the group, Atissa, has become incorporated into the community name as Epie-Atissa. Indeed, the Epie-Atissa acknowledge Ijo political affiliation.

### 11. Gbaran (Gbarain)

The traditions of origin of the Gbaran (Yenagoa Local Government Area) are best taken along with those of the Gbaramatu, Arogbo, Kabo, and Kumbo. These would suggest an original point of departure from Gbaran town in the Apoi Creek, westwards to Oproza on the Escravos, and an eastward rebound from there through Kabo/Kumbo and Kolokuma territory to Okotiana in the Taylor Creek (Gbarantoru).

According to Gbaran traditions, each of Gbaranowei's sons founded the towns of Okotiana, Ogboloma, Agbia, Okolobiri, Koroama, Obinagha, Nedugo, and Polaku. Polaku at the mouth of Taylor Creek was probably settled after July 18, 1854, when Baikie (1856:39-40) named the Creek after the member of his crew who mistook it for the River Nun, and directed the ship into it. They did not report a village at the site.

Gbarain is unified through the worship of Gbaran Ziba. They gather each July at Okotiana to celebrate the first fruits festival, *uziye*, and a fishing festival at the pond, Odiodi.

### 12. Zarama

Zarama (Yenagoa Local Government Area) occupy the interior of Taylor Creek along with the Okordia, and Buseni, possibly prior to the arrival of the Gbaran who occupy the rest of the Creek outwards to its mouth. The earliest recorded Zarama traditions stated that the Zarama "claim to have come from Ado-Benin" (Newington 1938:11). Zarama is classified as a dialect of Engenni, a Delta Edoid language in Rivers State.

### 13. Okordia (Akita)

This small community in Taylor Creek, Yenagoa Local Government Area, is classified as Inland Ijo along with Buseni and Oruma. According to Newington (1938), Akida, founder of Okordia, migrated from Ado-Benin to Nembe, to Oruma, and eventually to "Aguobiri the senior quarter of Okordia". Nembe traditions specify the site from which the migration took place as Oboloma, thus suggesting an early period in Nembe history.

### 14 Buseni (Biseni)

Newington (1938:11) recorded traditions claiming the founder of Buseni to be brother "of the same father" with Akida, founder of Okordia. Nembe and Oruma traditions similarly assign both Okordia and Buseni to the same migration from Oboloma through Oruma to the Taylor Creek.

### 15. Ekpetiama

Ekpetiama (Yenagoa Local Government Area) traditions begin with the cliché of Ado/Benin origin, but it was itself the location of a major dispersal centre named in various versions as Opuanbou, Opuanbiri, Isomabou/Isomobou, or by the name of one of its offshoots, Ikibiri. Pressure from Tarakiri (East), in particular, of Oweikorogha, apparently triggered some of the migrations out of the area. According to some traditions, sons, of the founder, Ekpetiamowei, moved out of Opuanbou to found Tombia, Bumodi, Agudama, Akabiri, and Gbaranтору.

Other migrants of Ekpetiama are claimed to have founded Seimbiri *ibe* in Delta State, Tombia (Kalabari) in Rivers State, Swali and Onopa in

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Epie-Atissa, Assay (Isoko), and Okiri/Umoru (Aboh) in Delta State. There are also traditions of affiliations to Nembe which might have influenced the support of Tombia and Agudama for Nembe in the 1895 war against the Royal Niger Company.

The Ekpetiama group is held together by these interlocking traditions of common origin, and by their common worship of Amadosu with shrines at Tombia and Bumodi.

### 16. Boma (Bumo, Bomo)

The Bumo of Southern Ijaw Local Government Area cite the dispersal centre of Obiama as their place of origin. The founders of Bumo and Tarakiri (East) being sons of Obi, migrated from Obiama in the neighbouring Okoroma area of Nembe Local Government Area, to found their separate groups.

The twelve sons of Bumo founded the twelve component towns of Bumo. However, variant traditions of incorporation of immigrants from outside also exist. Peremabin, for example, is claimed to have been founded by a son of Okoroma (Nembe Local Government Area), and Ikiabiri by an immigrant from Ogboin *ibe*.

Migrants out of Bumo were similarly incorporated into Oruokolo (Brass Local Government Area), Kamatoru/Sangana (Akassa) from Igbematoru, into Ekowe (Isoko, Delta State) from Ekowe/Ekeu (Bumo).

Bumo towns developed individual religious contacts with neighbouring communities such as the cult of Ekine at Seibiri related to Ogidiga of Nembe.

### 17. Bassan (Basan)

The Bassan of Southern Ijaw Local Government Area is a group with disparate traditions of origin, evidenced also by the diversities of dialect indicated in chapter 7. Thus, "Gbaraun and Koluama speak some what differently from the rest and from each other".

Accounts at Furupa claimed origin from "Arogbo-Furupa", conflicting with the claim of the Furupagha of Edo State to origin from "Ijo

Furupagha", that is, Bassan Furupa. The conclusion must be that Bassan Furupa no longer remembers a prior place of origin. Ezetu claimed Oporoma migrants; Koluama received Ossiama (Oyakiri/Beni) migrants; and Ukubie claimed Iselema (Itsekiri) migrants through Lobia/Lubia. On the other hand, Lobia/Lubia received migrants from Okpoama (Brass Local Government Area), and itself founded the offshoot settlements of Azuzuama and Akparatubo. Ekeni claims kinship with Ke (Kalabari, Rivers State), and possibly with Beletiem, Egwema, and Oruokolo in Brass Local Government Area.

The Bassan have been particularly proficient as middlemen in the trade across the Niger Delta between the Itsekiri of the Western Delta and the Nembe and Kalabari of the Eastern Delta. They distributed in the Eastern Delta, Itsekiri pots and cassava meal, *ifenia*, first introduced into the Western Delta by the Portuguese from Brazil in the seventeenth century. The Bassan were also expert at the manufacture of salt, *ljo fu*, from the aerial roots of the red mangrove, a variety of salt in great demand in the internal trade.

### 18. Apoi (East)

The region of the Apoi/Kalasuo Creek in Southern Ijaw Local Government Area was a major centre of dispersal. Each of the Apoi settlements tells a different tradition of origin.

The settlement identified as Apoi was originally composed of nine wards, including Ogboinbou, Apoi, Okotoaza, Umgboluama, and Inikorogha. Apoi was founded by Kalasuo, whose sons founded Kemebiama, Kolokologbene, Ogboinbiri, Sampou, and Azama.

The largest settlement in the group, Gbaraun (composed of Egbesubiri, Kapabiri, and Aguobiri), tells traditions of origin from Oporoma, and eventually absorbed the remnants of the old settlements of Igwebiri, Umgboluama, and Inikorogha.

The reputation of the Apoi area as a dispersal centre is sustained by the following outward migrations: to Aguobiri (Tarakiri-East) from Aguobiri (Gbaraun, Apoi); to Opu-Akassa from Kassama (Apoi); to Apoi (west) in Ondo State from Okotoaza and Umgboluama wards of Apoi town (Apoi

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East) to Arogbo in Ondo State and Gbaramatu in Delta State from Gberaun town (Apoi East). In the process of these outward migrations, Apoi passed the cults of Egbesu to Arogbo, and of Oborowe to the Apoi (West).

The Apoi, like the Bassari, served as middlemen in the trans-Niger Delta trade. They traded local salt and fish for canoes in the Western Delta Fringe (Akromotoru) in Delta and Ondo States, and canoes and salt eastwards as far as Bonny in Rivers State.

### 19. Oporoma (Oporomo)

Oporoma (Southern Ijaw Local Government Area) was a significant dispersal centre in the Central Niger Delta. Ekeremo (Operemo, Oporoma) in Ekeremor Local Government Area and Olodiama (East) in Southern Ijaw Local Area both recount traditions of origin from Oporoma.

The earliest recorded traditions stated that the founder of Oporoma had 'dropped from a cloud' (Porter 1931:7). Recent traditions derive him from Abo-Berri, following a common Niger Delta cliché. Oporoma, indeed, represents an uncommon claim to autochthony among the Ijo.

All constituents were stated to have been founded by sons of Oporoma, although recent accounts from Angiama claim that its founder had been the father of Oporoma, citing the community drum and cheer title as evidence, namely: *Agi Oporoma*.

The shrine of Boupere, the war god of the Oporoma, is sited at the village of Osokoma, the home of the first priest, Osoko, son of Oporoma. The claim of the Operemo and the Olodiama that their Egbesu cults were derived from Oporoma suggests that Boupere superseded an original cult in Oporoma.

### 20. Tarakiri (East)

Eastern Tarakiri is a comparatively hard-to-reach group in Southern Ijaw Local Government Area. Tarakiri traditions relate them to the dispersal centre of Obiama, along with the Boma, many settlements in Ogbia, in Nembe and Brass Local Government Areas.

The Tarakiri town of Oweikorogha is also reported to have attacked the dispersal centre of Isomabou (Ikibiri, Ekpetiama) with firearms supplied by Nembe and/or Kalabari.

All component settlements are stated to have been founded by sons of Tarakiriwei, and the shrine of Ayama Ziba is located at the "senior village" of Obelele (Newington 1938:9-12). The only reported outward migration is that from Ayama (Anyama) to Abadani in Kolokuma.

### 21. Ogboin

The founder of Ogboin (Southern Ijaw Local Government Area), Ogboin, has been ascribed Ado/Benin origin. Recent traditions named his place of origin to be Orubiribaubolou inside a creek north of Otuan. His sons came out of the creek to found Otuan, Amassoma, and Ogbono (Delta State). A grandson of Ogboin founded Amatolo from Amassoma.

Outside pressure, such as wars against the Kolokuma, Tungbo, Yenaka (Epie-Atissa), Akede (Oyakiri/Beni), and Nembe, tended to hold these competing towns together. The shrine of the national god, symbolized by the *Ogboin* (mango) tree, had been "moved from Otuan to Amassoma" (Newington 1938:12). A number of outward movements have been recorded. Oko, son of Alumu, son of Oboro (founder of Amassoma), son of Ogboin, is reported to have migrated to Okrika in Rivers State to found the old settlement of Okopiri/Okochiri. Migrants also went from Otuan to Ikianbiri in Boma.

### 22. Olodiamia (East)

The traditions of the Olodiamia of Southern Ijaw Local Government Area recorded by Porter (1931:9) derived the founder, Olode/Olodi from Oporoma. His sons founded Ondewari, Olugbobiri, and Ikeinghabiri; and his grandson founded Ikebiri. Ekpa, founder of Korokorosei, was, however, said to have come from Patani (Kabo). Olodiamia (west) in Edo State also derived their founders from Ikebiri, Ondewari, and Olugbobiri.

The cult of Egbesu confirms the link between the two Olodiamia groups east and west. It also links them with Ekeremo (Operemo), another group

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with traditions of migration from Oporoma. Traditions among the Olodiama (East) state that the priests of Boupere in Oporoma used to pay annual visits to the shrine of Olodiama Egbesu at Ikebiri, the place at which the founder of Obotebe in Delta State also learnt to worship Egbesu.

### 23. Ogbia

The Ogbia now have their own local government area, which does not still embrace all of the five sub-groups listed in Chapter 7, namely, Oloibiri, Anyama, Kolo, Kugbo, and Abureni. Nor does Ogbia Local Government embrace the Okoroma who tell traditions of common origin with the Ogbia, but appear in Nembe Local Government Area with whom they have had closer historical ties in the past century and more. For these reasons the Abureni (Mini) and Okoroma have been given separate treatment.

Traditions recorded among the dominant Oloibiri claim that Ogbia, founder of the group, migrated from Benin to Iselema (Warri), to Oromabiri (Nembe), to Oloibiri. (Amangala (1945:3) suggested that Benin/Ijo immigrants were absorbed by an autochthonous nucleus population. This was an effort to take account of variant traditions which were more in accord with the linguistic evidence of Ogbia migration from the Central Delta language homelands to the east.

### 24. Oruma (Tugbene)

According to traditions recorded at Oruma (Ogbia Local Government Area), the founder, Tu, left Oboloma (Nembe) to escape from his enemies. He entered the Kolo Creek at a time when it was still wide and deep, and not yet occupied by the Ogbia that now surround the Oruma. He invited a medicineman to perform rituals which silted the Creek and made it inaccessible to the pursuing enemy.

Tu's sons later settled among the Ogbia at Akaramapolo in Kolo, Imiringi, and in Ibarama. Oruma traditions also recognise the other Inland Ijo speakers, Okordia and Buseni as migrants from Oruma to the Taylor Creek.

### 25. Nembe

Nembe is one of the communities of the Eastern Delta which developed centralised structures able to accommodate peoples of diverse languages and establish stable commercial relations with European nations through the periods of the overseas slave and palm oil trade. The Nembe city-state (Nembe Local Government Area) as well as the towns of Twon and Okpoama (Brass Local Government Area) have traditions of early settlement by Ijo-speaking peoples from the dispersal centre of Obiama.

Nembe grew into a metropolis of up to six wards, with a number of outlying settlements, the most significant of which were Olodiama, Oboloma and Onyoma. In its second period of development, a group of Itsekiri migrants, represented in the traditions as Benin immigrants, arrived with the god, Ogidiga (so named after its priest), and a sacred sword, Ada. The new arrivals were settled at the village of Oromabiri. Their Ogidiga cult eventually provided the means of unifying all the component communities of the city-state through religious ties and sanctions.

Nembe accumulated wealth and power in the period of the overseas trade during which its contacts with its neighbours in the delta, in the Ogbia and Ijo communities along the River Nun and up the Niger were expanded. Its influence within the present Nembe and Brass Local Government Areas was also considerably increased. The complexity of historical relations within the area is highlighted by recent intra- and inter-community crises at Nembe, between Okpoama and Twon, and on Cape Formosa Island

The exigencies of the overseas trade also brought Nembe into commercial, diplomatic and cultural relations with the Kalabari, Ibani (Bonny), and Okrika, as well as into competition for trading areas along the Orashi, and up the Niger to Aboh, Onitsha and Idah. Some of these issues linger in recent disputes aggravated by the exploitation of crude oil in border regions between communities, and the demarcation of local government boundaries etc

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### 26. Mini (Abureni)

The linguistic grouping lists as Abureni, the communities of Agrisaba, Ebala, Idema, Okoroba, and Opume among others. The Nembe term Mini, however, generally excludes Opume or Opomatubu, which is normally grouped as Ogbia, in contrast with the others normally perceived as lying more in the direct orbit of Nembe influence.

Opume traditions, however, vary from those of the Oloibiri group by deriving the Ogbia from original homes in the east rather than from Benin in the west. Opume traditions relate their origins more closely to their Central Delta neighbours to the east, namely, the Abua and Odual, and mention two ancient settlement sites, Ebala and Emeni. Nembe traditions also indicate that there might have been an old trade route passing north from Nembe through Abureni territory.

Indeed, the Elaba and Emeni forests require archaeological investigation as possible dispersal centres, contributing significant cultural elements to the development of Nembe and the surrounding Ogbia region. The reports of caches of bronzes in the depths of these forests lend support to the call for further research in this area.

### 27. Okoroma

The Okoroma group in Nembe Local Government Area represents a set of villages with traditions of origin relating them to Ogbia, but with strong Nembe historical connections. Most Okoroma now speak Nembe as first language and Ogbia as a second language.

According to traditions recorded at Ologoama (Otokoroma), Okoroma, founder of the group, was a son of Ogbia, who migrated with his father from Benin through Iselema (Warri), to Ogbia n'Otokolo (Ogbia island) on the Brass River. He moved north and founded Otokoroma, named Ologoama by Nembe traders after Ologo, son of Okoroma.

The Ogbia affiliations of the Okoroma are with the Anyama Group and with the Oloibiri Group, but most of the settlements now listed as Okoroma were founded in the nineteenth century by Nembe trading chiefs, such as the Tereke settlements, and Dogu-Ewoama (Chief Dogu's New Town).

The intensity of Nembe activities on their main route to the upper Nun and Niger through the Anyama Group can be gauged by the fact that even the original Ogbia towns were given Nembe names which are being replaced by their original Ogbia names only in recent times.

### 28. Akassa (Akaha)

According to traditions recorded among the Akassa (Brass Local Government Area), their ancestor, La, migrated from Kassama in Apoi (East). La settled at Opu-Akassa on the east bank of the Nun River estuary. By the next generation, Opu-Akassa migrants crossed to the west bank which became the centre of Akassa expansion. The descendants of La from Apoi were soon joined by migrants from the neighbouring Boma community of Igbematoru who settled at Kamatoru/Sangana.

The Akassa language is very close to Nembe, but they retain many cultural links to their places of origin in the Southern Ijaw Local Government Area

### III. Theories of Origin

According to Dike (1956:19-30), the Niger Delta was "practically uninhabited" prior to the Portuguese arrival in the fifteenth century. But once the trans-Atlantic trade began, the tribes of the hinterland, "Ibos, Benis, Semi-Bantus, Ijaws, Efiks, Ibibios" "flocked to the coast to do trade". Dike's theory of Niger Delta origins provided for three waves of migration into the region. First, an Ijo wave before the arrival of the Portuguese, possibly from Benin. But Ijo settlements were "just fishing and salt-making villages". Secondly, "the most important movement of populations" between 1450-1800, during which the fishing villages were converted to "city-states", a movement in which the Ibo were predominant. According to Dike, the Ibo, as "enforced or voluntary" migrants, "formed the bulk of the Delta population in the nineteenth century" (Dike 1956: 30).

Dike's theory of the settlement of the Niger Delta was written before local oral traditions were collected on a systematic basis, and were based on the impressions of European visitors at the height of the Atlantic slave

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trade, when Ibo slaves constituted the bulk of slave exports out of the Niger Delta. The local traditions recorded in Alagoa (1972) and outlined in this chapter suggest a different picture.

The only places outside the Niger Delta cited by local traditions as places of origin are Benin, Aboh, Awka, and Ile-Ife. For groups in Bayelsa State, we have the single case of the Oporoma who made an early claim to autochthony. The widespread claims to Benin origin merely reflected the great prestige of the Benin kingdom, and its influence over some of the mainland parts of the Niger Delta. Ile-Ife was cited as a place of origin by persons, such as Owonaro, who learnt that even Benin claimed Ile-Ife origin for their kings. After Benin, of course, Aboh was another place of prestige within parts of the Central Niger Delta, in this case, with more credible evidence of actual historical contacts. But these contacts did not reach the level of providing founding populations, beyond supplying small numbers of immigrants. This was the most likely role also for the itinerant Awka blacksmiths.

The oral traditions of the Ijo groups of the Niger Delta suggest that the periods of their possible first entry into the Niger Delta are so remote that they cannot be remembered in their traditions. The movements that can be remembered and are recounted are mainly traditions of migration within the Niger Delta from one part of it to the other. It is possible to identify a number of primary and secondary centres out of which migrations took place, mainly from the Central Niger Delta:

1. Wilberforce Island on which Ogobiri (Mein) and Ikibiri (Ekpetiama) stand. This island is the location of the ancient abandoned sites of Agadagbabou of the Kolokuma and Opokuma, and Isomabou and Opuanbiri of the Ekpetiama and other groups.
2. The neighbourhood of Oporoma.
3. The region of Apoi Creek close to the coast in Southern Ijaw Local Government Area.

4. The site of Obiama in the Okoroma area of Nembe Local Government Area bordering both Southern Ijaw and Ogbia Local Government Areas.

Oboloma (Nembe), Oruma and Ebala in the Ogbia local government area may be classified as secondary dispersal centres in Bayelsa State.

The prolific linguistic studies of Professor Kay Williamson provide proof that the Ijo did not derive from the Edo (Benin), Yoruba (Ile-Ife) or Igbo. The linguistic evidence clearly shows that Ijo is a distinct language from Yoruba, Edo, and Igbo, and developed within the Niger Delta over a period of over seven thousand years (Williamson 1988:95). Using linguistic evidence over the whole of West Africa, Horton (1995) suggests that the homeland of the Niger Congo languages (of which Ijo, Yoruba, Edo and Igbo were all members) was the south-western Highlands in the watershed of the Senegal, Gambia and Niger Rivers; and the dispersal was by river routes. For the Ijo, this theory suggests the River Niger as the major route of early migration into the Niger Delta in the pre-Christian era. This long period of entry into the Niger Delta would explain the absence of places of origin outside the Niger Delta in the oral traditions.

The disciplines of palynology and archaeology have also provided evidence and suggested concrete dates for early settlement in the Niger Delta. From evidence of farming obtained from cores taken out of a site near Nembe, it has been postulated that "the Niger Delta was probably occupied by about 2,800 Y.B." (Sowunmi 1988:46). The few archaeological excavations carried out in the Niger Delta only at test level also provide early dates which supersede the very recent dates suggested by Dike. The following radiocarbon dates tell the story:

1. Onyoma (Nembe, Nembe Local Government Area)  
AD 1275-1845
2. Ke (Kalabari, Rivers State), AD 800 - AD 1705
3. Ogoloma (Okrika, Rivers State), AD 1200 - AD 1900
4. Okochiri (Okrika, Rivers State), AD 860 - AD 1515

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5. Saikiripogu (Ewoama, Brass Local Government Area) AD 1000 - AD 1600
6. Agadagbabou (Kolokuma/Opokuma Local Government Area), AD 1640 - AD 1730
7. Koroama (Gbaran, Yenagoa Local Government Area), about 16th century AD
8. Isomabou (Ikibiri, Ekpetiama, Yenagoa Local Government Area), AD 1030 - AD 1480.

## **IV. Conclusion**

The oral traditions of the various communities of Bayelsa State are supported by scientific evidence. These communities were settled in the Central Niger Delta several thousand years before the arrival of the Portuguese on the coasts of the Niger Delta in the late fifteenth century. The Portuguese set up trade at centres of population which were already engaged in trade across the Niger Delta and into the hinterland. The trans-Atlantic trade thus merely attached itself to already existing systems to affect and extend them.

The traditions of the communities can, however, no longer remember the histories of millennia of settlement and internal development within the Niger Delta. The traditions can only tell the story of the last millennium. For the rest, we need the support of disciplines neighbouring history, a task that has barely taken off, and needs to be actively encouraged by governments, multi-national corporations, and non-governmental organisations.

## CHAPTER SEVEN

# LANGUAGES

*E. E. Eferè and Kay Williamson*

### 1.0 Introduction

Bayelsa State, created by the Federal Government on 1st October 1996 out of Rivers State, is a multilingual state. This means that it has several languages, whose speakers cannot understand one another if they all use their mother tongue. We shall begin by classifying the languages and their dialects.

### 1.1 Classification of the Languages

Just as each human being belongs to a family, so also each language belongs to a language family. Just as we have close and distant relatives, so languages can be closely or distantly related to one another.

All the languages of Bayelsa State belong to the same phylum, or highest level of linguistic relationship. This phylum is called NIGER-CONGO. It contains a number of families. The two families found within Bayelsa State are IJOID and the BENUE-CONGO branch of the KWA-CONGO subfamily of the VOLTA-CONGO family. Figure 7.1 shows the family tree of the Niger-Congo languages, with emphasis on the Ijoid and Benue-Congo branches.

There are many difference between the Ijoid and the Benue-Congo languages. One is a difference in word order. In all the Ijoid languages, the object comes before the verb, not after it. Thus we say 'They bought fish' as follows:

Nembe	Ein	indi	fe
Izon (Bumo)	Qó	indí	fe
Izon (Kolokuma)	Omíní	índi	feemí
Biseni	Aminí	izi	túbómá
	<i>They</i>	<i>fish</i>	<i>bought</i>

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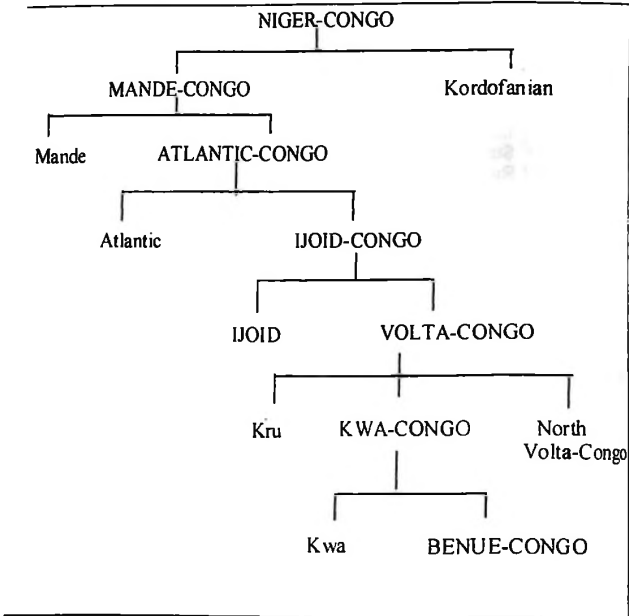


Figure 7.1  
Family tree of Niger-Congo languages, emphasizing families  
found in Bayelsa State (based on Blench, forthcoming)

On the other hand, in the Benue-Congo languages the object comes after the verb. Thus we say:

**Central Delta groups:**

Agholo	A w a	w áágho	mainá
Okorobo	A w o	w áágho	meina

**Edoid group:**

Epie	Egbániye	dẹ	eseni
Isoko	A	dẹ	emeri
	<i>They</i>	<i>bought</i>	<i>fish</i>

## 2.0 The Languages Group by Group

### 2.1 The Ijoid Languages

The Ijoid languages are divided into Defaka and Ijo. Defaka is a tiny language spoken in Rivers State. Ijo is a large language group spoken in Rivers State, Bayelsa State, Delta State, Edo State, and Ondo State. It is divided into East Ijo and West Ijo. East Ijo comprises Nkoro; Kalabari, Kirike (Okrika), and Ibani, all spoken in Rivers State; and Nembe-Akaha (Akassa), spoken in Bayelsa State.

West Ijo is divided into Inland Ijo, on the one hand, and Izon on the other. All of Inland Ijo and much of Izon are spoken in Bayelsa State, but Izon also extends into Delta State, Edo State, and Ondo State. It is thus clear that Bayelsa State has more different forms of Ijo than any other state, since it is home to the Nembe-Akaha part of East Ijo, the whole of Inland Ijo, and the greater part of Izon.

The Ijo languages of Bayelsa State are now listed in more detail.

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### A. Nembe-Akaha (Akassa)

Nembe is spoken in both Nembe and Brass Local Government Area while Akaha is spoken solely in Brass Local Government Area. Speakers of these dialects can understand *ẓon* dialects close to them, such as Bumo, but not those further away.

Nembe is spoken as a first language in towns such as Nembe itself, Okpama, Tuwoŋ (Brass) and Odioma. It is widely used in the churches and the complete Bible, as well as prayer books and hymnbooks, have been published in Nembe. There are also school primers and readers, as well as a Nembe-English dictionary and some translations of English classical works. A work on traditional culture, and a collection of oral traditions with an English translation, have also been published in Nembe. Towns such as Egwema, Liama, Oruokolo (Fununu) and Beletiemma 'speaking a dialect falling between Nembe and Akassa' (Alagoa 1972:131) which has not yet been studied.

Akaha is spoken in the towns of Akassa, Kongo, Minibie, Oginibie, Okunbirin, Okunbiribeley, and Sangana, and the villages of Dubagbe, Foniweitoru, Idebugbene, Isonokubu, and Obogoro. In the *ẓo* area, a town (*ama*) is a politically independent unit, whereas a village (*gbene* or *gbirin*) is a settlement dependent on its founding town. From time to time a *gbene* renames itself; for example, in the Bumo area what appears as Nangigbe on older maps is now known as Nangiama. Sometimes, however, communities maintain their original name, ending in *wari* 'house', *kwari* 'quarter' or *gbene* 'village' even though they have obtained the status of *ama*, an independent town. Towns are grouped into larger units known as *ibe*, commonly but incorrectly translated as 'clan'. We follow Alagoa (1972) in referring to *ibe* and not clans.

## B. Iẓon

Izon (Izon) is the largest language of the Ijo group, and is spoken to the north and north-west of Nembe-Akaha. It comprises a large number of dialects. It is usually assumed that the various towns of an *ibe* speak the same way, but this is not always the case. We now list the *ibe* which are found in Bayelsa State, indicating dialectal differences where known.

1. Bumo (Boma, Bomo), in Southern Ijaw Local Government Area, where almost every town has a slightly different speech form: Diebu, Ekeu and Nangiama, Emete, Eniwari, Fonibiri, Igbematoru, Kianbiri, Kainyabiri, Opuama, Peremabiri, and Polobubu.

2. (East) Tarakiri, in Southern Ijaw Local Government Area, comprising Anyama, Igeibiri, Obololi, Oweikorogha, and Ozezebiri. (Cf. 14 for West Tarakiri).

3. Oporomo, in Southern Ijaw Local Government Area, comprising Aguobiri, Angiama, Luduwon, Oporomo, and Oyonmo (Onyoma).

4. (East) Olodiama, in Southern Ijaw Local Government Area, comprising Ikebiri, Korokorosei, Okpotuwari Okurugini, Olugbobiri, Olugbobooro, Ondewari, Tebidaba, and Umbugini. Note that there is another (West) Olodiama in Edo State.

5. Basan (Bassan), in Southern Ijaw Local Government Area, comprising Azuzuama, Ekeni, Ezeetu, Furupaa, Gbaraun (Gbaran), Koluama, Lubia and Ukubie. Gbaraun and Koluama speak somewhat differently from the rest and from each other.

6. Apoi, in Southern Ijaw Local Government Area, comprising Apoi, Azaama, Kasama, Kimiebama, Kokologbini, Ogboinbiri, and Ukpaturubu. Note that there is another Apoi in Ondo State, which, although of Izon origin, is now Yoruba-speaking and is therefore not listed as an Izon dialect.

7. Ogboin, in Southern Ijaw Local Government Area, comprising Amasoma (Amassoma), Amatolo, and Otuan. The town of Ogbono, in Delta State, also belongs to Ogboin but does not speak Izon.

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8. Ekpetiama, in Yenagoa Local Government Area, comprising Agudama, Akaibiri, Bumoundi, Bumoundi-gbene, Gbarantorubo, Ikibin, and Tombia. Ikiḅiri speaks differently from the rest.

9. Gbarain (Gbaran), in Yenagoa Local Government Area, comprising Koroama, Nedugo-Agbia, Obunagha, Ogboloma, Okolobiri, Okotiama, and Polaku.

10. Kolokuma, in Kolokuma-Opokuma Local Government Area, comprising Ayibabiri, Igbedi, Kajama, Kalama, Odi, Okoloba, Olobiri, Sampou, and Seibokorogha (Sabagreia; note that the anglicized form also includes Okoloba).

11. Opokuma, in Kolokuma-Opokuma Local Government Area, comprising (from north to south) the communities of Abuwari, Gbaran-ama, Ayakoroama, Orubiri, Ofonibiri, Igḅainwari, Gbaranbiri, Oyobu, Akaranbiri, Gbaranbiri, Ayibabiri, Ekpuwari, and Bolouayama. Opokuma speaks the same dialect as Kolokuma.

12. Tungbo, in Sagbama Local Government Area, comprises only the town of Tungbo.

13. Oiakiri (Ibeni), mainly spoken in Sagbama Local Government Area, comprises Bolou-Adagbabiri, Akede, Angalaweigbene, Ayama-Ibeni, Ibeni, Isampou, Isoni, Kunou, Odoni, Ogbosuwari, and Osiama (Ossiama); the towns of Aleibiri and Lalagbene also belong to Oiakiri but are in Ekeremor Local Government Area.

14. (West) Tarakiri, partly spoken in Sagbama Local Government Area, includes Agbere, Angalabiri, Bulou-Orua, Ebedebiri, and Orua. Ofoni is also in (West) Tarakiri and in Sagbama Local Government Area, but speaks Urhobo and not Izon as first language. Anyamasa, Egbemo-Angalabiri, and Isampou also belong to (West) Tarakiri, but are in Ekeremor Local Government Area. Adobu, Odorobu, and Uduophon also belong to (West) Tarakiri, but are in Delta State. Odorobu and Uduophon are Urhobo-speaking. Cf. 2 for East Tarakiri.

15. Kabo (Kabou, Kabowei), partly spoken in Sagbama Local Government Area, includes Adagbabiri, Asamabiri, Ekpenwari, Elemebiri, and Trofani, Abari, Aven, Kolowari, and Patani are also in Kabou, but are in Delta State.

16. Kumbo (Kumbowei), partly spoken in Sagbama Local Government Area, includes Sagbama (Agbedi) and Owounbiri. The towns Agoloma, Agoloma, Apelebirí, and Bulou-Angiama are also in Kumbo, but are in Delta State.

17. Mein is mostly in Delta State, but the following towns are in Sagbama Local Government Area: Agoro, Agorogbene, Ogobiri, and Okunbiri.

18. Ekeremo (Oporomo), mainly spoken in Ekeremor Local Government Area, comprising Amabulou, Ekeremo, Obirigbene, Peretorugbene, Tamogbene, Toru Ndoro, and Foutorugbene. The towns Bolou Ndoro, Egrangbene, Ekogbene, Isaba, Ogbe, Orugbene, and Ozobo are in Delta State.

19. Iduwini, spoken in Ekeremor Local Government Area, comprising Afougbene, Okun-Agoro (Aghoro), Amatu, Azatiton, Lutugbene (Letugbene), Odimodi, Ogbotebe, and Tinou.

Publications have been made in a number of dialects of Ijo. The majority of these are in Kolokuma, which has an Izon-English dictionary, a prayerbook with hymns, a number of primary school textbooks, and a course-book for beginners in the language. Bible selections and Bible stories have been published in Bumo, Oporomo, and Kolokuma. Modern poems and a school reader have appeared in (East) Olodiama. Kolokuma is used for regular news broadcasts.

### C. Inland Ijo

Inland Ijo consists of three small speech-forms:

#### 1. Biseni

Biseni is spoken in Yenagoa Local Government Area. It includes the towns of Akpede, Egbebiri, Kalama, Tein and Tuburu.

#### 2. Akita (Okordia)

Akita is also spoken in Yenagoa Local Government Area. It comprises the towns of Agbobiri, Akumoni, Anakiri, Ayamabele, Ikarama and Kalaba.

#### 3. Oruma

Oruma is spoken in the towns of Oruma and Ibelebiri in Ogbia Local Government Area.

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These three speech-forms differ a good deal from one another, and may be regarded as distinct although closely-related languages. Speakers of Biseni and Akita tend to speak Kolokuma for communication with their neighbours. There are no publications in any of them.

### **2.2 The Benue-Congo Languages**

The Benue-Congo languages of Bayelsa State fall into two groups, EDOID and CENTRAL DELTA. Edoid belongs to West Benue-Congo and Central Delta to East Benue-Congo.

#### **2.2.1 Edoid**

Edoid has four subgroups. Two of these, Southwestern Edoid and Delta Edoid, are represented in Bayelsa State.

### **A. Southwestern Edoid**

#### **1. Isoko**

Six Isoko-speaking communities are located within Sagbama Local Government Area of Bayelsa State, although the great majority of Isoko speakers are in Delta State. The six communities are Anibeze, Kenan (Canaan), Igule-Ogbokiri, Abuetor, Osifo and Osekwenike, located on the Forcados, Nun, and Niger rivers.

There are a number of publications in Isoko, including the New Testament and some school readers.

#### **2. Urhobo**

One community in Sagbama Local Government Area speaks Urhobo, namely Ofoni. All other Urhobo-speaking communities are located in Delta State.

Urhobo has a number of publications, including a dictionary and some school readers.

### **B. Delta Edoid**

#### **1. Epie-Atisa (Atissa)**

This language is spoken in Yenagoa Local Government Area. Atisa is spoken in Agbure (Agbura), Akaba, Bebeleberi, Famgbe, Ikolo, Ogbogoro, Ogu, Onupan, Opuama, Ovomu, Swali, Yenagoa, and Yenaka. Epie has several dialects, but the divisions are not yet clear; the towns are Amarata, Azikoro, Agudama-Epie, Biogbolo, Edepie, Ekenfa, Ekeki, Etegu, Igbogene, Kpansia, Okaka, Okutukutu, Opolo, Ovelemini, Yenegue, Yenizue-Epie, and Yenizue-gene. There is a reader for schools.

## 2. Zarama-Engenni

Zarama, spoken in the four communities of Epie, Nyambiri, Iwen, and Afinieki, is a dialect of the Engenni language, which is otherwise spoken in Ahoada West Local Government Area of Rivers State. The Zarama people prefer to call their speech-form (or lect) Zarama-Engenni.

It is spoken in Yenagoa Local Government Area. There are publications in Engenni, including the New Testament and some school readers, but the dialect is slightly different and the Zarama people are in the process of adapting the materials to their own dialect.

### 2.2.2 Central Delta

The Central Delta languages of Bayelsa State form a cluster of closely-related languages, often known under the general name of Ogbia. They can be grouped as follows.

1. **Oloibiri Group**, comprising Abobiri, Akipilai, Akoloman 1, Akoloman 2, Amakalakala (Emakalakala), Otu-Abi (Ewema), Ewoi, Itokopiri, Ogbia Town (Omom-Ema), Oloibiri, Otu-Aba, Otu-Abagi, Otu-Abula 1, Otu-Abula 2, Otu-Akeme, Otu-Aka, Otu-Egila, and Otu-Ogidi. All these towns are in Ogbia Local Government Area and speak similarly. The three towns Otu-Ogu (Oguama), Okoroma, and Ekpeinkiri (Ekperikiñ), which are grouped with them politically, are in Nembe Local Government Area and speak Nembe as their first language with Ogbia as a second language.

2. **Anyama Group**, comprising Anyama (Otu-Okpesi), Ayakoro, Ema-Dike, Epebu, Iwo-Ama, Okiki, Okodi, Ologi, Ologi-Oghe, Onu-Ebum, Otu-Aganagu, Otu-Edu, Otu-Ege, Otu-Egwe, Otu-Ekpein, Otu-Obhiy, Otu-Ogori, and Otu-Okpoti. All these towns are in Ogbia Local Government Area and speak similarly. The speech-forms of the Oloibiri and Anyama groups are more similar to each other than either is to Agholo (Kolo), Kugbo, or Abureni.

3. **Agholo (Kolo) Group**, comprising Emeyal 1, Emeyal 2, Ebebele, Imiringi, Kolo 1, Kolo 2, Kolo 3, and Otu-Asega. All these towns are in Ogbia Local Government Area and speak a language which is called Agholo or Kolo. Oruma and Ibelebiri, noted above as speaking an ɛɔ language, are politically but not linguistically in the Kolo group. See also the Kugbo group.

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4. **Kugbo Group**, comprising Akani, Amurukeni, Amuruto, and Emago. Amurukeni is in Ogbia Local Government Area and is politically grouped with the Kolo group. The other three towns are currently in Abua/Odual Local Government Area in Rivers State.

5. **Abureni Group**, comprising Agrisaba (Obo-Emeke), Idema and her satellite settlements, Okoroba (Okorobo) and her satellite settlements, and Opume. All these towns speak similarly. Their own name for their language is Abureni; it has previously been known to linguists by the Nembe name Mini. Opume is politically part of the Oloibiri group and is in Ogbia Local Government Area. Idema and her satellites are in Ogbia Local Government Area. Agrisaba is in Brass Local Government Area. Okoroba and her satellites are in Nembe Local Government Area.

### 3. Language Development

The first writing in languages of Bayelsa State was by missionaries, and later by church pastors and teachers. The first missionary centre was Nembe, with later ones in Kaiama and in Southern Ijaw. Christian publications in Nembe were used in the Southern Ijaw, Ogbia, Epie-Atissa, and Zarama areas as well as in Nembe and Akassa. In the northern part of the State, Kolokuma also became widely used, in Biseni, Okordia, and Epie as well as in Kolokuma-Opokuma.

After the creation of Rivers State, the Rivers Readers Project was set up. Its aim was to produce readers and supporting materials, such as orthography booklets and Teachers' Notes, for the primary schools in all the local languages of the then Rivers State. In what is now Bayelsa State, readers were produced in Epie-Atisa, Nembe, Northern Izon, Southern Izon, and Ogbia. Most of these readers are now out of print, and need to be updated and reprinted. It is important for the Government of Bayelsa State to consult with the language communities and decide how best to develop the languages of the State. It has been repeatedly shown that children develop best when they are taught in a language they understand, and that a firm grasp of reading and writing their first language is the best basis for later learning other languages, such as English.

There is also an Association of Rivers and Bayelsa States Languages (ARBSLA), formerly the Association of Rivers State Languages, which exists to promote the development of languages in the two states. The language communities of Bayelsa State should either play their full role in this association or form their own one, to help to bring language issues to the attention of government and ensure that just and democratic decisions are taken on the proper use and recognition of the State's languages.

#### 4. Communication

Although quite a number of languages are found in the State, communication is not usually a problem. People tend to learn their neighbours' languages at least enough for everyday needs. In particular, the smaller languages are distributed around the large Ijo group in such a way that their speakers tend to learn the variety of Ijo next to them for wider communication; thus speakers of Biseni, Akita, and Epie-Atisa tend to learn the Kolokuma dialect of Izon for wider communication. In the past speakers of Ogbia tended to learn Nembe for the same reason, although today they prefer to emphasize their own language.

Isoko and Urhobo speakers tend to understand and use Western Izon dialects to communicate with their Izon-speaking neighbours, and reciprocally many Izon speakers in Sagbama and Ekeremor Local Government Areas understand Isoko or Urhobo.

\* Where speakers do not understand their neighbours' language, the next option is English for the well-educated and Pidgin for the less educated.

#### 5. Pronouns

Table 7.1 shows the similarities and differences between the languages by comparing the pronouns. The languages that are closely related to one another have forms that look very much alike, while those not closely related have forms that are less alike.

Table 7.1 shows that the forms in Nembe, Bumo, Kolokuma, and Biseni are very much alike, but are markedly different from the rest. For example, they all distinguish 'he' and 'she', unlike the Benue-Congo languages. This shows the close relationship between these speech-forms, which all belong to the Ijo language group. The other languages, which are Benue-Congo languages, all have 'm' in their word for 'I' while none of the Ijo languages do. Similarly, the Agholo and Okorobo forms are alike, indicating their close relationship; both are members of the Central Delta group. Epie and Zarama-Engenni, which are both Delta Edoid, likewise show a close similarity to each other, and a somewhat less close one to Isoko, which is a Southwest Edoid language.

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Table 7.1. Pronouns compared in Ijo and Benue-Congo Languages

Language	'I'	'you (sg.)'	'he'	'she'	'we'	'you (pl.)'	'they'
Nembe	eri	eri	ori	ara	wamini	omini	ein (human) á (non-human)
Bumo	éri	iyéří	erí	ára	wómíní	ómíní	óómíní
Kolokuma	arí	ári	orí	áraú	wóni	ómíní	ómíní
Biseni	ari	ári	owié	áreé	wámíní	ámíní	ámíní
Okorobo	ami	ánwa		ina	iyar	inyin	awo
Agholo	amí	anwá		ená	iyar	inyin	awa
Epre	mé	wó		oyi	eni	baa	egbániye
Zarama- Engenni	mí	bó		oki	eni	baa	igúwa
Isoko	me	ma		hwe	hwa	oye	aye

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## CHAPTER EIGHT

# POPULATION PROFILE

*Asi Akpoghomeh and Atei M. Okorobia*

### **Introduction**

The functions of government are varied and complex especially in modern societies. The bottom line is to raise the quality of life of its people by providing adequate educational opportunities, good water, electricity, medical care, sufficient food, housing, transport and communication facilities, employment opportunities, as well as ensuring healthy economic environment for business. To actualize these, government needs to know the number of the expected beneficiaries. Thus, for effective planning government and private individuals alike must have a fairly accurate knowledge of the country's population, its rate of growth, its distribution among the various towns and local government areas, its composition by sex, age, ethnic and educational groups. On the other hand, population has been identified as the source of a nation's greatest resource because among other uses, it is the source from which the potential skills acquired in any country are mostly drawn.

### **Historical Perspective**

The earliest population estimate by government which had some bearing on the Bayelsa area was in 1915. It covered the defunct Brass Division covering about 3,056 sq. miles in area, with a population of 96,000 persons (Alagoa 1964) representing most of Bayelsa State, except that the 1975 nation-wide reconstitution of states and local government areas by the Obasanjo regime brought in the old Sagbama (now Sagbama and Ekeremor) Local Government Areas (Tamuno and Alagoa, 1989). This, no doubt, increased the land mass and demographic strength of the area.

In 1921, another government estimate put the population figure at 55,654 with a 10% error margin. No figures were given for the area in the

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1931 census. It is common knowledge that the exercise was misunderstood to be a taxation measure and many people refused to show up for a count. The 1953 census gave the old Brass Division (Bayelsa minus Sagbama and Ekeremor LGAs), a total population of 126,954 persons (Alagoa 1964: 153). This census split the figure (that is 126,254 persons) into clans and native administration areas as follows:

Clans and N.A. Areas	Number of People
Nembe	24,297
Ogbia	20,720
Epie-Attissa	9,335
Eastern Ijaw	72,002

Source: E. J. Alagoa, *The Small Brave City State*, p.6

The above, which were the major groups in the old Brass Division still represent the main groups in Bayelsa State, perhaps the only group whose label may be misleading is what is referred to as 'Eastern Ijaw'. In the context it is used here, it refers not to the Ijo of the Eastern Delta, but to the groups located to the west of Nembe. This group is, itself, composed of a number of sub-groups including Bomo (Bumo), Ekpetiama, Gbarain, Apoi, Ikibiri Ogboin, Opokuma, Kolokuma, Okordia, Kabo, Tungbo, Oyakiri, Kumbo, Mein, Iduwini, Zarama and Tarakiri, among others. We are aware there are other groups that are sometimes subsumed under their more dominant neighbours either for reasons of administrative convenience or linguistic and cultural affinities, but which in recent times have been quite assertive of their peculiarities, and emphatic on the need for the world to recognize them in their own right.

### **Ancient and Modern Population Movements in Bayelsa**

The people of Bayelsa were, and are very migratory in nature. This is, itself, the result of a number of environmental, economic and historical factors and developments. Starting from pre-historic times, it is possible to identify these factors and developments to include:

(i) **Occupation**

This is perhaps the oldest factor that has made many Bayelsans to migrate beyond the boundaries of the state. Today, Bayelsans are found either as temporary or permanent residents in several states of Nigeria and neighbouring African countries particularly Lagos, Ondo, Edo, Delta Rivers, Akwa Ibom, and Cross River States in Nigeria; and Benin Republic, Togo, Sierra Leone, Ghana, Liberia, the Camerouns, and Equatorial Guinea. In recent times, especially from the colonial days, the desire to participate in the modern sectors of the economy has also served as a motive force for emigration across both state and international boundaries.

(ii) **Intra- and inter-communal hostilities**

A popular stereotype in the oral traditions of Bayelsa peoples is the constant reference to disputes arising among members of different groups as a result of inequitable sharing of *wan fulo*, *duiker* pepper-soup, after successful communal hunting expeditions. The traditions have it that such disputes had often resulted in physical clashes, and ultimately, to migrations.

(iii) **Slave Trade**

The Atlantic slave trade was both a boom and a bane to the Bayelsa area, demographically speaking. While the inter-communal raids within the area led to the depopulation of communities like Egwema, Liama, Beletieama in the Nembe area, as well as some Ogbia and Izon communities, the same trade led to the growth of Bassambiri, Ogbolomabiri, and other Nembe villages which saw the trade as an opportunity for acquiring able-bodied men and women from the Igbo and other hinterland communities to build personal followership, chieftancy houses, and to man trading canoes. The abolition of the slave trade and its substitution with the legitimate commerce in palm produce intensified, rather than diminish this practice. The growth occurred largely because immigration outstripped emigration.

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### (iv) Official Policies

Various policies and programmes initiated by government also had remarkable impact on the population density of Bayelsa. Some of these were of limited duration while others have endured till date. The foundation of Port Harcourt to take over the role played earlier by the seaports of Akassa, and Twon-Brass as well as the encouragement given directly and indirectly to the many factories that had done business in Bayelsa territory all led to movements out of the area to Port Harcourt and other towns and cities like Warri, Calabar and Lagos.

### (v) The World Wars

The two world wars of 1914 and 1939- 1945, were to give added impetus to outward migration from Bayelsa. Some of these migrants never returned either because they died in battle, or of the influenza pandemic that resulted from it. Others simply preferred to make the cities they had come to know during the wars, their permanent or semi-permanent abodes.

### (vi) The Nigerian Civil War

The Nigerian Civil War of 1967-1970 had similar impact on the population history of Bayelsa. But then, at about the same time the Rivers State was created by the General Yakubu Gowon administration. An unintended consequence of this event, was the concentration of population in Port Harcourt which was developed not just to serve as the political headquarters but also as the commercial nerve centre of Rivers State. While the pull of Port Harcourt caused many parts of the old Rivers State, especially the riverine area, to lose the most virile segment of their population to the 'Garden City' as Port Harcourt came to be known, the area of the present Bayelsa State suffered most severely. Many of the social, economic and political structures and institutions that were to attract people to an area were located in or around Port Harcourt, or at least in the mainland part of the old Rivers State. This encourage-

rural-urban migration and the depopulation of many rural towns and villages.

The attempt by the Chief Melford Okilo' administration between 1978 and 1983 to reverse this unpalatable trend through his policy of decentralisation did not survive his tenure.

The creation of Bayelsa State on October 1, 1996 is, therefore, perhaps an attempt to repopulate the erstwhile depopulated Bayelsa area. Like all other states, civil servants and other categories of workers, businessmen, politicians, etc. who would have had little or nothing to do in Bayelsa are now bound to move in to the state. Already, the impact of this state-induced urban-rural migration from Port Harcourt, Abuja, Lagos and other cities in and outside Nigeria has begun.

### **Population Size and Distribution**

Population size is influenced largely by two factors, namely migrations and natural increase, that is, the difference between birth and deaths. On the other hand, the factors that affect the spatial variation of population are more varied and these include geographical factors viz. topography, climate and vegetation; historical; economic, social, political and cultural factors (Udo 1979; 1982; Clarke 1979; and Ojo 1979).

### **Population Size**

The total population of Bayelsa State in 1991 was 1,121,693 made up of 584,117 (52.1%) males and 537,576 (47.1%) females. The distribution of this population between the eight local government areas (LGAs) is presented in Table 8.1. Southern Ijaw LGA with a total population of 267,371 persons representing 23.8 percent of the total population was clearly the most populous. With over 100,000 persons less than the Southern Ijaw figure, Ogbia LGA emerged as the second most populous LGA in the State; specifically, it had a total population of 159,369 persons representing 14.2 percent of the state population, while Nembe LGA recorded a total of 153,821 persons (13.7%). Brass and Ekeremor LGAs each had a population of over 120,000 persons, while Sagbama and

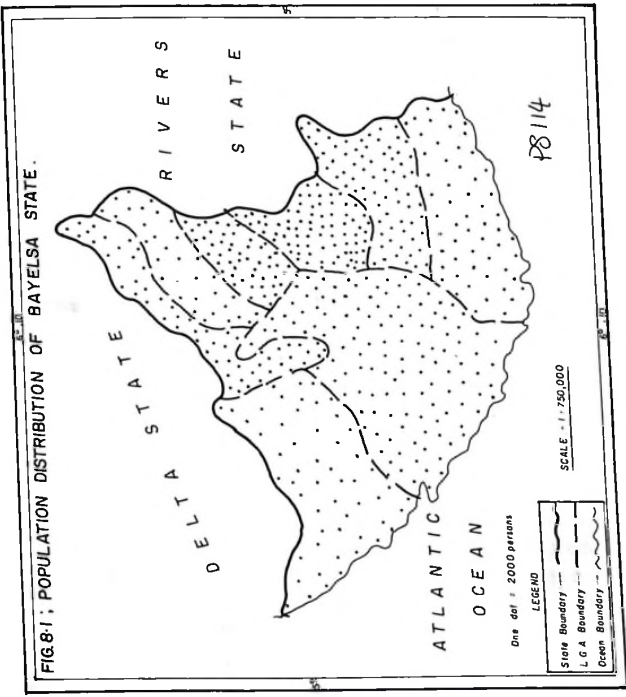


Fig. 8.1. Population Distribution of Bayelsa State

Yenagoa each recorded over 100,000 persons. The LGA with the smallest population was Kolokuma/Opokuma. This LGA had 66,115 persons which represented only 6.0 percent of the state population

### **Population Distribution**

Figure 8.1 shows the population distribution in Bayelsa State. The total land area of the state is large compared with the size of the population. The bulk of the territory consists of swamps and creeks. Farmland is limited in the area which happens to produce the bulk of the oil wealth that Nigeria relies on for foreign exchange earnings. According to the National Population Commission (1997) the sparsely settled Niger Delta is also a net exporter of population to the other parts of the country.

### **Population Density**

Population density is the spatial distribution of the population in relation to the land area of the state.

The population densities among the LGAs in the state is presented in Table 8.2 and Figure 8.2. The most densely populated LGAs in the state are Ogbia and Yenagoa with densities of 272 and 237 persons per sq. km respectively. The crude population density for three of the LGAs is less than the state average of 122 persons per sq. km. These LGAs include Kolokuma/Opokuma (92), Southern Ijaw (90) and Ekeremor (63). These three LGAs account for over 60 percent of the total land area of the state and about 41 per cent of the state population.

The sparse population of these LGAs could be explained by their very difficult terrain. As a matter of fact the bulk of these LGAs, except Kolokuma/Opokuma, lies in the lower Niger Delta which is characteristically flooded all year round. On the other hand, the two most populous LGAs are located in the upper Niger Delta where the lands are relatively drier when compared to the lower Niger Delta.

The above analysis notwithstanding, the crude population density in spite of its popularity as an index of population - resource relationship, is not a perfect measure because it does not give an indication of the

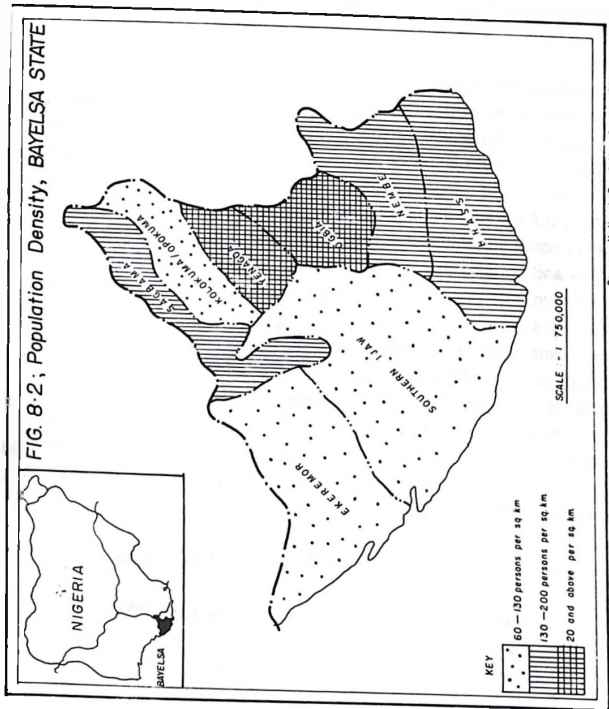


Fig. 8.2. Population density, Bayelsa State

productivity of either the population or the resource base. Thus the overall density for Bayelsa State, like the crude density for the LGAs, does not tell us much about the great variation in density that exists at the town and village levels.

### **Population Structure**

The population structure reflects the age and sex composition of the population. Information on age and sex composition is very important, especially for the evaluation of the quality of the enumeration, and for the description and analysis of several types of socio-economic and demographic data. For instance, the balance of the sexes affects the socio-economic relationship within a society. Moreover, separate data for males and females are often required for various types of planning. In the same vein, information on age is important not only for the demographic analysis of mortality, fertility and migration, nuptiality, but also for development planning. Any discussion of a society's educational needs, labour force participation, family composition, political participation, migration, etc. would not be complete without information on age. For the above considerations have made age and sex data indispensable and critical items in censuses. The above notwithstanding, collection of information on age contains some serious problems (Ewbank 1976, Shryock and Siegl 1976) viz.

- (i) A general tendency to state age in figures ending in certain preferred digits
- (ii) A tendency to exaggerate ages of older persons
- (iii) Ignorance of exact ages
- (iv) Subconscious aversion to certain numbers
- (v) Carelessness in reporting and recording age
- (vi) Wilful misrepresentation arising from social, political, economic and personal motives.

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### Age Structure

This section examines the population by age and sex structure. Figure 8.3 shows the population pyramid of the state. This figure shows the several characteristics of the age structure typical of African countries and most developing societies. First, almost 50% of the population are children aged between 0-14 years. Second, the percentage of old people aged 65 years or more is very small, 4.7%. The working population (15-64 years) is made up of 47.3 percent of the population. Fig 8.3 gives a graphical representation of the distribution of the population by age and sex (age/sex pyramid). The broad based age structure which is typical of most developing countries is characteristic of high fertility and high mortality. The figure however shows a balance in the sex distribution.

### Dependency Ratio

Age dependency ratio is a measure of the relative size of the non-working age population (those under 15 years and those 65 years and above) to that of working age population (those between 15 years and 64 years). It indicates the burden on the working age population in having to support the non-working age population. The higher this ratio, the higher the number of persons each worker has to support as regards education, food, shelter, health etc. The Young Dependency Ratio, Old Dependency Ratio and the Total Dependency Ratio for Bayelsa State is given below:

$$(1) \text{ Young Dependency Ratio} = \frac{\% \text{ pop. aged 0-14}}{\% \text{ pop. aged 15-64}} \times 100 = 102\%$$

$$(2) \text{ Old Dependency Ratio} = \frac{\% \text{ pop. aged 65 and above}}{\% \text{ pop. aged 15-64}} \times 100 = 9.9\%$$

$$(3) \text{ Total Dependency Ratio} = (1) + (2) = 111.9\%$$

The dependency ratio for the state is quite high considering the fact that 100 persons in the productive ages (15 - 64) have to support about 112 persons as regards their education, health, food, shelter etc. Incidentally, the state ratio is higher than that of Nigeria. This implies that Bayelsa

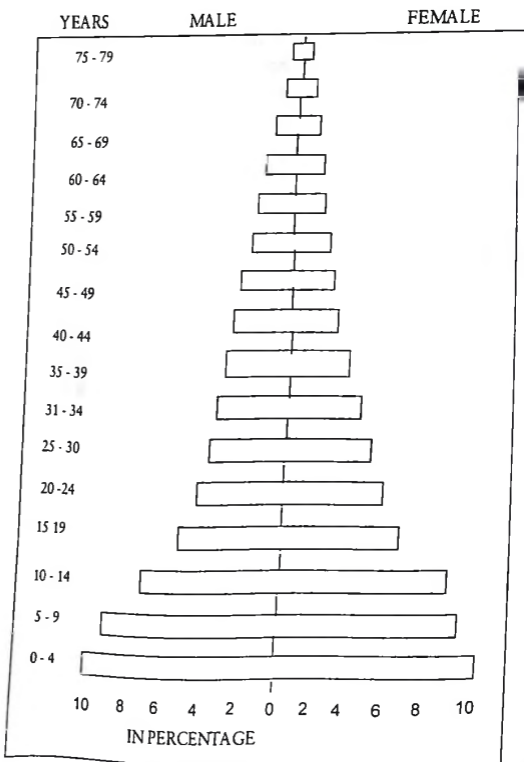


Fig. 8.3: Population Pyramid of Bayelsa State  
 (Source: National Population Commission (1991))

## **The People**

State is one of the states with high dependency ratio. This has implications for social and economic development of the state in the sense that individuals may have smaller disposable income when compared to persons in other parts of the country. This will no doubt hamper development initiatives from individuals.

### **Median Age**

The average age in a population is usually measured by the median, which indicates the age above which half of the population is found and below which is the other half. The median age of the state population is about 16 years. The population of the state can, therefore, be described as "youthful". This implies a lot of pressure will be on government in the provision of education and health facilities.

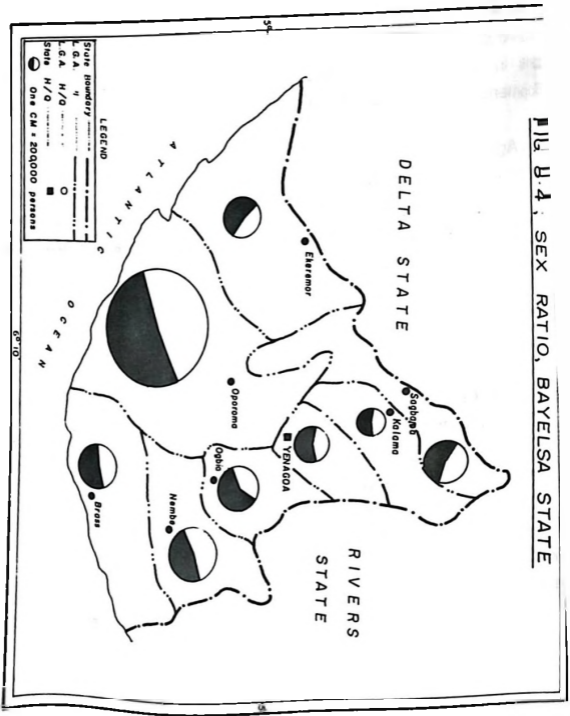
### **Sex Ratio**

The number of males and females in any population is rarely the same since fertility, mortality and migration operate differently to produce inequalities in the sex ratio. For instance, more boys than girls are born but males tend to have higher death rates, and migration, on the other hand, is age and sex selective (Goldscheider, 1983; Lattes 1989).

Sex ratio is defined as the number of males per 100 females in a population. Table 8.1 and Figure 8.4 present the sex ratio for the LGAs. The Table and Figure show that the sex ratio for the state (109) is clearly in favour of males. This is the trend across the LGAs in general. Ogbia has the highest sex ratio among the LGAs, with a ratio of 135 males to 100 females. Other LGAs with high sex ratios include Yenagoa (110) and Southern Ijaw (110).

The only LGA with a lower sex ratio is Nembe and with only 88 males to 100 females, showing a sex ratio in favour of females. The high sex ratio in the state generally and in all the LGAs except Nembe, manifest a high level of male in-migration or female out-migration. The reverse might have been the case for Nembe LGA.

**FIG. 8.4: SEX RATIO, BAYELSA STATE**



**Fig 8.4: Sex ratio, Bayelsa State**

## The People

### Literacy

Literacy, according to the United Nations, is defined as the ability of a person to both read and write, with understanding, a short simple statement on his everyday life. Due to the non-availability of data specifically for Bayelsa State, the following discussion shall use data for the old Rivers State which included Bayelsa State. It is hoped that this will at least, shed some light on the phenomena in Bayelsa State. Table 8.3 shows the age-specific literacy rates for both males and females for Bayelsa and Rivers States. The literacy rate for the two states ranged between 52.2 percent in age group 6-9 and 94.8 percent in age group 15-19. From 52.2% in age group 6-9, the distribution peaked at 94.8 percent in age group 15-19, and thereafter declined steadily with increasing age. The much lower literacy rate among those aged between 6 and 9 can be explained by the fact that the majority of children in this age group are still in the primary stage of education for those who attend school. Moreover, some of these children do not start any formal schooling until they get to the next age group. The steady decline as age increases most probably indicates a progressive improvement in the level of literacy in the state over the years.

It is pertinent to note the Bayelsa and Rivers States recorded figures that were above the national figure in all age categories and so we gladly conclude that the literacy level among the Bayelsa and Rivers population is quite high.

### Economic Activity Status

Table 8.4 presents the parameters of employment and activity status of the population of Bayelsa and Rivers States. With a labour force population of 1,399,639, Bayelsa and Rivers State together accounted for 5% of the country's labour force and ranked fourth after Lagos (2,531,452 or about 9% of the country's labour force); Oyo (1,522,697 or 5.5%), and Ondo (1,473,269 or 5.3%). This status of Bayelsa and Rivers States no doubt reflects the position of the two states as an important

economic centre in the country in addition to their large immigrant, and active population.

Table 8.4 also shows the employment rate, and that is the ratio of employed persons to the labour force. Data show that Bayelsa and Rivers State had the least employment rates of 87.4 percent. All other states except Imo (88.2%) recorded employment rates higher than 90%. The national average was 95.3%. The National Population Commission (NPC) has associated the high employment rate with the loose definition of employment and lack of distinction between the nature of work, that is, between full-time and part-time against disguised and under employment.

The unemployment rate for Bayelsa and Rivers States was the highest in the country in 1991. The rate was about three times that of the national average. According to the National Population Commission (NPC), unemployment rate is the component of the labour force who are seeking for work. The situation with Bayelsa and Rivers States could be associated with the industrial position of the states and the recent efforts towards further industrialization in the area. This may have encouraged the steady rise in the number of migrants into Port Harcourt, with the aim of seeking employment.

### **Conclusion**

The existing pattern of population distribution in Bayelsa State is the outcome of the interplay of such factors as physical, economic, socio-cultural, historical, cultural and political factors. Population, it has been observed, tends to concentrate in Ogbia and Yenagoa LGAs. Planners must avoid over concentration of infrastructural facilities and amenities in Yenagoa, the state capital, in order to avoid mass inflow of people from the surrounding settlements to the state capital. This can be done through well planned and articulated integrated rural development.

Table 8.1  
Population of Bayelsa State by LGAs

	LGA	Total	Male	Female	Sex Ratio
1.	Southern Ijaw	267,371 (23.8%)	139,821 [52.34%] (23.9%)	127,550 [47.7%] (23.7%)	109.6
2.	Ogbia	159,369 (14.2%)	91,459 [57.4%] (15.7%)	67,910 [42.1%] (12.7)	134.7
3.	Nembe	153,821 (13.7%)	72,227 [47.0%] (12.4%)	81,594 [53.0%] (15.2%)	88.5
4.	Brass	126,912 (11.3%)	65,440 [51.6%] (11.2%)	61,472 [48.4%] (11.4%)	106.5
5.	Ekeremor	124,279 (11.1%)	64,637 [52.0%] (11.1)	59,642 [48.0%] (11.1%)	108.4
6.	Sagbama	119,759 (10.7%)	62,163 [51.9%] (10.6%)	57,596 [48.1%] (10.7%)	107.9
7.	Yenagoa	104,061 (9.3%)	54,554 [52.4%] (9.3%)	49,507 [47.6%] (9.2%)	110.2
8.	Kolokuma/ Opokuma	66,115 (6.0%)	33,816 [51.1%] (5.8%)	32,299 [48.9%] (6.0%)	104.7
	Total	1,121,693	584,117[52.1]	537,576[47.9]	107

Source: National Population Commission (1997) Census '91 Final Results: Rivers State.

- ( ) Percentage distribution between Local Government Areas (LGAs)  
[ ] Percentage distribution between sexes

Table 8.2  
Percentage Land Area and Population Densities among  
LGAs in Bayelsa State 1991

	LGA	% Land Area	Persons/sq km Pop. Density
1.	Southern Ijaw	32.2	90
2.	Ogbia	6.4	272
3.	Nembe	9.4	179
4.	Brass	10.0	132
5.	Ekeremor	21.4	63
6.	Sagbama	8.0	163
7.	Yenagoa	4.8	237
8.	Kolokuma/Opokuma	7.8	92
	State	100	122

Source: Computed from field data

Table 8.3  
Age-specific Literacy Rate, Rivers/Bayelsa States

	Age Group										Total
	6-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50+	
Rivers & Bayelsa	558,235	638,165	549,980	412,662	371,140	293,757	204,029	174,800	114,612	286,641	3,604,101
Pop. in age group	293,101	602,465	521,614	371,342	316,221	228,895	151,237	117,402	73,657	138,277	2,814,211
Literature pop.	52.2	94.4	94.8	90.0	85.2	77.4	74.1	67.1	64.3	48.2	78.1
Literacy rate	42.0	77.2	75.0	66.5	61.5	53.9	52.7	44.2	43.9	28.9	56.7
Literacy rate (national)											

Source: The 1991 Population Census of Nigeria (1997)

Table 8.4  
Parameters of Employment for Rivers and Bayelsa States 1991

	Total Pop.	Total Pop 10* Years	Labour force	Employed labour force	Employment Rate	Unemployment Population	Unemployment Rate
Rivers & Bayelsa State	4,309,557	3,045,866	1,399,639	1,223,425	87.4	176,214	12.6
Nigeria	88,992,220	60,147,873	27,936,926	26,624,926	95.3	1,311,603	4.7

Source: Extrated from Table 7.9A in The 1991 Population Census of Nigeria

## C. CULTURE

## CHAPTER NINE

### VISUAL ARTS

*Martha G. Anderson*

Residents of Bayelsa State spin fascinating tales about underwater towns and celebrate their watery environment by staging regattas, fishing festivals, and masquerades that bring fantastic aquatic beings to life. Their art and rituals reflect the Niger Delta's fascinating history as well as its unique riverine landscape. Reports of warfare and piracy feature prominently in both local histories and the accounts of early European visitors to the region. Images of spirits wearing top hats and wielding weapons recall a time when clan war gods conferred titles on proud warriors; other types of spirit emblems – including bronze bells, tableware, and plastic dolls – recall the region's long involvement with foreign and domestic trade.

Although numerous traditions have been abandoned or altered as the population has become increasingly Christian, Bayelsa State has many vital art forms, as well as a rich artistic heritage. The following account focuses on the arts of the Central Ijo and their immediate Western Ijo neighbours. The Nembe Ijo have similar forms and practices, although their masking societies correspond more closely to those of the Kalabari, an Eastern Ijo group in neighbouring Rivers State. The arts of other peoples living in the region have yet to be documented, but promise to be as richly varied as those of the Ijo.

#### **The Creator**

According to traditional Ijo beliefs, human beings originate as disembodied spirits, or *teme* in the realm of the creator, Wonyinghi ('Our Mother'), and return there after dying. While awaiting birth, people often establish relationships with nature spirits (*Oru*, or *Orumo*, 'the spirits'), who may later wish to join them on earth. Before leaving the spirit world, each

their demands, but water spirits (*bini oru*) tend to be playful and beneficent in comparison to the volatile and malicious bush spirits (*bou oru*) who roam the forests. Water spirits who have assumed human form tend to be beautiful, fair skinned beings with long, flowing hair; bush spirits tend to be grotesquely ugly, deformed, or handicapped creatures, with very dark skin and messy hair. The two even specialise in the benefits they offer: people sometimes approach water spirits to ask for children and money; they consult bush spirits to ask for protection and for help, especially in warfare and wrestling competitions.

The types of offerings, songs, rituals, and images the spirits require also reflect their domains. For example, bush spirits, who live on land like people and resemble them more closely, eat local produce; water spirits, who live in a largely foreign environment, have acquired a taste for imported food. Bush spirits wear dark blue or black to signify strength and invincibility; water spirits typically use white to reflect their spirituality and purity. Carvings depict bush spirits as proud, irascible warriors; water spirits tend to forgo figurative images, preferring found objects or trade goods as emblems.

A custom observed in Olodiana *ibe*, and perhaps elsewhere, confirms the role of sculptures in providing spirits with bodies. A ceremony is held when an infant cuts his first tooth to celebrate his attainment of human status; a comparable rite is performed when a figure's teeth are carved to mark its transformation from a log of wood into a receptacle for a spirit. The prominent mouths on most Ijo carvings reflect the importance of this essential equipment, for a spirit's ability to accept offerings of food and drink makes it receptive to human attentions.

Ijo shrines are not simply static collections of objects and images, but often the focus of ritual performances that can rival masquerades as entertainment. Shrine renewals, which typically occur in the dry season, often involve drumming, singing, dancing, and possession; some include elaborate drama and masquerades. Although his shrine is in ruins, residents of Olugbobiri in Olodiana still talk about the spectacular rites staged for Isobowei, which attracted crowds of onlookers. Simply raising a

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person seals an agreement with Wonyinghi that not only determines the course of their lives, but even specifies the way they will die.

Wonyinghi has little to do with daily affairs, yet appears to be more responsive to human appeals than other African creator deities. Some communities perform festivals in her honour. In addition, diviners sometimes address problems attributed to an unfortunate destiny by performing a ritual called *zibe bari* in an attempt to revoke the original agreement and replace it with a more favourable one. Wonyinghi lives so far off in the sky that no one knows what she looks like, so shrines like the one at Lobia in Bassa sometimes represent her with a type of stool and stool combination that can also serve for other spirits. Songs portray her as an old woman dressed in white, a colour associated with purity, wealth, and the spirit world.

## Nature Spirits

Most people lose contact with the spirit world and must consult diviners in order to learn why they are experiencing problems like infertility, ill health, or bad fortune. Diviners, whose nature spirit contacts enable them to 'step' into the spirit world, may attribute problems to other agents, including ancestors and witches, but most rituals focus on nature spirits, many of whose shrines are devoted to them, and virtually all carvings depict them. The Ijo even claim to have acquired masquerades, dances, and funerary rites from these anti-social, but creative beings.

Although people and spirits live together in Wonyinghibou, they have separate domains on earth, where the latter can move about as disembodied spirits or materialise as people, animals, and objects. Some spirits call on human sponsors to acknowledge relationships stemming from Wonyinghibou by providing them with emblems or shrines; those who are believed to be exceptionally powerful can command large numbers of followers and demand extensive rites.

The contrasting appearance and behaviour of two types of nature spirits reflect differences in the way the Ijo perceive their respective domains: both can kill people for trespassing on their territory or resisting

their demands, but water spirits (*bini oru*) tend to be playful and beneficent in comparison to the volatile and malicious bush spirits (*bou oru*) who roam the forests. Water spirits who have assumed human form tend to be beautiful, fair skinned beings with long, flowing hair; bush spirits tend to be grotesquely ugly, deformed, or handicapped creatures, with very dark skin and messy hair. The two even specialise in the benefits they offer: people sometimes approach water spirits to ask for children and money; they consult bush spirits to ask for protection and for help, especially in warfare and wrestling competitions.

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## Culture

divination ladder to establish contact with a spirit can have sensational results, for some are said to exert so much force that they can pull their ladders across wide rivers, bearers and all.

### Bush Spirits

Because water spirits tend to prefer other types of emblems, most figure carvings represent bush spirits. Though carvings made for spirit companions and secondary shrine spirits often depict females, the central image in most bush spirit shrines portrays an authoritative male. His wives and children often accompany him, for an Ijo male must marry and bear children to be considered a man. He typically holds weapons to announce his readiness to fight, wears wooden replicas of medicine gourds to signify that he is protected by 'bullet-proofing medicines', and displays the body paint and eagle feathers of his clan's *peri* warrior society to show that he has taken human lives. He often sports a top hat, a style of headgear that continued to signify prestige in the Niger Delta long after it had gone out of fashion in Europe.

Although priests usually describe these carvings as photographic likenesses, few show evidence of the deformities widely associated with bush spirits. However, images may be larger than life-size and have multiple heads in keeping with the idea that bush spirits are gigantic, grotesque beings, who command superhuman powers. Figures of this type recall a volatile character named Tebesonoma, or 'Seven heads', who features in the epic tale of Ozidi (or Izutu), which is told throughout the region (see Clark 1977).

Bush spirit shrines tend to be specific to Ijo communities; Osuwo-owe or 'Rain Man', who has both land and water aspects, may be an exception: a number of shrines throughout the region honour a spirit by that name, though each worships him in a different way. Shrines for Agwanran, a warrior who appears in the Ozidi saga, also turn up from place to place: however, some shrines, like Dirimobou of Ikebiri, honour particular sections of the surrounding forest, including sacred lakes. Perhaps because they offered protection to warriors in the past, many bush spirit

shrines are off-limits to women and outsiders. Although bush spirits began advertising other than military benefits following the Pax Britannica, residents of Olugbobiri report that Isobowei offered help to soldiers during the Biafran war.

### **Water Spirit Shrines**

Like many of their neighbours, the Ijo associate water spirits with 'imported' manufactured items as well as with things that are bright and shiny. The conception of water spirits as wealthy foreigners may well predate overseas trade, for the Ijo envision underwater towns where articles lost in the rivers accumulate, making water spirits immensely wealthy. They believe that these largely benevolent beings can bestow children and ensure financial success, particularly in fishing and trading.

Priests often say that the emblems in their shrines appeared in the water mysteriously. Some claim that water spirits have brought them gems and precious metal objects, but diviners can determine even mundane objects like sticks and keys which mysteriously appear in the river to be sacred. Objects of this type are frequently secreted away behind curtains of white cloth or hidden between two white saucers. In addition, shrines display both equipment associated with the rivers, like miniature canoes, paddles, and fishing spears, and trade goods, like lengths of cloth, plastic dolls, glass tumblers, and china plates.

As already noted, major water spirits seldom designate carved figures as their emblems, though a few choose to materialise as masquerade headpieces. Even prominent spirits like Bini Kurukuru, who is worshipped at several locations in the region, may require only a cloth curtain or a divination ladder as shrine furnishings. Adumu (Onumu or Azuma), who is a manifestation of the python, is an exception. Though his shrines depict him as a water spirit, he also has a bush or land aspect, which may explain his preference for figure carvings. People now describe Adumu as the patron of traders, but his original role seems to have been as patron of fishermen. Images photographed in Apoi, Bassan, and Olodiama in the nineteen-seventies are similar in style to those made for bush spirits, but

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portray him as a fisherman equipped with a miniature canoe and fishing gear; however, some of the paddles and spears may be water spirits in their own right. Unlike most water spirits, Adumu is described as very dark-skinned, and the carvings in his shrines at Azuzuama and Kemebiana are painted black to emphasize this feature. Figures of Adumu and his wife displayed by a shrine at Diebu in Bomo are painted blue and white, colours associated with pythons in the eastern delta.

### Ijo Masking Traditions

The Ijo credit water spirits with introducing masquerades. Spirits may approach people while they fish or travel by canoe, order them to perform masquerades, then return in dreams to teach them songs and dance steps. A story recorded in Olodiana recalls the Kalabari legend of Ekineba, because it includes an abduction:

A man known as Kperighada, [who] was fishing in the Cameroons, wasn't seen for seven days. When he reappeared, he told the people who had been looking for him that he was taken by water spirits, who taught him how to dance a masquerade. He returned to Ondewari, where he called the elders together to inform them of the water people's ultimatum that he must perform the masquerade or he would die. They carved the masks out of wood and he performed the [Ofurumo or Shark] play, just as we are performing it now.

Alternatively, people claim that their ancestors observed water spirits performing on sand banks, stole their masks and drums, then returned to their villages to stage the plays there.

In the Nembe region, it is women, acting under instructions from water spirits, who introduce both dance societies and individual masquerades. In the Central Ijo area, water spirits typically approach men in visions and dreams, but they can also communicate through diviners, and many of these are women. Shrine members trace the origin of the Eleke masquerade of Korokorosei, another Olodiana town, to a female diviner

named Bouomini, who probably lived in the early nineteenth century. Bouomini interpreted an object found in a fishing trap as a sign that the community must establish a masquerade shrine; she instructed the original priest on every aspect of the shrine and showed the members how to perform an elaborate, three-day masquerade.

Even though spirits may threaten to kill people who do not perform their plays, most masquerades are only mildly religious in nature. The masks themselves may not be considered potent, for the Ijo distinguish between those that incarnate spirits, and those that merely imitate their appearance and behaviour. The former can be invoked to punish criminals or settle disputes; the latter have no real power, although their performances may be considered beneficial. Some mimic the medicines, sacrifices, and possession involved in masquerades staged for powerful spirits simply for dramatic effect.

Even the most potent spirits initiate masquerades largely out of a desire to associate with their human friends. Throughout the Delta, drum calls and songs implore the spirits to come out and play. The Ijo word for play, *toi* (or *ti*), has much the same connotations as its English equivalent, and applies to the performance itself as well as to games and light hearted banter.

### Ijo Masking Traditions

Ijo groups living east of the Nun River have masking societies known as Sekiapu ('Dancing people') or Ekine, in honour of a legendary Kalabari woman, Ekineba, who taught her towns people to perform masquerades. The group's primary function consists of staging an extensive cycle of masquerades which climaxes with a festival that includes all the masks. The Nembe version, *Owuaya aru* or 'Canoe of the mother of masquerades', is similar to the Kalabari's *Owu aru sun* or 'Canoe of the water people'. These spectacular festivals also renew the spiritual element of the masks in preparation for a new one (Horton 1963: 95; Alagoa in Nzewunwa 1982: 268-69).

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In addition to placating spirits and calling on them for help, Sekiapu instills masculine virtues and promotes cultural knowledge. In Nembe, as in the Kalabari region, some masquerades include a sequence known as the pointing ordeal that tests the members' understanding of drum language. The masker must respond to drum calls by indicating the town or the shrine the drummer calls out. Failure to do so brings disgrace on a performer; success proves him to be a fully cultured member of society who possesses extensive knowledge of its history, mythology, and proverbs. Sekiapu also appears to have played an important judicial role in the past by punishing members not only for minor offences like tardiness at group events, but for more serious crimes like rape and theft. (Alagoa 1967a: 145-55).

Central and Western Ijo groups do not have institutions comparable to Sekiapu, nor do they use the term Ekine in reference to masking. In the region west of the Nun, masking traditions not only differ from one group to another, but from one village to another within the same group. Even the types of events at which masks perform—including traditional festivals and modern civic celebrations—tend to take distinctive forms in each village. For instance, because certain wards and villages trace the origin of funeral ceremonies to nature spirits encountered by ancestors, some involve masking while others do not.

Only a few enshrined masks survive in the region, but they suggest a more serious attitude toward masking in the past. Moreover, despite the highly secular nature of many of the masquerades performed in recent times, people still consider them a means of placating spirits and garnering benefits. They credit masquerades with bringing children, preventing infant deaths, averting epidemics, and otherwise assuring prosperity. In addition, masquerades undoubtedly satisfy a need for aesthetic expression, provide a recreational outlet, and promote unity among various factions. At least in the past, they also served as an important means of enculturating youth.

### Masquerades and Ijo Culture

Symbolism relating to warfare and violence pervades masquerades. Though most maskers only play at being blood thirsty spirits, they carry weapons and spend a good deal of their time chasing spectators. Headpieces often represent predatory fish, menacing reptiles, and composite 'water monsters'; they have names like *fanu pele* ('fence cutter'), *angala pele* ('mangrove cutter'), *pelekere-biye guru* ('when it cuts it is happy'), and *bighebighepele* ('cut without inquiring'), which reinforce the idea that they are ready to attack anyone who gets in their way. Their drum titles, like those of Ijo warriors communicate qualities like strength, vindictiveness, and invincibility. For example, Eleke, the most powerful mask in the region, is praised as *Toru seighe seighe bite*, 'The cloth that does not fade;' his son is called *Indikoribo siko korighe*, 'You cannot catch a fish by the fin'; the slave bears the title *Omini loloa seibi*, 'A slave's vexation knows no limit'.

Some masquerades make the analogy to warfare or head hunting more explicit by claiming prerogatives war gods once bestowed on men who had taken human lives. Eleke dances to the drum rhythms of the *peri* warrior play with his priest, who wears a distinctive costume to signify the spirit's right to the status. One of his titles, *Waribaba-Kiribaba*, 'The wicked one, killing both family and outsiders', directly alludes to the *peri* title; an Olodiana man who killed someone from another group reported to Egbesu's shrine in Ikebiri, where he sacrificed a slave.

Though highly entertaining, these performances convey messages about socially acceptable behaviour. Boasting about how many lives they have taken helps masks like Eleke establish their credentials as effective judicial agents, but many masquerades suggest an ambivalence about physical violence. Maskers seldom portray warriors as heroes; in fact, many openly mock and ridicule them by taking their behaviour to a cartoonish extreme. Parodying an institution devoted to taking human life may be a way of easing tensions created by the cultural emphasis on masculine aggression.

## Culture

### Masks

In order to impersonate water spirits, Ijo dancers wear costumes designed to alter appearance and make them look less human. Most costumes incorporate carved wooden headpieces, though one Nembe masquerade features bronze ones believed to have been made by water spirits (Alagoa 1967a: 151). Cloth and raffia masks are also common.

The oddly juxtaposed features of guitar fish, skates, and other members of the ray family may have suggested the forms of the composite headpieces for which this region is best known.

Typically, anthropomorphic features, including eyes, mouth, and a skull-shaped forehead, project aggressively from a flat base, which may also incorporate an assortment of fins and other forms suggestive of marine animals or reptiles. Secondary heads and figures may be added to represent the spirit's family members or followers. Several small terracotta found at Ke in the Kalabari area and dated to around 1000 AD, contain the seeds of the style and may have served as models for earlier masks (Alagoa 1974/75).

More naturalistic masks also appear throughout the region. The Nembe claim they originally named their dance societies after fish and other animals and made masks to represent them (Alagoa 1967: 145), so zoomorphic masks may even predate the composite type. Animals associated with water – including fish, crabs, lobsters, hippopotami, and crocodiles – appear most frequently, but dancers can also represent bush cows, leopard, antelopes, monkeys, and other land animals. Anthropomorphic headpieces also appear, and look much like miniature versions of the images found in nature spirit shrines. Angala pele or 'Mangrove cutter', a character who appears in numerous villages, including Akede in Oyakiri, often takes the form of a figure, an upright head, or tower of heads. All masks, including those of land animals, represent water spirits.

Virtually all Ijo headpieces rest on top of the head instead of covering the face. Masks of the composite type and some of the zoomorphic variety, like the heads of goats and bush cows, 'face' skyward. Informants

usually explain that masks worn in this manner resemble spirits floating on the surface of the water, but fish could also have suggested a horizontal orientation. The costume helps to create the impression of a spirit who has come out of the water to play. It typically includes a *siko*, or fish tail, which is made by mounting a cane framework over the dancer's buttocks. Padding may be added at his waist to accentuate his stomach. Locust bean rattles are strapped around his ankles, and he carries objects like cutlasses, sticks, or switches in his hands.

### Performances

Performers draw on a variety of dramatic devices to portray water spirits as unruly beings under the precarious control of drummers, dance demonstrators, and attendants. Each performance incorporates certain songs, dance steps, and tableaux, but allows for a great deal of improvisation. Maskers must not only execute the set dance sequences, but exploit the element of surprise in order to add interest to, or 'sweeten' the event. For instance, although maskers from one Olodiana town are said to dance so well that they can make their leg rattles speak, people have criticised them for failing at dramatic improvisation. Musicians and others who participate in masquerades by singing, dancing, and playing with the masks, also contribute to the success of a performance.

Performers use a variety of methods to build excitement before a masquerade. In Ondewari, a mullet mask appears early in the day to alert people that Ofurumo is coming out to play; a song sung by his supporters warns little fishes to run and hide. Excitement builds when the giant shark appears on a raft pulled toward town by a canoe loaded with musicians. In Olugbobiri, the three masks in the Ungozi group tease the audience by appearing to come out of their shrine, then retreating, before their priest finally pulls them out one at a time. In many cases, the actual performance begins when the masks slash through a palm frond fence (*fanu*) and enter the arena. Fences of this type once kept evil forces from entering Ijo villages, so this device reinforces the idea that wild spirits have invaded the community.

The first part of the report is a general introduction to the project. It describes the objectives and the scope of the work. The second part is a detailed description of the methodology used. This includes a description of the data sources, the data collection process, and the data analysis techniques. The third part is a discussion of the results. This includes a description of the findings, a comparison of the results with the objectives, and a discussion of the implications of the findings. The fourth part is a conclusion. This includes a summary of the main findings, a statement of the conclusions, and a list of recommendations for future work.

The methodology used in this project is a combination of qualitative and quantitative methods. The qualitative methods include interviews, focus groups, and content analysis. The quantitative methods include surveys, experiments, and statistical analysis. The data sources used in this project are a combination of primary and secondary data. The primary data is collected through interviews, focus groups, and surveys. The secondary data is collected through a search of the literature and other sources.

The results of the project show that there is a significant relationship between the variables studied. The findings indicate that the independent variable has a positive effect on the dependent variable. The results also show that there are significant differences between the groups studied. The implications of these findings are that the independent variable can be used to predict the dependent variable. The recommendations for future work are that further research should be conducted to explore the relationship between the variables studied in more detail.

to talk her out of going. She insists on leaving, but is finally persuaded to stay when she comes back to collect a forgotten article.

Stories which feature dramatic encounters between men and animals are also popular, and nearly always involve a taming theme. Oki, or Sawfish, one of the most popular characters in the Delta, stars in a masquerade of this type performed in Akede. The Ijo regard Oki as a great spirit living in the sea, but fishermen are eager to catch sawfish. When struggling with one which has been caught on their line, canoes loaded with supporters may try to convince him to come out by pouring libations, beating drums, blowing horns, and calling, "Oki, come up. Let us play. The tide has already ebbed". When he co-operates, they kill him.

The masquerade capitalises on the comic aspects of the situation by staging the hunt on land: Oki's canoe parades along the waterfront while songs and drums repeat the fishermen's invitations to come out to play at ebbside; when he comes ashore, he alternately chases after spectators with his cutlass and dances in the arena. Finally, a fisherman appears there with his canoe and begins stalking Oki with his net. After many comic mishaps, the masker's headpiece becomes entangled in a fishing line; assistants help haul the captured fish into the canoe, where the fisherman pretends to slit its throat, but Oki stages a triumphant comeback to conclude the performance.

### Festivals

Bayelsa communities celebrate occasions ranging from traditional funerals to modern holidays like Christmas by staging festivals which feature spectacular masquerades, regattas, dance performances, and various kinds of competitions. Traditional rites like fishing festivals may have lost much of their ritual importance, but continue to express civic pride. Even local wrestling matches may be transformed into artistic events by processions on land and water which involve drumming, dancing, and singing.

The Ijo traditionally marked the start of their new year by renewing their shrines and performing purification rites designed to rid the town of

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pollution left behind by the annual floods. This period generally falls in November, but additional rites may be necessary later in the dry season for this is the time when epidemics threaten riverine communities. These celebrations often include masquerade performances and other sacrificial rites; for instance, at Ekowe in Bomo, raffia masks travel the length of the main avenue to sweep the town clean.

In other communities, sacrificial canoe effigies known as *ikiyan aru* are loaded with offerings, carried through town, then either mounted along the riverbank or floated downstream. Smaller canoes may be deployed secretly in the dead of night, but larger ones, like *Opu Ikiyan* (Great *ikiyan*) of Olugbobiri, are the centrepieces of dramatic performances. Residents of Azuzuama take another approach by appealing to Wonyinghi whenever epidemics threaten their community. Shrine members communicate with the creator through a divination ladder, renew the medicines in the shrine's medicine pot, and parade through town, using a small broom to sweep away disease.

Many communities stage dry season fishing festivals in connection with sacred lakes. Traditionally, these take place at intervals of three or seven years and include offerings at shrines, as well as drum calls to warn spirits living in the lake to leave, so that none will be killed. Although the event no longer seems to involve much ritual importance, residents of Osiana in Oyakiri still perform a festival for Lake Adigbe; it begins with a masquerade that averts evil by harnessing the power of a voracious tiger fish that once devastated the lake.

Traditionally, Ijo clans were united primarily by war gods who required annual festivals. Although most have been abandoned, some groups have continued to maintain shrines. In the late seventies, a festival held at Olobiri in honour of Egbesu, the war god of Kolokuma, featured masquerades and a ceremonial war canoe reminiscent of the immense craft that once plied the Nun. An annual festival held nearby at Odi, which is also in Kolokuma, celebrates a modern battle: the killing of a wild buffalo which threatened the town several decades ago. The *Ogori Ba Uge*, or Buffalo Killing Festival, observed the same year included the deployment

of a raffia mask to purify the town, a performance by a group of local maskers, gunpowder salutes, and a dance barge with reggae music provided by a local band. In 1991, notices which appeared in Lagos newspapers to announce that year's festival promised visitors a 'Love Boat-Like' atmosphere.

### **Beyond Bayelsa**

Relatively little sculpture from Bayelsa State has been collected or published because few expatriates have visited there. Nevertheless, the region is noted for producing some of the largest figure carvings and masks in all of sub-Saharan Africa, as well as originating a style which may indirectly have inspired Cubism, a revolutionary movement in Western art. The Sharp-edged geometry that characterises much of the sculpture from the region resembles the projecting forms and voids in the works of the European Cubists, and Pissarro, who 'invented' Cubism, owned two masks in the Ijo-influenced style adopted by the Grebo of Liberia.

Unfortunately, many of the objects that have entered western collections lack proper documentation. The Fowler Museum of Cultural History at UCLA has a number of Ijo figures, but no record of their origins. The Merseyside County Museums in Liverpool house the largest collection of Bayelsa sculpture outside Nigeria, and it is also one of the earliest. A colonial officer named A.A. Whitehouse assembled it in the vicinity of Wilberforce Island during a 1903 punitive expedition which targeted a 'pirate' known locally as Bebeke-ola. Another early group of figures once belonged to King Josiah Constantire Ockiya of Nembe. He commissioned the carvings as portraits of himself and his family, but turned them over to Bishop Crowther of the Church Missionary Society when he converted to Christianity in 1877. Their naturalism contrasts markedly with the prevailing 'Cubist' style, and may have been affected by exposure to the figureheads of European ships (Fagg 1963: plate 111). The figures have been dispersed: one is now in the National Museum of African Art in Washington, D.C.; another in the Manchester Museum in England.

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Finally, while the traditional art forms continue to develop within the communities through change and continuities, a new breed of artists in direct dialogue with western and international traditions have come into being. These artists, trained in western or western style art schools, are yet inspired and motivated by local culture and traditions. The best known of this generation are the late Jubilee Owei, painter and portrait artist; the late Jackson Waribugo, whose monumental sculptures are to be seen in Port Harcourt and several riverine urban centres; and Pius Waritimi, the experimental sculptor and art teacher. These young artists follow in the footsteps of the veteran literary artist, and winner of the Commonwealth prize for poetry, Gabriel Okara, all of whose work is rooted in the local cultural heritage.

**Plates - Chapter 9: The Visual Arts**

[Note: All photographs date from 1978-79. Some of these shrines or masquerades no longer exist]



Plate 9. Shrine of the Creator, Woyinghi, "Our Mother", Lubia, Bassan

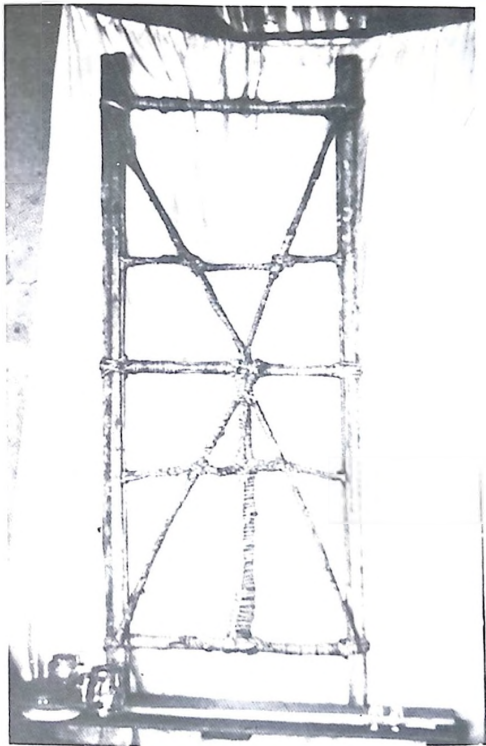


Plate 9.2: Tubo Shrine. The priest said no one has ever seen this water spirit, so they use a ladder (divining frame) as its emblem.

Toru Ibeni, Oyakiri

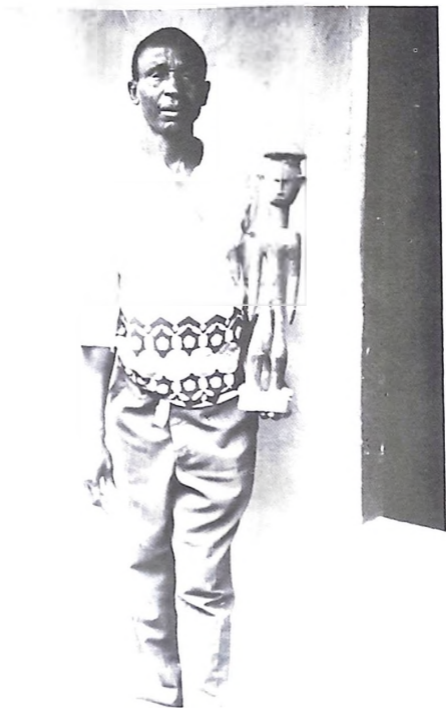


Plate 9.3: Man with bush spirit companion which he acquired as a youth when the spirit announced that it wanted a carving by making him overly aggressive when he was wrestling. Ikibiri, Ekpetiama



Plate 9.4: One of the masks of the Gbomosu masquerade, a secular masquerade which imitates Eleke. Korokorosei, Olodiama (East)

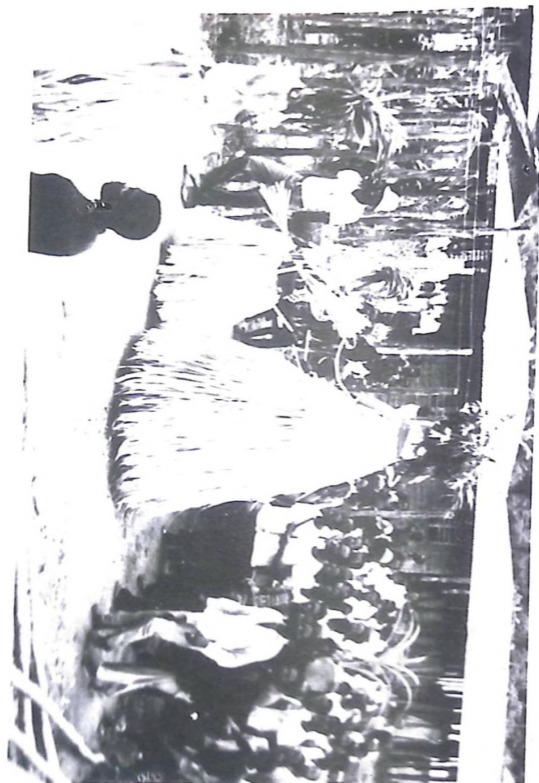


Plate 9.5. An Amugele type mask cleansing the village of pollution brought by the floods at annual purification rites. Ekowe, Bomo

## CHAPTER TEN

# RELIGIOUS BELIEFS AND PRACTICES

*Benjamin Okaba and S.T.K. Appah*

### **Introduction**

Of all cultural inventions of man, the religious institution stands out distinctly as the most expressive, integrative and encompassing - stretching into all facets of man's endeavours and experiences. It finds expression in man's material culture, value and ethical systems. Religion interacts with and permeates the realms of the family system, rites of passage, economics, laws and politics, medicine and technology. It has inspired rebellions as well as served as defence mechanism by providing means for crisis and tension management. Religion everywhere reflects the responses of man to the wonders and ineluctable perplexities of life.

In this chapter we examine the basic beliefs, tenets, structure and symbolic rituals inherent in the religious traditions of the people of Bayelsa State, focusing on their cosmology, concept of God, belief in divinities and spirits, the after life and ancestral veneration, destiny and reincarnation, witchcraft, sorcery and other malignant mysterious forces.

### **Cosmology**

The universe in which the people of Bayelsa find themselves is categorised into two great orders of existence. In the first and most immediate of these orders, is the *kiri-Akpo/Tomikiri*, literally, the tangible, visible and explicable world - the world of matter, flesh and blood; the home of people, animals and plants. A more substantial proportion of one's earthly experiences occur at this level which is composed of objects that can be touched, seen and whose location is definite, descriptive and relatively limited in space. (Horton 1962: 198, Okaba 1997:71).

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The second order which contrasts sharply in composition and events: the first, the *Teme-Akpo/Teme Kiri*. *Teme* connotes a spiritual mode being or an entity existing in that mode (Horton: *ibid.*). This is the world of the immaterial, intangible and inexplicable phenomena. Happenings in the spiritual sphere give meaning, direction and purpose to issues and events in our material world. This is the dwelling place of the ancestors, divinities, spirits and the supreme creatures. Events in this spiritual abode are not accessible to diviners or spirit mediums and infants who are yet to be polluted by the things of this sinful world.

The people of Bayelsa State have no comprehensive aetiological myth concerning the creation of this world. Nevertheless, it is believed that the corporeal and spiritual worlds owe their existence, order and sustenance to the Supreme Creatress. Furthermore, it is conceived that all creatures (man, plants, animals, rivers, lakes, etc.), have immortal entities which are capable of separate and separable existence. The perpetual association between a being and its spiritual or immortal partner is likened to the relationship between a canoe and its steersman. It is by the joining of the immortal/spiritual entity to the material body that all things are created by God. In the same vein, it is by the separation of the immortal (*teme*) from the body that a being ceases to exist.

All spirit beings except God, have physical shapes and figures that are amenable to earthly manifestations and manipulations.

Man (*kimi*) is seen as the most unique, precious and yet enigmatic of God's creatures. He is a complex unity of tripartite constituents: The *anyame* (fresh/body), *teme* (spirit) and the *suoyogbesa* (guardian spirit) which together form the human personality. The last two constitute the divine essence. At death, they forsake the disintegrating mortal body and return to God.

### The Supreme Being

Central to the religio-cultural tradition of the people is the belief in the existence of the supreme Being. God is *Teme arau* (she who creates), *Ziba- arau/ziboarau* (she who gives birth), *igina-arau/ogbono-arau/suoara* (creatress who dwells in the firmament). To the *Epie-Atissa*, God is *Zibi*

## Religious Beliefs and Practices

(Lord), and *Wanyingi, Wa Diara* (our mother) among the Nembe and Akassa communities. Among the Ogbia, God is *Aziba* (procreator who possesses the unique power to create man and also take away life at will). The general feminine conception of God is, no doubt, reflective of their matrilineal lineage system (Horton 1962:197, Alagoa 1972:20, Okaba 1995:35).

Main 1930:36 (cited in Okaba 1997:135) reports on the (western) Ijo conception of God in the following words.

Temearau is a **god** who lives in the sky: she is woman because it is women who bear and produce. Her presence and interest in the world is not as great as that of the spirits. She has no shrine, fetishes or priest. Her assistance in times of great need can be invoked, however, by prayer and her protection is procurable if white chalk is rubbed on the head and then blown from the palm of the hand upwards into the air.

The universe owes its existence to Her great power. God governs its affairs and the machinery of life in it. Her supreme qualities and attributes are reflected in some common names given to children. These include: *Teme arau agono emi* (God is up above), *Teme arau preye* (God's gift), *Ayibanuaghan* (Thanks to God), *Oginarau-ebi* (God's kindness), *Oyingi-ogula* (God's judgement).

### Divinities

In the order of spiritual beings, the *Asain* appear next to the Supreme Being. As God's ministers, they serve Her ultimate will by ensuring peace, order, abundance, sanity and decorum among the inhabitants of the earth. The people of Bayelsa State recognise three levels of divinities, each with its sphere of influence in the day-to-day affairs of man. These are the *Beni-otu* (water deities); *Bou-otu* (forest deities) and the *Egbesu* (arch-divinities).

The *Beni-otu* dwell in canals, rivers, lakes, streams and the sea. They have fabulous settlements of their own under the water, 'where everyone walks decked in coral beads, gold and the rarest cloths' (Horton 1962:210). Several myths portray these spiritual settlements. All human actions on the physical plane are replicated in this abode. Similarly, the dead can also materialise in human guise, as pythons or as a rainbow.

In these highly organised spiritual communities, there exist a chain of authority flowing from the *Beni-pere* (among the Mein, *Beni kuru kuru*) (king of the water) to small spirit beings.

The shrines and altars of the water deities are perched on raised mounds of mud beside their creek domains. Rich food items (plantain, palm oil, coconut, biscuits, sugar and sweet drinks (Coca-Cola, Fanta, Sprite) are offered to them in order to seek their benevolence. Some myths have it that the delta water ways were made by these water forces. Thus whenever the ends of rainbows are sighted disappearing into the mangrove swamps, it is conceived that new canals and creeks are being made. They ensure that the water ways are cleared of water hyacinth and also ensure good weather and abundance of fish. Similarly the water deities are associated with new inventions and creativity such as new songs, dances, drum rhythms, dresses, women's hair styles.

On the other hand, the forest is conceived to be populated by unseen forces known as *Bou-otu* (people for the forest). *Azizu*, is the *Bou-suowa* (king of the forest). It is seen occasionally by hunters and traditional medical practitioners, in the shape of a small black man about 2.5 metres tall wearing a kilt. This apparition appears only for a moment and portends good fortune as long as the rules of secrecy are observed. Although several malevolent activities are attributed to *Bou-otu*, diviners and herbalists also credit them with medical powers.

Most Bayelsa swamps possess a guardian or arch-deity, often a *Egbesu* (or war god). The *Egbesu* is seen in several lights in different groups. Among the *Tarakiri*, it simply expresses the wrath of God symbolised in thunder and lightning. Where ever there is thunder, God is said to be showing her anger. It's appellation is *Gbarada Gburudu*. The

lion and leopard are its totemic representatives. No one normally kills these animals or sees them dead. The Ogbu cult is reserved for the sanctification and restoration of brave men who in self defence killed any of these animals including a fellow human being or seven eagles (*oge*). Such acts must be confessed at the shrine of the deity.

Among the Ijo of the Western Delta particularly the Tuomo, Oporoma and Mein, the Egbesu became most important at times of war. During such encounters, its emblem comprising of a neolithic celt, a white cloth and horse tail kept in a calabash were conveyed in a war canoe after warriors had undergone complex rituals of sanctification. The Egbesu is generally revered for its very efficacious preventive medicinal concoctions. The Agadagba, (chief priest of the Egbesu) still doubles as priest and king among the Oporomor. In other groups, the Egbesu is seen as a national deity and partner in the foundation of the group. The Egbesu deity has both peaceful and warlike attributes.

### Spirits - Amateme Suo/Ama-Ogbo

In addition to the general belief that spirit entities dwell in sacred forests, lakes, dung hills, animals and personalities, the *Amatemesuo* (city-creating destiny) and the *Amakiri/Ama-ogbo* (Earth deity) are among the primal forces which lie beyond the divinities. Proverbs, drum names and appreciations indicate that the earth (and it's accompanying deities) evolved before the trees on it and that conquerors may subdue a 'city but can not take away the earth on which it stands.

Indeed, the Amateme suo represents the living spirits of the community. Its destiny and history is embodied in it. Expounding further on this, Alagoa (1972:18) states.

The drum praise poem of the town spirit is similar to the national anthem, for it epitomizes not just the yearnings and aspirations of the people but also refers to their past that made the *ibe* what it has become today ... it is at such moments (most often annual) that the *ibe* or individual settlements strengthen themselves against the hazards of the

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future by formally reminding itself of the achievements of its progenitors and the past glory and mercies of their deities.

**Dirimegbegha** is the national deity of the Mein people. The black cobra (its spirit messenger) represents a totemic object for the group. The original tusk of this deity that is believed to have directed their progenitor to their dispersal centre (Ogobiri) is enshrined at Ogobiri. A small gutter runs from the inner chamber down, through which food and blood of sacrificial animals are delivered. The black cobra, though known to be deadly, is believed to exhibit love and affection to the Mein people.

If it enters a house and coils up, it means all is well; if it lies at length, sacrifice must be offered to the deity; if met in the bush crossing the path, it is there to warn the traveller or *farmer* to return ... it is so gentle to the Mein that it will allow itself to be pulled. (Main 1930:30).

The *Ama Okusuowei* (eldest man) officiates as chief priest of the community shrine of *Dirimegbegha*. Annually, all Mein villages send representatives to Ogobiri to renew their allegiance to this ancestral deity.

The *Ama-ogbo* (earth deity) is associated with fertility, general prosperity, and above all, the dispensation of justice. Sorcerers and witchcraft suspects are often asked to swear or take oath by it. The ritual involves mixing a piece of soil dug up from the 'ground' (a symbol of the earth deity) in water and garri. The suspect is exonerated if he remains 'conscious' after drinking the concoction. If the accused develops a swollen stomach and makes confessional statements, his/her guilt lies confirmed.

Swearing by the *Ama-ogbo* over land and other disputes, among kith and kin, is very common. The *Ama-ogbo* forbids incest, sexual immorality and sex on the bare floor, for such acts desecrate the earth. To usher in the planting season and also before harvest, appropriate sacrifices are

offered to Ama-ogbo. This takes the form of Yam Festival among some groups.

The *Ama temesuo* and *Amakiri/Ama-ogbo* are also invoked by aggrieved individuals on account of missing property (canoe, food items, money etc.). In practice the 'invoker' pleads that the deity should arrest the offender with a dreadful disease or any form of physical infirmity until a prescribed sum of money or the items are sent by the offender to its shrine. Normally, a public announcement is made by the town-crier and some days of grace (usually a market week) is given before the deity is expected to go into action. Other deities that are normally invoked in similar circumstances include: *Otoboyi* (Sampou), *Opu-daba* (Kaiama), *Amadosu* (Bumoundi, Ekpetiama), *Tarakiri Egbesu* (Orua), *Kolokuma Zibaaru* (Odi), *Ekine* (Opuama in Bomo), *Adegbe* (Amassoama), *Bideoru* (Amatolo in Ogboin), *Agbere gbasu* (Agbere) and *Ogidiga* (Nembe).

### The After-Life and Ancestral Spirits

Life moves in a cyclical rhythm, commencing with birth, through puberty and marriage, to death after which the spirit of the dead is reborn. *Fii* (Mein) means death (noun) and to die (verb). A deceased is referred to as *fide kimi* while the ancestors are called *fii due ama*. The land of the departed is *duweiyama bou*. Death is considered a necessary stage in the cycle of human existence. According to Okaba (1997:92),

Without death, there can't be birth, by the same token without death, the abode of the ancestors will be virtually unpopulated ... death is God's design for rejuvenating the earth.

The belief in the here-after is amplified by the dualistic conception of man as body and spirit. Furthermore, the carefully planned and articulated funeral rituals are means of transposing the spirit of the dead into the here-after. Secondly, what pattern of socio-political organisation exists in the world beyond? and; thirdly, how does the belief in the after-life influence the life of the living?

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It is evident in our burial rites that the abode of the dead is here on earth but concealed in the mystical veil where the dead who see us remain invisible to our ordinary eyes (Dime 1981:106, Okaba 1995:27). The *duwei ama bou* is divided into communities, lineages and family units. Chief priests and lineage heads continue to occupy their elevated positions even after death. Life after death is without labour, sorrow or toils. It is a life of peace and uninterrupted happiness. The aspiration of the ordinary person therefore, is to live up to old age, die peacefully and honourably (not by abominable diseases or in mysterious circumstances) and be sent forth in fanfare, into the warm embrace of his/her kinsmen in the world of the ancestors.

Two broad categories of ancestors are recognised. There are the *wari duwei*, ancestors of the various lineage groups, whose names, appellations, history and activities are still fresh in the memory of the lineages. Their influence, however, is confined to their lineages over about five generations. The eldest man in the lineage presides over its ancestral cult. Secondly, we have the *ama-duwei/opua duwei*, the ancestral progenitors of the community group. These are periodically venerated in shrines erected in their honour at community squares or sacred groves at the outskirts of the community. Masks and other religious emblems are stored in these shrines. The eldest man in the community presides during the veneration of these ancestral spirits which usually precedes the annual masquerade festival.

One of the greatest roles of the ancestors is to serve as moral guardians. As Ifie (1987:67) puts it:

There exist no strict distinction of influence between the living and the living dead; when on earth, the living dead were leaders of their family units. While in the spirit world, they do not cease to interest themselves in the general welfare of their descendants. They remain the custodians and executors of public morality and a strong factor of social cohesion.

Okaba (1995:91) confirms this position:

The belief in the influence of the ancestors provide strong sanction for public morality. As guardians of traditional morality, they demand a high sense of respect for the traditional laws and customs. Murder, sorcery, witchcraft, stealing, adultery, homicide, incest and other social evils are all frowned at and culprits are severely punished.

### Destiny and Reincarnation

It is believed that every individual has his/her guardian spirit, a personal creator called the *suoyogbesa* who joined the person's spirit to his/her corporeal body before his/her foetus was formed. Throughout life, the *suoyogbesa* maintains the unity of the body and spirit until they are separated by death.

Before the entry into the mother's womb, the spirit-child prescribes his life course to the *suoyogbesa*. His range of choices extend into; the type of occupation he will engage in, whether he will be poor or rich, famous or infamous, violent or peace loving, childless or fruitful, die prematurely or at old age. This is the individual's *fie ye bo bra* (literally, 'his speech before coming') or destiny.

This prescribed life course may however, be influenced or altered by the spirit's interaction with ancestors, water and forest deities, witches and sorcerers, or even with the guardian spirits of others. Whatever happens to a man is what he had 'willed'. Thus at the climax of the installation of a priest, the would-be priest is often heard crying out. "My destiny handed me over to you even contrary to my mundane expectations".

However, if man's destiny is revealed to be bad through divination or otherwise, steps may be taken to alter it. This is called *bibi bari* (revoking one's life course). Still, the possibility of revocation or alteration depends on whether such change was pre-destined. There was the case of a woman who approached *ozii-arau*, *Egbe-odubo-owe* and *odede-oru* on account of infertility. At the seat of *ozii-araú* for instance, the spirit medium revealed to her thus:

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Whatever supplication and offerings you make to me, your situation can't be rectified for there is no child in your destiny.

The phenomenon of destiny recurs at the lineage and community levels. *Pelei suoyogbesa* (lineage destiny) determines the entire history and behavioural traits such as pre-mature death, theft, introversion and violence etc., that are peculiar to the lineage. The *Ama suoyogbesa* (village destiny) in collaboration with the *Opu aduwei* (village ancestors) determine the history and also shape the 'total character' of its inhabitants. Beyond that, the Ijo are believed destined to be slow to action in crises, and unwilling to take risks, especially in business.

The concept of reincarnation reinforces the people's belief in the here-after. The resemblance in physical and behavioural traits (between the departed and the newly born), bodily signs, diviners or oracular proclamation, invocation of the dead, dreams about the dead, born to die (*owou-wene awou*) syndrome are some of the indications of reincarnation.

It is however, only a part of the deceased's *teme* (spirit) that returns. The real essence remains in the ancestral abode from where it continues to receive the veneration, sacrifices and libation of his/her beloved descendants. When a family member dies, he/she will join the members of the same kindred who had preceded him and would later return to earth through rebirth by his offspring or other affines. According to Dime (1981:37).

The suspensible world of the Ijo is densely populated and there is a heavy traffic between the physical and invisible world as spirit beings travel to and fro ... when there is wailing and weeping here on earth, there is a naming ceremony with all pomp and pageantry in the spirit world and vice-versa.

## Religious Beliefs and Practices

God is benevolent and impartial. Misfortunes of all descriptions including premature death are caused by evil forces called *kiri-temearau* (literally, creatures on the earth). These mysterious forces are of two broad categories.

In a sense, the *kiri-temearau* refer to human beings that exert considerable influence and control over one's life on earth. One's parents and elderly relatives who by the dictates of traditional authority demand unconditional submission, obedience and respect belong to this category. The curses of these individuals can mar one's progress or cause immediate calamity. Lineage ancestors also fall within this category. These ancestors can cause disharmony in the life of those who neglect their filial responsibilities.

In another sense, *kiri-temearau* connotes witches, sorcerers and other malignant spirits. The activities of these mischievous forces are generally against peaceful living and progress in society. They are the authors of all evil.

Sorcery is distinguishable from witchcraft practice. Sorcerers (*sei diri mien otu*) harm others by performing destructive rites, applying material substances, casting spells and pronouncing incantations. They are often motivated by malice, jealousy, hatred or material gain. They could place diabolical preparations at strategic path ways, send spiritual bullets (*atangba*), or drop poisonous substances into their enemies' food or drink.

On the other hand, the *Efin diriguwo-otu* (witches and wizards) are believed to harm their victims through the possession of a particular personality. The witch performs no rites, needs no spells and utters no incantations. The witch, having been initiated through either inheritance, demonisation, food poison, or voluntary purchase from witch doctors, performs acts through the influence of an irresistible power for evil.

Many atrocities are attributed to witches and wizards. These include spiritual cannibalism and infant mortality. They inflict material loss on people by perforating their pockets and so losing huge sums of money without knowing, turning people into drunkards by placing (spiritually) bottles of gin around their necks or tins of kerosene in their stomach.

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Witches are the authors of accidents, destructive thunder blasts and tornadoes. They could cause abortion by feasting on the pregnant woman's foetus. They are credited with causing impotence in men by removing their testicles.

As a social phenomenon, witches are believed to hold their nocturnal meetings on tree tops. They have their periodic festivals where they make plans for the provision of victims for their celebrations. The victim whose blood is ransomed and drained by spiritual means will become lean, wear away gradually and eventually die.

The influence of western education and Christianity have not driven out belief in witchcraft. Therefore voluntary confessions where suspects refer to pots kept on tree tops, buried at river banks and beneath the earth's surface continue to be made.

Similarly, diviners, through the mechanism of *Obobo bi* (inquest into the causes of death and level of spiritual purity of the deceased) decipher whether the deceased was a witch or not. Among the Tarakiri, Oporomor and Kolokumo, the *Obobo bi* divination remains one of the major pre-interment funeral rites. The corpses of those declared to be witches are thrown into the river and denied decent burial.

The imposition of British colonial rule following years of external commercial contact, the spread of Christianity from Nembe from the late 19th century, and from Patani and Kaiama from the early 20th century, and western education, have diluted the power of traditional religious beliefs and practices. In spite of the proliferation of fundamentalist Christian sects in recent times, however, the traditional beliefs continue to underpin popular cosmology. Recent events brought about by the disruptive exploitation of crude oil in the Niger Delta show that in times of crisis the people return to Egbesu and other traditional protective forces.

## CHAPTER ELEVEN

# CULTURAL INSTITUTIONS

*Benjamin Okaba*

### **Introduction**

The people of Bayelsa State, have, in the process of adapting to their peculiar environment, created institutions which represent their unique life - ways, their organised approach to matters of kinship, marriage, inheritance, politics, economy, morality, justice, health and social welfare, mechanisms of socialisation, aesthetics, recreation and the integrative forces of religion.

Bayelsa State is culturally heterogeneous. However, there have been similarities in historical experiences and cultural affinities. There existed in the Niger Delta, a well co-ordinated net-work .of cultural exchanges running south and north through the region (Alagoa 1972; Horton 1962; Jones 1963).

This chapter presents the uniformities and diversities in the cultural institutions of the people of the state.

### **Kinship, descent, marriage and the family**

Fundamental structures of social relations that facilitated the maintenance of peace, order and tranquillity in these societies include the traditional mechanism of kinship regulation, rules of descent and marriage, and the principles of inheritance. These institutions define patterns and strategies of social interaction and determine social actions and behaviour (Okaba, 1997 : 77).

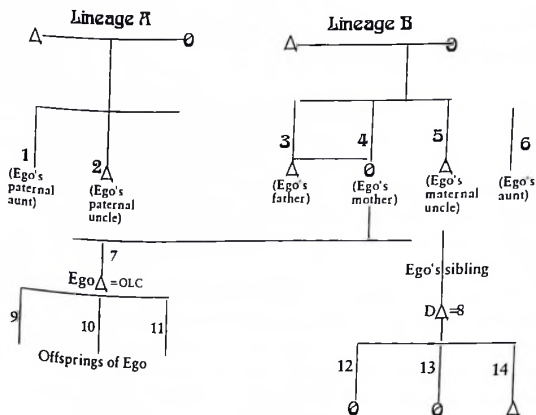
The social structure of most traditional Bayelsa communities was composed of nuclear families, extended family units and lineage wards; a conglomeration of which made up a settlement. High premium was accorded fecundity because of the intensive labour demands of the traditional agrarian economy. Thus, monogamy symbolised social degradation and failure, while polygamy symbolised success.

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An amalgam of three to eight nuclear families of common descent constituted the extended family unit. These had residential locations that were easily distinguished. Four to six of these extended families made up the lineage ward. These shared common ancestry. The households which were patrilineal and patrilocal served both as basic residential units and as economic units.

The unique double - unilineal descent system was adopted in these settlements. Thus, when the important question, *Teke eni tuu* (literally, what is your root?) was raised, reference was made to ego's matrilineage. But descent, for purpose of residential location and property and other ascriptive inheritance was traced both to the patrilineage (*Dau wari*) and the matrilineage (*Yin wari*). Though there existed no coterminous residential association based on matriliney, there were strong matrilineal bonds among individuals linked to a common ancestor (not ancestress). The Fig 11.1 below illustrates this.

Fig. 11.1: Double unilineal descent



From Fig. 11.1 the following explanations are deducible: Ego's father (3) from lineage A, got married to Ego's mother (4) from lineage B and begat Ego (7) and Ego's sibling (8). Ego married from lineage (C) and begat (9), (10) and (11). His sister married into family (D) and begat (12), (13) and (14). The offspring of Ego and his sister (8) are cross cousins. Marriage contracted between them was considered incestuous.

Ego and his siblings (full or half) can only inherit their father's immovable property such as houses, fish ponds and farm-lands that are patrilocally situated. It is Ego's cousins and his brothers that exercised rights of ownership over all movable items such as titles, widows, medicinal secrets and the wealth of his father. In the same vein, at the death of Ego's maternal uncle, Ego inherits the deceased's movable property. Again, if Ego's maternal uncle commits murder against some one from a different kin group, Ego is the target of vengeance. Where compensation is required, it is Ego's sisters or his nieces that could be pawned. In addition, if Ego's maternal uncle died leaving behind some financial liabilities, the responsibility of repayment fell on Ego, the children of the deceased, and members of the matrilin. In practice therefore, a man owed much obligation to the matrilineage and received much in return. Nevertheless, residence remained patrilocal.

To a large extent, the type of marriage consummated by Ego's parents influence the above regulations. Two major types of marriages are traditionally recognised: The *Ekiye* (normal bridal payments) and the *Opu-Ekiye/Ere-fe* (High bridal payment). Marriages contracted through the *Ekiye* required no comprehensive monetary gift exchanges. The out-giving in-laws could require just formal notification. Among the Mein for instance, a woman married through this custom is only partially absorbed into the husband's affinal kin group. In fact, her offspring owe greater allegiance to their matrilineage. Among the Opokuma/Kolokuma a fixed fee of four pounds was formally assessed and husbands could pay one-third of this sum and go away with their wives with the understanding that the balance be paid later, in instalments. All offspring belonged exclusively to the wife and her people. In Kumbo, all male children from this form of marriage

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belonged to the patrikin while the matrikin took the female children (Owonaro, 1949).

High-bridal marriages were of two categories. Where a non-ethnic Ijo woman was involved, she was referred to as *fe-ere*, a term that connotes purchase, or slave status. Offspring of this marriage belong to the father. In the second category are the *Opu-Ekiye*. This was quite expensive but contracted among kith and kin within the ethnic/cultural community. In the past, items provided in exchange included thirty (30) pieces of cowries, a he-goat, a hat and walking stick. In this instance, the wife, like the *fe-ere*, is fully integrated into her affinal home. Her offspring belong to the patrikin (Amaokusowei of Ogobiri, 15th July, 1996).

An old system of marriage that is fast fading away is the *Ere dei* (literally, wife exchange). One gave his sister or other female relative to another man in marriage and married in turn a girl from the in-law's family. Offspring from such marriages belonged to the respective biological fathers. There was also the practice of 'pawning' girls for money in conditions of extreme financial distress. As the pawned girl matures into puberty, she is espoused to the pawn-broker or his closest kin, and all children born by her before her redemption belong to the later.

The above categorisation influenced patterns of kinship relations and inheritance. For instance, if a man had children by two wives: *Ekiye-ere* and *Opu-Ekiye ere*, on his demise, his valuable property (including titles) are exclusively transferred to his children born by the *Opu-ekiye-ere/fe-ere*. The deceased's children born by the *Ekiye-ere* could only inherit farm lands and the residential homes, cultivated and inhabited by their mothers.

Generally, marriage was held in high regard. Refusal to get married was considered an offence against the ancestral spirits who are concerned with the perpetuity of the community. Pre-marital sex was not approved as well as extra-marital sex by women. Girls were circumcised by their parents before giving them away in marriage.

Among the various groups in Bayelsa State, kinship, descent and marriage constituted a vast social net work stretching horizontally across

the community. Similarly, the system extended vertically to include the departed and those yet to be born. Survival was contingent on co-operation, mutual support and collective security (Okaba 1997: 78-81).

### Economic Institutions

The principal productive activities were centred on fishing, collection of palm produce, handicraft, farming and trading. The *Adigbe* fishing festival in Ossiama provides an example of a cultural institution supporting an economic activity. A popular myth had long been told about the origin of the Adigbe lake and its deity. This explains the mystery behind the abundance of fish whenever fishing was carried out during the two occasions prescribed annually. The Adigbe is represented by an animal totem, the crocodile, which infests the lake but will never hurt any indigene during the mass fishing occasions. The months of May and November are normally fixed for mass fishing, because in these months the lake is full from precipitations and inflow from its seven tributaries. In May, fishing is permitted only in the middle of the lake, while fishing is allowed only along the shores in the month of November.

The actual dates for mass fishing are fixed by the Chief Priest of Adigbe. Fishing in this lake outside these periods incurs the wrath of Adigbe. Throwing of fishing nets and the use of spears are also prohibited. A one-year break is also observed after every successive six (6) years.

The communities that inhabit the salt-water area were predominantly engaged in fishing, trade and domestic salt production. The demand for slaves and later palm-oil in the early years of British imperialism precipitated a remarkable shift in economic opportunities resulting in the emergence of the War-Canoe system. The Nembe, for instance, developed this War Canoe House enterprise as a trading corporation with self-defence capacity. Personal achievement became a major consideration, in the attainment of leadership status.

From about 1936, tapping of palm-wine and distillation of local gin from raffia palm was developed among the Oporoma people in addition to their traditional occupations of fishing and farming. Herbalists, diviners,

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spirit mediums and indigenous craftsmen also plied their special skills. Relatively influence was gained by groups through the acquisition of greater quantities of the produce commonly possessed by others.

With the introduction of raffia-palm and gin distillery, wealth and social status were measured in terms of the number of gin distillery camps. Men whose lineages possessed substantial acres of land with raffia palms established several of these camps and employed the services of even non-indigenes (Urhobo, Ibibio and Efik) as tenants. The later paid in return, one-third of their total gin production to their land-lords, every local market day.

Adult men climb the raffia-palms and extract the wine, in these camps. Their major instruments of labour are the *apale* (special sharp knife designed for this purpose) and the *Ongu* (clay pot container). Women and little children provide support services such as fetching of fire-wood, distillation of gin, domestic cooking, piassava cane production and the marketing of the finished products. Hired labour is also used.

### Political Institutions

In practice, the *Ibe* communities were segmentary, autonomous and classically democratic. Among the Mein, Ogobiri is seen as the dispersal home and the seat of *Ibe Pere/Orukaraowei* of Mein-Dirimegbegha and Mein Egbesu.

Independent villages were governed on the principles of gerontocracy. Executive, legislative and judicial functions were vested in the *Ama-Okusuowei* (the eldest man) and a cabinet constituted by other elderly men, randomly hand-picked from the major lineage groups. The *Ama-Okusuwei* was also the chief priest of the community deity and interceded on behalf of all for their spiritual harmony. Knowledge of herbs and historical wisdom were basic qualifications for positions in this cabinet. These roles were never hereditary.

Population dynamics and the complexities of the colonial and post-colonial era rendered the above political arrangement obsolete. A more dynamic indigenous political system based on representative

participation and the fair sharing of power and responsibilities among the lineages, wards, and age-grade associations emerged.

The House of Elders was the highest traditional governing body. It consisted of nominees from the lineages (quarters). The *Amanana-owe* who heads this machinery was elected by and among these representatives. Basic pre-requisites for consideration into this apex body included, ownership of a residential home, full citizenship by birth only, attainment of the minimum age of forty years, proven patriotism, mental stability, financial prudence, and wisdom. Their functions included, initiating and making by-laws relating to marriage and adultery, acquisition and management of communal land, settlement of intra-communal land disputes, religious rites and festivals, and circumcision. This body was usually dissolved at the expiration of a tenure of three years. However, members were eligible for renomination up to a maximum of three consecutive appointments.

Next in this hierarchy was the *Amadibuo* (The Community Council) made up of at least fifteen representatives drawn from the lineage quarters. They elected their chairman and other functionaries by simple majority vote. Except for age which was kept at a minimum of thirty-years, all other pre-requisites for nomination are similar to those stipulated for members of the House of Elders. The council had powers to deliberate and make bye-laws on cases of theft, rape, tenancy, education, general community development, health and sanitation, agriculture and natural resources, inter-community relations and security. The duties were performed through appointed standing and ad-hoc committees at the instance of the Chairman.

At each quarter level existed an executive council of seven persons nominated by the lineage general assembly. This body liaised and worked with the community council and House of Elders for the day-to-day administration of the community. They kept proper records of the lineage arbitration panels on cases of theft and also initiated bye-laws on issues unique to the lineage in so far as these bye-laws did not contradict those enacted by the higher organs of government. As the segment of traditional

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government that was nearest to the people, it was vital for the maintenance of peace, unity and tranquillity.

Youth associations which were organised on the age-grade system were the most effective in community organisation, through conscientising, sensitizing, and mobilizing the entire citizenry. The various youth organisations had a common assembly and an elected executive council. This council assisted in the implementation of bye-laws, penalties, resolutions, levy collection, farm boundary adjustments and general sanitation.

### **Educational Institutions**

The societies in Bayelsa State devised ways of preserving their cultural heritage and passing it on to succeeding generations. Traditional education consists of the total mechanisms and processes through which the young ones are socialised into responsible adults. This provides the means through which roles, complicated languages, customs, and etiquettes of comportment were learnt. The acquisition of these norms and values created the distinctive culture of each community.

Traditional Education in the communities of Bayelsa State was characteristically non-formal but utilitarian. Attainment of high moral standard and the inculcation of dignity in labour were the major objectives. Virtues such as respect for elders and constituted authorities, kindness, discipline, love of peace, tolerance, sincerity, hard-work and honesty were encouraged. The system discouraged laziness, theft, covetousness, insincerity, cruelty, incest, aggression, hostility and violence.

The family was the most significant agent of socialisation. Key mechanisms of inculcating the desired values include myth, proverbs, folktales, poems, and social activities such as traditional dances, festivals and other religious observances. The family made sure that the young ones were properly integrated in credible ways since they are the carriers of it's image, honour and prestige. The teachers in this context were the fathers, mothers, brothers, sisters, all adult members of the community, diviners, medicine-men, and priests. Children were prepared in basic

## Cultural Institutions

skills such as the provision of food, shelter, water, traditional medicine, constructive reasoning, social organisation and management. The principal methodology was learning by doing. Apprenticeship constituted the major strategy. Children were most often inducted into their parents' specialised occupations. There were instances of organised instruction within puberty/initiation and circumcision rites for young females, age-grade masquerade guilds and cult organisations (e.g. the Ogbu cult for males among the Tarakiri and Kumbo). The young girls are instructed in the qualities of womanhood and wifehood, in domestic economy, dancing, singing, midwifery, nursing, fishing, and female religious rites. The masquerade guild and the Ogbu cult are unique male organisations and agencies of educating the youth into the conscious privileges of responsible adult life. These are mechanisms for transmitting the traditional laws and ethical standards, skills and knowledge necessary for life.

## Religious Institutions

The indigenous cosmology was dualistic. The *Kiri-akpo* is the first and most immediate. It is tangible, visible earth. The composition of the physical world is definite but limited in space and time. The second order is the *Teme-akpo*, the world of spiritual, immaterial, intangible, invisible and inexplicable phenomena. It is the world of the ancestors, divinities, spirits and the abode of the Supreme Being, *Temearau*. Events in this spiritual world are only accessible to clairvoyant eyes and little children (Main: 1930; Horton: 1962).

Temearau (God) is the creatress, who lives in the sky. Her assistance in times of great need can be sought by prayers and her protection is procurable if white chalk is rubbed on the head and then blown from the palm of the hand upwards into the air.

Next the divinities (*Oru/Asain*) serve as God's ministers. They serve Her ultimate will of ordering all the events in the physical universe. They exist in two categories, first, the *Beni Oru/Otu* (water spirits/people) that dwell in the seas, rivers, lakes and streams. They are numerous and are

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believed to live in large and organised communities akin to those found among men. These deities provide wealth, children, food, health, and peace to peace-loving communities and cause ill-luck, epidemics and sudden death to lawless individuals and societies. The *Bou-otu* (forest spirits) on the other hand, are important to herbal practitioners and diviners who are able to link-up with them. These divinities are dreaded for their perceived malevolence.

Ancestors are the closet spiritual forces to man. We have the *Wari Aduwei* (family ancestors) whose activities are focused on their different extended family units. Formal sacrifices are offered to them by members of their earthly families. The *Opu-Aduwei* (*Ibe* or Community Ancestors) are the progenitors of the various groups and communities. There are shrines built for their veneration. The eldest-in-town (*Ama-Okusuowe*) presides as priest at the worship of the *Opu-aduwe*.

The earth-god (*Ama-Ogbo*) is revered in relation to fertility and protection. It is the deity of justice. Swearing by the *Ama-ogbo* is most efficacious. Witchcraft suspects are normally asked to prove their innocence with the earth: a soil sample mixed with water and *garri*. If guilty, the suspect is expected to develop a swollen stomach. The *Ama-Ogbo* forbids incest and sexual intercourse on the bare ground, acts which desecrate the earth and bring evil consequences to the community.

Misfortunes are attributed to evil spirits called *Kiri-teme-arau* (deities of the earth). These exist in two categories. In the first category are human forces that exercise control over a person's life, such as one's parents, relations, community elders and religious functionaries. One owes them unconditional obedience and respect and they in turn, reciprocate love, guidance and protection. Curses and evil desires that emanate from these forces are dreaded. In the second category are *Efin-Otu* (witches) and *Sei-diriguwo-otu* (Sorcerers). These are dreaded as destructive powers. In spite of these extreme forces, the individual was guided and grounded by his/her destiny.

### Health Institutions

The philosophy of sickness and healing is deeply rooted in belief in the unseen mysterious powers. These forces are considered wicked, and unfriendly, and able to inflict diseases on human beings. Secondly, these forces could make individuals to perform extra-ordinary feats such as dancing with a snake, walking on fire or broken bottles. On the other hand, God also created individuals as spiritual agents and endowed them with the ability to manipulate and check the activities of these malignant forces. These people are gifted in the knowledge of healing through the use of natural and spiritual resources. These are the priests, spirit mediums, herbalists, midwives and doctors or medicine men and women.

Ill-health and death are generally attributed to old-age, a disorganised state of mind, astral causes, soul projection by evil machinations and other esoteric causes. There is also belief in the effect of predestination. Diseases are traditionally diagnosed through simple observation, massaging, divination, oral interviews and the careful examination of patients (Atemie and Okaba 1997).

The practice of massaging is predominant in the health system of the communities of Bayelsa State. Massaging lessens pains, stiffness of muscles, and is effective in determining the cause, nature and possible remedies for some illnesses such as internal bleeding, convulsion, stomach upset, measles and bone fractures. The traditional masseur applies the lubricant palm-kernel pomade (*olo*) and water freshly fetched from the stream or river.

When all efforts to restore good health failed, and the patient eventually died, these societies collectively ensured that a befitting funeral was arranged to transform the deceased to ancestral bliss. Age, social status, and the cause and nature of death distinguished the levels of elaboration at funerals. The burial of a little baby was unceremonial. The death of those in their prime attracted a retinue of sympathisers who turned up to weep and console the bereaved. On the other hand, the death of the elderly necessitated elaborate festivity.

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### Festival, aesthetics and recreational activities

Most of the festivals in Bayelsa communities were in commemoration of historical events or in honour of the spirits of departed heroic ancestors. In spite of their commemorative and religious colouration they played highly aesthetic and recreational roles. Prominent among these social celebrations are the *Okpotu-Bangi*, the *Buru Febai* and the *Seigbein*.

*Okpotu Bangi* was celebrated among the Kolokuma. This annual festival was in honour of the deity called Okpotu, who inhabits a fishing lake near Sabagreia. Major events in the ceremony were swimming competition among male youths and beauty contest by ladies. At mid-night during the festival days, strings that produce whistling sounds were swung by these boys. Women were barred from participating in this *Din-owu* and warned to keep indoors. Girls who were circumcised after the most recent celebration or an earlier one (but had never participated in the festival after circumcision) dressed in assorted beads and head ties and paraded in their respective towns. At present this festival is said to be preserved only in Sabagreba which is the ritual centre of the deity.

The *Burufebai* celebration is set aside for feasting with the ancestral spirits and divinities that are revered for their roles in agricultural productivity. This annual festival is prominent among the Gbaran, Opokuma and Tarakiri. The major event was the preparation of the feasting 'fresh yams'. Tubers of yams were donated to chief priests of the national deities on the day of the festival. Some tubers are offered as sacrifice to ancestral spirits. It was a sacrilege for any indigene to taste any new yam before this ceremony.

The *Sei-gbein* festival is still popular among communities in Kabo, Kumbo, Gbaran and Odoni. It has a lot of similarities with the *Okpotu Bangi* in Kolokuma. At Odoni for instance, masquerade dances, swimming competition, canoe race, beauty contest and general jubilation and merrymaking pervaded the entire festival. According to an eye witness account of the Kabo Seigbein, 'girls there, were so gorgeously dressed on such occasions', men were warned in the following words: '*Kabu seigbein yo ere nana kumo*' (don't marry during the Kabu Seigbein festivals)! Other

## **Cultural Institutions**

significant events during this festival at Kabu include mass fishing at the Orisa Kike, and paying of homage to lineage ancestral spirits. During such occasions, vows earlier made are redeemed and fresh ones made.

Aesthetic creations in a variety of sculpture, drama, dresses, songs, folktales, maxims, riddles, games of wit, skill and endurance were displayed in wrestling and masquerades. These aesthetic displays constitute the traditional leisure and recreational activities of the people of Bayelsa State.

### **Conclusion**

The institutions outlined here continue in changed forms from the past while new ones replace old discarded institutions. The past and the present combine in complex forms.

## CHAPTER TWELVE

# INDIGENOUS TECHNOLOGY

*Abi. A. Derefaka*

Indigenous technology is only one aspect of indigenous knowledge. However, it is so fundamental that it affects and is affected by most aspects of indigenous knowledge. It must be understood to achieve a people-and community-centred, environmentally sustainable and equitable development process, especially for threatened ecosystems such as exist in Bayelsa State. Such knowledge is reflected in and conveyed through language (including proverbs), material culture, land use and settlement patterns, institutions, value systems, systems of production and consumption, and systems of waste management. Fundamental aspects of the indigenous knowledge systems of the people of Bayelsa State include the processes of resource identification, procurement, utilisation and conservation.

We follow Ulluwisheura (1993:11), to define indigenous knowledge as "local knowledge that is unique to a given culture or society". Such knowledge systems are dynamic and not static. They represent a significant part of a people's heritage and while accumulating received knowledge from earlier generations, recognise the necessity for innovative thinking generating vectors of change and improvement. However, one generation's needs should not be over satisfied to the detriment of the satisfaction of the legitimate needs of future generations.

The rationale for discussing indigenous technology as part of the indigenous knowledge systems of the peoples of Bayelsa State is informed by four major considerations, namely:

- (a) that local (particularly rural) people in Bayelsa State have lived long enough in their various immediate environments to have identified resources and compiled a mental resources map which they have transmitted mostly orally from generation to generation;

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- (b) That the peoples of Bayelsa State have, through time, come to understand the ecosystems they live in and how to maintain a balance between resource availability and resource exploitation;
- (c) That indigenous knowledge can be considered the wealth of the poor who now have limited access to the basic needs of contemporary living. Consequently, any poverty alleviation strategy in the Niger Delta would need to harness indigenous knowledge, especially for sustainable and equitable development, and
- (d) That the purposeful collection, documentation, dissemination in and outside the community, as well as development - oriented use of indigenous knowledge needs to be systematically undertaken for the various peoples of Bayelsa State for their own use and for the use of governmental and non-governmental organisations for planning and environment-friendly action.

Indigenous technology derives largely from indigenous knowledge systems which in Bayelsa State, as in the rest of the Niger Delta, can be divided into two broad groups, namely, knowledge and role of living things and the ecosystem; and other aspects of indigenous knowledge. In the first category is the example of knowledge of plants and animals leading to gathering and hunting as well as farming, fishing and aquaculture. Essentially, peoples of Bayelsa State recognise plants as useful for, among other things, food, medicine, raw material for house and canoe construction, as well as ornamentals. Plants, therefore, have both utilitarian and aesthetic value for all segments of communities in Bayelsa State.

For example, whereas a World Bank Niger Delta Report, 1998 (p. 38) says that "No estimate of the total number of plant species or endemics in the region have been made", Timitimi of Kaiama (see Derefaka, 1991:378-386 and Annex 2) has compiled a list of over two hundred plants as known in the Kolokuma-Izon dialect and distinguishes the trees (*tinama*) from the herbs (*tuoama*). He has also provided their botanical names as well as information on the local names and description of plants

in the Central Delta Ijo area including their uses and the locations where they can be found. About eighty two (82) plants are so discussed. Kay Williamson, a Professor of Linguistics, has (1970) discussed about fifteen food plants giving their names in several languages and dialects of the Niger Delta and the analysis is done within a comparative frame work. Also, in collaboration with others, Professor Kay Williamson has produced a list of more than two hundred plants with their Izo names.

Compare also Alagoa (1995:126-131 where Madam Janet Yabi Beri of Okpama lists the uses of parts of twenty seven plants. More work needs to be done in the systematic compilation for all the communities in the eight local government areas of Bayelsa State to produce a comprehensive floral resource map for the State.

With regard to animals, again, M. Timitimi has listed by their Izo names 88 fish species, 16 crustaceans, 9 domestic animals, 23 snakes and other reptiles, 7 types of worms. Mr. R. A. Freeman, an artist from Southern Ijo, has written about fishes and birds of the Niger Delta seacoast. Of the "over 330 different bird species" which the World Bank Report, 1995 (p. 40) speaks about, Timitimi has a list of over 70 birds with their Izo names. Again, a systematic compilation is necessary for all communities in Bayelsa State so as to build up a faunal resource map for the State. In doing this a common reference point, namely, the zoological names must be established for comparative purposes. Indeed, dwindling indigenous knowledge about plants, animals and ecosystems among succeeding generations of Niger Delta peoples would worsen the looming environmental crisis in the region.

The importance of plants and animals to Bayelsa people is exemplified in Alagoa's (1986) compilation of Nembe proverbs. Of the 360 proverbs discussed, one hundred and seventeen refer to plants and animals. Proverbs can, thus provide clues for identifying the resource maps of a community.

Returning to indigenous technology, the need to procure, process, present and utilise products of plants and animals has been responsible for the invention/adoption and development of various aspects of

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technology within the communities in Bayelsa State. Fishing, aquaculture, agriculture as well as hunting and gathering have produced a number of associated technologies through time. For example, fishing and fish processing are important for all the three ecological zones of the state, namely, the marine and estuaries zone (tidal); the brackish-water zone (tidal) characterised by mangrove vegetation; and the fresh water zone which is tidal in the lower reaches and non-tidal in the upper reaches. Although each zone has a distinctive fish fauna, the main fishing methods, such as the use of traps, nets and hooks, are common to all the zones. However, the intensity of fishing in the freshwater, is much lower than in the other zones.

With regard to fishing, the significance of indigenous technology can be better appreciated when one looks at the area of preservation for example. There is a continuing use of what external fisheries experts have called the "primitive" method of smoking fish despite the introduction of the kiln drying and hot-air drying of fish which was recommended to be adopted by local fishermen and which seems to have failed. A systematic and development-oriented documentation; assessment and dissemination of available and possible technologies related to fishing methods, fishing gear, preservation as well as storage and packaging equipment needs to be undertaken for Bayelsa State. Aquaculture or fish farming has been known and practiced by the people of Bayelsa State. The many fish ponds, sacred lakes etc. bear testimony to this. Again, there is need for detailed documentation of the technical details of this aspect of fishing as a subsistence strategy.

As for agriculture and the keeping of domestic animals, farmers in Bayelsa State, mostly women, are knowledgeable about the nature of plants with regard to what Prof.. Onofeghara (1987:6) characterised as how they grow and reproduce; what uses they have, and how they may be improved or controlled. Moreover, local farmers also experiment and improve on their agricultural systems. The populist arguments put forward by Richards (1985: 16-17) are instructive in stressing the need to systematically document trends in all aspects of crop farming in Bayelsa

State, namely, farming techniques, implements used, crop processing, storage and packaging. The highlights of his arguments are, that:

- "Whereas much of Africa's rural population is scattered and poor it is also inventively self-reliant."
- "Small-scale farmers are capable of making changes in their own interest which are potentially of benefit to society as a whole."
- "Although rural development programmes of the last 10-15 years have placed the interests of small-scale farmers high on their agenda the results have so far failed to come up to expectations because of a failure seriously to address questions of popular participation in project design and development of new technologies."

Essentially, therefore, scientific methodology of experimentation, observation and deductions leading to improvement of crop varieties and farming processes and equipment have been present in the indigenous development of farming systems in Bayelsa State and these need to be carefully and systematically documented within a chronological framework. Cash crops grown in Bayelsa State include coconuts, kola, oil palm, sugar cane, cocoa and rubber. Fruit trees grown include orange, mango, banana, plantain, pawpaw, pears, tangerine, guava and sourchop. Vegetables include pumpkin, okro and bitterleaf. Root crops include yams, cassava, cocoyam, and sweet potatoes. Legumes include cowpeas. Cereals include Rice and Maize. Tree products exploited for food include the bush mango seed (*Ogbono*)

Domestic animals reared for food include chickens, goats, and pigs. Households rear a few of such animals mostly for direct consumption. Large-scale production in rural communities is not common. Other domestic animals such as dogs, parrots, and cats are reared for security, aesthetic and emotional reasons.

Other important aspects of Indigenous technology include the manufacture of ceramics, which is in decline; making of mats, basketry, cordage, fabric and thatch, palm oil processing which exemplifies independent local development of new non-western technology as well as

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the palmwine, gin and salt production processes; the construction of houses, cooking utensils, furniture, lighting devices and musical instruments; carving of canoes, masks, walking sticks etc.; the construction of rafter and other kinds of bridges; manufacture of tools and weapons; techniques for gathering honey; indigenous technologies related to bone setting and physiotherapy; and technologies related to other aspects of health care as well as care and disposal of the dead.

What emerges, therefore, is that indigenous technology is relevant to the needs of the peoples of Bayelsa State from the cradle to the grave and if sustainable development is to be attained, foreign innovations have to be related to the age-long practices and technological achievements of the various communities. Moreover, the local people must be seen and appreciated as more knowledgeable with regard to the maintenance of equilibrium between resources rationing and resource depletion using appropriate technology to exploit resources in the local environment in a sustainable manner so that the interests of future generations are not mortgaged for immediate and transient needs of the present generation.

## D. HISTORY

## CHAPTER THIRTEEN

# PREHISTORY DEVELOPMENTS

*Abi A. Derefaka*

### **Introduction**

Prehistory generally refers to the period of a people's past before writing was invented or commonly used for recording events, human thoughts and situations. Prehistoric developments in Bayelsa State are, therefore, concerned with the achievements and way of life of the peoples of the State before Christianity and western formal education, that accompanied it, introduced writing to the oral societies of the area.

The reconstruction of prehistoric developments in Bayelsa State is made possible, primarily, as a result of archaeological fieldwork that has been undertaken in some parts of the State. Oral traditions, ethnographic reports, art history, linguistics, and palynology are other sources that have contributed to the reconstruction of prehistoric developments. Oral traditions have been useful to the archaeologists working in Bayelsa State in the areas of site location through accounts of origins and migrations. Oral traditions also give some information on chronology and some aspects of material and non-material culture. This is why such traditions are useful to the archaeologist at the levels of analysis and interpretation of data. Ethnography and Art History complement the findings of Archaeology by extending the study of material culture to more contemporary times. (The two sources are also invaluable to the archaeologist at the levels of analysis, interpretation and explanation). Linguistics, specifically historical linguistics, throws light on the level of relatedness of the languages of the peoples of Bayelsa State. Through lexicostatistics and glottochronology, it also provides some information on chronology with regards to the time of separation of daughter languages from parent or proto languages. Palynology, which is concerned with the study of fossil pollen, has been important both in reconstructing the

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vegetational features of Bayelsa State in prehistoric times as well as indicating the time when some important plants, especially the oil palm (*Elaeis guineensis*), became widespread.

## Research

Bayelsa State was only carved out of Rivers State in 1996. Archaeological research in the new State is yet to commence. However, while it was part of Rivers State, some archaeological research was carried out in present Bayelsa State. The research was sponsored by the Rivers State Research Scheme based in the 1970s and 1980s in the Institute of African Studies, University of Ibadan, the Rivers State Arts Council, University of Port Harcourt and University of Ibadan.

The records of archaeological research in the Niger Delta show that the first organised archaeological fieldwork in the Niger Delta was undertaken in December, 1972 by a research team from the University of Ibadan comprising Professor Thurstan Shaw, Professor E. J. Alagoa and F. N. Anozie. They carried out reconnaissance work at Onyoma, Nembe, and Okpoama in Bayelsa state, among other places in Rivers State. The basis for visiting these sites was that they were among the "ancient settlement sites ... regarded as dispersal centres of the Ijo people" (Anozie 1976: 90) which Prof. Alagoa had indicated in his analysis of Ijo oral traditions. In April and December 1973 archaeological excavations were carried out at Onyoma near Nembe. Professor M. A. Sowunmi, a palynologist joined Alagoa and Anozie for that excavation. She studied the past and extant vegetations of the area.

Between December 1975 and January 1976 Saikiripogu (Ewoama) lying between Okpoama and Twon-Brass was excavated. Onyoma and Siakiripogu are in the saltwater, mangrove Eastern Delta, near the Atlantic coast.

In the late 1970s Professor Alagoa encouraged the extension of archaeological research into the freshwater Central Niger Delta. Three sites were located, during reconnaissance by this writer, assisted by Mr Sebenimo Appah in 1979. In 1980 Agadagbabou (on Wilberforce Island),

near Sabagreia and Igbedi, was excavated. In August 1981 Koroama on Gbarain (Taylor) Creek was excavated and in March 1983 Isomabou near Ikibiri was excavated. The work on these three sites is reported in this writer's Ph.D. dissertation submitted to the Graduate School, University of Port Harcourt in 1991, being the only detailed report of excavations in Bayelsa State.

### Archaeological sites and excavations

An archaeological site is a location in which one can find material remains which are evidence of human activity or habitation in the past. All the sites that have been excavated in Bayelsa state are open habitation sites considered to have been old settlement sites of Ijo-speaking peoples. However, whereas the two sites located in the saltwater Eastern Delta were largely shell midden sites, those in the freshwater central Delta were shell midden sites. Consequently, whereas fishing was the predominant occupation of the settlers of the two Eastern Delta sites, it was only one aspect of the main occupations of the settlers of the three freshwater central Delta sites further inland. However, whereas Onyoma is an abandoned open habitation site, Saikiripogu is an inhabited site. Similarly, whereas Agadagbabou and Isomabou are abandoned open habitation sites, Koroama is an inhabited site.

### Onyoma

Onyoma is an Island located 4°32'N, 6°24'E in Nembe Local Government Area. It is an oblong-shaped island with a perimeter of about 630 meters (Sowunmi, 1987: 34). From observations of 180 sq. meters made up of twenty randomly chosen areas of 9 sq. metres, the extant vegetation of the site during the excavations is described as secondary rain forest. The evidence for this is said to be the abundance of the oil palm (*Elaeis guineensis*); the occurrence of other plants characteristic of secondary forest; and the existence of luxurious mats of herbaceous and woody trailers characteristic of farm regrowth. Along the edge of Onyoma Island are raffia (*Raphia vinifera*) or koro plants and some coconut trees (*Cocos*

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*nucifera*). Also from surface samples analysed by Professor Sowunmi, the pollen spectrum shows a salt water mangrove swamp and rain forest environment. The pollens identified include those of *Rhizophora racemosa*, *Raphia vinifera*, and *Elaeis guineensis*.

For the more remote past, reconstruction of the vegetational history of Onyoma and its environs depended on the analysis of the set of core samples obtained by Shell Petroleum Development Company as deep as 36.00 metres from near Ofuabo Creek which is near Onyoma (See Sowunmi, 1987:38 - 46). The stratigraphic layers of the core sample have been dated by the radiocarbon method as follows:

0.50 metres	505 ± 60	Years B. P.
1.90 metres	700 ± 70	Years B. P.
2.50 metres	700 ± 70	Years B. P.
13.38 metres	7,555 ± 130	Years B. P.
15.85 metres	30,000	Years B. P.
28.12 metres	35,000	Years B. P.

It is also important to note that the lowest layer consisted of "sands, pebbles and gravel, intercalated with thin layers of clay" and this is the same deposit that exists in the present freshwater upper deltaic flood plains. This is evidence that the mangrove swamp and the coast were further south more than 35,000 years ago while the freshwater swamp extended southwards to where the mangrove swamp is now located.

Also important is the fact that between 6,800 and 5,600 years ago there was virtually no pollen of freshwater swamp forest and by 5,600 years ago there was an upsurge of *Rhizophora* pollen constituting more than 87% of the pollen spectrum for the subsection 9.80 metres of the core sample. There is also the significant occurrence of the pollen of *Elaeis guineensis* from about 2,800 years ago which suggests the beginnings of the clearing of the forests for farming. If this is so, then human occupation of the Niger Delta could date to about 2800 B. P.

## Prehistoric Developments

The above summary of Professor Sowunmi's findings is provided to show that chronology is a major problem which archaeological research in the Niger Delta has sought to solve. The interdisciplinary approach adopted for the reconstruction of the past in the Niger Delta has been the basis of archaeological research in this region of Nigeria.

With regard to the excavations at Onyoma, Anozie, Nzewunwa, and Derefaka (1987: 125 - 127) have reported that test pits were used to sample the site. Three test pits (2m x 2m) namely Onyoma I, II and III were dug. While I and II were located on two of the four main mounds, Onyoma III was near the water-front. Excavations at Onyoma I reached a depth of 2.4 meters. The stratigraphic layers of Test Pit I were an upper layer consisting of loose shells (mostly periwinkle or *Isemi (Tympantonus fuscatus)*), ash lenses, large quantities of pottery and other artefacts; and a lower layer. At a depth of 1.67 meters, part of a human skeleton was exposed. The test pit was extended to fully expose the burial and recover any grave goods. The corpse had been buried lying on its back with the head towards west. Artefacts found associated with the burial were a coiled copper object, a single greyish blue cylindrical bead near the jaw bone and fragments of crucibles and very thick red pottery.

The lower layer began from 1.70 metres to the final floor of the excavation unit. It was made up of a black clayey soil containing relatively few periwinkle and other shells as well as some ash lenses and some potsherds. The second test pit was excavated to a depth of 2.10 meters. Its stratigraphic section also revealed two layers - an upper and lower layer. The upper layer stopped at 1.50 metres. Apart from periwinkle shells, this layer also contained fish bones representing different types of fish, mammalian bones, broken crucibles, miniature pots, some iron slag, and a terra-cotta figurine of a human head. The lower layer consisted of fine sandy soil and a few potsherds.

Test Pit III, located at the "waterside" could only go down to 0.60 metres before the water table was reached and excavation had to stop. 10m down what appeared to be part of an oven or fireplace was encountered but lack of time did not permit an extension of the test pit to

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study the feature properly. Since crucibles and iron slag were found in Test Pit II, it is reasonable to surmise that this feature in Test Pit III could be part of a smelting or iron working furnace. It is very important that follow up excavations be undertaken soon at Onyoma. The radiocarbon dates obtained for the site of Onyoma range, in calendric terms, between 1275 and 1690 A.D. with the burial in Test Pit II dating to  $1750 \pm 95$  A. D. Of the finds at Onyoma, clay objects are the most numerous. They include pottery such as *Tamunobele* (a small sub-spherical ritual pot for appeasing the spirits of mothers whose children had died), bowls and water pots. Also, apart from the terra cotta head found in the upper layer of Test Pit II, a stylized human male figure was recovered on the surface near the "waterside". Two smoking pipes, both locally made, were also recovered near Test Pit III at the waterside. Other significant finds were the Leopard teeth (*Kuronamaka*), cowrie shells, two egg-shaped pieces of locally made chalk recovered from the upper layer of Onyoma I and II. Fragmentary animal and fish bones were also recovered from Onyoma I.

### Saikiripogu (Ewoama)

This site is nearer the Atlantic Coast than Onyoma and is located between Twon (Brass) and Okpoama. The co-ordinates of its location are  $4^{\circ} 20'N$ ;  $6^{\circ} 15'E$ . It is in Brass Local Government area. With regards to physiography, it is on the sandy beach zone of the Niger Delta. It was originally called Saikiripogu and, according to oral traditions, was a large settlement but as a result of constant invasion by more powerful neighbours, the inhabitants abandoned it and moved to Okpoama. More than one hundred years ago, the area became more peaceful, and some families returned to the site and called it Ewoama (New Town).

Three Test Pits, namely I, II, III were sunk in the area of the old settlement. Test Pit I was located on a large refuse mound about 13 metres from the waterfront. Excavation at this test pit went down to a depth of 1.40 metres. The stratigraphy of this test pit consisted of three main layers. On top was a layer of black clayey soil with some ash lenses beginning from 65cm and extending to 85cm. This layer contained most of

the artefacts recovered. Following this and lying between 85cm and 115cm was another layer of ash containing charcoal and pottery. Below this second layer was a fine white beach sand which was mostly devoid of artefacts.

The second Test Pit was located a few metres north of the shrine of Saikiripogu oru. It was situated on the present land surface of the site unlike Test Pits I and III which were situated on refuse mounds. Test Pit III was located on a mound near the central arena (Opupolotiri) of the settlement. The stratigraphy of the third Test Pit consisted of two major layers, a compact black clayey soil with thick shell concentrations and extending to a depth of 1.40 metres followed below by a sterile layer of fine white beach sand.

The radiocarbon dates obtained for this site range between 1010 and 1640 A. D. with 1500 A. D. marking the time the old site was abandoned. The artefacts recovered from this site were mostly made of clay (including pots and bowls, a locally made clay smoking pipe and some tuyeres). Also recovered were various types of saltwater shells as well as animal bones.

### Agadagbabou

This site was excavated by the present writer and late Professor Nzewunwa. The research sponsored by the University of Port Harcourt, was led by Professor E. J. Alagoa. The excavations lasted from 15th February to 1st March, 1980.<sup>†</sup>

In all, four test pits were used to sample this site during the limited excavations that were carried out. Test Pits I and II were situated along Opuba Creeklet and were regular 2m x 2m Test Pits whereas Test Pits III and IV were rectangular Test pits aligned north-south and west-east respectively on their long axis. Test Pits I and II were to confirm that the concentration of potsherds along the bed of Opuba Creeklet adjacent to

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† The permanent excavation crew list was as follows: Abi. A. Derefaka, Department of Archaeology, University of Ibadan; Nwanna Nzewunwa, Department of History, Faculty of Humanities, University of Port Harcourt; T.T.D. Green and John Alibo, Rivers State Council for Arts and Culture. Local labour comprised: World Obulu, Job Buosogha, Sambo Omonigbalibo, Peter Obulu, Tunde Obulu, Godspower Tarabina, John Zuwei and Udisi Fikeye

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the open habitation site had been washed down from the higher settlements area of the site by water action. Test Pits III and IV, on the other hand, were located so as to obtain information about the stratigraphy of the site with a view to shedding some light on chronology as well as to recover artefacts left behind by the former occupants of the abandoned site.

The artefacts recovered from the Agadagbabou site were predominantly ceramics. The pottery included necked pots, globular pots, carinated pots, carinated bowls, and open bowls. Of the 2518 potsherds from this site that were analysed, 86.74% were plain while 13.26% were decorated. There were more decorated rim sherds than decorated body sherds. Apart from the pottery, other clay objects include locally-made smoking pipes, a clay bead (*Kara*, which is a neck pendant worn by women during circumcision ceremony), and two cylindrical glass beads with green, red and yellow stripes. The stratigraphy of the site as observed from Test Pit IV consists of three main layers. A light brown topsoil with few potsherds is followed below by a black to dark grey soil with concentration of charcoal, sherds and other artefacts, which lies on top of the compact yellowish brown sterile subsoil. The radiocarbon dates obtained for this site range between 1640 and 1730 A. D.

### Koroama

Having excavated one site on Wilberforce Island discovering the preponderance of ceramics in the artefact assemblage it was considered necessary to investigate a nearby pottery manufacturing site. This was the main reason for the decision to excavate the two mounds at Koroama. Koroama is located on the west bank of Taylor (Gbarain) Creek which is a tributary of the Nun River like the Igbedi Creek. The excavation was funded by a Senate Research grant of the University of Ibadan obtained by the present writer. It commenced on 28th August, 1981. The two mounds located for excavation were designated Mound A and Mound B. While Mound A, situated right next to the waterfront towards the northern end of town, was a pottery firing mound, Mound B situated towards the southern end of Koroama and near the Opuada shrine and Martin Orumokumo's house was essentially a refuse mound.

## Prehistoric Developments

The excavations at this site were also limited and so the sounding of the two mounds was by the use of Test Pits. Two 2m x 2m Test Pits were opened near the apex of Mound A which had already suffered from flood erosion from the Taylor Creek side of the mound. Similarly, on Mound B, two 2m x 2m Test Pits were set up and excavated. These excavations were carried out during the rainy season and this necessitated special measures to protect the excavation units overnight and even during the process of excavation. For example a canopy had to be built over the second Test Pit on Mound B during the excavations to protect workers, artefacts and features during the rains.

In terms of finds, as expected, most of the artefacts recovered from the two excavation units on Mound A were potsherds. In all 25,400 potsherds were recovered from the two units on Mound A. Some of the sherds were insufficiently oxidised during firing and even those ceramic vessels that were properly fired appeared to have broken as a result of risks inherent in the open air bonfire pottery firing technique commonly used in the Niger Delta. Pottery was also recovered from Mound B. More than 3,600 potsherds from mounds have been studied.

The fabric of the pottery has been studied by Dr. Samiyu Wandiba of the National Museum of Kenya in Nairobi. Using both a microscopic examination with a x10 hand lens and examination under the petrological microscope, Koroama pottery was found to fall into two fabric types. The first type is "characterized by specimens that have a generally compact texture, with abundant inclusions of quartz grains. The second type of fabric is "generally less compact than the first type" with "abundant inclusions of quartz grains that appear to be slightly larger than those of the first fabric type". Wandiba's conclusions are instructive:

the nature and composition of the inclusions of the two fabrics probably originate from the same source. This would mean that the observed differences are a reflection of different potting skills practiced at the same centre ... On the whole, the pottery seems to have been manufactured locally on the (site) where it was found.



Fig. 13.1: *Onyoma pere*, terra-cotta head from Onyoma



Fig. 13.2: Terra-cotta male figure from Onyoma

His conclusions accord with the nature of Mound A and extra site information collected from late Madam Salome Tuosenda, the last known

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potter in Koroama, who confirmed that the material for making pots was obtained from near Koroama. The Koroama and other Gbaran potters manufactured and traded pots and other ceramic products to the Kolokuma and to other neighbouring *Ibe*.

Other artefacts recovered from Mound B include gun flints, a fish hook, imported European factory-made smoking pipes, a metal hoe, pieces of porcelain plates, blue glass beads and fragments of J.J. Peters Gin bottles as well as food debris. The gun flints recovered are double edged flints with reverse trim on both firing edges.

With regard to the stratigraphy of the Koroama mounds, for Mound A, it is striking that there is a constant stratification sequence on all the walls of the two test pits excavated on Mound A. There are five distinct layers. For Mound B, the profiles for the south and west walls of Pit I show the same five distinct soil layers with inclusions plus two distinct features, a palm kernel lens, and a lens of reddish soil which could be discarded house floor material or oxidized clayey soil.

With regard to dating, Koroama produced enough material for relative and absolute dating methods. For relative dating, trade goods, namely smoking pipes and the flint musket parts have been used. The gun flints are of the platform type said to have been introduced into Britain from France between 1785 and 1780. By the mid nineteenth century the flint musket could have reached Koroama. It would be recalled that it was on 18th July, 1854 that Baikie named Gbarain Toru, Taylor Creek after one member of his crew. Similarly because the European smoking pipe typology has been fairly well worked out in terms of chronological significance, it was possible to compare the excavated pipe fragments, especially the bowls, with published and dated specimens. A particular type dated to between 1730 and 1780 in Britain would have arrived Koroama in the nineteenth century as this type was positively identified among the fragments recovered from Mound B at Koroama.

Charcoal samples sent for radiocarbon dating were those from Mound A which produced no European trade goods. Both samples returned a radiocarbon age determination of "Modern" meaning that the radiocarbon

result lies in the period of uncertainty for the technique, that is, in the last three to four hundred years. The Koroama pottery firing mound cannot be older than 400 years ago which is about the 16th century A. D.

The excavations at Koroama have illustrated the importance of activity loci on a site. Mound A had little or no evidence of daily subsistence activities especially food debris and domestic waste material such as damaged tools and utensils. Mound B, on the other hand, was a refuse dump and so had distinct midden deposits in the stratigraphic sequence. Also, located on a creek smaller than the River Nun but bigger than the Opuba creeklet, Koroama represents a settlement category higher than Agadagbabou but smaller than the later Kolokuma settlements on the Nun River. Evidence of a potting industry from Mound A suggests that Koroama had a sedentary population whose economy was already diversified and in which trade was important such that the range and variety of European trade goods noted from the excavations could be acquired and the damaged ones discarded. Consequently, it is unlikely that Koroama was founded in response to the coming of Europeans to the Niger Delta.

From extrasite information gathered at Koroama and Obunagba, the practice of pottery firing was to locate firing hearths behind rather than in front (that is by the waterfront) of the settlement. What this indicates is that where a pottery firing mound is presently located in front of the settlement, it means that the river or creek erosion has continually advanced into the settlement forcing the inhabitants to continually move their houses further inland in response. Thus, Mound A at Koroama could represent a former inland end of the settlement. It is, therefore, quite possible that the older portions of the settlement may have been lost to the Taylor creek through floodwater erosion of the shoreline over the years. Indeed the evidence of on-going erosional effects on Mound A during the excavations in 1981 makes one wonder if Mound A would still be there by November 1997. Thus, archaeological research at Koroama has drawn attention to a real impediment to efforts at rural development in Bayelsa State, since a School or Health Centre built for a rural community could be destroyed by erosion after some years. The phenomenon is also evident in present day

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Kaiama, where one end of the town is being steadily destroyed by erosion. Development planning that does not take indigenous knowledge and local response to environmental pressures into account is likely to be irrelevant or at best of limited aid to the daily life of the people.

### Isomobou

Isomobou is an abandoned open habitation site 5.5 kilometers, as the crow flies, from Ikibiri and about 9 kilometers following the winding footpath which crosses Ayala lake. The co-ordinates of its location are 4°55'N, 6°10'E. It is situated on the south bank of Torukubu Creek, sixteen to twenty metres wide.

Five 2m x 2m Test Pits were excavated at this site. Test Pit I was set up on 17th March 1983 in the area where the present fishing camp is situated on the western part of the site. The other four test pits, each of which was also 2m x 2m square, were situated east of the footpath leading south wards to Ikibiri. Excavation units II and III were nearer the footpath while units IV and V were further away and nearer a mudflat on the southern bank of Torukubu Creek.

The most numerous of the finds at this site was pottery in all, some 4,500 potsherds were recovered. Of these, 4,389 were not too fragmentary for meaningful analysis. 82% of the potsherds from this site were plain while 18% were decorated. Of the decorated potsherds, 27% are rimsherds while 73% are body sherds. Other finds include a possible fishing spear tip made of iron, animal bones (including antelope bones) and fish bones. European trade goods were recovered at this site. The most common feature encountered during the excavations at this site was the hearth or fireplace. From Test Pit IV, for example, apart from the hearths which produced a lot of charcoal and ash, from the north-west corner of the unit one hearth produced some burnt clay which may have been used to construct a simple firewood stove. This stove (from ethnographic analogy) is a circular thick-walled clay structure open at the top and with provision of space for stoking the fire with firewood. The clay cooking pot could then be placed on the stove.

With regard to the stratigraphy of this site, Test Pit I was dug to a depth of 1.2 metres and the profiles on the north and east showed four

different types of layers plus an ash lens. The profiles of the west, north, and east walls of Test Pit II show the sequential stratigraphic relationship of the four layers better, but the profiles of the west, north and east walls of Test Pit V show that relationship best.

In terms of chronology, Isomobou is, undoubtedly the most significant of the three freshwater Central Niger Delta archaeological sites so far excavated. Because this writer expected it to be so, five of the seven samples chosen to be dated by the radiocarbon method in Oxford by him were from Isomobou. The earliest date was from the main cultural layer of Test Pit V with an age range of 1030 to 1290 A.D. From Test Pit II there is an age range of 1045 to 1480. Also the upper limit of the age range for level 1 of Test Pit V is 1480. Consequently, Isomobou appears to have been occupied between 1030 and 1480 A. D.

### Conclusions

All five archaeological sites excavated in Bayelsa State have been investigated using vertical and limited excavation method. This is because of both the nature of the deposits in the two saltwater mangrove eastern Delta sites and the focus on establishing a chronological framework for the prehistory of the Niger Delta which is an aim shared by all five sites excavated. Area excavation methods of these and other sites in Bayelsa State will require more funds, manpower, equipment and time. This is why one would advocate the continued use of limited excavations and vertical methods to sample as many sites as possible instead of doing large-scale excavations as a general rule for now. However, if any site urgently needs area excavation for some compelling reasons that are clearly indicated from initial limited excavations, it ought to be given priority attention.

In our present state of knowledge of the prehistory of Bayelsa State, there is evidence of early settlement from the 11th century A. D. both at the coast (Saikiripogu) and further inland (Isomobou). There is evidence of fishing, hunting and farming in the freshwater Delta in prehistoric times while on the coast the predominant occupation appears to have been fishing. Also the terra cotta figurines from Onyoma and the evidence for iron-working indicate significant levels of cultural development and a diversified economy during prehistoric times. Furthermore, the iron spear

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tip recovered at Isomobcu suggests that by Metal Age times, Delta peoples, especially the Ijo, had settled all over the Niger Delta.

The results of the 1972 reconnaissance of Niger Delta archaeological sites as well as those of this writer's 1979 survey indicate that a number of sites such as Oruokolo, Ebalá forest in Ogbia, Obiama, and Amakiriebiama near Okotiana in Taylor Creek ought to be excavated soon. Also, the possibility of iron smelting and working at Onyoma needs to be investigated quickly to place that site properly on the archaeological map of Nigeria during the Metal Age of our prehistory. Beyond these, a systematic location and recording of archaeological sites with some excavated and integrated into a tourism master-plan for the State is urgent. For example, the relics from the Slave Trade have made Goree Island in Senegal internationally well known, just like the coastal castles and forts in Ghana.

To document, restore, conserve, exhibit, study and store artefacts recovered from archaeological fieldwork and ethnographic collections properly, it is vital and urgent for the State government to evolve a clear policy on the establishment of museums and begin to establish a State Museum at the capital. The advantages of this for tourism are enormous especially when craft shops and Museum Kitchens are included in the complex.

Local governments and communities should also be encouraged to establish and properly run museums focusing on their locality. One such effort that is already on the ground is the Mangrove Museum in Nembe which has collaborated recently with the West African Museums Programme (an NGO based, in Dakar, Senegal) on a study of mausoleums (*Okpu*). That effort should be kept alive through financial and personnel assistance from the Bayelsa State government. Similar museums need to be established all over the State as an essential component of an integrated tourism plan for Bayelsa State.

## CHAPTER FOURTEEN

# THE ATLANTIC TRADE

*Nkparom C. Ejituwu*

### **Introduction**

The Atlantic Trade is one theme in Niger Delta studies that evokes emotion. Delta people feel proud that their fore-fathers were involved in the trade which brought them in contact with Western civilization at a time when the other parts of the country were literally in the back-woods

On the other hand, the trade is usually mentioned in reference only to the Eastern Delta states of Andoni, Bonny, Kalabari, Okrika, Nembe (Brass) and Akassa, and in the Western Delta, with focus on the Itsekiri kingdom, because of the impact of the trade on these societies. For instance, New Calabar was segmented into Buguma, Abonnema and Bakana, and Bonny into Bonny and Opobo, in the Eastern Delta; while in the Western Delta the activities of the Portuguese in the Itsekiri kingdom led to the establishment of a Catholic mission and the rise of a dynasty as early as the 1640s with a mulatto king, born of a Portuguese mother (Barbot, 1732, 377).

The question is: What about the Central Delta communities of Bayelsa State? How involved were the people of Bayelsa State in this trade? The answer is that the communities of the Central Delta were not directly engaged with the early European traders, only Nembe (Brass) and Akassa, directly participated in the Atlantic trade.

Most of the communities in the Central Delta were small-scale and non-centralized, and without a centre of population on a river estuary to attract European trade. To share in the trade, the people of the Central Delta engaged in piracy and/or provided the slaves and foodstuffs through the Itsekiri, Nembe or Akassa on the Forcados, Nun and Brass Rivers. This isolation from trade was the same factor that induced British and other European traders to engage in piracy, to break the monopoly

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enjoyed by Spain and Portugal when Pope Alexander VI divided the world into two halves for the Spaniards and Portuguese to enable them to maximize the benefits accruing from their discoveries. Isolated from the abundant wealth from the New World, Britain, Holland and France engaged in piracy and eventually threw the trade open (Parry, 1965). Thus, the Ijo pirates were operating in the tradition of national heroes like Sir Francis Drake of Britain, and were revered as defenders of their communities, becoming legendary figures in local traditions.

Our examination of the Atlantic trade in Bayelsa state will focus on Nembe (Brass) which emerged as a city-state, whose trading chiefs served as agents who successfully linked the coast with the hinterland. This paper is broken into two sections, namely, the era of the slave trade which ran from about 1500 to 1807 but effectively to the 1850s (Dike, 1956, 52); and the era of "legitimate" trade in palm oil which ran from the 1850s to about 1900. The period after 1900 was the era of full British take-over of trade from Delta middleman, with Port Harcourt in the Eastern Delta and Warri in the Western Delta, fully established as the colonial commercial centres taking over the role of Niger Delta trading city-states.

### The Atlantic Slave Trade

Contact of the Niger Delta with Europeans started with the advent of the Portuguese to the area in the late 15th century (Kimble, 1937, 132). From Pereira, we learn that the Niger Delta was inhabited by Ijo people who spread from Forcados River in the Western Delta to Andoni in the Eastern Delta. Internal long-distance trade was already in operation, for canoes came from one hundred leagues upstream to sell goods to people at the centres of trade in the Delta (Kimble, 1937, 132). In the Western Delta, the story was the same. Here, the trade was dominated by the Itsekiri and the Europeans went through the Escravos and Benin Rivers to Benin City.

The evidence of "barracoons", warehouses for keeping slaves, at Akassa suggests that Portuguese and Spanish slave traders may have operated there (Alagoa, personal communication). It was in these

## The Atlantic Slave Trade

"barracoons" that slaves were kept until ships would come to take them across the Atlantic to the Americas.

About the second half of the 18th century, the English became dominant in the trade and the people of Bayelsa State supplied slaves and other items through Nembe and Itsekiri traders for sale to them, some of the slaves coming from as far north as Idah and Nupe; but usually transported through Aboh and Onitsha down the Niger to the Forcados, Nun and Brass Rivers.

It has customarily been assumed that all slaves exported at Delta ports came from outside the Niger Delta region. Recent scholarship, however, has revealed that some came from Delta communities. Evidence of Ijo elements in Berbice Dutch language of Guiana in South America, and of Obolo (Andoni) language in Jamaica confirms that Niger Delta people were sold and transported to the West Indies (Smith, Robertson and Williamson 1987; Patterson, 1969: 133). The initial impulse, of course, was for the kings, chiefs and other delta middlemen to raid the surrounding areas when pressures came from the European traders. But, as demand for slaves increased and supplies decreased, delta middlemen moved further afield into the hinterland for slaves. Slaves from Igbo, Ibibio, Urhobo, Igala, Nupe and other distant areas began to be exported from delta ports. Some of the slaves were sold and transported overseas while others were not transported but retained as part of the societies of the Niger Delta, making the area a 'melting pot' of cultures. The slave trade went on smoothly from about 1500 to 1807 when it was officially banned by the British, but, in reality, remained in vogue till the 1850s (Dike, 1956, 52). Brass and Akassa became important as centres of the slave trade during the period after 1807. According to Dike, while Bonny and Kalabari were closely watched by the British squadron, stationed off the coast, Brass became a "gigantic smuggling centre" as Portuguese, Spanish and French slavers moved their operations to the Brass River because it was more hidden from the British squadron (Dike, 1956, 52). The Portuguese, Spanish and French traders were seen continuously shipping slaves from

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Brass and Akassa, and it was unsafe for legitimate traders in Brass to interfere with the slaving processes going on at the port.

On the Benue and Forcados Rivers, there seemed to be no evidence of the involvement of the Itsekiri in the clandestine slave trade, once it had been abolished (Ikime, 1968). According to Ikime, there was hardly any evidence of Slave Treaties entered with the merchant princes of the region during the era of legitimate trade. Brass was the exception. Her traders linked the Central Delta with the hinterland for slaves and other materials needed for the trade and there was a trade boom and huge profits were made.

### The Palm Oil Traders

Although the slave trade dragged on beyond 1870, it was destined to end. For if the European buyers of slaves were sufficiently deterred from buying, the African middlemen would have no alternative but embrace "legitimate" trade in palm produce.

For Brass, serious trade in oil started after the 1850s (Dike, 1956, 52). At this time, a consulate had been established at Fernando Po, with John Beecroft as consul to intervene in the affairs of the Niger Delta. It represented the formal involvement of the British government in the trade of the Niger Delta. It also represented the formal introduction of "gun-boat" diplomacy into the relationship between the African middlemen and white traders in the Niger Delta.

A consulate was also established at Brass and, with treaties made with Brass Chiefs, many "legitimate" traders rushed to Brass river to share in the new opportunities available there. Also, by 1870, Courts of Equity had been established in Brass to help the Consul to settle disputes arising from the trade between Africans and European traders. The same energy and force which were devoted to the prosecution of the slave trade were devoted to the prosecution of legitimate trade in Brass, once the slave trade had been stopped.

However, from the 1830s, a new factor entered the trade. This was the desire of European traders to break the monopoly of Delta middlemen

by shifting their interest from the coast to the interior; to be able to fix the prices of commodities. This impulse began with the discovery by the Lander brothers - John Lander and Richard Lander, that the Niger empties its waters into the Atlantic ocean through the Nun, Brass and its other tributaries.

This was a serious break from the existing tradition by which European traders anchored their ships at the coast and allowed Delta middlemen to link them with the interior for goods, with the implication that the latter would fix the prices of such goods. This development further introduced new factors into the trade, namely, more frequent clashes between the African traders and European traders, on the one hand, and cut-throat competition between the white traders themselves, on the other. The stage was set for the migration of the traders from the coast into the hinterland.

The move for the hinterland started in 1832 when McGregor Laird and Richard Lander, set out from Brass on an expedition to open up the hinterland for trade. To facilitate this process, they built stronger and lighter ships, "Quorra" and "Alburka," which were capable of navigating the shallow waters of the Niger all the year round (Burns, 1978, 94). From Brass also, Count C. N. de Cardi and Arthur McEachean took off to the Imo River and the Qua Iboe River, with Jaja as partner. But no sooner were they at Opobo in the Andoni territory than they abandoned King Jaja for the interior (Ejituwu, 1991, 145). On the Benue, Forcados and Ethiopian rivers in the Western Delta, the picture was the same. European traders there were seen moving up the rivers for contact with the hinterland. (Ikime 1966).

The eventual destruction of the monopoly of the Delta middlemen was sealed, when in 1854, Dr. William B. Baikie, a naval doctor, Captain of the "Plaide", using quinine as prophylactic against malarial parasites, successfully explored the Niger up to Lokoja on the Benue River and thus threw the trade open to European traders. Among the crew of the "Plaide" were Rev. Samuel Ajayi Crowther who later became Bishop of the Niger Delta Pastorate and Rev. A. Taylor, an Igbo missionary (Burns, 1978, 96). The significance of the participation of these clerics in the exploration was in the spread of Christianity in the Niger Delta and Igbo land.

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The movement into the interior was to confer on some Central Delta settlements some importance, as it did to Opobo in the Eastern Delta. These settlements included Kaiama on the Nun River and Patani on the Forcados River. Kaiama came into the picture when, in 1832, King Amaran rescued Richard Lander who was captured by some men of Od (Owonaro, 1949, 27). King Amaran paid the ransom money demanded and was duly rewarded by the British with an allowance of 20 cases of gin, which were later changed to an annual subsidy of £12 by Mr. Snuggly, one of the British workers on the Niger (Owonaro, 1949, 28). Kaiama expanded rapidly and became important as an entrepot between Brass and the hinterland as Opobo would be between Bonny and the Eastern Delta hinterland from the 1870s.

In about 1859, King Amaran rescued the "Rainbow" from the people of Kaiama who had seized it and its cargoes and he eventually sent it to Akassa (Owonaro, 1949,28). This and other services rendered by Kaiama and its king to European traders were to predispose Kaiama to rapid expansion as it was able to attract both Europeans and the advantage of contact with them to the settlement (Isichei, 1972, 113). The settlement also attracted local traders and rulers such as king Osai of Aboh and his traders. For instance, in 1854, some men of Sampou captured and enslaved two women from Aboh and king Osai reported it to king Amaran who succeeded in getting one of the women released (Owonaro, 1949, 28). By its ability to host European traders and provide link between the Delta and hinterland, Kaiama gained prominence in the Central Delta, playing a positive role beyond the general characterization of the Ijo as pirates. Before Amaran, King Boy Amain of Nembe (Brass) had rescued the Lander brothers from Aboh in 1830 and received handsome rewards from the British government.

However, with the success of the movement of the European traders up the Niger River, there followed some element of competition among the European traders themselves. This unprofitable competition came to an end in 1879 when the companies were amalgamated by Taubman Goldie into a commercial conglomerate called the National African Company. Trading centres had been opened at Yenegoa,

Sabagreia; and Epie-Atisa, in Bayelsa State (Sorgwe, 1978) with their major base at Akassa. To improve their commercial relations with these various markets, the company entered into trade treaties with the rulers of these places, stipulating the conditions of trade. One of the needs of the company was cash-crops as raw materials for the British industries at home. The indigenous people were encouraged to produce cocoa, rubber, palm oil, cotton etc., obviously as a prelude to the integration of the area into the capitalist economy.

Goldie was not only interested in trade, but also in the administration of the territory. For this, he sought a charter from the British Government to enable him establish control over the area. Britain chartered the company in 1886, changing its name to the Royal Niger Company (RNC). While the amalgamation of the European firms in 1879 enabled the European traders to seize the traditional markets of Brass and Ijo peoples of the Central Delta, the British government recognized and confirmed the activities of the company through the charter.

Since opposition must come, the company built 20 'gun-boats' of light shaft to enable them navigate the shallow waters of the Niger all year round and silence any opposition from the local people. But such policies could not stop opposition from Brass and the Ijo people. For instance, in 1882, the company's factories at Brass, Akassa and Patani were attacked (Dike, 1956, 212). In 1901, Bebekala of Igbedi shot at the Resident at Brass on his way up the Niger and forced him to return to Brass. Richard Lander was already dead and buried in Fernando Po; he died from a gun-shot wound from some Angiama people in 1832.

Frustration from the company's commercial enslavement led the Nembe Brass people, under their leader, king Koko, to plan and invade the company's stores at Akassa in 1895, destroying, killing and taking captive those who could not escape (Alagoa, 1964). In each case, the company destroyed the village or persons who were responsible for the destruction of their stores or factories. For their attack on Akassa, the colonial administration struck back in reprisal. Nembe (Brass) was attacked, many of its people having to go into hiding for safety. The suffering lasted long because King Koko was not willing to give himself up as King Jaja of Opobo and Nana Olomu of Itsekiri had done before him.

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However, the significance of the Akassa Raid was that the people had successfully challenged the supremacy of the British. It was only the Women's Riot of 1929 at Egwanga that was to have the same effect as the Akassa Raid on the British colonial administration as it successfully nipped in the bud the attempt of the colonial administration to tax Nigerian women in 1929, (Ina, 1989). The Akassa Raid exposed the injustice of the company and led to the withdrawal of the charter of the Royal Niger Company in 1900; and the withdrawal of the charter led to the effective British take-over of the area. Britain had declared the entire Niger Delta a protectorate since 1885.

## Conclusion

In conclusion, the Atlantic trade started with the Portuguese in the late 15th century and, by the 19th century, it had attracted the Dutch, French, Spaniards and English to the Niger Delta. By the end of the 19th century, the people of Bayelsa State had been sufficiently integrated into the trade. Some of their rulers such as King Boy Amain of Nembe (Brass) and King Amaran of Kaiama became agents and big traders, with opportunities to accumulate wealth.

Traders of the Eastern Delta as well as those of the Western Delta communicated across the Central Delta and from the Delta into the interior. When the trade moved into the hinterland through the migration upland of the European traders, the established trade routes continued to serve as valuable means of communication, providing all kinds of linkages, cultural and commercial, between Niger Delta peoples and those of the hinterland.

While the trade exposed the Niger Delta people to the outside world, it also led to the loss of their sovereignty. Indeed, it led to the loss of the Niger Delta through the establishment of British protectorate over the entire area. Christianity was planted in the process. Bishop Ajayi Crowther spread Christianity throughout the Niger Delta from Brass, Patani, and Kaiama, and Rev Taylor took it to Onitsha, from where it spread into the Igbo hinterland. The Atlantic trade was, therefore, a catalyst that brought about a multitude of changes.

## CHAPTER FIFTEEN

# THE IMPACT OF THE ATLANTIC TRADE

*Atei Mark Okorobia*

### **Introduction**

The communities of Bayelsa State, which are geographically located in the central Delta, have not been adequately studied in existing works. The present study intends to highlight the factors responsible for the differential impact of the Atlantic trade on the different ethnic and sub-ethnic nationalities in the State; second, to assess the economic, socio-cultural and political impact of the trade and lastly, to highlight the potential implications of the differential impact of the trade.

### **The roots of differential impact**

It is obvious from the available evidence, that the Central Delta which is coterminous with Bayelsa State, did not play a major role in the Atlantic trade, with the exception of Nembe (Brass in some European records). Frank-Opigo (1980:159) has established, however, that even though much of the trading and missionary activities that were carried out at the time were confined to the coastal towns of Bonny, Elem-Kalabari and Twon-Brass in the Eastern Delta, Central Delta communities like Angiama were also busy in both the slave and legitimate trade, especially in the 19th century. The Mein group of communities have also been identified as being among those which played some role in the Atlantic trade, particularly in the slave trade. Alagoa (1986:31) records a tradition among the Kabo which suggests that "they (the Kabo) lost their control of the slave trade on the Forcados River to the Mein group" as a result of a rumour, that some European slave raiders were planning to sail up the river to capture whoever they saw. There are strong reasons to believe that other Central Delta groups like the Bassan, Olodiama, and Apoi also participated in the trade. There are Nembe traditions which indicate that

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the Bassan in particular, established strong ties with the Nembe city-state and also formed what may be loosely described as a confederate relationship among themselves to enhance their participation in the Atlantic trade. They were among the key suppliers or distributors of goods produced by themselves and those they had purchased from their western delta trading associates. Some of the large canoes used by the Nembe merchants were also bought from this area. Agedah (1984; 45-47) tells us also, that "palm oil from the Kolokuma area was exported to the coastal ports of Brass (Nembe) and Akassa, where it was sold to the European merchants". He adds, however, that the principal carriers of the Kolokuma palm produce were not the Kolokuma themselves, but traders from Nembe.

The studies by Egiri (1983), and Ebiwari (1988) on the Ogbia, as well as Forcados (1984), Agedah (1984), and Ekiyor (1984), among some Izon groups; and Barugu (1983) among the Epie-Atissa indicate that there was virtually no group in Bayelsa State that was not affected by the Atlantic trade, or did not participate in it directly or indirectly. Some of these groups were among the major suppliers of the palm produce, and to some extent, slaves, which the Nembe middlemen sold to their European customers.

Taking all Bayelsan communities into account, then, it is possible to categorise them into three groups. First, there were those which acted as agents supplying either slaves or palm produce which the coastal middlemen sold to the European super-cargoes. The majority of Central Delta communities fall into this category, including the Epie-Atissa, Ogbia, Abureni (Mini), the Kolokuma, the Opokuma, the Ogboin, the Mein, the Bumo, etc. And lastly, we have the Nembe (Ogbolomabiri, Bassambiri, Okpoama and Twon) which acted as the middlemen, and were the most deeply involved in the Atlantic trade in Bayelsa State. It is possible also to distinguish communities falling mid-way between these categories, and those which produced the occasional pirate preying on the trade.

In assessing the economic, political and socio-cultural impact of the Atlantic trade on the people of Bayelsa State, we need not be surprised to find that the trade impacted more on some communities than on others

## The Impact of the Atlantic Slave Trade

The degree of impact was largely proportional to the level of each community's participation. The Nembe were the most directly involved and it brought greater changes to their economic, political and socio-cultural institutions than others. Even among the Nembe, we find that the Ogbolomabiri, Bassambiri and Twon were more involved than Okpoama, Odioma, Liama, Egwema and Beletiemba, for example. Then come the Kolokuma, Ogbia, Ogboin, Epie-Atissa, and others. And lastly, the groups that continued to concentrate on their traditional occupations of fishing and farming. The impact had, therefore, not been uniformly felt throughout Bayelsa State.

### Economic impact

On the positive side, the trade led to the enrichment of some individuals and communities which participated in it on their own account. In the Nembe area, since the merchant princes of Ogbolomabiri, Bassambiri, Okpoama and Twon were generally persons who directly entered into the trade, and on conditions favourable to them, they tended to have reaped the greatest benefits. Apart from the normal profit they made, the kings and some prominent Nembe chiefs received different forms of duties and payments from the foreign traders. The best known of these, particularly from the 19th century, were the "comey", the "shake hand", "top-side", and "dash". According to Alagoa (1964:76), Kings Kulo of Ogbolomabiri and Mein of Bassambiri "were the first on the Brass River to receive comey" - an official duty which every European firm or trader had to pay before being granted the permission to do business.

The wealth accumulated by some of the recipients was sometimes large enough to build prefabricated mansions. Some slaves were able to acquire new chieftaincy titles and build up their own houses (*Wari*); while some who were already Chiefs, used such wealth to buy-over or capture other less progressive chieftaincy houses.

In the Ogbia, Izon, Epie-Atissa and Abureni areas where some of the leading Nembe middlemen had local agents to help-out in their ventures, similar developments were noticed. Ebiwari (1988:48) tells us that "with

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time, these agents of Nembe acquired wealth and exercised great influence in the society. They included Amangala Apata of Oloibi, Agadaga Iworiso of Opume, Ogida of Otakeme, Amakuro of Kolo and Ede of Otuedu". In the Abureni town of Idema, men like Ogolom and Ikor became rich and vocal in the village assembly (Daniel, 1985).

As the 19th century progressed, the traditional rivalry between the French and British spread to the central Delta. Each tried to eliminate the other, and to dominate the area economically and politically. The British had the upper hand when they succeeded in concluding new treaties with the Bayelsa communities and established the chartered business cum-administrative outfit, the Royal Niger Company (RNC), with its headquarters at Bekekiri, Akassa. The attempts by the company to enforce a trade monopoly in the Central Delta, the heart of Nembe trade, led to the Nembe-British war of 1895. While the Nembe destroyed the company's base, the British counter-attack led to the fall of Nembe and the end of her middleman role. By 1899, the RNC itself had its charter revoked. It became an ordinary company, the Niger Company, later renamed the United Africa Company (UAC). Other companies could now compete against it. In short, the fall of both the Nembe middlemen and the Royal Niger Company changed the pattern of trade in Bayelsa State. It became a free trade area for all companies and communities in the state and beyond. This made it possible for the hitherto marginalised Ogbia, Izon, Akassa and Epie-Atissa communities to have direct business links with many European firms. While the Niger Company opened bases at Yenagoa (1911); Amassoma (1921); Twon-Brass (1923), Ogbolomabiri (January 1926); or retained the earlier bases of the RNC at Akassa and Ekowe; and took over the African Merchants facilities at Twon in 1923, the John Holt opened stations at Twon in 1899, Oloibiri in 1903 and Trofanu in 1927. The Niger Delta Palm-nut Cracking Company, owned by one Robert Y. Sewell also opened a base at Yenagoa in 1911. This made an Ogbia historian (Egiri, 1983:30), to remark that "indeed, ... the fall of Brass (Nembe) was a blessing to the Ogbia people". This feeling is shared by other writers such as Furoko (1922), all of whom observed that it helped to

## The Impact of the Atlantic Slave Trade

increase the profit margin of the various producing communities who could now reach the European merchants directly, and at a cheaper price than when they had passed through the Nembe middlemen. Before long, the class of wealthy traders which had hitherto been restricted largely to the Nembe communities became much more widespread throughout Bayelsa State.

The period of transition from the slave trade to legitimate trade was also a period of major technological development for many communities in the fresh water swamp areas where some quantity of palm produce was produced for export. These developments were largely induced by the increased demand for palm produce. Prior to the 19th century, all the producing communities had adopted a method variously called the *Ogbo pulou* (among the Kolokuma), or *Okemegha* (among the Abureni/Ogbia) to meet the demands of the local market. This method was not only too slow, and energy sapping, but was also unable to produce adequate quantity to meet the demands of the foreign buyers. As a result, a new method known as *Kunu* was introduced in many producing communities to produce large quantities in a relatively short time (Agedah, 1984)

In later years, particularly from about the beginning of the 20th century, through the singular efforts of Okolomabiri Ombu, a multi-talented man from Angiama, brought up in Otuan, more efficient methods were developed to sort palm-kernels. Ombu's inventions have been described as "revolutionary" because they led to increased palm-kernel output, more than four-fold (Frank-Opigo, 1980 161-162). Ombu is also credited with inventing a new script or system of writing which he taught to some of his contemporaries, who widely patronised it until it was overwhelmed by the Roman script taught in the new colonial schools.

The advent of the European trading firm has also been blamed for the stagnation or death of some indigenous industries, and commended for introducing new commodities or the increased dealings in some local commodities. The salt industry stagnated or declined due to the massive importation of foreign salt, while the need for larger canoes to meet the demands of the Atlantic trade served as an incentive to some of the

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canoe-carving communities such as Odi and Odioma. The need to meet the food requirements of the slave-ships equally gave a greater impetus to the food trade between the Delta and the hinterland communities. In the course of time, the Europeans found it even more rewarding to introduce foreign food crops such as cassava and maize from South America to the Niger Delta. It would appear that Benin and the Western Delta were the first places where the new crops were experimented, before they spread eastwards to the central Delta from about the 17th century A.D.

### Social and cultural impact

The Atlantic trade has left its imprint on the socio-cultural life of the people of Bayelsa State. To ensure their firm grip on the producing communities, some of the leading Nembe merchants established marriage alliances with some families in these communities. While most Bassambiri merchants established such links with the Abureni communities of Okoroba, Idem and Agrisaba, as well as with a few Ogbia and Odual (Saka) communities, the Ogbolomabiri, according to Ebiwari (1988), preferred the Ogbia towns of Opume, Akipelai, Amakalakala and Oloibiri. Some Twon Chiefs also established such links with the Ogbia. Thus the Abali House of Otakeme-Ogbia is linked with the Yekorogha House of Ogbolomabiri, and the Shidi House of Twon. Again, the Alagoa House of Ogbolomabiri has links with several families in Otuabo, Otabagi and Otuake, while the Ikobho House of Emakalakala established links with the Koko House of Ogbolomabiri during the overseas trade.

A fall-out of the Atlantic trade with a negative social consequence was its acceleration of the pace of moral decadence in the trading communities. This manifested in different forms. In one way, there was an increase in the desire to cheat one's trading partner, as the profit-motive gradually overwhelmed ethical considerations. This was a problem, not just between the Europeans and Bayelsan traders but also between the Bayelsans themselves. Many of the Bayelsans began to demand and receive double "trusts." Others experimented with adulteration of produce and the use of false measures. Telling of lies came to be equated with

## The Impact of the Atlantic Slave Trade

being "diplomatic" and many became extra-cunning. The Nembe, it would appear, were the most affected. Owonaro (1949:27) records an incident involving a Nembe trader who, like others, had been cheating their Epeinbiri counterparts by "presenting worn-out clothes, (fairly washed and pressed) for sale as new ones until one Sekeme from Epeinbiri decided to avenge. It is said that this incident made the Nembe to rename the Epeinbiri people as the "*Ikagi ama*" people; later corrupted to Kaiama. "*Ikagi ama*" means the "land of tortoise" or con-men or "a cunning town." The Abureni people recount similar experiences with the Nembe traders resulting in their being referred to as the "*nimi ongu*" or "wise people." The word "*nimi*" has, apparently, been corrupted into "*Mini*," the name by which that group is also known.

Another fall-out of the Atlantic trade, was the giving of new names to some of the communities by Nembe traders. One area where this was most obvious was the Ogbia area, especially those villages along the Ekole Creek. Here, according to Ebiwari (1988:53) some were named after the most prominent Nembe agents, while others were associated with objects in the towns. Otakeme and Otuogidi, for instance, were renamed "Ogidiana" and "Okpiniana" respectively. Similarly, Otukpesi and Onuebum were renamed Anyama and "Alagbafama" respectively, while Okodi became "Okodogu".

The language and pattern of dressing were also affected. During the trade, the Nembe-Ijo dialect was raised from being a local dialect to become a commercial lingua-franca. Later in the late 19th and early 20th centuries, following the introduction of Christianity and western education, and the leading role some Nembe sons and daughters played in the spread of the gospel and western education to other parts of the State, the Nembe-Ijo dialect also became the second most important language after English.

The foreign trade era witnessed in the Eastern Niger Delta area the creation of new dress styles for different categories of people in the society. Erekosima's investigations reveal that the new dress styles were initially designed to identify the class or social category to which the

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wearer belonged in the city states of Nembe (Brass), Elem Kalabari, Okrika, and Bonny. The categories included those of *Asawo* (Young men who wore *etibo* or *opu seti*; the *Opu-Asawo* (Gentlemen), who wore *etibo* or *angapu*; the *Alapu* (chiefs), who wore *doni*; and lastly, the *Amanyanaongu* (Kings), who wore *ebu* (Erekosima, 1991:61). In Bayelsa State, as the Nembe interacted commercially and socially with the Ogbia groups these styles spread. In the Ogbia area, for instance, Erekosima (1988:53) has confirmed that "the Nembe dialect and cultural outfits were introduced to facilitate trade transactions with Ogbia speakers, and also to enhance socio-cultural integration which is vital for economic cooperation....".

The marriage institution was also affected by the Atlantic trade, especially in the societies that were deeply involved. Among the Nembe communities for example, it became an utmost necessity to increase the population of the various war canoe Houses. A large number of physically fit and mentally alert members were needed to man each war-canoe trading canoe. Some were also deployed to the fishing villages and farm-settlements to produce food to supplement the quantity imported from the hinterland. More men were needed to provide security for the home-based population. Under this condition, it was logical to relax the erstwhile strict rules of pre-marital sex. This possibly marks the origin of the practice identified by Erekosima (1989:95) that "children born out of wedlock answered the surname of their mother's family, and were considered illegitimate".

It was this same desire to strengthen the Houses and communities demographically, that led to the massive importation and acculturation of slaves in Nembe and in other communities. This sometimes created problems for the existing acculturation institutions such as the family and religion. Faster and more effective means of acculturation had to be introduced. Of these, the most effective, and which has survived till date, is the Ekine or Sekiapu masquerade society. Oral traditions at Nembe (recounted by Chief Robert Dede and Edward Wills) indicate that the Ekine society was introduced from Kula by a Bassambiri prince, Or...

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son of King Mein. From Bassambiri it diffused to Ogbolomabiri, Okpoama and other places.

The Atlantic trade era, especially the period of the slave trade, was characterised by an atmosphere of social insecurity. This was largely the result of the intra-Delta slave raiding activities aimed at securing victims for export. While in the past, scholars had thought that virtually all the slaves exported through the Delta ports were procured from the Igbo and other parts of the Nigerian mainland, recent studies are increasingly revealing, that some of the slaves were actually captured from communities within the Delta, and indeed within the Bayelsa area. Alagoa (1986) has recorded oral traditions in the Cape Formosa Communities (Beletiem, Egwema and Liama) which indicate that during the slave trade, they were so harassed by Nembe slave raiders that they had to abandon their waterside locations to settle at the centre of that island. These settlements are now referred to as the Beletiem Ama-Ogbo, Egwema Ama-ogbo and Liama Ama-Ogbo. It was after the eclipse of the slave trade that they re-established their present settlements at the bank of the Akassa Creek linking the Brass to the Nun River. The State of insecurity the trade engendered disrupted normal economic and cultural activities. The societies stagnated, and in some aspects of life, they actually retrogressed.

The Cape Formosa communities were not the only victims of the socio-political anarchy that the Atlantic trade engendered. In Ogboin *Ibe*, (Preye Okosi, 1980:71) has suggested that the state of anarchy which ushered in the reign of King Okosi as Agbedi II of Amassoma may have been due to the increase in the importation of machetes, gin, canoes and guns by the European traders. The possession of these weapons greatly disrupted the peace of the community since they were freely used.

The atmosphere of social instability that characterized the foreign trade era in some Bayelsa communities, it has been found, was sometimes the result of the failure of the "trust" system, the basis on which the trade was run. The Nembe middlemen sometimes resorted to brute force to enforce their monopolistic regulations or, to punish individuals and

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communities that abused the "trust" system. The Ogbia town of Anya was invaded by an Ogbolomabiri ruler, King Boy Amain in 1846, because the community abused the "trust" regulation. In 1870, another ruler from Ogbolomabiri, King Ockiya took a punitive expedition against Okiki, Ogbia village on the Ekole Creek for abusing the "trust" system, and killing "a son of Kulo" named Akpana, who had gone to collect a debt. Several other Ogbia villages, including Abu, Alagba, Otabula, Otuabhom, Emobho and Evo were attacked and destroyed by the heavily armed merchants who had entrusted goods to some unfaithful agents there. In 1869, Okpoama launched a similar attack on Otuaganagu which in 1873, Bassambiri invaded Otuedu for taking "double trust" from other middlemen (Ebiwari, 1988). Bassambiri also raided the Abureni villages Idema, Okoroba and Agrisaba, as well as some Odual communities. Similar reasons during the Atlantic trade.

Wars and raids became so frequent that communities and individuals became suspicious of one another's moves and motives. Sometimes this led to more wars. Preye Okosi (1980:71) tells us for example, that the Nembe/Otuan war of the 19th century was itself the result of the mutual suspicion and fear that foreign trade generated. Some Nembe pilots who were said to be on a non-aggressive mission "piloting some Europeans" were mistaken for slave raiders. They were consequently attacked by the Otuan and Amassoma of Ogboin *Ibe*. A truce was reached between the leaders of the two communities when it became obvious that the war had arisen from an unfortunate misinterpretation of Nembe intentions by the Otuan and Amassoma.

### Political impact

The internal organisation of the lineage institution was greatly altered in some of the communities that were involved in the trade, especially among the Nembe. Here, the trade exerted so much influence on the people that even the criteria for the enthronement of new lineage (ward) or "House" heads and kings, as well as the retention of old ones came to be tied to the candidate's or incumbent's ability to sustain and improve the

## The Impact of the Atlantic Slave Trade

commercial and military fortunes of the House or community, as they competed with rival trading Houses and communities.

Thus, both during and after the abolition of the slave trade, overt and covert efforts continued to be made to recruit physically and mentally alert new members through direct purchase, or big bride-wealth marriages, to not only build-up strong manpower base for the existing House, but also to build-up entirely new Houses.

While the Nembe were the earliest to develop the House system, other Bayelsa communities, which had during the Atlantic trade, maintained the closest contact with them soon began to model their lineage institutions along the lines of the Nembe Houses. Some even went beyond that to adopt the centralised political system (the monarchical system). An Ogbia historian, Egiri (1983:39) has confirmed this for the Ogbia area. "They thought that if there was a monarchy in Ogbia, they could use it to develop the oil trade as the Nembe had done, and that they might even receive "comey"... from foreign buyers as the kings of Nembe did". It has been said that one enterprising Ogbia trader, Chief Amangala Apata, acquired so much wealth and influence that he presented himself as a candidate for the paramount rulership (*Obanobhan*) of the Ogbia people. Egiri adds, however, that these aspirants were not quite successful in establishing a monarchy, although they recorded some success in instituting the Nembe-type Chieftaincy Houses. And even this appears to have happened more among the Southern or the "Oloibiri Group" of villages such as Oloibiri Town, Opume, Akipelai, Amakalakala, Otuogidi, and Otuabo. Among the pioneers of this political experiment were Chiefs Agadaga of Opume who founded the Ekoni House, Amangala Apata and Inengite who founded the Amangala and Inengite Houses respectively at Oloibiri; Ikobho who established the Ikobho House of Amakalakala and Aziba who founded the Aziba House of Akipelai, among others. Captain J.N. Hill (1929:60) a colonial administrator, stated that the people of Sabagreia and Amassoma districts had also modelled their lineage institutions along the line of the Nembe House.

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Tonaria (1984:47) also noted that the Atlantic trade had far-reaching political consequences for the people of Tarakri *ibe*, especially those of Agbere Town which served as one of the depots of the Niger Company. The involvement of the people ultimately led to significant political changes, including the *Pere* (kingship) institution. Men who acquired substantial surpluses as a result of their role in the foreign trade were favoured by colonial administrators when names were considered for appointments as interpreters and as Warrant Chiefs. Some were, therefore, able to transform their commercial fortunes into political power, a privilege they would not have ordinarily had. Commenting on a similar incident in the Eniwari community of Bumo *ibe* (Atte 1981:25), emphasised that these appointments were quite arbitrary and took no cognisance of the founding lineages. Thus, for Eniwari, Chief Atte of Epetewari and Chief Oweisani of Alagbebiri were appointed as Native Court members. Chief Atte had long been in good relationship with the super-cargoes, and had indeed saved a Kruman who strayed into Eniwari during the Nembe-British war of 1895.

Nembe merchants such as Chief Joseph Alagoa, Basuo, Dogu, Koro Ockiya, Chief Nathaniel Yekorogha, and Tengji from Ogbolomabin and Jonathan Kierin Ombu from Okpoama established trading posts and plantations in Okoroma *ibe*, and ultimately pulled that area which had hitherto enjoyed a larger degree of political and cultural independence and distinctiveness into the Ogbolomabiri commercial and political orbit. As a result of this, Ogbolomabiri settlements like Alagoa-Tereke, Tengji-Tereke, Ockiya-Burukiri, Ockiya Iwokiri, Dogu Ewoama and Yekorogha-Sangakubu were founded. It was at this time also that Bassambiri Chief, Egbelu secured a foothold in Akakumama and Okoroma village.

Prominent Bassambiri merchants did the same at the North-Eastern part of Bayelsa State. King Ben Warri founded Benikiri, Chief Isere established Iserekiri, Chief Otuma and his associate, Edein, settled at Otuma-ama, Fikoru at Fikorukiri. Other plantations such as Alagoa were also founded in the Oluasiri area, which was formerly under Ode-

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(Saka) influence. From all indications, most of the villages in the Ikensi area were also established as plantations in the time of the palm produce trade.

The 1895 Nembe-British war provided greater impetus to this trend as many more chiefs of both Ogbolomabiri and Bassambiri sought for refuge in the established Okoroma, Ogbia, and Abureni communities or founded entirely new ones to re-settle their subjects.

Another enduring consequences of the events that transpired during the Atlantic trade is the current mutual suspicion and perennial struggle for supremacy among and within the different groups and sub-groups and communities in the state. In his study of "Warfare and Diplomacy in the Niger Delta", Ejituwu (1989) made an observation that is relevant to the issue here. According to him, "groups who were signatory to the treaties signed with the European traders seek to use such documents as a basis for claiming superior chieftaincy status over those that had not."

And lastly, a unique but interesting and significant development arising from the Atlantic trade was the impact it had on the political status of women. While it is true that because of the generally matrilineal orientation of most Bayelsan societies, women were socially influential, none had openly aspired to occupy a politically important position until the time of the legitimate trade. Madam Saifigha from Bassambiri aspired and moved quite close to becoming a Chief, a House founder. Saifigha acquired sufficient wealth and slaves to launch a war canoe. But the Chiefs (of Bassambiri-Nembe) rejected her application for recognition as an *Omungu-arua-alabo*, a war canoe Chief. They considered it an anathema. They could only permit her to establish a war canoe House in the name of her maternal brothers, Iga and Opuene. This has invariably qualified her for the honour of having an *Okpu*, mausoleum, in the joint names of herself and her brothers (see Alagoa 1996:48-49).

### Conclusion

From the foregoing analyses, a number of conclusions can be drawn. First, that as a result of the marked differences in the level of participation

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by the different communities and groups in the Atlantic trade, it also has different degrees of impact on the different people of the State.

Second, the apparently prominent role of Nembe in the economic, socio-cultural and political life of Bayelsa State is not unrelated to the greater impact of the Atlantic trade on that community.

Third, that no single group holds the key to the development of Bayelsa State. The people of the state must, therefore, strive to be a state where all groups would be encouraged to give of their best. The dynamism and enterprise of the Nembe, "the Small Brave City-State"; the flexibility of the Ogbia, "the heartland of Bayelsa"; the patience and strength of the Izon, "the centripetal force of Bayelsa"; and the liberality of the Epie-Atissa, "the home for all"; must be effectively fused to build and nurture the young State into being the true "Pride of the Nation".

Fourth, it is important that the multi-lateral and bilateral economic, socio-cultural and political foundations and superstructures that were developed to serve the needs of the Atlantic trade, and which are still valuable to the modern generation be revived and exploited to develop the State.

And lastly, it is important to note that during the Atlantic trade, despite the internal disagreements and rivalries between and within the different ethnic and sub-ethnic nationalities, they were able to recognise their common interest in maintaining their political and economic independence from the invading European imperialists. Thus, in 1895, the Aho, Bumo, Ekpetiama and some Southern Ogbia communities rallied to resist the economic strangulation of the lower Niger communities by the Niger Company before and during the Nembe-British War (Aho, 1995:19). Today, as the government and people of Bayelsa confront various local and foreign forces working against them, there is the need to revive that pristine spirit of solidarity to move the state forward.

## CHAPTER SIXTEEN

# THE IMPACT OF COLONIAL RULE

*C. M. Sorgwe*

### **Introduction**

Bayelsa State like the rest of Nigeria, formally came out of British colonial rule in 1960. Colonialism, as a political and commercial adventure, affected the colonized in several dimensions. In their quest for markets, raw-materials, opportunity to exercise political authority and religious conversions, British colonial rule had a significant impact on the people of the state.

In order to effectively carry out the economic exploitation and the propagation of their religious ideas, the colonial authorities utilized western concepts familiar to them. They introduced principles and methods acceptable to European culture. More over, the Indirect Rule system of administration adopted by the British administrators in Nigeria had a gradual but penetrating effect on indigenous society and culture.

The policies and practices of the colonial government in dealing with a diversity of problems produced effects that cut across the political, economic and social spheres. The colonial authorities grappled with matters arising from political and economic changes. These and other related issues constitute the subject-matter of this chapter.

### **Adaptation of the House system**

One of the early political consequences of colonial rule in Bayelsa State was the Native House Rule Proclamation of November 21, 1901. In Nembe, where the House System was already in place within a centralized polity, the colonial government easily established its modified Native House Rule. It was done by a proclamation which virtually reduced the power of the King or Amanyano. In the process the colonial administration adapted the House system to serve its own ends.

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The proclamation, among other things, provided that the District Commissioners should handle disputes in the "House". By the same proclamation the District Commissioners were authorized to transfer cases from Houses to Native courts of their choice. The proclamation also regulated the punishment for offenses relating to warrants of arrest against members of Houses.

The Native House Rule Proclamation working hand in hand with the armed constabulary, earlier recruited to assist the Consuls in 1891, enabled the colonial administration to wrest power from the traditional rulers in Nembe. This colonial regulation not only reduced the powers of the chiefs but also deprived the community of their autonomy. The colonial administrators employed the services of the constabulary to enforce the provisions of the proclamation without resort to the traditional rulers.

### Native Councils and inter-ethnic groupings

The rest of this state was organized into Native Councils. The Native Councils represented a system of indirect rule which sought to establish a form of local administration through the traditional authorities. Under this administrative system the gerontocracy that was in operation in the various village communities collapsed. The colonial government began a system of recognizing the leaders in the villages whom they designated as village-heads. In the circumstances, the oldest man (*Amakosuowe*) was no longer necessarily selected as the village-head. The colonial authorities chose men as village head by other criteria other than age, such as literacy etc.

Native Courts exercised jurisdiction across several villages and ethnic sub-groups. The Sabageia Native Court, for example, served Kolokuma, Opokuma, Eketiama, Gbaraun, Epie-Atissa and other sub-groups. There were also the provinces, the districts and sub-districts which did not necessarily follow ethnic lines. The inter-ethnic groupings sometimes created conflicts. For example, the Epie-Atissa complained to the Resident at Warri in 1927 that they were at a disadvantage in the Sabageia Na-

## **The Impact of Colonial Rule**

Court due to long distance and their inability to understand the language spoken by the bench.

The grouping of the people into larger units for administrative purposes was not always disadvantageous to minorities. For instance, Yenagoa, the Bayelsa State Capital has been a beneficiary. In 1956 Yenagoa, an Epie-Atissa town, was chosen as the headquarters of the Central Ijo Council. The choice of Yenagoa did not only help to enhance its political position but the town also grew into national lime-light when in 1961 the Eastern Regional Government transformed the Ijo Central Council area into a province.

### **Introduction of police service**

In pre-colonial times law and order were maintained through social and religious sanctions. Secret societies or cults also played significant roles in keeping peace in the various communities. The introduction of police service was therefore a novelty. The police took over from the local chiefs and other traditional persons associated with the maintenance of law and order.

The policemen executed the judgements of the Native Courts and the councils. They also helped to prevent crimes in the areas of their operation. They arrested offenders and charged them to the courts for trial. They were also responsible for taking those found guilty by the courts to the designated prisons. The police worked conscientiously as agents of the colonial authorities.

Furthermore, the policemen assisted in the collection of taxes stipulated by the colonial authorities. They sometimes functioned as agents of debt collection also. The policemen served as escorts for government officials such as the Residents and the District Officers. Indeed, the policemen played a crucial role in the local administration. They wielded much influence too. The extent of their influence is seen in the fact that the oral traditions of many communities still refer to the police as the symbol of government.

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### The economic impact

British Colonial economic policy was first, that the colonies should be financially self-supporting. Closely related to this was the idea that the colonies should be, simply, suppliers of raw-materials for British industries. Thirdly, the economic policy aimed at making the colonies basically the consumers of the products of British industry.

In keeping with its policy of self-sustenance the British government encouraged local investments and the raising of funds through local sources. The people of Bayelsa State were induced to supply low-price raw-materials such as palm-oil. The introduction of taxation further encouraged the production of palm-oil, and later, palm-kernels. In order to pay the taxes imposed on the people by the colonial administration the people concentrated on the production of palm produce, the only means by which the needed revenue could be raised. Intimately related to taxation was the introduction of monetary economy from a barter economy.

The emphasis on primary production and dependence on European-made goods led to the creation of a consumer economy at the expense of some productive sectors of the economy. Indigenous production stagnated. The people produced the palm-oil and kernel for sale to the European trading firms and bought confectioneries, cloth, salt and other European manufactured goods in return. As time went on, some people became specialised in buying and selling the European wares and this became their sole occupation.

A few ports were developed in Bayelsa State during the colonial period. Brass (Nembe) and Akassa together with others now in Rivers state were among the ports developed during the early colonial period by 1908. A number of inland riverine communities also grew as trading centres within Bayelsa State. Notable among these were Yenagoa in the Epie-Atissa area and Patani in Delta State in the Western Delta. These developed on their own side by side with others such as Burutu, Bomac and Warri in Delta State. These ports serviced the colonial economic system.

## **The Impact of Colonial Rule**

Local industries were not encouraged by the colonial administration. To the administrators of the day the buying and selling of cheap European manufactured goods was sufficient. No attempts were made to cultivate even the palm tree which was the economic mainstay of the people. The only machines introduced were those used by the trading firms such as the *United Africa Company* (UAC.) and *Miller Brothers* for the milling and processing of the palm-oil and kernel. The primary producers produced from the wild trees.

The colonial government, however, gave attention to exploration of petroleum oil. In 1921 the Nigerian government granted license to the Shell D'Arcy Exploration Company and Whitehall Petroleum Company Limited to prospect for oil in Southern Nigeria. In 1937, a fresh attempt was made by the Shell British Petroleum Development Company. This new effort yielded fruit when oil was struck at Oloibiri in the Ogbia area of Bayelsa State in 1956. By 1958 oil was drilled from the oil fields of Oloibiri. Although there were no infrastructural developments in the oil town, the discovery of oil in Oloibiri had several effects on the community. In the first place it popularised Oloibiri as a town. Secondly, there was temporary local economic boom, which spread to Okpinama and other adjoining communities. Many of the indigenes gained employment with oil drilling companies. The lack of forward planning on the part of the colonial administrator deprived the Oloibiri people from gaining enduring benefits from the oil industry before the oil-wells dried up.

### **The social impact**

Although the colonial administration did not enforce social and cultural changes, such changes of necessity occurred. There was a new world view among the people as a result of the colonial presence. It also had an integrative effect on the society. Consequently the colonial system produced a new society. Christianity which spread rapidly in colonial times due to the conducive atmosphere created by the colonial presence brought about a new world view among the peoples of Bayelsa State. Both

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through the church and the schools opened by the Christian missions, the people were gradually alienated from their traditional cultural traditions.

In the church, the Christian converts were taught to despise traditional religion. They were told that the local belief systems were offensive to God. Their belief in the existence of a spirit world and the efficacy of ancestral spirits was derided. True worship, according to the Christian doctrine, was only possible through Jesus Christ. The dead would go to heaven if they believed in Christ but those who refused to accept him would find themselves in hell fire. In the schools the pupils were taught to abandon all local customs because they were primitive.

The principle of bringing different ethnic groups together adopted as a basic colonial administrative technique served integrative social functions. People of different ethnic backgrounds were, through the administrative arrangements, brought into more intimate contact. For example, the Ijo-speaking people of Nembe, Akassa, Southern Ijo and Northern Ijo; the Epie-Atissa; the Ogbia, and Zarama (an Engenni-speaking group) came to see themselves as one people having found themselves together in Brass Division and later Yenagoa Province.

The Christian missions formed a part of this integrative social function. Church organizations such as the Niger Delta (Anglican) Pastorate or Diocese cut across all the ethnic groups in Bayelsa State. Similarly, all churches in the Roman Catholic Mission (RCM.) except those in the Western Ijo area of the State belonged to the Abonnema Parish. The mission schools were in another dimension, agents of social interaction. Boys and girls from different homes and ethnic groups were brought together. Similarly, teachers from different parts of Bayelsa State served in the same schools and interacted as colleagues. The mission's policy of transferring teachers at regular intervals to any district or parish at the discretion of the mission administrators further enhanced the integrative function of the missions. The interactions at church and schools also encouraged cross-cultural and inter-community marriages.

There were some negative effects too. The failure of the Christian missions to acknowledge the positive values of the colonised society was

## **The Impact of Colonial Rule**

a social disservice. In many cases the fabric of the indigenous societies was adversely affected. For example, the Igbele cult, an important male-dominated cultural group in parts of Epie-Atissa ceased to exist because some of the powerful members were converted to Christianity. In Igbogene-Epie, the early converts were rejected by their respective families. In response, the Christians became militant and somewhat destructive, engaging in shrine-burning etc. What happened at Igbogene was true of many other communities of the State.

The result of the foregoing was the emergence of a new society, an amalgam of the old and the new. The products of the mission schools were largely alienated from their cultural roots but were not completely westernised. While they tended to look down on the indigenous culture, they did not learn enough to function as fully westernised individuals. Even those that did not attend the colonial schools were not free from this experience of a double world syndrome. While they wished to remain loyal to their traditional roots, they were confronted with the wonders of the whiteman's ships, boats, the magic of his pen, and the superiority of his weapons. All these were indications that the whiteman had something substantial to offer. Consequently, the traditionalist, like the school graduate, was torn between two worlds. He was in a dilemma to continue in his own tradition, or abandon it for that of the whiteman. In other words, the colonial society was one in which the colonised became psychologically disoriented, creating a society in transition.

One consequence of this disorientation was resentment which led to attack on the colonial administration. In several communities the people clashed with the colonial authorities in protest against insults against local tradition, and against taxation and other impositions. Examples of these include the attack on the Brass District Resident at Igbedi in 1901, the clash with the Agbere people in 1906 and the Epie women's attack on government establishments in and around Yenagoa in 1958.

In December 1901 the Resident at Brass while on his way to Sabagreia sub-district for a court session, was attacked by one Mr. Bebekala of Igbedi in the Kolokuma area. Bebekala opened dane-gun fire

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on the boat in which the resident escaped unhurt to Sabagreia and carried out a mass arrest in Igbedi and the neighbourhood which compelled the people to identify the assailant. Bebekala was arrested, tried and sentenced to death at Twon-Brass. Although he was hanged at Sabagreia in 1903 as a deterrent to others, Bebekala had successfully expressed the general unease of the people with the colonial system.

The people of Agbere resenting the practice of carrying the resident through a footpath between Iserah and Agbere, attacked the colonial officer and his entourage on 28th June, 1906. The attackers laid ambush and opened fire on the entourage, killing all the people including the resident. As a result of this attack the court sessions at Agbere ceased to hold. The people felt relieved of the tortures that often resulted from the residents' visits. The oral traditions recall an occasion when those who carried the resident from Agbere to Iserah were detained for two weeks because the resident fell down on the way as one of those carrying him slipped.

In 1958 Epie women invaded government establishments in the area as part of a general women's protest over the re-introduction of school fees in the Eastern Region. The women burnt and destroyed government properties at the Native Court, Onopa near Yenagoa. They also attacked government officials and destroyed property as well as the offices of the Central Ijo Council located in Yenagoa. Similarly, the office and residence of the General Manager of Schools, Chief E.D. Worsely-Opogulaya, was attacked and all his books burnt. The District Officer, Mr. C. Walker, eventually stopped the rampage, made mass arrests and charged those arrested to the Magistrate Court in Degema.

## **Conclusion**

Colonialism has had lasting effects on the colonised people of Bayelsa State. Still the period of alien rule failed to completely assimilate the subject communities to western ways.

Christianity was established, but it could not eradicate the African Traditional Religion. Schools were opened, but they did not have deep

## **The Impact of Colonial Rule**

roots among the people. Apart from being mainly mission schools, they did not go beyond the primary level. Indeed the entire State could boast of only three post-primary institutions at the end of the colonial period in 1960, namely, Yenagoa Grammar School (later Bishop Dimieari Grammar School (BDGS), the Elementary Teachers' College (ETC), Okordia-Zarama and the Preliminary Training Centre (PTC), Oporoma. The establishment of tertiary institutions remains a dream to this day.

The political impact was by far the most pervasive. The political order has never returned to the traditional, taking a cue from the colonial system, nearly all the communities have created new chieftaincy stools. Both the traditional rulers and the educated elite have collaborated to forge new political systems highly influenced by colonial perceptions. Colonial rule in Bayelsa State was, therefore, a mixed blessing in its effects on the people.

## **E. POLITICS**

## CHAPTER SEVENTEEN

# REGIONAL GOVERNMENT

*George I. J. Obuoforibo*

### **Introduction**

We cannot talk about regional government without looking at it in the context of a federal government. Federalism, a system of government brought into existence by the 1954 Littleton Constitution, was expected to address the ills of a heterogeneous Nigerian society.

That federalism as it operates in Nigeria has not helped matters calls for some scholarly review. This can be attempted from the perspective of Bayelsa State. In other words, we intend to examine the experiences, contributions, hopes and aspirations of the Bayelsa people from the very inception of Regional government in Eastern Nigeria.

### **The theoretical framework of government**

Regional government as it operated in Nigeria may best be discussed through a systematic analysis. This is necessary in view of the fact that it would enable us to understand how it operated as a system with the interaction of its component parts. It is also necessary to examine the views of scholars in the field. The study adopts a focus on regional government in Nigeria from the perspective of Bayelsa State, in the context of federalism.

According to Robert S. Jordan, federalism comes into being "when central government shares power with semi-autonomous regional or state governments". In a federal system of government, central and regional or state governments co-exist and have to be partly independent of each other (Jordan, 1978: 147). Professor K. C. Wheare is of the view that, "general and regional governments are co-ordinate. ...What is necessary for the federal principle is not merely that the federal government is limited to its own sphere and within that sphere, should be independent of the other" (Wheare, 1978: 147). J. H. Price, states that "the commonest

reasons for the adoption of a federal system of government is historical. Reflecting on the fact that at some point in history, a group of independent states agreed to come together into one country merging most of their pre-existing sovereignty but protecting themselves by reserving, under their own control, certain of the powers which they had enjoyed in the past" (Price, 1975:58). Eme O. Awa, on his part, is of the view that "federalism involves co-operation, bargaining and conflicts. There has always been a measure of co-operation between the two levels of government, such co-operation increasing in scope and quality as the federation matures" (Awa. 1976: 6).

The foregoing positions imply that as a federation grows older, the areas in which cooperation is achieved are characterized by more understanding and smoothness. Bargaining also assumes more importance as the federation becomes highly developed.

The framers of the Nigerian constitution in 1954 decided to introduce a federal system of government. Has the federal system helped in alleviating the problems of the people through the decentralization of government to the grass-roots?

The initial basis of the nationalist struggle was the collective urge to drive away a common foe, the British colonial power. But by 1953, the political parties that emerged, namely the National Council of Nigeria and the Cameroons, the Action Group and the Northern Peoples Congress became associated with three major ethnic groups in the country, the Igbo, the Yoruba, and the Hausa/Fulani. It is, therefore, not surprising that the 1954 Littleton Constitution which was produced with the active participation of these parties resulted in the introduction of a federal system of government in Nigeria. In spite of the pretensions of the leaders of these parties to be champions of the national interest, they were mainly interested in seizing absolute control over their respective regions. According to Anifowose "The driving force of nationalism in Nigeria was not loyalty to Nigeria as such, but racial consciousness of Africans; however, the dream of African nationalism expressed in efforts to recapture the glories of a particular tribe. For some time the feeling of

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Nigerian nationalism did develop, but as inter-ethnic rivalries and political maneuvers became more intense with the approach of self government those who called themselves Nigerian nationalists came to behave less as Nigerians [but] as representatives of their various ethnic groups" (Anifowose, 1982:36). The first strategy of the party leaders was the intensive mobilization of the ethnic home base to ensure its monolithic support at times of elections. Secondly, the leadership sought the widening of the political base from the ethnic home base to include the whole region. This meant obtaining the support of the minority ethnic groups within the region. Thirdly, it aimed at winning elections in the region, in order to control the region's governmental power. Fourthly, the strategy emphasized the use of governmental power in the region of its control to eliminate all forms of opposition in the area and to ensure maximum support of the region's population in elections to the Federal Legislature. Fifthly, it encouraged agitation by minority ethnic groups in regions under rival political parties. Sixthly, it sought to control the Federal Government by winning the majority of seats at federal elections or failing which to join any possible winning coalitions that would guarantee socio-economic rewards.

Due to the fact that the major parties commanded a majority of seats in their regional bases, control of the regional authority ensured for the party possessing it, control of the federal constituencies in that region. In all the regions, the government was always able to manipulate the electoral machinery to its advantage but as no regional government was able to command majority support in every one of the constituencies within its area of jurisdiction, it exercised its powers in such a way as to perpetuate itself in office. There was also the issue of constituency delimitation in the federal legislature. This may well be considered the most controversial issue.

The Nigerian federal system gave rise to undue acrimony, mutual distrust, and cut throat competition. The political atmosphere became completely poisoned to the extent that it became a do or die affair. The violent atmosphere that marked the electioneering process was neither

confined to any particular ethnic region nor was it confined to the regional elections alone. It characterized both the federal and the regional level. Nnoli has captured this prevailing situation when he says:

More than anything else the inter-party struggle for political power politicized ethnicity and spread ethnic thinking to the most remote areas of the country. During times of election campaign, workers penetrated all areas of the country in search of votes. Their invariably ethnic messages and innuendoes spread to all parts of the country. (Okwudibia Nnoli, 1980: 167)

Blindfolded by these ethnic sentiments and rivalry, they could not see the significant contributions the creation of additional states would bring to the unity of the country. In the East, the Igbo State Union was the dominant ethnic arm of the NCNC ensuring Igbo support for the party.

### **The people of Bayelsa State in the Eastern Regional Government**

The people of Bayelsa in the Central Niger Delta area were part of the Eastern Region before the creation of Rivers State in 1967.

The Government of the Eastern Region was dominated by the Igbo, one of the three major ethnic groups of Nigeria. They kept the minorities in the region, including the people of Bayelsa State, in a state of hopelessness. The minorities feared that the existing federal structure dominated by the three major ethnic groups held no future for them.

A struggle for separate identify was the result. Though the struggle became much stronger in the post-independence era, with the people of Bayelsa State making an immense contribution in the Eastern Region. They worked with other minorities in the Eastern Region to fight for the creation of the Calabar Ogoja Rivers State, in the COR State Movement. Though the dream of a COR State did not materialize they also contributed in the setting up of the Willink Commission.

The recommendations made by this Commission were expected to safeguard the interest of the minority ethnic groups in independent Nigeria. The Commission proposed the establishment of the Niger Delta

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Development Board. The Board was responsible for advising the Federal, Eastern and Western regional governments on issues pertaining to the interests of the Niger Delta peoples in their regions. The Federal Ministry of Justice also requested to prepare a study of treaties made between Niger Delta communities and foreign powers in the 19th century. A list of such treaties was submitted to the Honourable Minister of Justice in the hope that a dialogue between the Minister and the contracting parties would take place (Dappa-Biriye, 1995:20).

The revolutionary movement launched by Isaac Boro indicates the level at which the youths of Bayelsa State were frustrated by the system of regional governments. It was a movement to emancipate people of the Niger Delta from internal colonization in the Eastern Region. Though Boro was said to have been supported at the initial stages by the Eastern Regional Government, he later discovered their intrigues. On 14th February, 1966, Boro assumed power by appointing himself Military Governor of the Niger Delta People's Republic. On 24th February 1966, Boro's army entered the Abosere Shell BP Drilling Location and ordered the tool pusher at gun point to stop operations. On the same day, his army attacked the Police Station, over-powered the police on duty and seized ten rifles belonging to the police and kidnapped the Inspector in charge of the Station, (Dappa-Biriye, 1995: 52).

## **Conclusion**

The creation of Rivers State in 1967 following the Boro uprising and the year of the Nigerian Civil War ended the period of regional governments. But the succeeding period of states creation did not succeed in laying to rest the frustration of the people of the Niger Delta, even after the creation of Bayelsa State in October, 1996, as evidenced by the Kaiama Declaration of December, 1998 and the continuing unrest in the Niger Delta region.

## CHAPTER EIGHTEEN

# STATE MOVEMENTS

*Amatari Zuofa and P. G. O. Odondiri*

### Introduction

Political movements seeking changes in the number of constituent units are a common feature in the early history of new states. Usually in the course of time such agitations metamorphose into an acceptable consensus engendering a level of stability. The territorial reorganizations of the Indian and Australian federations in 1956 and 1967 (Dean E McHenry 1986: 91-111) seems to have had the salutary effect of abating the incessant demands for new states.

For almost forty years of its existence as an independent nation since October 1960, Nigeria has evolved, through a process of internal fragmentation, from a federation of three regions to a polity of 36 constituent states. When Nigeria became independent in 1960, the country was administered through three large political regions which were increased to four in 1964. Then on the eve of the Civil War in 1967, an embattled Yakubu Gowon announced the replacement of the four region arrangement with a 12-state system. Thereafter in 1976 seven additional states were created by the Murtala/Obasanjo administration to inaugurate a 19 state structure. In 1987 the Babangida administration instituted a 21 state structure by creating 2 additional states. The Babangida administration increased the number of constituent units in the Nigerian federation to 30 states in 1991, and, presently, to 36 states by the Abacha administration in 1996.

The continuous fragmentation of the Nigerian state through the various state creation exercises raises very serious fundamental questions. The unending spate of agitations for the creation of states persists, indicating that Nigeria is yet to attain a stable consensus on its internal territorial configuration, which Daniel Elazar (1987: 170) maintains, is an index of

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"successful federation". The instability of the Nigerian federal structure is popularly explained as a strategy for development. It is really a system that provides access to federal resources for some segments of the nation.

It is relevant to note that distribution of federal funds has received more attention or generated more public debate in connection with the creation of new states in the Nigerian federation. This dilemma arises since the states in Nigeria derive a disproportionate amount of their finances from oil revenues collected by the federal government. In Nigeria, the central government despite its rhetoric to federalism has often unilaterally restricted, appropriated or even abolished the independent revenue base of states. This heavy financial dependency of the states is what Tom Forrest (1986: 5) argues, gives the states every incentive to get more funds from the centre. This further encourages financial irresponsibility and sets up strong forces for the creation of new states.

More than that the legal basis for the apportionment of federal revenue among the states accords considerable importance to the principle of inter-state equity. Between 1969 to the end of 1981, 50 percent of the federally collected statutory revenue due to all the states was divided equally among these units. It is interesting to note that though the assigned weight was reduced to 40 percent as from January 1982, the principle of inter-state equity has continued to enjoy some primacy over other officially accepted revenue sharing criteria such as population strength, internal revenue generation effort, social development factor and landmass. Indeed it is the emphasis on equal state shares of federal revenue that engenders a strong fiscal incentive to state agitation in Nigeria. This phenomenon engenders a situation where if a given area is divided into two or more states, the whole area will receive a greater total share of federal revenue (Graf 1988: 145).

It is instructive to note that other distributive strategies, namely, the federal character principle, have aided agitations for the fragmentation of the Nigerian state since the constituent units so created (states) are seen as veritable avenues of political and material advancement for sectional

elites. Section 277 of the 1979 Presidential Constitution defined Federal Character as "the distinctive desire of the people of Nigeria to promote national unity, foster national loyalty and give every Nigerian a sense of belonging to the nation". Section 13(3) of the Constitution further stressed that the composition of the government of the federation or its agencies should also reflect the federal character of Nigeria. These clauses by implication meant that individual public institutions should not have a preponderance of people from a single or a few sectional groups. Thus the states are guaranteed equal representation in the Senate, and places in the federal cabinet, key national executive bodies, and admissions into federal tertiary and secondary institutions. Thus distributive principle has played a prominent role in the demand for the creation of states.

### **The Case for States**

#### **(i) Accelerated and/or even development**

Agitators for the creation of states have the strong notion that state creation brings about socio-economic development since the proliferation of capital cities and the accompanying infrastructures like government house, pipe borne water, electricity, hospitals and telephone systems are usually concentrated at the new capital and its environs. In other words, the new states will bring these development artifacts nearer to the people. This idea of bringing government nearer to the people to foster even development appeared to have gained wide acceptance among the elite. The Justice Ayo Irikefe panel (1979) on the creation of states also subscribed to this line of thinking when it reported.

The basic motivation in the demand for new states was rapid economic development. All other reasons by state agitators were in the view of the panel, to a large extent mere rationalizations to achieve the basic purpose of development.

#### **(ii) Domination**

The issue of domination is a central theme in the literature of agitations for the creation of states. It is interesting to note that all the various

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movements that made representations before the Willink and Irikefe panels of 1957 and 1975 respectively reported against the danger of domination. The domination threat which most of the representatives complained about included: (a) absence of opportunities for cultural development, (b) absence of political power, (c) official discrimination in employment, (d) discrimination in the distribution of amenities, and (e) discrimination in the provision of basic infrastructural facilities.

In the Eastern Region, Ibo dominance led to the Calabar-Ogoja-Rivers (COR) State Movement's demand for a separate state. In the Western Region, the non-Yoruba groups in the mid-west quickly achieved separation in 1964. In the North, the dominance of the Hausa/Fulani in the political, economic and social spheres was rejected by the communities of the Middle Belt.

### (iii) Balance

The issue of balance essentially has to do with the disproportionate size (and population and therefore electoral strength) of Northern Nigeria compared to the other regions of the federation. The other dimension was the unequal incorporation of ethnic minorities into the regions, each of which was dominated by one of the major ethnic groups. Eme Awa (1964: 318) had this to say:

...in the existing federal system, the regions are too large, from this ... flow fear, instability and disharmony, all problems unlikely to be eradicated quickly through the mechanism of the political process... Nigeria needs a federation in which no single national group could, if it would use the power of its members to impose its will, or use its power ruthlessly and indifferently unmindful of what happens to the entire nation.

The balance argument has its theoretical underpinnings in K. C. Wheare's (1964) monumental work, wherein he stipulated the principles of federalism to include the division of power among levels of government, a

written constitution indicating clearly the division of the country and the areas of competence assigned to each unit and, finally, the co-ordinate supremacy of the two levels of government with regards to their functions. K. C. Wheare further contends that where any constitutional unit dominates the joint deliberations of the federation, that puts an end to federalism. Wheare's position follows J.S. Mill's law of federal stability which postulates that none of the constituent units should be so powerful as to hold the rest of the federating units to ransom.

### (iv) Language

Arguments on linguistic affinity and cultural incompatibility also constitute one of the reasons put forward by agitators clamoring for the creation of states. The linguistic argument was a recurring theme during the proceedings of the Willink Commission of 1957 and also the Irikefe panel of 1975. For instance, the Western Ijaw in the Mid-west State demanded to be merged with their kith and kin in the Eastern Region. The late Chief Obafemi Awolowo (1947) rejected the idea of a unitary state in favour of states based on ethnic affinity':

a true federal system will require the readjustment of the boundaries so that each group however small is entitled to the same treatment as any other group, however large ... opportunity must be afforded to each to evolve its own peculiar political institutions.

Consistent with these arguments, Awolowo suggested a 50 state structure to take care of all the ethnic groups in Nigeria.

### Rivers State

The historical background to the creation of Bayelsa State can only be properly understood against the background of separatist agitations in Rivers State. As Alapiki (1996: 74) has argued, the struggle for the

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creation of Rivers State was not undertaken by a single group or movement.

The year 1941 witnessed the birth of the Ijaw Peoples League with the avowed purpose of separating the Rivers territory from Owerri Province. The creation of the Rivers Province in 1947 comprising Port Harcourt, Ahoada, Brass, Ogoni and Degema, (PABOD), was sequel to a petition sent to the Governor-in-Council of the Eastern Provinces.

The birth of the Rivers Province was sequel to the idea of a separate state. This consciousness led to the birth of the Council of Rivers Chiefs in 1953. The life and activities of the Council of Rivers Chiefs was short-lived. In 1954 the Rivers State Congress emerged as a political party replacing the Council of Rivers Chiefs.

In subsequent years the movement witnessed a change in nomenclature. The Rivers State Congress was later renamed Rivers Chiefs and Peoples Conference. Francis O. Allagoa, Mingi X of Nembe emerged as its Chairman.

The seriousness and commitment of the movement to the Rivers cause struck a responsive chord in July 1956 when at a rally the Conference voted en mass and overwhelmingly for a separate Rivers State. The proposed Rivers State was to comprise the Rivers Province, Western Ijaw in the Western Region, as well as Opobo, Andoni and Ndoki in the Eastern Region.

It may be noted that during the Willink Commission, the request for a Rivers State was not accepted simply because the British Government was unwilling to create new states before independence.

Indeed, it was in 1967, precisely a decade after the Willink Commission that the Rivers State was created. The Federal Military Government under Yakubu Gowon instituted a 12 state structure to replace the 4 regions as a strategy to fight the secessionists of the Eastern Region.

**Bayelsa State**

The nomenclature Bayelsa is an acronym for Brass, Yenegoa and Sagbama Local Government Areas which formed a senatorial district in 1979 under Rivers State.

The demand for Bayelsa State out of Rivers State echoes the argument for additional constituent units by the Rivers elites who condemned and also showed their displeasure in the distributive injustice in the failure to create new states out of Rivers State since it was created in 1967.

The initial demand for a state by the Bayelsa people came under the aegis of the Abayelsa State Movement when the defunct Babangida administration revisited the state creation issue in 1991. In other words, the Bayelsa people decided to merge with the Rivers West senatorial district of Ahoada Local Government Area to demand for the creation of an Abayelsa State. In explaining the failure of the Abayelsa request, Erebagha Ingiabuna (1996:94) argued that a faction of the Ogba, Ndoni, Egbema and the Ekpeye (all ethnic groups in Ahoada Local Government Area) had protested vehemently against their inclusion in Abayelsa State.

The frustrations and the dashed hopes of the people arising out of the non-creation of Abayelsa State can be vividly captured in the remarks of Chief (Cdr.) A.P. Diete-Spiff, the first Governor of Rivers State when he said:

We wish to place on record our deep feeling of grief, betrayal of trust, and neglect of the oil producing communities in Rivers State by the Federal Government ... We feel slighted, humiliated and alienated by the singular show of insensitivity to the legitimate and just demands of the people of Abayelsa State.

Undaunted by the initial setback the people sent memoranda to President Babangida in 1991 requesting for the creation of Bayelsa State. Intense opposition to the Babangida administration both at home and abroad

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coupled with the inauguration of the Interim National Government in 1992 sequel to the abortive June 1993 presidential elections stalled the creation of Bayelsa State.

Following an auspicious twist of events, the Bayelsa Movement forwarded a fresh proposal to General Sani Abacha in 1993. Consistent with the transition programme of the Abacha administration, Bayelsa State was created along with some others in 1996.

Bayelsa constitutes and occupies a greater proportion of the deltaic region of Nigeria. She maintains a southern shoreline along the coast of the Atlantic Ocean. On its west-west frontier, it is bounded by the Niger and Forcados rivers and also the Bomadi creek and Ramos rivers. This stretch marks the western boundary of the present Bayelsa State with Delta State.

In its north-east frontier, Bayelsa State is bounded by the Ahoada Local Government. In the eastern flank it is bounded by the old Degema Local Government Area in Rivers State.

Going by the 1991 census, the population of Bayelsa State is put at about 2 million. Consistent with the country's 36-state structure, Bayelsa is one of the few highly populated states in Nigeria.

Most of Bayelsa is aquatic and hence constitutes a difficult terrain to develop. Yet it constitutes one of the greatest wealth zones in the world and account for about 43 percent of Nigeria's oil production.

One of the arguments put forward by the Bayelsa State Movement for its creation was the desire of the people to meet their special development needs.

The denial of self autonomy was another argument put forward by the Bayelsa Movement. It contended that though minorities were the progenitors of the state creation idea it has now been hijacked by the majority ethnic groups to the extent that the subsequent fragmentation of the Nigerian state from 1967 has put the dominant groups at an advantage vis-à-vis the ethnic minorities. Indeed the elites in the Bayelsa area expressed their disaffection with the reluctance of the federal government to create additional state(s) out of Rivers State since its creation in 1967.

The Bayelsa Movement also articulated strongly distance from the seat of power as a factor. The Movement drew attention to the Federal government's commissioned Netherlands agency, NEDECO, whose study and report on the delta area (comprising Bayelsa) in the 1960s had remained on paper, since governments far from the area could not appreciate its developmental needs. The Movement also claimed the wide currency of Ijo dialects as a favourable factor for the creation of Bayelsa State.

Among all other factors, resources and economic viability of Bayelsa certainly was the most compelling. Bayelsa produces about 43 percent of the oil and gas produced in the federation. Indeed the Shell Petroleum Development Company's discovery of oil at Gbaraun estimated at about 400 million barrels of oil and half trillion cubic feet of gas are no doubt the greatest discovery by Shell since the 1970s.

Also prominent among the checklist of factors adduced for the creation of the state was the neglect of the area. Notwithstanding the enormous resources produced by the area, central government presence (in terms of industrial projects and amenities) have been minimal and grossly inadequate. The Movement further argued that the creation of Bayelsa State was desirable and imperative since the revenue obtained from the state and federal sources would be adequate to prosecute the development of the area.

### **Conclusion**

The creation of Bayelsa State resulted from articulate and vigorous movements over a period of about 40 years. On a national perspective, agitation for the creation of new states are likely to continue. The state creation exercises have been hijacked by the dominant ethnic groups. These exercises seem to be devoid of any intrinsic normative or cultural value, but seem to be dictated essentially by distributive motives and the quest for access to federal resources. This situation could result in further destabilizing contention and competition within and between groups.

## CHAPTER NINETEEN

# THE NIGERIAN CIVIL WAR

*Nkparom C. Ejituwu and C. M. Sorgwe*

### **Introduction**

The Nigerian Civil War of 1967-1970, was a function of the contradictions inherent in the evolution of the Nigerian state. It was difficult, for instance, to reconcile the political and economic interests of the larger ethnic groups with those of the minority groups anymore than reconcile the clashes of interests within the larger groups (Hausa, Igbo, Yoruba) arising from their fears and suspicions of one another concerning the control and sharing of power. These occurred both before and after independence in 1960

The British, who had been held responsible for some of the problems, were able to hold Nigeria together, despite the existence of demonstrable difficulties. But after independence, when Nigerians had stepped into the shoes of the British, the difficulties generated tense situations, with potential for break-down of law and order, and inevitable crisis. For instance, in the election of 1965 in the Western Region, there were rigging, bribery, fraud and murder, and in this atmosphere of confusion, two governors were produced by the contending parties when only one was needed. The resulting crisis earned the region the description of "The wild wild West" and the instability in the West was to lay the foundation of further crises.

In the atmosphere of disorder, a group of young army officers, led by Major Chukuma Kaduna Nzeogwu, staged a coup d'etat on 15th January, 1966, killing in the process, leading politicians. There after they surrendered to General J.T.U. Aguiyi-Ironsi, who had emerged as Head of State. Since none of the politicians killed had come from the Eastern Region, there was the suspicion that the coup was effected by Igbo for control of power at the centre. General Aguiyi-Ironsi himself seemed to confirm this suspicion when, in May 1966, he established a unitary system

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of government by abolishing the regions. In a quick reaction, the North killed many Igbo in their midst. This was completed with the overthrow of General Aguiyi-Ironsi in another coup in July, 1966 and his replacement with Lt. Col. Yakubu Gowon, a northern candidate. A strong disagreement between Lt. Col. Gowon and Lt. Col. Chukuemeka Odumegwu Ojukwu, Governor of Eastern Region, soon gave the crisis a dialectical character. For as Lt. Col. Gowon split the Federation into twelve states on 27th May 1967, Lt. Col. Ojukwu, responded with the withdrawal of Eastern Region from the Federation, calling it the independent "Republic of Biafra" Lt Col. Gowon, in response to the secession of Eastern Region, declared a "police action" against the rebels on 6th July 1967, and later a full-scale war on Biafra on August 9 of the same year

### The impact of war

The area now known as Bayelsa, like other parts of the defunct Eastern Region, experienced some far-reaching effects of the Nigerian Civil War. The obvious effects of the war on the people included disruption of normal social and economic activities; loss of personal effects and lives, and general deprivations.

The indigenes of the state within the Biafra enclave suffered harassment in varying degrees. Moreover, the Bayelsans in Biafra were psychologically upset. They were physically in Biafra but mentally in Nigeria, as they looked forward to the day they would enjoy the benefits of Rivers State of which Bayelsa was a part. This anxiety was deepened by the suspicion and the resultant antagonism unleashed on the people of Bayelsa trapped in the Biafran enclave

### Biafran suspicion and antagonism

Biafran suspicion and antagonism were unleashed on the people of Bayelsa for several reasons. The first and, perhaps, the only substantial one was an earlier event described as "the Boro Revolution" in 1966. Quite early in 1966 when the military government of Major General Aguiyi-Ironsi was still new, a young police officer and undergraduate of the

University of Nigeria, Nsukka, Isaac Jasper Adaka Boro, raised a military force, the Niger Delta Volunteer Service (DVS), and declared the Niger Delta Democratic Republic. Boro's base, Yenagoa, was the provincial seat of the administrative entity that embraces the whole of present day Bayelsa State, except Sagbama and Ekeremor Local Government Areas.

Although the Eastern Regional Government dismissed Boro and his companions as gangsters, the Federal Military Government arrested Boro and tried him and his two lieutenants, Samuel Owonaro and Nottingham Dick, for treason. They were found guilty and sentenced to death. Boro and his companions remained a thorn in the flesh of the Biafran authorities, since the trio were released by Lt. Col. Gowon, and recruited into the Nigerian Army together with Amangala, Esinkuma Nyananyo and many Rivers and Bayelsa volunteers. Boro rose to the rank of a Major at his death in 1968. The volunteer graduates Amangala and Nyananyo were among the Bayelsan volunteers who died.

In the circumstance, every Bayelsa youth was seen by the Biafran soldiers as a potential enemy. The youths of Bayelsa were always accused of sabotage against the realization of their Biafran dream and treated roughly by Biafran men in uniform. Everyone of them was a suspect as far as Biafran soldiers were concerned. Movement of youths was closely watched and restricted. As a result of this harassment of Bayelsa youths as potential enemies by the Biafran soldiers, many youths were tortured by the men in uniform. In some cases they were detained in camps in Port Harcourt, Umuahia, Aba and elsewhere in the Eastern Region.

The situation was utilized by fellow Bayelsans to settle old scores. Some people used it against political opponents while others did so as a result of family or personal differences. In some cases it was simply because of malice, since there was no provocation. Some Bayelsans engaged in witch-hunting by accusing others of sabotage against the Biafran cause. This local "cold war" helped to aggravate the suffering of the people.

### **The youth's response**

One of the immediate steps taken by the youths of Bayelsa in response to Biafran antagonism and the general hardship was to find their way into the Nigerian army. Some of them who were whipped by the Biafran men in prison for minor offenses vowed to avenge by enlisting in the Nigerian army. Thus they passed through unguarded creeks into Nigeria and joined the Nigerian army in Lagos.

Many of the youths were, of course, compelled by the harrowing effects of the economic hardship within the Biafran enclave to run to Nigeria. Most of them were jobless, having returned from other parts of Nigeria in the wake of the crisis that led to the outbreak of the civil war. Many of them had returned in response to Lt. Col. Ojukwu's call for all Easterners to come home but were not absorbed into the Eastern Regional (later, Biafran) civil service. More so, the closure of the Biafran borders by the Federal Military Government crippled the private sector. Consequently, the entire society experienced economic recession. In order to meet their economic needs, many youth of Bayelsa found their way into Nigeria where they enlisted in the Nigerian army.

Another factor that motivated the youth of Bayelsa to leave Biafra for Nigeria was political awareness. Many of the youth had opportunities to enlist in the Biafran army but did not do so because they considered it disservice to the people of Bayelsa. The youth were aware that, under General Yakubu Gowon, they had a guarantee of self-actualization through the administration of Rivers State created on May 27, 1967 by the Nigerian Head of State. Rather than join the rebels, those informed youth of Bayelsa did all they could to cross the borders to Nigeria and pitched their tent with the Nigerian army. They did this consciously, realizing that being in the Nigerian army afforded them the opportunity to fight for the liberation of their people.

### **The Warri trade**

One of the areas in which the Nigerian civil war affected the people of Bayelsa was economic recession. In the first place, the civil war adversely

## **The Nigerian Civil War**

affected the palm produce trade which had then become the economic mainstay of the people. The war disrupted the sale of palm oil and kernel in that the Oil Mill at Yenagoa and other parts of Bayelsa stopped operation due to the war. The men were thus compelled to explore other ways of earning a living. To increase the economic strangulation, the population increased phenomenally as those fleeing from towns and village captured by federal troops found refuge in parts of Bayelsa, especially in Yenagoa.

One major way by which the people of Bayelsa tackled the problem of economic recession was by engaging themselves in what came to be known as the "Warri trade". The trade began when Biafra temporarily occupied the Mid-West state and named it, the "Republic of Benin". The trade continued even after the federal troops had recaptured the Mid-West. The "Warri trade" came to its peak between November, 1967 and July, 1968 when the biting effects of the Nigerian economic sanctions against the Eastern Region became acute in the rebel-held areas. Bayelsans, especially the men, traveled to Warri through the creeks, to buy essential commodities such as salt, sugar and milk, for sale in Biafra. They also bought garri to sell at Yenagoa and other markets of Bayelsa.

The medium of exchange was Nigerian coins (which were still used in Biafra) and Biafran notes. The coins were used in the Mid-West markets while both coins and notes were used inside Biafra. Biafran notes were only counted as additional gain, the main gain being counted in Nigerian coins. It was through this trade that Urhobo traders came to establish themselves in Port Harcourt and opened up the Mile III Market in Diobu at the end of the war.

### **Losses and damages**

One of the greatest losses sustained by Bayelsans as a result of the civil war was the death of Isaac Jasper Adaka Boro. Adaka Boro who had already risen to the rank of a Major in the Nigerian Army died soon after the federal troops had captured Port Harcourt in 1968. Nottingham Dick,

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George Amangala and Esinkuma Nyananyo were other patriots of Bayelsa State who died fighting to liberate Rivers State.

There were many other youths who lost their lives fighting to liberate their motherland, while others died fighting on the side of the rebels. Some of the latter were conscripted into the Biafran army, but others were compelled by the harsh economic situation to join. Apart from those who died as soldiers, there was destruction of lives and property as a result of the civil war. Some of the youth of Bayelsa caught by vigilant Nigerian soldiers as they tried to enter Nigeria from Biafra were treated as rebels. Many other civilians who engaged in the "Warri trade" were caught and killed by soldiers on both sides.

Many Bayelsans lost their property in Port Harcourt and other major towns of the Eastern Region due to looting by invading forces. Others lost their property in the process of moving from one place to another as a result of the war. Some of the "Warri traders" also suffered losses through confiscation by Nigerian or Biafran soldiers on patrol.

Public utilities and private firms also suffered the adverse effects of war. For instance, the Mbiama-Yenagoa road was neglected during the war. The pontoon stationed at Mbiama to link the Yenagoa-Mbiama road to the Mbiama-Ahoada-Port Harcourt road was removed by fleeing Biafran soldiers to an unknown destination, and the building of the United Africa Company (UAC) at Yenagoa was badly damaged by shelling when the federal troops entered the town.

### **Positive effects**

The civil war provided Yenagoa, a foretaste of urban life. The influx of people from war-disturbed areas of Biafra into Epie-Atissa territory, particularly Yenagoa, temporarily transformed the area into an urban centre. Yenagoa, apart from serving as the provincial headquarters, became a major centre of trade and cultural contact. Taking advantage of the high concentration of people from every part of Biafra, bakeries and plywood industries flourished in Yenagoa and its suburbs. Motor-car and lorry traffic increased along Mbiama-Yenagoa road and inside Yenagoa. In

response, many young men took to driving and mechanical services on a full time basis. Bicycle-repairers also increased. Moreover, the Biafran government took steps to provide electricity and pipe-borne water in Yenagoa, especially to the government residential area. Culturally, the society became more formal than before as the traditional Epie-Atissa custom became inadequate to maintain the needed law and order. Although, the urban status did not continue after the departure of the Biafrans, the social and cultural life of Epie-Atissa has never been the same again.

The fall of Enugu and other important towns of Biafra made Yenagoa, in particular, and to some extent Twon-Brass and Oporoma, Biafran administrative centres. Many ministries and parastatals, or parts of them, were transferred to Yenagoa. The Yenagoa Provincial House (which now houses the Bayelsa State Judiciary) was suddenly transformed into a seat of government. The creation of Brass and Oporoma District by the Biafran authorities similarly transformed Twon-Brass and Oporoma into important centres of government activity. In the circumstances, the people who used to travel a long distance to Enugu before they could get in touch with Government House had the opportunity to do so at Yenagoa, Twon and Oporoma.

At the end of the war, hundreds of Bayelsans who fought on both sides of the war returned home to join their families. These returnees generally came back with new experiences and changed attitudes. They had passed through some hard times which brutalized them to an appreciable extent. The returnees, significantly influenced the society. Even among those that did not fight as soldiers, many were considerably brutalized through the harsh treatment they had received from the soldiers in one form or the other. The result is that Bayelsan society ceased to be the loving and caring community it was before the war.

The other enduring effects of the civil war on Bayelsa were the relatively permanent gains made by members of the Bayelsan communities. For example, the economic gains of the "Warri trade" have remained in many families. Some of the participants in that trade built

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houses with the wealth they got from it. Some others bought sewing machines, motor cars, new bicycles and other valuable personal effects. All these and others, not specifically mentioned here, were gains which remained long after the war.

## **Conclusion**

The creation of Rivers State was clearly a fallout of the Nigerian civil war, and eventually the creation of Bayelsa State. But some of the hopes of the Twelve-day Revolution remain dreams.

The best legacy of the civil war would be a yearning throughout the nation for peace and harmony as essential ingredients for sustainable development.

## CHAPTER TWENTY

# THE CREATION OF BAYELSA STATE

*Kimse A.B. Okoko and A. Lazarus*

### **Introduction**

Bayelsa State was created on October 1, 1996. But the course of events leading to the creation of the state dates back to the 1950s. This chapter brings together some of the historical antecedents, the complex political, economic and social issues that dominated the struggle for self-determination, and the combination of factors that worked in favour of the creation of Bayelsa State in 1996.

In view of the key role of the military in the creation of states and the restructuring of Nigerian federalism we begin with an examination of the military in politics. The focus is on how the behaviour of the political class prepared the ground for military intervention in politics and governance.

The second aspect of political behaviour is the refusal by the political class to adhere to the rules contained in the constitution and the electoral laws.

### **The Military, States Creation and the restructuring of Nigerian Federalism**

At independence in 1960 Nigeria was a federation of three regions: Northern, Eastern and Western. In 1963 the Mid-Western region was created which brought the number of regions to four. This was the position when the military intervened in 1966. On October 1, 1996 Nigeria became a federation of 36 states. With the exception of the Mid-Western Region which was created by the first republic civilian government, all the 36 states that make up the Nigerian federation were created by military regimes at various times. The first twelve states were created in 1967 by General Yakubu Gowon who ruled Nigeria from 1966 to 1975. In 1976 General Murtala Mohammed (1975-1976) created seven states following

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the report of the Justice Ayo Irikefe's panel on the creation of new states. This exercise brought the number of states to nineteen. The General Babangida regime carried out two separate states creation exercises. The first was in 1987 when his government created two states. The second was in 1991 when nine new states were created. Lastly, on October 1 1996 General Sani Abacha announced the creation of six new states including Bayelsa State. Thus in thirty-six-years of independence Nigerian military governments created 36 states.

It is important to state why all the 36 states were created by military regimes. The single most important explanation is that military regimes, unlike democratic ones, encounter few constitutional hurdles in the creation of states. The 1979 constitutional provisions relating to the creation of states make it extremely difficult for civilian regimes to create states in Nigeria.

Military regimes in Nigeria, in creating states and in several areas of public policy formulation, are often not bound by constitutional niceties, or dictates of the constitutional process.

The Nigerian federalism of the 1970s and 1980s is different from the federalism we are experiencing in the 1990s. Through the process of creation of states military regimes have continually restructured Nigerian federalism. In older federations such as the United States, Germany, Canada and Australia, federalism evolved through a voluntary association of independent or autonomous states or units. In essence formerly autonomous states bargained, negotiated and agreed to form a federal compact. Unlike the older federations, Nigerian federalism evolved not through voluntary union of independent states but through the continuous process of creation of states out of the existing states. Nigerian is, indeed, a case of federalism through balkanization.

Creation of states is often rationalized by the military on grounds of creating greater opportunities for even political, economic, social and cultural development and bringing government nearer to the people. However, the demand for new states was raised by the minority ethnic groups in the early 1950s. The issues that necessitated the demand for

## **The Creation of Bayelsa State**

new states then and now include self determination, access to greater share of federal government resources, the need to redress regional disparities and domination, marginalization and neglect by the majority ethnic groups.

Although the minorities started the demand for the creation of new states the beneficiaries of state creation exercises are the majority ethnic groups: Hausa, Igbo and Yoruba. They now have more states than all the minority groups combined.

### **The structure for the creation of Bayelsa State: some historical antecedents**

The struggle for the creation of Bayelsa State can be divided into four historical phases corresponding to four related state movements: (1) Rivers State Movement, (2) The Niger Delta State Movement, (3) The Abayelsa State Movement and (4) The Bayelsa State Movement.

#### **Phase 1: Rivers State Movement, 1953-1967**

The movement for a Rivers State started in the 1950s when minorities in the Eastern and other regions started the demand for separate states as a way of allaying their fears of domination by the majority ethnic groups. The other state movements that emerged in the Eastern region were the COR State (Calabar-Ogoja-Rivers State), Ogoja State and the Cross River State Movements.

After the constitutional conference appointed to review the Richards constitution the Council of Rivers Chiefs prepared a memorandum for the resumed conference of 1954 demanding the creation of Rivers State consisting of the Rivers Province, that is, Brass, Degema, Ogoni, Port Harcourt and Ahoada as well as Western Ijaw Division from the Western Region. The demand for Rivers State was motivated by the fact that "the people in the area shared a way of life dictated by the physical circumstances of the country in which they lived, and that they were united by fear of neglect at the hands of a Government who did not understand their needs and who in any case put the needs of the interior first". In

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essence the demand was motivated essentially by the fear of economic, cultural and political domination and exclusion from power, opportunities and from administrative policy making roles in the bureaucracy.

The Willink Commission which considered the request for the creation of Rivers State and demands from other minorities did not recommend the creation of Rivers State or any other state but instead recommended a number of safeguards such as designation of special areas, provision in the constitution for the protection of certain fundamental human rights, etc..

In 1967 Gowon created Rivers and South Eastern States out of the secessionist Biafra to weaken Ojukwu's regime, but following the previous demands and pressure from the Rivers, Ogoja and COR State movements.

The creation of Rivers State put an end for a period to the demand for a new State. It was hoped that Rivers State would satisfy the aspirations of all segments of Rivers State. It soon became quite clear, however, that Rivers State benefited mainly the upland areas of the state in terms of infrastructural facilities and social amenities while neglecting the riverine (Bayelsan) areas of the state.

### **Phase II: Niger Delta State Movement, 1979-1983**

The second phase in the struggle for Bayelsa State started during the short-lived second Republic from 1979 to 1983. Over the years it became obvious that the benefits of development were concentrated in Port Harcourt and other upland areas to the total neglect of the riverine areas inhabited mainly by the Ijaw speaking groups. This realization led to the demand in 1983 for a separate Niger Delta State to be composed of Brass, Yenagoa, and Sagbama LGAs in Rivers State; Bomadi, Burutu LGAs and the Ijaw areas of Warri and Ovia LGA in former Bendel State and the Ijaw areas of Ilaje-Ese-Odo Local Government Area in Ondo State.

In the memorandum submitted by the Chiefs and people of the Niger Delta, three motivating factors were prominent. The first was the desire to

have all Ijaws constituted into a state instead of the present arrangement whereby Ijaws constitute minorities in three states - Rivers, Bendel and Ondo. The second and the most important motivating factor was the neglect of the areas that comprise the Niger Delta State. The third reason was geographical contiguity and linguistic affinity.

The proposed Niger Delta State did not materialize. One reason was due to the complicated and cumbersome processes for creating new states under the 1979 constitution. This explains the inability of the civilian regime of President Shehu Shagari to create new states. The second reason was that the political leadership in the three states Rivers, Bendel, and Ondo State were vehemently opposed to the proposal for a Niger Delta State. The Bendel State government was concerned that the creation of a Niger Delta State would deprive them of oil royalties as most of the oil bearing communities would become part of the proposed Niger Delta State.

### **Phase III: Abayelsa State Movement, 1985-1993**

The General Babangida regime provided another opportunity for Bayelsans to make fresh demands for a state. This time the demand was for the creation of Abayelsa State comprising the present Bayelsa State and Ahoada Local Government Area. In spite of the hopes raised by the Babangida administration that Rivers State was a 'pregnant woman' meaning that the state was ripe to be split, Abayelsa State was not created during the two state creation exercises carried out by the regime.

One of the reasons for not creating Abayelsa state was partly due to mutual suspicion, opposition and lack of interest on the part of powerful elites on both sides, that is, Ahoada local government on the one hand, and on the other hand the local governments that presently constitute Bayelsa State. From the point of view of powerful elites in Ahoada LGA, especially the Ogba, Egbema, Ndoni and the Ekpeye, the fear and the cause of the opposition was that being in the same state with Bayelsans would place them in a position of perpetual minority. They feared domination and deprivation by the Ijaw who form the majority ethnic group

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in the proposed Abayelsa State. On the other hand, the fear of some powerful forces in Bayelsa was that inclusion of Ahoada LGA would reproduce the phenomenon of upland/riverine dichotomy that characterized Rivers State. As in Rivers State, it was felt that such a dichotomy would work in favour of the upland areas and the riverine areas would suffer further neglect. These irreconcilable differences coupled with the fact that the elite in Ahoada saw a brighter future in Orashi State which they proposed and campaigned for, weakened the Abayelsa State Movement.

### **Phase IV: Bayelsa State Movement, 1993-1996**

The appointment of the Sir Mbanefo Committee by General Sani Abacha raised fresh hopes for the creation of new states in the country and attracted a flood of requests. Accordingly, the people of Bayelsa presented a memorandum to the Mbanefo Committee to create Bayelsa State, consisting of the following six LGAs in the former Rivers State Brass, Ekeremor, Ogbia, Sagbama, Southern Ijaw and Yenagoa. The proposed state covered a total geographical area of 11,109km<sup>2</sup> and an estimated population of 1,234,656.

The motivating force behind the request for a homogenous Ijaw state was the neglect of the Niger Delta area comprising the present Bayelsa State by past and present state and federal governments, an area that produces over 40% of the nation's wealth. In essence the creation of Rivers State could not provide an answer to the neglect of the area. The neglect is evident in a number of areas. For instance, road projects earmarked for implementation in the 1975-80 National Development Plan in this area were never executed. The Mbanefo Committee was convinced that Bayelsans deserved a state and accordingly recommended the creation of Bayelsa State. The Provisional Ruling Council approved the recommendation of the Mbanefo Committee. On October 1, 1996 General Sani Abacha announced the creation of Bayelsa State.

### Conclusion

A number of factors worked in favour of the creation of Bayelsa State in 1996. First, since the creation of Rivers State in 1967 it had remained untouched in all previous state creation exercises, while the other states created along with Rivers State had been split into several states. For instance, the former East Central State was divided into four states, the former North Eastern State, into five states, and the former North Western State was split into five states. The factor of having not been split since its creation strengthened the case for Bayelsa State.

Secondly, unlike previous demands for a state or states in the former Rivers State, there was no dissenting group. This broad acceptance of the idea of Bayelsa State was due in part to the general awareness of the neglect of the area by the Rivers State government and the federal government. Furthermore, the request received the tacit support of several influential elites of other ethnic groups who saw the creation of Bayelsa State as an opportunity for their ethnic groups to emerge as the new majority ethnic groups in Rivers State and change the geo-political equation in their favour.

Thirdly, Bayelsa State was fortunate to have its military officer in the highest decision making body in the country, the Provisional Ruling Council. Besides there was now a significant crop of very senior military officers of the rank of Brigadier General or its equivalent in the various arms of the Armed Forces who must have played the role of facilitators in the demand for a Bayelsa State

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## CHAPTER TWENTY-ONE

# DEVELOPMENT PLANNING

*J. E. Ibomo, E. A. Allison-Oguru and A. Lazarus*

### **Introduction**

Notwithstanding diverse views on the subject, economic development possesses three key ingredients: raising people's living standard; creating conditions conducive to the growth of people's self esteem through establishment of social, political and economic systems and institutions that promote human respect and dignity; and increasing people's freedom to choose by enlarging their range of choice.

Development is a process and not a chance event. There are recognizable physical, social, political and economic factors whose interaction brings about development. To bring about development in a given locality, these factors must be identified, mobilized and harnessed. This underlies the importance of planning in the process of economic development. Development planning, therefore, involves the drawing up of a concrete plan of action for the mobilization and allocation of available resources - natural, human and financial - for sustainable development (Killick, 1981).

In this chapter, we set out to highlight (1) the development experience of Rivers State from its inception in 1967 up to 1st October, 1996, when Bayelsa State was created out of it. (2) The major development projects inherited by Bayelsa State from Rivers State (3) development financing in Bayelsa State as evidenced from the State's 1997 maiden budget; (4) local resources and development potentials; and (5) a policy framework for development planning and implementation in the young state.

### **Development planning in Rivers State (1967-1997)**

As a young state, Bayelsa State has little or no development planning experience to be reviewed other than that inherited from Rivers State, its

parent. A review of the planning experience of the former Rivers State is therefore appropriate. Development planning in Nigeria started in 1946. Since then there have been a series of plans with different emphasis and under different political and administrative arrangements. In the Rivers State, development planning did not start until 1970, 3 years after its creation out of the Eastern Region on May 27, 1967. This delay in planning experience is attributable to the civil war which broke out in July 1967 thus denying the young state the opportunity of establishing normal government services within its area of authority.

Development planning in Rivers State thus started with National Development Plan 1970-74. Since then, the state has formulated and implemented three additional development programmes namely the 1975-80; 1981-85; and 1987-96 programmes. The 1975-80 programme was part of the Third National Development Plan 1975-80 while the 1981-85 programme was part of the Fourth National Development Plan 1981-85. The 1987-96 programme was a two-phased, ten year perspective plan which was part of the Fifth National Development Plan.

The Rivers State 1970-74 Development Programme was designed to rehabilitate and reconstruct the war torn economy of the state. Farmers, fishermen, traders and others adversely affected by the civil war were rehabilitated through loans granted to small businessmen, transporters and craftsmen. Assistance was also given to citizens of the state in reconstructing their destroyed houses. The programme also focused on reconstruction work on transportation, power, communication, agriculture, industry, water supply, and the restoration of essential services such as schools and hospitals, in addition to developing and strengthening the necessary administrative machinery for plan formulation and implementation, and general administration.

A total of ₦67 914 million was earmarked to be expended during the 1970-74 plan period. Table 21.1 shows the broad sectoral distribution of the financial allocation as well as the performance ratios. Of the ₦67 914 million planned expenditure, 84 776 million was actually expended thus overshooting target expenditure by about 25 percent.

## Economy

Table 21.1 Sectoral Distribution of Financial Allocations and Performance Ratios (1970-74 Programme)

Sector	Plan Allocation ( ₦ million)	Actual Expenditure ( ₦ million)	Performance Ratio ( ₦ million)
Economic	36.198 (53.3)	51.514 (60.9)	142.3
Services	26.510 (39.0)	29.357 (34.6)	110.7
General Administration	5.206 (7.7)	3.825 (4.5)	735
Total	67.914	84.776	125

The 1975-80 Rivers State Development Programme of the Third National Development Plan took off with an initial financial allocation of ₦472 million. This amount was revised upward to ₦493 million and further increased to ₦522.5 million at a later part of the plan period. The priority of the State Government remained the provision of basic infrastructural facilities in both rural and urban areas in addition to boosting agriculture to provide food and industrial raw materials for agro-based industries.

Table 21.2 shows the broad sectoral distribution of the financial allocations as well as the performance ratios. Out of the ₦522.5 planned expenditure for the period, ₦678.1 million or 129.8% of total plan allocation was actually expended on the provision of infrastructure and services. Actual expenditure thus overshoot planned expenditure by 29.8%.

Table 21.2. Sectoral Distribution of Financial Allocations and Performance Ratios (1975-80 Programme)

Sector	Plan Allocation ( ₦ million)	Actual Expenditure ( ₦ million)	Performance Ratio (%)
Economic	228.5	267.2	116.9
Social	140.0	206.4	147.4
Environment	115.0	111.3	96.8

Sector	Plan Allocation (₦ million)	Actual Expenditure (₦ million)	Performance Ratio (%)
General Administration	39.0	93.3	239.2
Total	522.5	678.2	129.8

The Rivers State Programme of the Fourth National Development Plan 1981-85 also focused on provision of infrastructural facilities in addition to the development of new towns, expansion of educational and health facilities, and the development of agriculture and industry. A total of ₦1.488 billion was earmarked for expenditure in infrastructure and services during the plan period.

Table 21.3 shows the broad sectoral distribution of financial allocations and the performance ratios for the 1981-85 programme. Out of a total planned expenditure of ₦1.488 billion, only ₦66.915 million or 46.3% was actually expended during the period. In all sectors, except general administration, actual expenditure fell short of planned expenditure. This situation is attributable to shortfall in projected revenue from the Federation Account resulting from glut in the international oil market.

Table 21.3. Sectoral Distribution of Financial Allocations and Performance Ratios (1981-85 Programme)

Sector	Plan Allocation (₦ million)	Actual Expenditure (₦ million)	Performance Ratio (%)
Economic	486.2 (33.6)	303.107 (45.25)	62.3
Social	327.6 (22.0)	132.875 (19.8)	40.6
Environment	579.3 (40.0)	164.831 (24.6)	28.5
General Administration	55.3 (3.8)	69.102 (10.3)	125.0
Total	1,488.4	669.915	46.3

Note: Figures in parenthesis are sector's allocation as a percentage of total plan allocation.

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In the 1987-96 Rivers State ten years perspective plan, a total of ₦1.8 billion was earmarked to be expended on the expansion of infrastructure and provision of services. In the first phase of the plan covering the period of 1987-1991, ₦805 million was earmarked for expenditure while ₦905 million was earmarked for the second phase covering the period 1992-1996. Details of the sectoral allocations of development funds during the periods 1987-1991, and 1992-1996 are shown in Tables 21.4 and 21.5 respectively.

Table 21.4. Sectoral Distribution of Financial Allocations  
(1987-91 Programme)

Sector	Plan Allocation (₦ million)	Percentage Allocation (%)
Economic	468	54
Social	259	31
Environment	93	11
General Administration	30	4
Total	850	100

Table 21.5: Sectoral Distribution of Financial Allocations (1992-96  
Programme)

Sector	Plan Allocation (₦ million)	Percentage Allocation (%)
Economic	522	55
Social	290	30
Environment	104	11
General Administration	34	4
Total	950	100

It can be seen from the foregoing analyses that development planning in Rivers State from its inception in 1970 to date focused primarily on the provision of basic physical, social and economic infrastructure; and the boosting of activities in the economic or directly productive sectors of the state's economy. Accordingly, the economic sector was consistently allocated the highest percentage of development funds. This sector is closely followed by the services and social sectors. General administration has consistently been allocated the least percentage of development funds. This is in keeping with the notion that allocating more funds to the economic or directly productive sector enables this sector to grow faster than the social sector and thus contain unemployment and inflationary pressures in the economy.

### **Development projects inherited by Bayelsa State from the Rivers State**

In each of the Rivers State Development Programmes from 1970 up to October 1996, a number of development projects were earmarked for implementation in the parts of Rivers State now constituting Bayelsa State, some have been fully implemented while others are at different levels of implementation. In this subsection, we highlight such major projects that have been inherited by Bayelsa State from the former Rivers State under the headings of Roads, Health, Agriculture, Education, Power and Electricity, Town and Country Planning; and Commerce, Industry and Tourism.

Road projects in Bayelsa State earmarked for construction in the various Rivers State Development Programmes include:

- (i) Yenagoa-Oloibiri-Nembe Road
- (ii) Igbogene-Polaku-Odi Road
- (iii) Amassoma-Sabagreia-East/West Road
- (iv) Yenegwe-Kolo Road
- (v) Toungbou-East/West Road (Tungbo)
- (vi) Yenagoa-Oporoma-Ukubie-Koluama Road
- (vii) Otuasega-Oruma-Emelego Road

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- (viii) Edepie-Imiringi-Kolo-Otakeme-Akipila-Ogbia Town Road
- (ix) Odi-Torofani-Ikpudiana-Kaiama Road
- (x) Imiringi-Elebele-Otuoke-Onuebum Road
- (xi) Angiama-Peremabiri Road
- (xii) East/West-Orubiri-Oyobu-Ayibobiri-Sabagreia-Polaku-Tombia-Agudama-Amassoma Road
- xiii) Yenagoa-Poroma-Ukubie Road
- (xiv) East/West-Sampou-Agbere-Asamabiri-Agbere/Odoni Road
- (xv) East/West-Sagbama-Tungbo-Toru-Orua-Ofoni-Abobiri-Ekeremor Road
- (xvi) Abobiri-Otuabula-Ewoi-Otuoke Road
- (xvii) Abobiri-Okpiniama Road
- (xviii) Otakeme-Otabi-Okpiniama-Ogbia Town Road

It is noteworthy to mention that of all these road projects earmarked for construction in the part of Rivers State which now constitutes Bayelsa State, none was completed and commissioned for public use. This explains the near absence of motorable roads in the young state.

Health projects earmarked for implementation in Bayelsa State from the various Rivers State Development Programmes are:

- (i) Yenagoa General Hospital
- (ii) Nembe General Hospital
- (iii) Oloibiri General Hospital
- (iv) Ogbia Town Specialist Hospital
- (v) Brass General Hospital
- (vi) Oporoma General Hospital
- (vii) Igbogene Leprosy Hospital
- (viii) Kolo Cottage Hospital
- (ix) Emakalakala General Hospital
- (x) Sagbama General Hospital

In addition to the above hospitals, a number of health centres and clinics were also earmarked for establishment in parts of Bayelsa State. However, at the eve of the creation of Bayelsa State, most of the hospitals

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were not functional. Such hospitals include those located at Oporoma, Oloibiri and Ogbia Town. Even the functional ones were not properly equipped. Also, for reasons that are not entirely clear, most of the health centres and clinics earmarked for establishment were never built.

Projects in the agriculture and food production sector inherited by Bayelsa State from the Rivers State, but largely abandoned, include:

- (i) Demonstration Farms at Yenagoa and Abobiri
- (ii) Niger Delta Development Board Pilot Farms at Otuaka, Anyama, Nembe and Kaiama taken over by the Rivers State Ministry of Agriculture.
- (iii) Peremabiri Rice Project
- (iv) Ekoo Rice Farm at Kolo
- (v) Agromet Stations at Peremabiri, Nembe, Kaiama, Abobiri, Oporoma, Sabagreia and Yenagoa
- (vi) Sugarcane and Jute Plantations at Ogbia, Oporoma, Koluama, and Yenagoa
- (vii) Proposed Forest Resources at Taylor Creek, Nun River, Ikebiri Creek, Apoi Creek and Edumanom River.
- (viii) Proposed Fishing Settlement Scheme at Okpoama, Akassa and Koluama
- (ix) Risonpalm Lowland Oil Palm Project at Elebele, near Yenagoa
- (x) Fish drying and Preservation Project at Brass.

In the area of education, Bayelsa State inherited the following number of schools from the Rivers State

- (i) 210 Primary Schools with pupils enrollment of 45,263
- (ii) 80 Post-Primary Schools with students enrollment of 19,249
- (iii) Government Craft Centres at Ekowe, Ayakoro, Polaku and Yenagoa

The major project of note inherited by Bayelsa State from Rivers State is the Kolo Creek Gas Turbine at Imiringi in Ogbia Local Government Area.

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Through this power station, a number of communities in Rivers and Bayelsa State have been supplied electricity.

In the area of Town and Country Planning, Bayelsa State inherited from Rivers State the proposed Boro and Ogbia New Towns Development Projects. Masterplans for these towns were designed but not implemented.

Major projects of note in the commerce, industry and tourism sector inherited by Bayelsa State from Rivers State are the Yenagoa Industrial Estate Project and the proposed Oloibiri Oil Museum at Ogbia Town. The latter is a joint project of the Rivers State Government, the Federal Government of Nigeria, and Shell Petroleum Development Company (SPDC). Both projects are still on the drawing board awaiting implementation.

From the foregoing analysis, it can be seen that Bayelsa State inherited little or nothing by way of infrastructure from the Rivers State. The State is one of the least developed in Nigeria. The following indicators are graphic illustrations of the State's low level of development: complete absence of basic infrastructure such as roads, tertiary institutions, poor housing, lack of modern health facilities and water supply system, absence of industries, lack of urban centres. These realities pose enormous developmental challenges for the new state. The task before the current and future governments in the state is therefore to initiate comprehensive and realistic development plans.

### **Development financing in Bayelsa State**

The success of any development planning effort depends on availability of adequate financial resources. In this section, we examine the available financial resources for plan implementation in Bayelsa State. The financial resources can be gleaned from the state's 1997 and 1998 annual budgets.

The State Government presented balanced budgets for the 1997 and 1998 fiscal years. The budgets provided for total estimated recurrent revenue of ₦1,827,336,000 and ₦2,823,600,547 for 1997 and 1998,

respectively. Of this amount, statutory allocation from the Federation Account was ₦1,095,593,000 (59.96%) and ₦2,101,740,000 (74.44%) respectively of the total recurrent budget for 1997 and 1998. Value added tax (VAT) was ₦326,643,000 (17.87%) and ₦443,430,000 (15.70%) respectively; while internally generated recurrent revenue was 340,000,000 (18.61%) and ₦278,430,547 (9.86%), respectively for 1997 and 1998.

In the budgets, provision for capital expenditure was ₦1,017,518,444 (55.68%) and ₦1,658,285,911 (58.73%) of expenditure, respectively for 1997 and 1998. Provision for total recurrent expenditure (personnel cost, overhead cost, consolidated revenue fund charges, and contingency fund) was respectively ₦809,817,556 (44.32%) and 1,165,314,636 (41.27%) of total expenditure. The budgets suggests a number of pointers.

First, over 90% of the state's revenue comes from the Federal Government through statutory allocations and value added tax. What this means is that fluctuations in the Federal Government's oil and non-oil revenue are bound to affect the availability of development funds for Bayelsa State. For this reason, it is imperative that the state evolves an effective machinery for internal revenue generation in order to boost its finances for development.

As a target, the government of Bayelsa State should aim at generating at least 35% of its annual recurrent revenue from internal sources as obtains in Rivers, Lagos, Kano and other states in the federation. This could be achieved through the introduction and effective implementation of policy incentives aimed at creating an enabling environment: first, to encourage the setting up of private business; second, to attract investors and encourage multi-nationals, especially oil companies operating in the state, to establish field offices in the state; and third, to take the lead in the rapid industrialization of the state.

Second, if the government of Bayelsa State holds the line on recurrent expenditure as evidenced in the 1997 and 1998 budgets, about 55-60% of annual budgetary allocations will be devoted to capital projects. This is an

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encouraging scenario provided funds allocated for capital expenditure are judiciously expended on priority development projects.

Third, if oil prices in the world market remain relatively stable, hopefully statutory allocations from the Federation Account and receipts from VAT may not decline below current levels. What this suggests is that budgetary allocations for capital expenditure are not likely to fall below current levels. Thus, in spite of its difficult geographical terrain, if the current level of capital expenditure is maintained in subsequent years coupled with financial support from oil companies operating in the state and prudent management of available funds, the state government would be in a position to transform the young state to become a real "pride of the nation".

Capital allocations to key sectors of the economy in 1997 and 1998 is indicative of the direction of government. These allocations are given in Table 21.6.

Table 21.6. Capital Allocations to Key Sectors of the Economy  
(1997 and 1998)

Sector	1997		1998	
	Allocation	Percentage	Allocation	Percentage
Economic	320,100,000	31.50	501,440,000	30.24
Social	291,000,000	28.50	549,460,000	33.85
Environment	127,000,000	12.50	479,080,000	28.83
General Administration	279,418,444	27.50	129,305,911	7.08
Total	1,017,518,444	100.00	1,658,285,911	100.00

In both the 1997 and 1998 annual budgets, emphasis was placed on the economic and social sectors of the economy. In the economic sector, transport was allocated ₦150,000,000 (46.87%) and ₦121,300,000 (24.19%), respectively in 1997 and 1998. The corresponding figures for agriculture and industry are ₦50,000,000 (15.6%) and ₦24,860,000 (4.96%); and ₦50,000,000 (15.6%) and ₦31,540,000 (6.29%). The emphasis on transport, agriculture and industry is not surprising. There

are no industries in the state. The only opportunities for employment exist mainly in the public service and the informal sectors. This explains the existence of mass unemployment in the state. Furthermore, lack of roads and general transport difficulties constitute the greatest challenge facing the state.

In the social sector, emphasis was placed on education and health. Education was allocated ₦120,000,000 (41%) and ₦139,440,000 (25.38%) respectively in 1997 and 1998. The corresponding figures for health are ₦115,000,000 (39.5%) and ₦270,580,000 (49.24%). The priority accorded education can be attributed to the complete absence of any tertiary institution in the state and the total neglect of primary and post-primary schools in the state; and the need to improve facilities in the existing schools. Finally, in the environmental development sector, housing was allocated ₦50,000,000 (39%) and ₦232,400,000 (48.61%) respectively in 1997 and 1998; while the corresponding figures for water supply were ₦40,000,000 (31.4%) and ₦177,620,000 (37.15%). The emphasis on housing and water supply is understandable. Houses are in short supply in Yenagoa, the state capital. In addition, there is no modern water supply system. With the population influx, there is urgent need to address the twin problems of housing and water supply.

### **Available local resources and development potentials**

Bayelsa State is one of the few states in Nigeria with abundant human and natural resources. In this section, we highlight these resources which serve as pointers to the path of economic growth and development in the young state.

Bayelsa State made up of eight local government areas occupies a land area of 11,109 km<sup>2</sup> which constitutes 1.2% of the total land area of Nigeria. The principal natural resources of the state are: Crude oil and natural gas; oil palm, raphia palm; mangrove; various timber species; fish; sand and gravel; clay; *ogbono*; rice; cassava; plantain and banana; sugarcane; etc. (Allison-Oguru, 1995). The abundant natural resources in the State suggest that the potential for development is great. What the

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state government should do is to set up, for a start, agro-based and small scale industries and gradually move on to intermediate and heavy industries that will utilize, in the main, the available natural resources in the state. This is the most effective way of promoting economic activity and providing employment opportunities.

In addition to natural resources, Bayelsa State also has fairly adequate human resources that can be mobilized for the development of the young state. The state has an estimated population of 1,234,656 people. It also has a number of skilled and unskilled manpower in critical areas of development. However, a good number of the citizens of the young state, particularly the youth, are without any form of skill. It is therefore necessary to evolve a comprehensive programme of human resources mobilization and development.

## **Policy framework**

We have noted that Bayelsa State is among the least developed states in the Federal Republic of Nigeria. The state lacks basic infrastructure like roads, water supply, housing, higher educational institutions, functional hospitals, telecommunication facilities, electricity etc. Its geographical terrain is the most difficult to develop. These constraints notwithstanding, the state has abundant human and natural resources and a great potential for industrialization and sustained socio-economic progress. However, in order to realise these potentials, the State Government needs to introduce a number of policies and take certain decisions on a number of critical issues.

A comprehensive survey of existing and potential resources in the state should be undertaken to provide the required statistical basis for effective development planning. Such survey should be undertaken periodically to generate information on all aspects of economic life in the state thus constituting a data bank for formulation of realistic development plans and programmes.

Targets to be achieved within each plan period and development priorities should be well articulated and disseminated. Priorities should be

specified in terms of the short-term and long-term needs of the economy keeping in view available material, human and financial resources for development. The importance of a development project should be based on its contribution to the overall development of the state and not on the status of the persons whose interest it would serve. Furthermore, there should be balance among the various sectors of the economy and among different geographical zones in the allocation of funds and in the siting of development projects. This way, the entire state and its economic sectors would receive a fair and appropriate share of development.

A strong, efficient administration is a sine qua non of successful plan implementation. This essential requirement is often lacking. It is necessary to ensure economy in administration through proper structuring of government ministries and departments to avoid duplication.

The state should provide appropriate policy incentives capable of creating a conducive environment for private sector participation in the development of the young state. To achieve this, we suggest the following measures:

- (i) Provision of basic infrastructure like water, power, transport and communications,
- (ii) Provision of training facilities as well as adequate general education thereby ensuring acquisition of necessary skills,
- (iii) Seeking out and assisting potential entrepreneurs both domestic and foreign through joint venture arrangements;
- (iv) Seeking development assistance from international donor agencies.

Development planning and policy making in Nigeria often reflect the views, needs and perceptions of the elite and not those of the people at the grassroots. Development planning in Bayelsa State should take into consideration the visions of the various communities to ensure successful implementation of development plans.

## CHAPTER TWENTY-TWO

# INDUSTRY AND TRADE

*Gesiye S. Angaye*

### **Introduction**

Because of the close historical statistical relationship between industrialization and rising incomes in the advanced countries, industrialization is desired in new states like Bayelsa State for the efficient production of more goods and services to promote economic growth and development and raise the standard of living. Industry creates income and employment opportunities, trains manpower and absorbs it into better paid jobs. Industrialization has greater scope for technological progress, higher productivity, accelerators and multipliers; greater forward and backward linkages; more stable and controllable processes of production than agriculture where production depends largely on the vagaries of the weather (Salvatore et. al., 1997).

However, industrialization does not necessarily cause economic growth. The impact of industrialization on the state economy depends on the composition or structure and the linkage effects of industrial production and output. The pursuance of wrong industrialization strategies could even slow down the overall potential development of the economy.

Trade or commerce is concerned with the exchange and distribution of goods and services. Individuals, communities, states and countries trade to take advantage of the benefits of specialization. Given the differences in factor endowments some areas or countries are more efficient at producing some goods than others. The principle of comparative cost or advantage states that a state will gain by specializing in the production of those commodities in which its comparative cost advantage is greater, exporting these commodities in exchange for commodities in which its comparative cost advantage is less. By specializing according to

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comparative advantage, states can realize larger real incomes from the same resources, other things being equal.

Domestic and foreign trade can contribute to the development of a state by providing capital goods, machinery, raw and semi-finished materials, infrastructural facilities, consumer goods, foreign exchange, public revenue, incomes, employment opportunities, technological know-how, skills, entrepreneurship and managerial talents.

However, unequal exchange or foreign trade based on the theory of comparative advantage can inhibit industrialization, produce dual economy, retard national development and worsen inequalities as the benefits of foreign trade tend to accrue disproportionately to developed industrial nations and within the developing countries disproportionately to foreign residents and rich nationals.

## **Industry and Commerce**

Bayelsa State is bereft of industries. Apart from the petroleum sub-sector with its numerous flow stations, oil wells and installations, the Peremabiri rice mill, there are no other modern industrial concerns. For example, the 1989 Rivers State Industrial Directorate, though dated and not comprehensive, recorded 14 local gin distilleries in Southern Ijaw, 10 saw mills, 10 bread bakeries, 8 canoe/boat builders, 4 furniture, 3 tailoring, 3 footwear, 2 palm oil and kernel processing plants, and 1 ocean and coastal fishing industry in the Bayelsa area.

An industrial and trade survey of Bayelsa State was conducted by the author from July to August, 1997 to update the data. At Yenagoa the state capital, the establishments employing about 5 to 10 persons were as follows: 1 commercial bank, 2 saw mills, 3 hotels, and 1 iron works. The rest were single proprietorship tailoring, carpentry, photography, shoe repair, trading and provisions stores, etc. A few one-man cottage industries and businesses were also found in some of the local government headquarters and large towns in the state. Ekeremor, Twon-Brass and Oporoma had branches of commercial banks while Southern Ijaw was dotted with gin distilleries.

The dominance of the oil industry, gin manufacture and fish processing in the state emphasizes the importance of natural resources in determining the industrial structure of a state. Bayelsa State was formerly known as the Oil Rivers and played a vital role in the Industrial Revolution of 19th century England by providing vegetable oil which served as raw material for industries and lubricant for industrial machinery. Now that petroleum has replaced palm produce as the life-wire of modern technology, Bayelsa State produces a large proportion of Nigeria's crude oil and supplies oil to the world community through the Agip oil export terminal at Twon-Brass.

Petroleum refineries are, however, sited outside Bayelsa State at Port Harcourt, Warri and Kaduna. As petroleum is the dominant sector in the State, its integration in the state economy through the establishment of petro-chemical industries will facilitate socio-economic development.

Bayelsa State covers an area of 9,656 square kilometers of which 8,453 square kilometers is riverine where fish abounds. While chilling and freezing which were introduced recently are rare, smoke-drying, wet smoking and salting are the traditional techniques of fish processing and preservation for storage and distribution in the state. Fresh fish remains fresh for a long time if it is well salted. Salting is usually combined with drying the fish in the sun or over a smoking fire which is more effective. Smoking done for about five hours is known as wet-smoking and does not preserve fish for a long time.

The conversion of palmwine obtained from raphia palm to gin in the southern parts of Bayelsa State is one of the oldest industries in the state. During the colonial period, the locally distilled gin was called 'illicit' gin in order to protect the imported gin from local competition. Palmwine is also drunk fresh and processed/preserved for distribution.

The traditional method of processing palm oil involves boiling and manual pounding using elementary tools. Palm oil is extracted from the pericarp (or pulp) of the palm fruit through crushing while palm kernels are obtained by cracking the nuts within the fruit. The screw-type hand-press introduced to Nigeria in the late 1920's and the government-sponsored

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pioneer oil mills designed by the United Africa Company have improved the efficiency of oil processing.

The manufacture and use of ceramic pots, bowls, jars, etc. used for cooking, fetching and storing water, food etc. was common in Bayelsa State. Obunagha and Koroama in Yenagoa Local Government Area were well known centres for pottery manufacture.

Mortars and pestles of different sizes and shapes made from hardwood are used in grinding pepper, *ogbono* (*egbene*) melon and pounding yam, garri, and fufu. Neatly carved wooden plates, dishes and soup-spoons were widely used in the past.

Canoe carving is a lucrative craft in the freshwater zone of the state. The canoe is made from logs which are felled with axes or by means of fire and either processed on the spot or moved to the town for processing. The traditional means of transportation in the state is by canoes. Therefore, to own a canoe is both an economic and prestigious asset for it can act as collateral and also raise an individual's income and social status.

### 1997-1999 plan projects and strategies

The 1997-99 Bayelsa State Rolling Plan provided for the following industrial and commercial projects.

1. The establishment of two industrial estates at Yenagoa and Sagbama at an estimated cost of ₦55,000,000.
2. To encourage private investors to establish Turn-key projects such as fish canning, fish preservation, etc. in the industrial estates with ₦15,000,000.
3. To assist community industries and negotiate with OMPADEC to establish some rural community industries by constructing oil mills, sawing mills, burnt bricks, cassava processing factory and fish industries at various locations with ₦15,000,000.

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4. To carry out feasibility studies on the pilot/investment projects at an estimated cost of ₦5,000,000.
5. To provide counterpart cash contribution to the United Nations Development Programme (UNDP) assisted small-scale industrial project for the acquisition of land and infrastructural facilities with ₦10,000,000.
6. To provide assistance to viable registered co-operative societies, small and medium scale industrialists and rural craftsmen with ₦3,000,000.00
7. The construction of a modern market with both lock up shops and open stalls at Yenagoa, the state capital with ₦10,000,000; and
8. The construction of petrol filling stations at an estimated cost of ₦5,000,000.

There is a danger that the proposed two industrial estates at Yenagoa and Sagbama will be raised to eight, one for each LGA, when the politicians replace the military in government, when even the simultaneous establishment of two industrial estates is too ambitious for a new state. Rivers State experience of sharing industrial estates equally ending up with nothing, suggests that only small-scale cottage industries that do not enjoy economics of scale can be spread to all parts of the state.

The proposed assistance to private investors, co-operative societies, small and medium scale industrialists should be given to only genuine investors with viable projects determined by detailed feasibility studies and mainly in kind, where possible, to check the diversion of funds to non-productive activities.

Bayelsa State industrial policy and strategy should aim at ensuring that the natural resources are fully tapped to increase incomes, wealth and the industrial base of the state: use local raw materials to boost industrial

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production; stimulate indigenous entrepreneurship and technological know-how; encourage indigenous/community participation in the execution of industrial projects; provide infrastructural and credit facilities; increase employment opportunities; and integrate the oil sector in the state economy by developing small and medium down stream products of petro-chemical industries.

There is an urgent need to embark on relatively cheap village integration schemes on the model of Aiyetoro town which was founded in 1947 bringing together ten small fishing villages. A canal seven miles long was constructed to link the villages. Electricity, borehole and houses roofed with zinc were provided for all its inhabitants without any assistance from government. Bayelsa State government could acquire and clear suitable, spacious sites, provide plots with basic infrastructural facilities and encourage people residing in crowded or scattered small settlements or flood and erosion-prone areas to build their own houses in such new settlements.

Bayelsa State is blessed with many valuable forestry, fisheries, animal and mineral resources and the products and by-products of such resources led to self-sufficiency in some cases and to inter-community trade along river and land routes. Trade was first carried on by barter, that is the exchange of goods for goods but later it developed to the exchange systems by means of cowries and manillas and by means of currency.

At the international level, Bayelsa State participated in the Atlantic slave trade as well as the trade in palm products. In 1897 there was 100 Europeans on the West African coast and a large part of the output of the European firms in West Africa was being exported to the West Indies and from the hinterland were exported to the West Indies and to Cuba. Palm products from Bayelsa State were exported to various parts of other states.

Trade between Bayelsa State and other states in Nigeria is accompanied by several problems such as the lack of roads, bridges, improved business facilities and the absence of a large number of population.

produced areas of intense demand for agricultural products such as dried fish, cray fish, garri, water yams, plantain, bananas, snails, palm oil, *ogbono*, local gin etc., that abound in Bayelsa State. The rural areas demand, in exchange, manufactured goods like soap, footwear, textiles, chemicals, sugar, matches, cooking utensils, beer, mineral waters, cement and other building materials produced mainly outside the state due to the lack of local industries. Some local foodstuffs such as rice, beans, onions, eggs, tomatoes, pepper, groundnut oil are also bought from other states.

Trading in Bayelsa is beset with many problems which include the lack or inadequacy of storage, preservation, transport and credit facilities. Owing to the lack of storage facilities the markets are glutted during harvest periods and the returns to the producers are consequently low. The inadequacy of transport facilities results in the deterioration, reduction or damage of farm products while awaiting transfer to the markets or where delays occur enroute either due to mechanical breakdown of vehicles or damaged roads during the rainy season. The high cost of transportation of both manufactured and agricultural products to the rural areas leads to high prices of products.

### **Industrial potential**

Bayelsa State is rich in natural resources which include mineral deposits (crude oil, gas), forest resources (mangrove timber, iroko, mahogany, and abura), cash/tree crops (oil palm, raphia palms, *ogbono*, rubber, coco-nut), food crops (cassava, rice, yams, cocoyams, plantains, bananas, sugarcane, vegetables and fruits); marine and freshwater fisheries resources, extensive brackish water lagoons and creeks, rivers and lakes. Therefore, the greatest potential for future industries in Bayelsa State lies in the fields of agriculture, fish processing and petro-chemicals, listed below.

### **Petro-chemical industries**

Petro-chemical industries are a natural outcome of petroleum production in the state. The oil sector is currently the most important sector in the state. A systematic integration of this sector in the state economy should be worked out.

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### **A plastic industry**

A plastic industry is a natural outgrowth of petrochemical production. The production of injection moulded plastic ware such as dishes, containers, insulating materials, etc. could provide employment for many people.

### **Boat and canoe building industry**

The traditional means of transportation along the rivers and creeks in Bayelsa State is by hand paddled canoe which are still very common. The making of a single canoe takes a lot of energy and time so the challenge is to devise a modern means of manufacture. Small boatyards capable of producing small shallow draft work boats made with plastic, fibre-glass hulls should be established.

### **Fish and shrimp trawling and processing industry**

Fish, shrimp and other sea foods abound in the waters of Bayelsa State. The industry will be sustainable and of long term value to the state.

### **Palm-Wine and Gin Distillery**

Raphia palms grow profusely in the fresh water swamps and provides the following products: palm-wine, local gin, raphia fibre, piassava fibre, bamboo poles, thatch for roofing, etc. The fermented palm-wine is used for local distillation of gin which occupies many people. The following subsidiary industries can be established from the wine extract alone

- (i) A gin factory to produce gin locally and cheaply to improve on the present crude system of distillation
- (ii) Alcohol industry for the production of ethyl alcohol on commercial basis for laboratory and other uses
- (iii) Palm-wine preservation and bottling industry for larger storage and distribution.
- (iv) Dry yeast extraction from palm-wine to meet the needs of bakers and also for medical uses.

### **Palm-oil and palm-kernel processing plants or mills**

At the moment a majority of the people depend upon wild palm groves for the supply of palm produce. The replacement of the wild palm groves with plantation palms raised from seeds of selected high yielding types and the establishment of palm oil processing and palm kernel crushing plants will increase production and create income and employment.

### **Industrial use of mangroves**

In view of the large mangrove forests in the state, it is necessary to conduct detailed surveys and studies on its suitability for the manufacture of rayon, cement bonded particle boards, toilet papers, etc.

### **Rice industry**

Bayelsa State has great potentialities for the production of swamp or wet rice. The Peremabiri Rice Project, started by the Niger Delta Development Board in 1958, was envisaged to cover 1,200 hectares. It should be revived and expanded

### **Snail culturing industry**

Snail multiplication industries can be set up in many rural communities in Bayelsa State to create income and employment.

### **Conclusion**

A general economic agricultural and industrial survey of the state should be conducted to identify feasible, viable and profitable projects to encourage private investors. There is a dearth of private investors and businessmen with the entrepreneurial skill, and even the available few lack financial resources. The state government should, therefore, provide loans, feasibility studies, finance, and create the necessary conditions for the development of indigenous industrialists and businessmen. The state government should invest in areas where the private sector is unable to invest and eventually pass on such businesses to the indigenous business sector.

## CHAPTER TWENTY-THREE

# AGRICULTURE

*E. A. Allison-Oguru, K. Zuofa and N. A. Berepubo*

### **Introduction**

Agriculture, including fisheries and forestry, constitutes the major economic activity in Bayelsa State with over 65 percent of the people engaged in it. Lumbering, hunting, gathering of wild fruits, and raphia palm tapping constitute specific primary forestry economic activities; while fishing along the coastline and in the rivers, creeks, rivulets, constitute primary economic activities in the area of fisheries resources exploitation. In addition, rotational cultivation of food and cash crops and the rearing of domestic animals are also undertaken (Allison-Oguru, 1995).

In this chapter, we highlight the main features of agriculture as practised by farmers in Bayelsa State. Emphasis is placed on food/cash crops, animal production and marketing. The status of agricultural extension and development in the state in addition to the factors constraining crops and animal production and marketing have also been highlighted. The approach adopted is mainly descriptive and culminates the highlighting of policy implications.

### **Farm household characteristics**

In Bayelsa State, the farm household is the basic unit of farm production and marketing. In order to understand what happens on the farm, therefore, one must understand the basic framework and mechanics of the typical farm household. In this subsection, we highlight the salient characteristics of farm households in the state as a background to farm practices in the state.

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### **Size characteristics**

Generally, information on size distribution of farm households in Bayelsa State is fragmented. However, evidence from observation and available literature indicates that farm households in the area are generally large and range between 2 and 25 people. This number is normally made up of the husband (or farm household head), his wife or wives, and children. The large size of farm households in the area is informed by the need to provide farm labour from within the family thus avoiding hiring of labour from non-family sources.

### **Occupational characteristics**

Owing to the seasonal nature of farming activities in the state, farmers engage in subsidiary or secondary occupations in order to remain employed all year round and supplement farm incomes. Consequently, farming is not the only occupation farmers engage in.

Secondary occupations in which farmers engage are either primary and farm-related or tertiary and non-farm related. Among the farm-related subsidiary occupations are forest resources exploitation and fishing. The former includes lumbering, hunting, canoe carving, weaving, raphia palm tapping/harvesting; and collection of wild fruits, fuel wood, rattan, bamboo, fibers, trapping snails, etc. Fishing activities involve capture fisheries and traditional fish farming in the estuaries, rivers, creeks, lakes and flood plains using various fishing gear. Products from these subsidiary activities are widely traded in both urban and rural markets in and outside the state.

Non-farm subsidiary occupations in which farmers in the State are engaged include: petty trading, dress-making, cobbling, bicycle and auto repairs, food vending, carpentry, masonry, barbing, goldsmithing, etc.

### **Income characteristics**

Farm households in Bayelsa State like their counterparts in other parts of Nigeria and indeed sub-Saharan Africa, earn income from both farm and non-farm sources. Data on household incomes in Bayelsa State is scanty, fragmented and, in some cases, unreliable because of the attitude of

farmers in the area toward divulging information on their income for fear of being used for tax assessment purpose. In any case, farmers in the area do not keep records of their farm expenses and revenue, and are therefore unable to make reliable estimates of their farm income. Worse still, most of the information on farm income provided by reporters are based on analysis carried out on specific crops and on per hectare basis. Yet the majority of farmers in the area practise mixed, multiple or inter-cropping (Allison-Oguru, 1995).

Farm incomes are generally below the subsistence requirements of the average household in the area. They range between ₦6,000.00 and ₦40,000.00 per annum depending on number and size of farm holdings operated and crop mixture cultivated. With respect to income from the non-farm sector, there is hardly any information available. Yet farmers in the area earn considerable incomes from sale of snails, game, bush mango (*agbono*), native spices and condiments, timber, palm wine and local gin, etc.

### Personal characteristics of farmers

Farmers in Bayelsa State are of ages ranging from 18 years to 55 years. However, persons between the ages of 25 years and 50 years constitute the most active group of farmers in the area. It is instructive to note that unlike some decades ago, youth of ages ranging between 18 years and 25 years are now getting involved in farming activities since wage employment in the cities is hard to come by.

Although farm holdings in the area are owned and operated mainly on farm household basis, and most of such households are headed by men, farming in Bayelsa State is dominated by women. Most of the persons actually involved in farming chores are women who are either heads of single parent farm households or members of households headed by men (generally their husbands), but who actually own and operate farm holdings. Specialization and division of labour along gender lines is common in the state. For example, cultivation of cash crops like oil palm, rubber, cocoa, and food crops like yam, citrus, etc. is the exclusive

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preserve of men. Conversely, cultivation of crops like cassava, maize, plantains, sweet potato, cocoyam, rice, and vegetables is reserved mainly for the women. There is also specialization in the performance of agronomic practices like planting, weeding, mound making, harvesting, bush clearing and felling and stumping of trees. Whereas women specialize in virtually all of the above farm practices, the men specialize in felling and stumping of trees.

Majority of the farmers in Bayelsa State can be described as illiterate. That is, they can neither read nor write the English language, the lingua franca in Nigeria. In fact, some of them can not even speak or communicate in "pidgin English". They can only communicate in their dialect or local language. Notwithstanding their low literacy level, farmers in the area exhibit high levels of intelligence, rationality and experience in farming. Their low literacy level is therefore not a hindrance to their ability and willingness to adopt improved agricultural technologies, provided such technologies prove more economically rewarding than their current practices.

### Crop production systems/practices

#### Crops cultivated and estimated yields

The major food crops cultivated by farmers in the area include plantains/bananas (*Musa* spp.), cassava (*Manihot esculenta* Cramts), water yam (*Dioscorea alata*), cocoyams (*Colocasia esculenta*), and swamp rice (*Oryza sativa*). The cultivation of rice is fast gaining prominence in virtually all parts of the state including Ogbia, Brass and Akassa areas. In addition to these food crops, farmers in the area cultivate cash crops such as oil palm, rubber, cocoa and cola nut.

Minor crops cultivated by farmers in the state include sugar cane (*Saccharum officinarum* L); pineapple (*Anana comosus*); sweet potato (*Ipomea batatas*); groundnuts (*Arachis hypogea*); melon (*Colocynthis vulgans*); pepper (*Capsieum spp*); egg plant (*Solanum melongena*); fluted pumpkin (*Telfairia occidentalis*); okra; maize (*Zea Mays*); etc.

Crops cultivated in homesteads include mango (*Mangifera indica*); guava (*Psidium guajava*); oranges (*Citrus spp*); pawpaw (*Carica papaya*); Breadfruit (*Artocarpus spp*); coconuts (*Cocos nucifera*); bitter leaf (*Vernonia amygdalina*), etc.

The average yields of some major and minor food crops cultivated by farmers in the state are given in Table 23.1. The yields are variable over space. The variability is influenced by crop species, soil fertility management practices, and species combination cultivated.

Table 23.1: Average Yield of Selected Crops Grown in Bayelsa State

Crop	Yield (ton/ha)
Plantain/Banana	17 <sup>0</sup> - 25.0
Cassava	12.0 - 18.0
Water Yam	8.3 -20.0
Cocoyam	5.3 - 8.5
Sugarcanes	15.0 - 40.0
Pineapple	8.3 - 17.0
Sweet Potato	7.0 - 12.0
Groundnut	1.3 - 2.5
Melon	3.5 - 7.5
Pepper	2.7 - 5.5
Fluted Pumpkin	3.7 - 6.5
Maize	0.4 - 1.7

Source: Field Survey Data, 1996

### Farming/Cropping systems

The predominant farming system practised by farmers in Bayelsa State is the bush fallow system. Farmers clear the primary and secondary forest vegetation, fell the trees and burn the shrubs, cultivate the cleared bush (typically for 1-3 years) and then abandon the site (for 4-10 years) to enable the forest regenerate. In recent years, however, rapid population

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growth has caused increased pressure on land and fallow periods are being reduced resulting in systematic degradation of arable land and declining crop yields.

The main cropping systems practised in the area are:

- (1) Sole cropping in which cleared bush is planted to only one crop. This system is adopted mainly in the cultivation of cash crops like oil palm, rubber, cocoa etc.;
- (2) Double cropping in which cleared bush is first planted to one crop and followed by replanting of the same or different crop within a cropping season;
- (3) Mixed cropping which consists of planting one major crop, say yam, cassava, or plantain with one or more supplementary crops like maize, pepper, okra, melon, etc.
- (4) Inter-cropping in which two or more crops are planted together on a piece of farm land in alternate rows or pure stands.

However, the predominant cropping systems practised by farmers in the state are mixed and inter-cropping. A number of crop mixtures are cultivated:

- (i) Plantain/ Cassava/ Cocoyam/ Sugarcane/ Vegetables
- (ii) Yam/ Cassava/ Cocoyam/ Sugarcane
- (iii) Cassava/ Cocoyam/ Sugarcane/ Vegetables

### **Sources and access to farm inputs employed by farmers**

The main production inputs employed by farmers in Bayelsa State are: land, labour, farm tools and implements, parent stock and/or planting materials, agrochemicals, water, cash and credit, and extension services. Of these farm inputs, land, labour, farm tools/implements and planting materials constitute the most widely employed. Farm implements and tools used include hoe, cutlass, shovel, spade, axe, wheel barrow, file, basket, basin, etc.; while planting materials include yam seedlings, plantain and

pineapple sucker, cassava stem cuttings, okra, maize, pepper seeds; oil palm seedlings, etc. With the exception of cassava, oil palm, maize, and yam, farmers in the state employ local/unimproved planting materials. The use of agrochemicals like chemical fertilizer, herbicides, fungicides, insecticides, etc. is not as widespread among farmers in the state as is the case with other farm inputs. Farmers in the area have generally accepted the use of these inputs but their unavailability when needed and the high cost of procurement have militated against their use.

Generally, farm inputs are obtained internally from farmers' own stock, the open market, or specialized government or non-government distribution and sale outlets. In the case of land, tenurial arrangements in the state hardly recognise individual proprietary rights. Individuals, more often than not, have only usufructary rights. Proprietary and ownership rights on land are vested in the family and community from where individual farmers obtain their rights of use. In exceptional cases, however, an individual farmer can have access to the use of land other than that of his family or community through mortgage and lease arrangements.

Farm labour in the state comes mainly from family sources. It is only when farm labour requirements exceed that available in the family that recourse is made to hired labour from within or outside the immediate community. The amount of labour hired depends on the financial ability of the farmer concerned and the size of farm operated. Generally, farmers' access to modern inputs like improved planting materials, fertilizer, herbicides, insecticides, tractor services, extension services and formal credit is limited. Only the influential and well-to-do farmers, and they are few, have easy access to these inputs.

### **Farming calendar**

Farming activities in Bayelsa State take place mainly in the meander belt and part of the mangrove belt. Crops cultivation takes place on the soils of the flood or aluvial plains (i.e. river banks or levees) and non-flood plains or dryland. Major crops cultivated in the flood and aluvial plains include

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cassava, sugarcane, rice, cocoyam, yam and maize, while plantain, banana, cassava, cocoyam, yam and sugarcane are grown in the dryland. Major farming activities undertaken by farmers in the area are bush clearing, tree felling and stumping, mounds/ridge making, planting, weeding, staking, and harvesting. The flooding pattern and farm location influence the time of the year when these activities are carried out. For example, bush clearing, planting and harvesting take place in the flood/alluvial plains or river banks earlier soon after the flood recedes in November/December. This is to ensure that crops are planted and harvested before the next flood season. In the dryland, these processes do not start until January - March. Table 23.2 shows the farming calendar of some crops cultivated in Bayelsa State.

Table 23.2: Farming Calendar of Major Crops Cultivated in Bayelsa State

Crop	Planting Time	Harvesting Time
Plantain	All year round except periods of very high rainfall and drought	All year round
Cassava	-ditto-	-ditto-
Yam	December-March	May-August
Maize	December-March	April-July
Cocoyam	All year round except periods of high rainfall	All year round
Melon	December - February	April-July
Rice	June-September including Nursery establishment	August-December

Source: Field Survey Data, 1996

### Constraints to crop production

Crop production in Bayelsa State is beset with a number of constraints. Such constraints are environmental, technological, and institutional/infrastructural in nature. Among the environmental constraints are flood, erosion and pollution. Yearly, erosion washes away hectares of farm land

and losses of food crops while flood causes premature harvest of food crops planted along the river banks thereby affecting crop yield, output and storage quality. Pollution resulting from the activities of oil companies operating in the state degrades soils and leads to reduction in crop yield and quality.

In recent earlier, farmers in Bayelsa State make use of limited quantities of modern biological, chemical and physical technologies in their farm operations. For example, cocoyam which was once a delicacy and a major staple in the area is threatened by cocoyam diseases; while plantain and banana are also threatened by Black Sigatoka disease.

Notable among the institutional and infrastructural constraints are lack of roads and transportation facilities and the lack of farmers' access to farm credit. Consequently, easy movement of farm inputs and outputs is greatly hindered. In addition, the required credit to acquire and use improved agricultural inputs is lacking thus placing severe limitation on expansion.

### **Livestock production system/practices**

Generally, agriculture in Bayelsa State, and indeed in Nigeria, is characterised by a severe imbalance prejudicial to the livestock sub-sector. Consequently, deficiency of food of animal origin is far more severe than food of plant origin. Thus low animal protein intake is one of the most important factors responsible for the high incidence of retarded growth, kwashiorkor, marasmus, and infant mortality in Bayelsa State.

This situation has resulted and persisted because the livestock subsector relies on peasant farmers applying the extensive mode of management and husbandry.

### **Livestock estimates in Bayelsa State (as at 1987)**

The Livestock species reared by livestock farmers in some parts of Bayelsa State and the size of their stock holdings are shown in Table 23.3

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Table 23.3: Livestock Estimates in Bayelsa State (As at 1987)

LGA	livestock species reared			
	Poultry	Sheep & Goats	Piggery	Others
Brass (Brass, Nembe and Ogbia)	3,183	2,008	49	250
Yelga (Yenagoa, Kolokuma/Opokuma & Southern Ijaw)	1,709	814	200	120
Salga (Sagbama and Ekeremor)	1,941	726	350	105

These figures are based on the old LGA structure and are collated from field reports and diagnostic surveys in the old Rivers State

There is generally a dearth of occupational livestock farming in Bayelsa State. Those who rear animals do so on part-time basis or, at best, in conjunction with other perceived priority agricultural vocations like crop farming, fishing and hunting. The animals reared in the order of preference are native chickens/ducks, native goat, pigs, rabbits and sheep. Stock holdings are quite small and in most cases their numbers are difficult to specify partly because of lack of adequate census (survey) and partly due to the extensive system of management and husbandry.

Virtually all households in the state rear the native fowl, sometimes rather unwittingly and presumably so because of the relative safety and freedom from contravening local legislation against destruction of crop farms. In some communities, goat and sheep rearing is out rightly prohibited while in others, the number is limited and scanty owing to local government bye-laws prohibiting free-range grazing except in complete confinement. In some communities, few households rear pigs for the reasons adduced above. Ownership pattern of some of the animals is quite varied. While men, women and children could own poultry (comprising both the domestic chicken and ducks), sheep in some communities are collectively owned and dedicated to local deities. Cattle

rearing seems rare except for several head brought in at a time for sacrifice on special festive occasions or for funeral rites.

### **Management/Husbandry systems**

Livestock production activities in Bayelsa State, as in most parts of Nigeria, are still basically rudimentary regardless of species and number involved. Under this largely traditional and extensive system of rearing animals, little or no attention is paid to feeding regimen, watering, mating/breeding, healthcare and genetics.

No dependable housing is provided. The animals are left to fend for themselves in terms of housing and food. They scavenge for food outside during the day and return to the owner's compound in the evening. Sometimes instinctively, they move to the kitchen corners for warmth and for left-over food items. However, in some communities that are imbibing the ADP (Agricultural Development Programme) inspired messages, some form of housing is made available to the native chicken in the form of galvanized zinc huts constructed adjacent to the owner's residence.

Sheep and goats are usually not provided any special housing but where their number becomes substantial, live sticks are used to construct a fence within the compound where the animals stay. Here again feeding is based on or derived mainly from zero grazing (cut forage on a litter), kitchen waste (plantain/cassava peels), and rarely mash or concentrate feed. Pigs are not housed properly but depend on make-shift huts or enclosures that are sometimes fenced round with either cement blocks or mud hut without roof.

Very minimal attention is paid to sanitation. Similarly, minimal attention is paid to healthcare of livestock and poultry in the extensive mode of management. Added to this is the lack of access to veterinary care due to its prohibitive cost where and when it exists. As a result, in the event of any disease outbreak, flocks are wiped out.

Disease outbreaks take a seasonal pattern, so are the resulting mortalities. These seasons are: rainy or wet season and the dry or

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harmattan season. Apparently, most livestock farmers in the area do not know or recognize the diseases that afflict their flocks.

### Common livestock/poultry diseases

Field reports based on diagnosis and laboratory analysis reveal considerable numbers of livestock/poultry diseases in Bayelsa State. The most common and notable among these, in order of prevalence, are the following:

#### (i) Poultry Diseases

- (a) Brooder pneumonia (b) Gumboro [v] (c) Coccidiosis [P]
- (d) Newcastle [v] (e) Fowl typhoid.

#### (ii) Sheep and Goat

- (a) PPR (Pest des petits ruminants) [v] (b) Helminthiasis (c) Foot rot [B] (d) Pregnancy toxemia [D] (e) Skin disease [M] (f) Bloat

#### (iii) Pigs

- (a) Agalactia [M] (b) Piglet anaemia [D] (c) Mastitis

#### (iv) Rabbits

- (a) Mange (b) Coccidiosis [P]

#### Key: Causal Agents

B = Bacterial

P = Protozoan

v = Virus

M = Mixed aetiology

F = Fungus

H = Helminths

D = Nutritional / metabolic

Among the diseases mentioned above, some can be prevented or treated by use of conventional drugs. However, due to farmers' inaccessibility to veterinary facilities, other ways of preventing or curing some of these diseases have been evolved through indigenous knowledge systems. For example, Newcastle Disease of poultry can be cured or prevented through

the use of fresh pepper. On noticing the onset of the disease, the farmer grinds fresh pepper, mixes it judiciously with water and drenches the bird with aliquot. Sometimes tetracycline powder is added to the water before drenching. Most birds, even those believed to have been infected, are revived or salvaged by this procedure (ADP Diagnostic Survey 1995).

Mange, an infection which affects rabbits and small ruminants and caused by mites which burrow under the skin thereby causing irritation, scratching and hair loss, can be cured by the use of vegetable and discarded motor oil. The method in vogue entails immersion of citrus leaves in bleached palm oil and the application of same to the affected parts of the body. Repeated application for 2-3 weeks consecutively wipes off the disease. Intermittent and regular treatment is known to keep away a sudden relapse of the condition (ADP Annual Report 1996).

Helminthiasis caused by worms attacks mostly ruminants on pasture and those fed on dirty kitchen wastes. It manifests as diarrhoea, emaciation and anaemia. Local farmers treat this disease through the feeding of raw *Alcoholonia cordifolia* leaves to goats. The diarrhoea is also specifically controlled by human prescription medication such as oral rehydration therapy (ORT) and treated with roughly half a capsule (per kilogram body weight) of tetracycline.

### **Livestock production constraints**

Livestock production constraints are two-fold, namely, biological and institutional. Among the former are non-availability of commercial feed, high disease incidence, and flood and erosion; while the latter include lack of effective planning and remoteness of farmers' locations or settlements. Proprietary feeds to raise poultry or pigs are currently difficult to procure as the nearest location with a credible feedmill is Ahoada or Port Harcourt. High transport cost poses logistic problems, increases production costs and erodes profit margins. This in part accounts for the lukewarm attitude of potential large-scale livestock farmers in Bayelsa State. The seasonal outbreak of diseases and absence of veterinary services to treat or control eventual outbreaks of diseases in some cases decimate entire

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flocks. This is a serious source of discouragement and frustration. More than three-quarters of Bayelsa State is covered by water and most of the available land is swampy. Added to this is the fact that flood occurs annually and during this period, many animals are lost. Even the surviving ones are exposed to cold-related diseases and may die.

For any effective planning there must be baseline data. Accurate figures on the various livestock species are lacking. Consequently, it is difficult to plan for livestock development in the state. In addition, existing bye-laws by Town and Local Government Councils outrightly banning rearing of sheep and goats severely restrict their production. Livestock farmers in the state operate in very remote locations so that extension agents hardly reach them with extension packages. This may account for the extremely low numbers of stock. (e.g. small ruminants) in the state.

## **Livestock production prospects**

In spite of the numerous constraints and problems facing the nation's agriculture as a whole and that of Bayelsa State in particular, equally abundant prospects and potentialities do exist to boost agricultural production beyond its current subsistence level.

## **Animals**

Precise headcounts of the livestock population in Bayelsa State are not known. However, the few livestock and poultry are well adapted to the ecological conditions of Bayelsa State. Secondly, most of the farmers who engage in livestock production are relatively literate and are thus more easily amenable to information on modern livestock production techniques.

Because of the scarcity of land, the type of livestock production system that would be most suited to conditions in Bayelsa State would be a semi-intensive approach based partly on confined feeding, management and selective breeding. Rabbit breeding especially is a natural choice in such an environment of land shortage since very little land space is needed for even the most intensive production; and there would be no

threat of damage to adjacent crop farms. A corollary of this is the unavoidable choice of animals with a short-production cycle such as small ruminants (sheep and goats), poultry, pigs' rabbits and even some wildlife that can easily be domesticated for rapid multiplication e.g. grass-cutter (*Thryonomys swinderianus*) which is highly favoured by the rural population in the state. The role of research involving vigorous selective breeding under simultaneous conditions of improved management, nutrition and health care are imperative in this regard, since the intensive system of agriculture brings along with it more complicated problems.

### **Feeds and feeding**

The backbone to effective livestock development is adequate and cheap supply of good quality grains or feeds. There are considerable acreages of land in Bayelsa State including the fadamas that are well-suited for the cultivation of newly-researched, better-yielding crops (especially by the International Institute of Tropical Agriculture, IITA) including maize, cassava, cowpeas, rice, and yam which could constitute concentrated feeds. Besides, agro-byproducts of these would also be most valuable as livestock and poultry rations.

### **Projected partial mechanization**

There are good prospects for planned selective mechanization using draft animals such as water buffalo which feels quite at home in muddy, slushy environments such as Bayelsa State (Nwokolo and Berepubo 1981). A projected water-buffalo scheme would not only supplement the protein needs of our communities but also lend itself as a valuable draft source in ploughing the fields (after the floods) and making the beds for transplanting crop seedlings (of especially swamp rice) and establishing pastures for feeding animals.

### **Food processing and marketing**

With agriculture in Bayelsa State evolving from mere subsistence to semi-commercial activity, almost all types of produce from the farm are

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marketed to earn cash income. Such cash income is needed by the farmers to purchase manufactured goods such as salt, kerosene, clothing, cutlass, hoe, etc.; and pay children's school fees. Although there is no data indicating the percentage of farm produce consumed and the percentage marketed, evidence from field observation shows that the percentage of farm produce marketed is on the increase.

### **Common agricultural produce processed**

Common agricultural produce processed locally to enhance their shelf life and form-utility to consumers in Bayelsa State include: cassava, maize, oil palm, plantain, rice, fish, etc. Cassava is processed into garri, foofoo, tapioca and starch; while oil palm is processed into palm oil and palm kernel. Maize is processed into *akamu* while plantain is processed into plantain chips and plantain cake locally known as *ekpainkoto*. Paddy rice is parboiled and milled into rice. There is hardly any community in the state where there are no cottage industries involved in the processing of the aforementioned agricultural produce. These activities constitute a veritable source of rural employment and income (Allison-Oguru, *et. al.* 1995).

### **Market participants and marketing channels**

The major participants in the agricultural produce marketing system in the state are: the farmer-producer, local assembler, urban middleman, processor, retailer, and ultimate consumer. Retailers or consumers are either local or urban based. The farmer-producer, local assembler, local retailer and consumer participate at the primary market level. The primary market is the first point of sale of the farmers' produce. It is also called the farm-gate. At this level, the farmer is either selling to a local assembler, local retailer or local consumer. The work of the local assembler is to assemble farm produce into bulk from several locations in order to facilitate purchase by an urban middle-man or conveyance to a feeder or central urban market. Feeder markets, also called "bush" market, are located in semi-urban areas. It is from feeder markets that farm produce move to central or urban markets. Feeder markets are held at intervals of

4-7 days and the major participants at this level of the food marketing system are the local assembler and urban middleman. Central or urban markets are usually located at centres of great economic activities. They are held daily and the major participants at this level of the food marketing system are the urban middle-man, processor, urban consumer.

### **Agricultural extension and development**

Agricultural extension is the service system which develops and disseminates appropriate agricultural technologies to rural farmers and fishermen in order to enhance their productivity, income and well-being.

During and after independence, this important activity was performed by the State Ministry of Agriculture. At that time, they were concerned merely with the dissemination of agricultural innovations through organisation of film shows, agricultural shows, etc. Divisional agricultural stations and demonstration farms were established in strategic locations in each state. However, with the establishment of the Agricultural Development Programmes (ADPs), the responsibility for agricultural research and extension was removed from the Ministries of Agriculture to the ADPs.

Through the practice of the Training and Visit (T & V) system of extension work, each state has been subdivided into agricultural zones. blocks and cells manned by extension personnel. Contact farmers are selected from each unit for closer interaction and periodic training through Fortnightly Training (FNT) Workshops, agricultural technologies developed from on-station research are tried on farmers' plots to promote adoption. Agricultural technologies are developed through series of research activities spanning from on-station through Small Plots Adoption (SPAT) on farmers' plots, the results of which are then disseminated through contact farmers in the area. The research and technology development work is done in collaboration with universities and research institutes in a catchment area. Farm inputs are also procured and supplied to farmers at commercial rates alongside provision of basic rural infrastructure such as potable water, farm roads, etc.

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In Bayelsa State, agricultural extension activities are at very low level since the Ministry of Agriculture and the ADP inherited from Rivers State are yet to be properly established to provide extension services to farmers and fishermen in the state. The few divisional/demonstration farms in the state like those at Abobiri and Yenagoa are also in a dilapidated condition. There is hardly any on-station research work going on anywhere in the state, and no farmer training, farmer visit, and effective dissemination of agricultural innovations.

## **Conclusion**

As a predominantly rural state with abundant natural resources, agriculture constitutes the mainstay and future source of growth and development of the economy of Bayelsa State. The state has enormous potentials in the production of fish, lumber, medical herbs, game, spices and condiments, palm wine and other raphia palm products, palm oil and palm kernel, plantain/banana, sugarcane, cassava, maize, rice and other agricultural products which can sustain cottage and other medium and large scale industrial activities. These potentials can only be fully harnessed through deliberate effort by government to evolve realistic and farmer-oriented agricultural development policies, plans, and programmes; in addition to providing the necessary institutional support arrangement for their effective implementation.

Such agricultural development policies, plans and programmes should focus on boosting production and processing of food and cash crops and livestock for which the state has comparative advantage. Such crops and livestock include oil palm, raphia palm, plantain/banana, swamp rice, sugarcane, fruit trees, cassava, maize, etc., and poultry, rabbit, goat and sheep. They should also be farmer-oriented. This means that farmers' input into the policy formulation and planning process should be sought and secured. This can be easily achieved through establishment of an effective extension net work that encourages two way communication between farmers and government.

In addition to providing the appropriate policy environment for the development of the full agricultural potentials of the young state, it is advocated that government establishes and funds existing institutional support agencies like the Agricultural Development Programme (ADP), National Agricultural Land Development Authority (NALDA), Ministry of Agriculture and Natural Resources etc. In connection with this government should explore all avenues of seeking international support for its agricultural development plans and programmes.

## CHAPTER TWENTY-FOUR

# FISHERIES

*F.D. Sikoki and A. J. T. Otobotekere*

### Introduction

Fisheries play a very significant role in the national economy. Fish and fish products provide over 10kg of protein per capita per annum; an equivalent of 40% of all animal protein consumed in the country. Apart from being a cheap source of highly nutritive protein; it also contains other essential nutrients required by the body.

The fisheries sub-sector is also a high foreign exchange earner, generating about US. 20 million dollars annually through the export of shrimps alone and providing direct and secondary employment to more than one million Nigerians.

Despite the contributions made by the fisheries sub-sector, the demand for fish is yet to be met. The Federal Office of Statistics (1985) for instance, reported that the per capita consumption of fish was 8.45 kg in 1980 and 5.38 kg in 1984 whereas the estimated per capita requirement was put at 9.29kg and 10.33 kg for 1980 and 1984 respectively (Okpanefe, 1982). Thus, the estimated per caput consumption deficit increased from 0.87kg in 1980 to 4.95kg in 1984.

The Food and Agriculture Organization recommends that the minimum protein intake by the average person should be 65gm/day of which 35 should come from animal sources. In Nigeria, per capita intake of protein is only 51.7gm and only 4.0gms are of animal origin; a sharp contrast with the situation in developed countries where the figures are 90 and 65gms respectively.

These identified inadequacies in the supply of animal protein in the diet of Nigerians has brought about increased efforts to boost animal production. These efforts are particularly directed at fish production, regarded as a cheap source of protein. During 1973 the Nigerian cattle, sheep and goat industry was heavily affected by the Sahelian drought.

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Some 90% of the cattle and 70% of the sheep and goat populations were adversely affected. The rinderpest outbreak of 1983/84 further reduced the cattle population in the country.

These events resulted in massive importation of frozen meat, fish and chickens to meet the demand for protein foods. Efforts to increase the country's fishery and poultry production were also made to bridge the gap between supply and demand. Some of these programmes aimed at increasing fish production include:

- (i) Inshore fisheries development project to enhance fish production and generate employment opportunities.
- (ii) National accelerated fish production project (NAFPP) and canoe mechanization scheme.
- (iii) Special fisheries development project; and
- (iv) Processing and marketing project.

The implementation of these projects brought about increased fish production initially but owing to policy shifts and unsustainable implementation, fish production has declined steadily over the years.

Nonetheless, fishing and related occupations remain the main story of the rural economy of most communities in Bayelsa State, and is told here under the heads of Brackish and Marine Fisheries, and Inland Fisheries.

### Brackish and Marine Fisheries

The structural characteristics of the brackish and marine fisheries industry in Bayelsa State include:

- (i) Settlement pattern
- (ii) Fishing seasons
- (iii) Types of fishery; and
- (iv) Social structure and organizations.

### (i) Settlement pattern

The entire coastline of Bayelsa State is dotted with fishing villages. Although some of these settlements are permanent and relatively large; many are temporary. These temporary settlements are mostly set up by nomadic fishermen who migrate from other states. They also migrate from one fishing ground to another when fishing prospects change.

### (ii) Fishing seasons

Although some components of the fishery operate all year round, fishermen generally take advantage of seasonal distribution patterns which are influenced by moon phases, currents, fish movement and behaviour.

Moon phases are especially important for pelagic species. Gravitational pull resulting from the alignment of the new moon and later, the full moon with the sun brings about bi-monthly spring tides with resultant high water levels which bring in larger shoals into the inshore waters some 3-4 days before the new moon and 3-4 days following the reduction of spring tide waters. In between, "good" fishing is recorded also at the spring tide during full moon.

The period between July and mid-September usually experiences low fishing activity due to "rough" waters. During this period, fishermen engage in gear mending and construction in preparation for the next fishing season.

### (iii) Types of fishing

Fin fish and shell fish are both exploited in Bayelsa State with nearly equal zeal.

### (iv) Social structure and organization

The coastal marine fisheries are divided into two major components namely - the brackish water fisheries and the artisanal inshore fisheries

In the brackish water sector, fishing activity is restricted to the creeks and estuaries. The inshore artisanal fishery on the other hand is confined to waters of less than 40m depth and employs large motorized boats and

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canoes. At present, only about 19% of coastal inshore canoes are said to be motorized (Ssentongo et al, 1986). In the dry season months (October - May) the non-motorized dug-out canoes operate mainly in the estuaries and creeks while the motorized ones operate in the open sea.

During the rainy season (May - September) rough conditions in the sea restrict fishing operations by the canoe fishermen causing many of them to resort to fishing in the lagoons, creeks and estuaries. During this time high fishing activity is noticeable in the brackish water zone.

## Fishing gear, processing and preservation

The most important gear used in the brackish and coastal marine zones are gill nets and cast nets. Other gear commonly used include long lines, hand lines, fish fences, tidal filter traps and hand nets.

Fishing is generally carried out from canoes by fishermen and women from permanent or temporary fishing settlements.

Most of the fin fishes caught are smoke-dried and transported to major population centres for sale but a small fraction of the catch is sold fresh or locally consumed.

Large quantities of oysters, *Crassostrea gasstra*, are harvested by cutting off mangrove prop roots and they constitute important food items in the diet of the local people.

Two genera of periwinkles (*Tympanotonus fuscatus* and *Pachymelania* spp) are particularly important as fishery species. They are marketed live as they stay alive for extended periods lasting several weeks out of water. They are transported to various population centres as far away as Lagos.

**International fish trade and production from coastal marine fisheries:** Fish trade according to the FAO (1995) reported that the volume of international trade in fish has grown substantially in the last few decades, increasing the importance of developing countries in international trade of fish and fishery products to 48% of world trade in 1993. The FAO put the net exports of fishery products by developing countries in 1993 to more than US \$11 billion.

Shrimp trade, the major foreign exchange earner in this sector has also expanded in absolute terms and in comparison with other commodities.

**Number of fishermen**

In 1985 the combined figure for full-time fishermen in Rivers/Bayelsa State was 23,590. The corresponding number for part-time fishermen was 17,240. Considering that Bayelsa State occupies two thirds of the coastline of old Rivers State from which it was carved out, it would be appropriate to assume that there were 15,805 and 11,551 full-time and part-time fishermen respectively in Bayelsa State in 1985.

These figures rose steadily and by 1994, there were some 33,598 full-time and 25,036 part-time fishermen in the state. These figures represent about 12.70% and 12.96% of the full-time and part-time fishermen in the country respectively.

**Fish production data and value (₦)**

In 1985 27,206 mt out of a total of 140,873 mt. came from old Rivers State (Rivers & Bayelsa). By 1994 the share of fish production from old Rivers State rose to 31,454 mt out of a total of 124,117 mt. The Bayelsa State share of this would be about 21,074 mt.

Using the average consumer price of ₦37.10 per kg fish for 1995, the value of tin fish produced in Bayelsa State is approximately ₦88.92 million. When the value of shrimps and other shell fishes is added to this figure, the total value of fishery products from Bayelsa State may be estimated at over half a billion naira.

**Inland fisheries**

Inland fisheries exploit the different water bodies for finfish and shellfish (Otobo 1995a). Freshwater fisheries account for up to 40% of the total fish catch in Nigeria (Bossche and Bernacsek, 1990). Fishing patterns follow changes in flood regime and are accompanied by migration of fishermen. The fishermen also change their gear to match the new environment and fish species. Fish and shellfish are the most important sources of protein

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and could account for more than 90% of the protein supply in some part of the state.

Data on the inland fisheries of Bayelsa State is scanty and can only be gleaned from estimates of the old Rivers State. The main work by Scofield (1966) described the characteristics and yield of the inland fisheries. It has been deduced from previous catch estimates that about 90% of inland fish landings in the old Rivers State were from the present Bayelsa State. Ootobo (1986; 1995b) investigated the ecology and fisheries in isolated lakes and rivers of Bayelsa State. The information contained in his report concerns fishing gear, variations in catch and gear with seasons and habitats. Other aspects are mortality coefficients, contribution of specific species or groups of species to local fish catch. The ecology and aspects of the biology of some fishes in the swamp lakes have also been reported (Alfred-Ockiya and Ootobo, 1990; Ootobo 1991; Ootobo and Alfred-Ockiya 1987; Ootobo and Alagoa, 1990; Elakhame, 1995). Powell (1982) described the shrimps of fishery importance.

### Fish and shellfish stocks in inland waters

Several stocks of fish and shellfish occur in inland waters. Unit stocks are difficult to define due to the presence of multispecies and the diffuse and interconnected nature of water bodies. For convenience and lack of better classification, the freshwater stocks as presented by Ootobo (1995a) will be adopted here. These broad and interrelated groups include freshwater pelagic stock, freshwater demersal stocks, Eurybathic stocks and freshwater shellfish stocks.

#### Freshwater pelagic stocks

These are mainly small sized fishes that inhabit the open waters of rivers, creeks and large lakes. They are important fishery resources and form a link in the food chain between the plankton and larger fishes. The most important families are the Clupeidae, Schilbeidae and Characidae. The Clupeids are represented by *Pellonula leonensis* and *Sierrathrissa leonensis*. The Schilbeidae has *Parailia pellucida* as the most important

species. The characids are mainly species of *Alestes* and *Brycinus*. The freshwater pelagics are seasonal fishes and are taken in the *atalla* and gill net fisheries. *Sierrathrissa leonensis* can be taken effectively only in the *Atalla* owing to small size. The Clupeids occur dominantly at the low water period, the schilbeids at the rising flood and the characids at the high flood. Freshwater pelagic fishes are cheap sources of protein to rural communities.

### Freshwater demersal stocks

These are fishes found at the bottom of rivers and lakes. Many catfish families (Mochochidae, Bagridae and Clariidae) are bottom dwellers. Members of the Distichodontidae, Citharinidae and Cyprinidae forage at the bottom (Holden and Reed, 1972). The demersal stocks are exploited by several types of fishing gear .

### Eurybathic stocks

Some species of fish are encountered at all depths extending from freshwater to below the thermocline in the coastal waters (Moses, 1991; Dublin-Green and Tobor, 1992). *Cynoglossus canariensis*, *Erachydeuterus auritus* and *Pteroscion peli* are involved in this movement. More restricted movements between freshwater and brackish water are carried out by *Chrysichthyes* spp. Tilapias are also found in the fresh and brackish waters of shallow littoral areas.

### Freshwater shellfish stocks

Shellfish stocks are distributed in the rivers, creeks and swamps of the freshwater area. The important stocks are the shrimps and clams. Different species of shrimps are distributed according to water types (Powell, 1982). For instance *Atya gabonensis* is found in the Osse and Niger/Nun Rivers. *Caridina africana* occurs among vegetation, submerged roots etc. in freshwater swamps, streams and backwaters of rivers. Species of *Macrobrachium* are widely distributed in freshwater and brackish water areas of the Niger Delta. The shrimps support a seasonal

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fishery in several parts of the state. The clam of importance is *Ege radiata* which occurs in hard white water rivers that receive Niger flood water. This mollusc has recently become of economic importance and harvested by local divers.

### Characteristics of inland fisheries

Inland fisheries are purely artisanal, operating mainly at subsistent level and involving very many people. The fishery resources and fisheries are widely dispersed. Assorted fishing gear and methods are used exploiting the resources in rivers, creeks, flood plains as well as the swamp and swamp lakes. The fisheries exploit both finfish and shellfish resources. Several species are taken in the catch of fishermen though few species are of commercial importance (Table 24.1). The distribution of particular species may vary with season.

The official catch records of inland fisheries estimates for Bayelsa State for 1991 and 1992 are presented in Table 24.2. Data on inland fisheries is unreliable for assessing yield and other basic parameters for purposes of fishery management, for several reasons. The diffuse nature of the fishery, the subsistence operations and migratory behaviour of fishermen constitute bottlenecks to effective collection of fishery data. Fishing settlements and the actual number of people involved are unknown in most freshwater bodies. The agencies responsible for data collection neglect the freshwater areas, especially the swamps, owing to the difficult terrain. Fishermen are unaware of the importance of record keeping and lack the knowledge to do so.

Truly full-time fishermen are few in inland waters. Most fishermen combine fishing with other occupations or supplement their income with odd jobs during bad fishing seasons. The whole family could be involved in the different aspects of fishing, processing and marketing. Despite the inland fisheries decree of 1992, management of fisheries resources is under the control of the local people through traditional regulations. These regulations, which were effective in the conservation of fishery resources are being flouted due to the absence of enabling laws.

Fishing is intensified and confined to the river channels in the dry season or low water period, but shifts into the inundated floodplain at the high water or flood period. At this period the river channels are abandoned due to the fast flow of the flood water and to take advantage of the lateral movement of fish into the floodplain. Fishing gear are usually changed or modified to suit the new habitat. Fishing is done from paddle-propelled dug-out canoes though some fishing gear can be operated from the shores or by wadding in the shallow waters of the river channels. Fishermen fish close to their permanent or temporary settlements hence motorization may not have cost-benefit advantages. This is further enhanced by the ready market provided by fish mummies (middle women).

The number of settlements vary according to seasons. All permanent settlements situated along the course of rivers are considered as fishing settlements. They are all involved in fishing and related activities. In the low water period, fishermen also put up temporary settlements on the raised levees or on sand banks close to their fishing grounds. These settlements are abandoned at the high flood. Similarly the number of fishermen vary, and in some riverine communities every person from children of 6 years upwards is involved in fishing.

River fisheries exploit more of big size at adult fishes though small fishes such as the clupeids and schilbeids are also of importance and provide cheap sources of protein. Some brackish water and coastal marine fishes move up the rivers in the low water period and are caught by fishermen. Most common of these fishes are the mullets, soles, croakers, threadfins, and caranx. Freshwater shrimps are important fishery resources at certain seasons. The migratory phase of the larval stages of some species are vulnerable to capture in the rivers (Powell, 1982).

There are about 15,000 km<sup>2</sup> of floodplains and swamps in the Niger Delta, with an estimated fish catch of 19,000t in 1980 and annual potential yield of 10,000-20,000t (Bossche and Bernacsek, 1990). Welcome (1983) estimated the yield from African floodplains at 40-60 kg/ha thus the Niger Delta could yield 60,000 to 90,000 tonnes annually. The commercially

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important fish families occurring in the swamps and lakes include Clariidae, Cicharhinidae and Cichlidae. Several other fishes occur in the swamps. The fish composition of swamps and lakes is dependent on the season and the grade of development of the lakes. In the low water period fishes with accessory breathing devices or species or species tolerant of low oxygen are most common in the swamps and highly silted lakes with macrophyte cover. Less hardy species and river fishes are found in open lakes with few or restricted macrophyte cover. Ootobo (1986) recorded 43 genera of fishes belonging to 22 families in a freshwater swamp lake with seasonal variation in species composition. The river fishes were caught only at the flood period.

The swamps and especially the lakes are of economic and socio-cultural significance. They are reputed to be more productive than the rivers (Scott, 1966) and with high biological diversity (Alfred-Ockiy and Ootobo, 1990). These lakes contribute quite a significant fraction of the fish supply in the freshwater area (Scott, 1996). Religious observances in some lakes have turned them into natural conservation sites providing sanctuaries to endangered species of wildlife. Reptiles including turtles and crocodiles inhabit some lakes. "Manatee" is also reported in some lakes.

Swamp fishing follows after the recession of the flood. Fishes trapped or concentrated in the shallow depressions or pools are removed using different types of fishing gear (Ootobo, 1991). The main fishing gear used are traps, hooks, baskets and scoop nets. Fish collection also takes place in dry season ponds that are dug in the swamps to retain receding water into which fishes collect. In the low water period the ponds are drained by bailing out the water with buckets or pumped dry to collect all fish.

Fishing patterns differ in the lakes which are owned by individuals, families, compounds or communities. Each lake is fished according to the desire of the owner(s) or strictly following religious dictates. Several lakes also have gear restrictions based on religious observances. Fishing intervals in regulated lakes could range from 2 to 7 years or more. In unregulated lakes annual group fishing is done seasonally for one or

more days. In these two categories of lakes all permissible gear are used to extract all fishes and the harvested lake is left fallow until the following fishing season. The stocks in these lakes are mainly replenished during the receding flood by fishes returning from the floodplain.

Another group of lakes support a steady and substantial fishery all year round. Fishermen encamp by these lakes to fish and derive their income from them. Lakes can also be leased to fishermen to fish for an agreed period of time. Despite their importance these lakes suffer neglect in terms of development. Potentials exist for aquaculture and tourism development for these lakes (Wokoma and Otobo, 1988; Isaac-Harry and Alagoa, 1988).

### Fishing gear

The types of gear and methods of fishing are many and varied. Each gear or its modification is targeted at habitats and species or groups of species. The commonly occurring fishing gear of the Niger Delta were described by Scott, (1966). The catalogues of Reed, et al (1967) and FAO and (NIOMR) National Institute of Oceanography and Marine Resources (1994) contain more of the fishing gear used in the freshwaters of Bayelsa State.

The gear types and methods of fishing in the state range from mere use of sticks, hands and simple baskets to complex traps, longlines and gear constructed from synthetic netting materials (Otobo, 1995a). Different types of fishing gear could be used at a particular habitat in response to changes in the level of water due to the annual flood and following migrating fishes. The most commonly occurring gear groups are wounding gear, traps, fences and stakes, lift nets, scoop nets, hooks and lines, and nets.

### Wounding gear

This group comprises matchets and spears. Matchets are used in the shallow shores of weedy river beds and in clear waters at night with the aid of a source of light. Tilapia and other littoral inhabitants are taken with

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this method by children. In thickly vegetated swamps and lakes macho constitute the main fishing gear. Fisherfolks mostly women cut through vegetation in the shallow muddy waters groping for fish. This method of fishing could be accompanied with scoop nets. It is practised to a great extent by the Epie and Buseni people of Yenagoa LGA.

Spears are of various sizes and designs. They are used to impale fish. Spears are used at the shores of rivers or in lakes to capture littoral and surface feeding fishes. Spears are also used to grapple fish in aid of other fishing gear. Aquatic mammals and some reptiles are also taken with spears. Spears are used throughout the freshwater areas.

## **Traps**

Traps are woven mainly from local forest materials. Traps used in fresh waters differ according to locality, season and target fish species. Traps are mainly passive gear set in water to retain fish by means of non-returnable valves, trigger mechanisms or current velocity. They range in size from very small purse like devices to large equipments over 2m length and 1m wide. Traps may be baited or unbaited and re-used in water bodies in the fresh water areas.

Traps take both finfish and shellfish and are the most sophisticated of all traditional types of fishing gear. Some traps are selective of fish species, others are non-selective. The latter traps are destructive to juvenile fishes returning from the breeding grounds. Traps alone or in combination with fences are effective in the capture of fishes on spawning migrations.

## **Fences and stakes**

Fences and stakes are prepared from local forest materials and are used independently or in conjunction with fish traps or lift nets. They are usually set across water courses or perpendicular to the shore to serve as fish leaders. Fences and stakes are also used to enclose fish shelters in shallow waters before removing fish with scoop nets. Fences and stakes could be non-selective and destroy juvenile fishes returning from the spawning grounds. Fences and stakes are used in all water bodies

throughout the freshwater Delta, but most importantly in the floodplain channels at the receding flood. Some fences increase flow velocity and aid erosion of stream beds (Otobo, 1995a).

**Hooks and lines**

Hooks and lines constitute a set of most frequently used fishing gear. Lines with single hooks or many hooks hung on short snoods are set baited or unbaited to catch fish. Some hooks and lines are operated by trigger mechanisms. Hooks and lines are selective of fish size. They are operated in the whole of the freshwater zone.

**Lift nets and scoop nets**

These are devices constructed from forest or synthetic materials, specially designed to lift fish from a fixed position or by traversing through the water. They require depressing all or part of the gear under water. Lift nets take any fish or aquatic organism in its path.

**Nets**

All nets are now constructed from synthetic netting materials. Several types are used throughout the state. These include gill nets, seine nets, cast nets and tow nets. Gill nets are the most versatile of all fishing gear and can be adapted to fish in any habitat. It is essentially a rectangular piece of netting with floats and sinkers added to give the required rigging. Gill nets may be set drifting or stationary at a given depth below the water surface. All types of fish are taken in gill nets which are selective for size based on the mesh of the net. Mode of capture is by gilling or entanglement.

Beach seines are also rectangular netting walls designed to encircle fishes in the water. Their operation entails paying out one end of the net from a beach by wading through the water or from a canoe to enclose an area before returning to the beach. Two or more persons are required in the operation depending on the size. Made from small meshed netting material (10mm-20mm), the gear is non-selective of fish size. It is

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operated in rivers and creeks with well formed and gently sloping shores. Its use is restricted in many parts of the fresh water area by local communities due to its destructive nature.

Cast nets are cone-shaped with weights attached in the foot rope. Cast nets are operated by skilful people who can throw it to attain maximum spread. They are operated from canoes or on the shore in rivers and creeks free from bottom snags. Cast nets are non-selective and take all sizes of fish. Shrimps are also caught in cast nets.

Nets designed as trawls and towed by two canoes have recently been introduced in the Nun River area of Bayelsa State. This gear takes all fish and aquatic organisms that can be retained within the meshes.

## Fish processing and preservation

Fish is a highly perishable commodity and the process of decomposition starts immediately it is taken out of water. Only a small quantity of fish is kept alive in cages and other containers for consumers. Oxidative and enzymic biological actions are involved in fish spoilage which reduces the physical and nutritive qualities of fish. The essence of processing and preservation is to prepare fish and maintain good quality products over time. In the freshwater areas sophisticated processing and preservation facilities are non-existent. Processing simply entails manual gutting of fish and cleaning in ordinary water. Large fishes may be cut into pieces to enhance faster and better preservation. Small sized fishes could be washed en masse in basins or baskets without gutting.

The most frequently used method of fish preservation is drying. Roasting is done minimally. Shrimps and small sized clupeids and sardinids are sometimes sun-dried on mats. Smoke-drying is the principal method of drying fish. Whole fish or cut pieces are placed on raised platforms over burning fire wood. The design of the platforms vary from temporary structures placed outside to permanent places constructed over the fire place in dwelling houses. Mud shelters built over drying platforms serve as storage facilities for fish. Small quantities of fish can be dried on tripods. Drums and other materials are also adapted to serve as

equipments for drying fish. Properly dried fish has a fairly long shelf life. The Altona and chorkor type kilns have made no impact in freshwater areas.

Fish processing and preservation are the activities of children and women who may be family members of the fishermen. The children are engaged in the cleaning process while the women gather the wood and tend the fish in the course of drying. Well dried and cooled fish are stored in local baskets or mud shelters built for storage purposes. Fish to be kept for long periods after drying are stored in the baskets and placed above the drying platform where gentle heat and smoke keep off insects and rodent pests. This process also helps to maintain dryness of the products. Fish are also stored in clay pots.

### **Fish marketing**

Fish marketing in the freshwater area of Bayelsa State follows similar patterns as in other areas of the Niger Delta. Fish are sold by fishermen to women (Fish Mammies) who may be wives, close relations or great facilitators of the fishermen (Wokoma, 1991). The women could sell directly to consumers or wholesale to a second set of middle traders who constitute themselves into strong unions. These unions determine the prices of fish to a large extent (Adeyemo, 1983; Joshua, 1991).

The products marketed are fresh and dried fish. Both products follow the same routes. The fish mammies supply fish to local markets where unionist fish traders buy and sell to traders from larger towns or markets. These latter traders transport the fish to the towns. In some cases the chain is shortened by the first middle women taking the fish straight to larger markets in the towns. All major towns in the Niger Delta receive freshwater fish supplied by fish traders from Bayelsa State. Frequent price fluctuations and the lack of standards for measurement in the open market prevent relevant agencies from keeping records or monitoring the price of fish.

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### Aquaculture

Subsistent level fish farming has been an age-old practice in sections of the Niger Delta with well developed freshwater floodplains and swamps. Traditional fish culture entails digging dry season ponds in the swamps to retain fish at the recession of the flood water. Little or no management is involved with consequent low yields. All species of fish inhabiting swamps and lakes are taken in these ponds depending on the size of the pond. In its infant stages, modern aquaculture is receiving some attention due to the efforts of extension workers. Fish ponds and farms utilize low lying areas of the swamps. Only few farms established so far are however operational.

Aquaculture operations are embarked upon by individuals, corporations, bodies, institutions and agencies of government. Individuals operate ponds ranging from 0.02 ha to about 2 ha are most common. Most fish farmers operate low input semi-intensive culture systems that may require organic fertilization and supplementary feeding to raise food fish. Medium level operators with farm sizes of 5 ha and above are designed to raise food fish and/or fingerlings. While food fish may be raised semi-intensively, fingerlings are mostly raised under intensive culture. Government agencies and institutions are mainly established to set up demonstration or teaching and research farms.

Fish species commonly cultured in freshwater ponds are *Oreochromis niloticus*, *Sarotherodon galilaea*, *Clarias gariepinus*, *Heterobranchus bidorsalis* and *heterobranchus longifilis*. Others are *Heterotis niloticus*, *Parachanna obscura* and *Gymnarchus niloticus*. The hybrid of *Clarias gariepinus* and *Heterobranchus bidorsalis* is also cultured. Authentic production figures are not available. Traditionally operated fish ponds are estimated to yield 300 to 500 kg/ha (Keremah, personal communication). Small scale fish ponds can yield 1 ton/ha/yr (Satia, 1990). In order to maximize production, fish farmers are gearing towards stocking two times in one year.

The development of aquaculture is beset with lack of inputs-fish fingerlings, agricultural chemicals and feeds. Other constraints are lack of

trained and experienced manpower, poor financial standing of developers and lack of adequate knowledge on the ecology and biology of the culturable fish species.

Large areas and high potential exists for aquaculture development in the freshwater swamps. Apart from vast swamp areas, several lakes can be converted to rossary type ponds. Cage culture is also suitable in some lakes. Buried lakes can be put into fish farms to utilize otherwise useless grounds. In areas where swamp rice is being cultivated, paddy culture can be encouraged to increase productivity per unit ground space.

### Summary and conclusion

The freshwater sector contributes significantly to the fish catch of the state and the nation in general. The diffuse nature of the fishery however prevents thorough recording of fishery data. Fishing patterns and gear depend largely on the season, controlled by the annual flood. The variety of fishing gear are efficient in taking fishes at different habitats.

Fishing is carried out both in the rivers, swamps and lakes, the species of fish being adapted to particular environments or having capacity to migrate. Fishermen also change fishing areas and gear according to the habits of the fish. Modernization of gear and craft is very minimal and modern preservation facilities are non-existent. However, traditional methods of preservation especially smoke-drying adequately meets local requirements with ready market provided by fish mammals.

Fishery laws and regulations are not adhered to, neither is there any form of monitoring, control or surveillance. Traditional regulations however help in ensuring some form of conservation, though in recent years these local regulations are being flagrantly abused due to the absence of enabling laws.

Aquaculture has been in practice for centuries, yet there is basically no modernization. High potential exists for aquaculture both in the coastal marine and freshwater swamp areas. The swamp lakes also have high potential for aquaculture development as well as natural management to increased fish production. They can also be developed for tourism.

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Table 24.1. Commonly occurring fishes in the catch of fisherme

Fish species	Habitat Types		
	River	Floodplain	Swamp/Lake
<i>Pellonula leonensis</i>	x		
<i>Parailia pellucida</i>	x		
<i>Heterotis niloticus</i>		x	x
<i>Mormyrus rume</i>	x		
<i>Hyperopisus bebe</i>	x		
<i>Gymnarchus niloticus</i>		x	x
<i>Brycinus Macrolepidotus</i>	x		
<i>Distichodus spp.</i>	x	x	x
<i>Citharinus citharus</i>	x		
<i>Labeo spp.</i>	x		
<i>Chrysichthyes spp.</i>			
<i>Clarias spp.</i>		x	x
<i>Heterobranchus spp.</i>	x	x	x
<i>Synodontis spp.</i>		x	x
<i>Parachanna spp.</i>		x	x
<i>Oreochromis niloticus</i>	x	x	x
<i>Tilapia zilli</i>	x	x	x

Table 24.2 Inland fish catch records for 1991 and 1992 in Bayelsa State

Species	Catch (kg)		
	1991	1992	Total
<i>Tilapia spp*</i>	2,309.53	2,419.38	4,728.91
<i>Clarias spp</i>	1,484.70	1,534.96	3,019.66
<i>Heterobranchus spp</i>	1,429.17	1,528.80	2,957.97
<i>Lates niloticus</i>	1,154.77	1,212.79	2,367.56
<i>Gymnarchus niloticus</i>	1,429.69	1,528.80	2,958.49
<i>Hepsetus odoe</i>	783.07	820.85	1,603.92
<i>Parachanna spp</i>	1,759.64	1,857.13	3,616.77
<i>Synodontis spp**</i>	939.79	1,044.59	1,984.38
<i>Papyrocranus afer</i>	1,374.73	1,452.86	2,827.59
<i>Citharinus spp</i>	1,541.69	1,621.05	3,163.55
<i>Distichodus spp</i>	1,266.74	1,294.85	2,561.59
<i>Heterotis niloticus</i>	1,209.26	1,288.69	2,498.45
<i>Alestes spp</i>	1,099.77	1,130.69	2,230.49
<i>Chrysichthyes spp</i>	1,044.80	1,130.69	2,175.49
Total	17,618.09	19,866.10	37,484.19

\* Includes all cichlids

\*\* Includes all Mochochidae

Source: Rivers State Agricultural Development Programme

## **G. SOCIAL SERVICES**

## CHAPTER TWENTY-FIVE

# EDUCATION

*Sam B. Nwideeduh*

### **Introduction**

Indigenous education started from the family of the child which provided informal lessons in language acquisition, domestic chores, fishing and farming. Such training, therefore, "lead the individual to acquire behaviour patterns, abilities and skills necessary for effective citizenship in the community in which he lives" (Fafunwa, 1974:19). As the child became conscious of his immediate environment, he was initiated into the age-group where he interacted and observed social norms which enabled him cope with the demands of the society. Since there was no formal school, knowledge was acquired by means of oral transmission, initiation and apprenticeship.

All that changed with the introduction of western education in the early 19th century by the missionaries who wanted local interpreters, teachers and catechists to enhance their work of evangelisation. Numerous schools were founded along the coast and in the hinterland. The early missionaries operated their churches along with schools, usually on the same premises. Thus the earliest Christian missionary school in Nigeria was an adjunct to a church.

The growth of secondary education was also pioneered by Christian missionaries who saw the need for better qualified teachers in their fast growing schools. As commercial and government activities sprung up, those with secondary school education were required to fill the few existing vacancies. Both the missionaries and their institutions served as effective channels in the acculturation process.

This chapter examines briefly the stages of educational development in Bayelsa State in the following periods: the nineteenth century, 1856-1864; the First Republic, (1960-1966); the Military, (1966-1993), the

1979-1983), and the post Second Republic (1983-1993)

## Christianize the Niger Delta and attendant effects

Primary activities in southern Nigeria was facilitated by the slave trade by the British government which gave birth to Sierra Leone. In the early nineteenth century many of the returning whom were numerous Yoruba, had returned to the Niger Delta later had the unique reputation of serving as both a commercial centre. Later, the missionaries "branched out into Yoruba country". The Rt. Rev. Bishop Ajayi Crowther, through the activities of the Anglican mission along the Niger Delta and the work of the Reverend Hope Waddel in Old Calabar, the mission influenced the decision by King Pepple and his subjects to seek a mission. It was not until 1864, that Samuel Ajayi Crowther and King William Pepple's invitation to visit Bonny. The mission at Bonny became a model throughout the Niger Delta, Niger Delta State. By 1856, the Brass River had become one of the major trading areas.

The year of 1856 witnessed the discontinuance of the slave trade and the establishment of trading posts at the sea coast at the initiative of legitimate British traders. By 1868, King Ockiya of Bonny invited Bishop Crowther to do at Twon-Brass and eventually at Bonny. Thereafter, formal western education began to spread with the spread of the gospel. For example, a school was opened at Twon-Brass by the missionaries in 1897. The spread of the gospel in the Nembe area was, however, not rapid. For example, St. Paul's Anglican Church was only established in 1905. The spread of formal western education was even slower in the Nembe community on the educational scene was as a result of the missionaries to the place. The highest level of education in Nembe School remained a junior school into the 1950s.

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The few pupils who wanted to obtain their standard six certificate did so by moving to either St. Barnabas School, Twon-Brass or St. Luke's School, Nembe. This contributed to the inability of many children to complete their primary school education as "... quite a few bright people stopped their education at or below standard four". (Alagoa, 1995:110). The St. Paul's church therefore propagated the seed of western education so much that by 1940, there were many literate men in Okpoama who later distinguished themselves in many disciplines and the professions.

As far back as 1861, Rev. J. C. Taylor established a mission station at Akassa but the mission did not prosper because as observed by Ajayi (1965:215), the people were not quite in a hurry to embrace Christianity. However, the mission station established at Twon, Brass became "one of the most spectacular successes in the mass conversion of the Brass people between 1876 and 1879" (Ajayi, 1965:216).

The Catholic church building was erected in Ekeremo in 1918. The influenza epidemic of that year was attributed by the traditional worshippers to "the church bell which was rung daily to summon people to prayer at every 6a.m, 12 noon and 6 p.m" (Eyomiwei, 1994:70). This allegation made the Christian persecutors to mobilize the people against them and as a result, "in a mob action the church building was pulled down and the church bell was thrown into the river". Although a Catholic primary school headed by Mr. Cosmas Okulouwei Efiri was started in Ekeremo, the school could not last long enough, because there were not enough Christians to fill it. The absence of a threshold population needed to sustain such a social service like education, was indeed, crucial in many locations in Bayelsa State. Kosemani (1990) and Nwideeduh (1996) conclude that there is a correlation between population density and educational development. For example, "The absence of threshold population was responsible for the failure of the Okilo administration to establish permanent campuses of the Rivers State College of Education at Peremabiri, Yenagoa, and a campus of the school of Basic Studies at Ngo, Andoni" (Nwideeduh, 1996:171). The Peremabiri campus was opened in the 1981/82 session only to close at the end of the 1982/83

session despite all the extra incentives (Kosemani, 1990). Meals were given free at the Peremabiri campus and teachers were also given an extra ₦1,200.00 annually as incentives.

The Roman Catholic mission played a major role in the introduction of western education to southern Nigeria. In fact, Abernethy (1969:16) confirms that:

The Catholics expanded their activities more rapidly than the various Protestant denominations in the 1940's, a trend that was even more, pronounced in the 1950's ... By the mid-1950s the Catholics were proprietors of about half the region's primary schools, and they were expanding rapidly in the secondary and teacher training fields ...

The absence of the Roman Catholics in the Niger Delta, for a long time, deprived the region the benefit of qualitative and quantitative western education.

The outstanding role played by the Anglican mission in proselytizing the people of the Niger Delta may be seen in the number of primary schools approved for the First School Leaving Certificate in 1950 by the Eastern Regional Government. Out of the twenty-two Anglican Schools approved by the Rivers Province Education Officer for the First School Leaving Certificate Examination in 1950, six were found in Bayelsa, namely St. Stephen's School, Amassoma; St. Barnabas School, Twon; St. Luke's School, Nembe; St. Stephen's School, Odi; Proctor Memorial School, Kaiama; and St. Michael's School, Oloibiri. In 1951, both St. Peter's School, Yenagoa, and St. Swedenburg Memorial School, Nembe, under the sponsorship of New Church Mission School applied for inspection for the First School Leaving Certificate.

#### **The First Republic, 1960 - 1966:**

The general development in the Niger Delta had not improved in the 1960s. In fact, there was no significant change in the poor educational standard of the area. There was so much despondency and frustration

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that the people felt that they were marginalized and neglected by the state and federal government. The establishment of the Niger Delta Development Board (NDDDB) in 1962 "as an advisory body in accordance with the provisions of the Niger Delta Development Act 1962" succeeded to arrest the tense situation to some extent (Obuoforibo, 1994: 100-101). The feeling of neglect triggered off the 1966-1967 civil war which resulted in the declaration of the "Niger Delta Republic" during the revolution was crushed by the timely intervention of the Nigerian army after a rigorous guerrilla campaign which lasted for months. A group had been sent calling for equity and fair play in the provision of social services, including education.

The introduction of the "Central School" policy at the time was aimed at making sure that one senior primary school served a vast geographical area with many feeder primary schools.

The dynamism and zeal of Bishop E. T. Dimieari in improving both the intellectual, physical and spiritual development of his flock made him at the end of 1959 split the Delta Archdeaconry into two, namely Delta West and Delta East (later known as Brass and Bonny respectively) (Obuoforibo, 1994). According to Obuoforibo, "Among the greatest achievements of the Dimieari episcopate was the spread of education through the establishment of schools and colleges in many parts of the Diocese ..." (p. 51). Several churches and communities embarked on the establishment of schools and colleges in their various localities. Such zeal and resourcefulness provided an impetus for the founding of the Preparatory Training Centre (PTC) at Oporoma, Yenagoa Grammar School (now Bishop Dimieari Grammar School) Yenagoa and the Teacher Training College, Okordia-Zarama. As far back as 1951 the Yenagoa Grammar School, the only grammar school available in the region of the Niger Delta, was recognized for the award of the West African School Certificate. The Roman Catholic Mission blessed the way of establishing the Mater Dei High School, Imiringi (1962), and St. Joseph High School, Amarata (1962).

**The Military (1966-1979)**

The Nigerian Civil War which lasted from 1967 to 1970 affected education in the Eastern Region. But the location of Bayelsa offered a comparative advantage as it was not in the direct arena of the war.

The launching of the Universal Free Primary Education by General Olusegun Obasanjo on Monday 6 September, 1976 helped to boost the morale of both students and teachers. The Federal Military Government did not stop with the introduction of the UPE, but went further to spell out the importance of primary education in the 1977 National Policy on Education (Nwideeduh, 1997). The Military's interest in education was also manifested in the Third National Development Plan (1975 - 1980). The significant improvement in the country's economy in the 1970s also accelerated educational development during the decade.

The active participation of some of the local communities resulted in the establishment of additional primary and secondary schools. For instance, both the Nembe National Grammar School (1967) and Southern Ijaw Secondary School, Oporoma (1968) were realized out of community efforts. This attempt turned the 1950 picture around whereby five out of the seven post-primary institutions in the state were located in Port Harcourt.

### **The Second Republic, 1979-1983**

The Second Republic which fell within the third National Development plan period witnessed a tremendous growth in both enrollment and number of schools. The 1979 constitution of the Federal Republic of Nigeria clearly stated that government shall strive to eradicate illiteracy and to this end it shall and when practicable provide "free, compulsory and universal primary education". In the maiden broadcast of Alhaji Shehu Shagari, the new president of Nigeria in 1979, highlighted the centre position which education occupied in the National Party of Nigeria (NPN) manifesto. In his words:

My administration is irrevocably committed to making education a priority ... (and to) 'make education more

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qualitative and functional with a sound moral content'  
(quoted in Okorosaye-Orubite, 1990:137).

Living up to the promise, between 1979 and 1983 the Federal Government placed education on the concurrent legislative list which meant that "the state governments were free to initiate, formulate and implement their educational policies in line with their party objectives".

Chief Melford Okilo who served as the Governor of Rivers State, was also on the ticket of the National Party of Nigeria (NPN). As an advocate of egalitarianism, he adopted the decentralisation policy whereby education was extended to the local government areas, city, urban and district council areas, including governing committees for individual schools (Okilo, 1992). This approach facilitated the spread of educational opportunities, especially at the primary school level. As a result of this development, between October, 1979 and April, 1983 the Okilo administration approved 15 new secondary schools in Brass Local Government Area (BALGA), and 21 in Yenagoa Local Government Area (YELGA). Government's policy that if the community could put the school buildings, government would approve the establishment of the secondary school facilitated the building of numerous schools that were mostly unviable, and unsupervised. According to Asuka (1997:54):

Political manifesto of the type of Melford Okilo (Chief) and Alhaji Shehu Shagari both of the National Party of Nigeria may not be very pertinent to chart an effective course of educational development in Nigeria ... These "Mushroom" Schools would have been established for the same political reasons like the ones in 1973 when he was made commissioner of education. Today most of these secondary schools are no longer viable and productive. They lack students, teachers, equipment, infrastructure, etc.

## The Period, 1983-1997

The gloomy economy of the country began in mid-March 1982 when the revenue fell to ₦8.9 billion as against the envisaged revenue of ₦11. billion. The effect was felt by both primary and secondary schools in the country. The number of primary schools which increased to 38,226 in 1983/84 decreased to 35,017 in 1984/85. Despite the negative national economic trend, the Rivers State government and the various communities in Bayelsa continued to hold on to their schools. The loss of schools in each local government, therefore, was not significant. In 1983/84 the number of primary schools in the existing local government areas was as follows: Brass Local Government Area (BALGA) 108, Sagbama Local Government Area (SALGA) 68 and Yenagoa Local Government Area (YELGA) 138. In 1987, there was a loss of only one school in BALGA and YELGA respectively. In terms of enrollment, BALGA had a total of 16,888 pupils (8,790 male and 8,098 female) with the female constituting 48% of the total enrollment. Sagbama Local Government Area had a total of 13,471 (7,618 male and 5,833 female); the female formed 43.3% of the entire enrollment for the Local Government Area. In Yenagoa Local Government Area, 26,386 pupils (14,385 male and 12,001 female) were registered with the female constituting 45.5% of the total enrollment.

There was a steady growth in the number of secondary schools in the area between 1983 and 1985: Brass Local Government Area (24 schools each year); Sagbama Local Government Area (16 schools each year) and Yenagoa Local Government Area (37 schools each year). In 1987, the number of secondary schools was still the same in all the local government areas. In terms of student enrollment, Brass Local Government Area had a total of 3,135 students (1,904 male and 1,231 female) with the female constituting 39.3% of the student population. In Sagbama Local Government Area, 2168 students were enrolled (1,530 male and 638 female) with the females constituting 29.4%. In Yenagoa Local Government Area, a total of 5,416 were registered (3,619 male and 1,797 female) with the female population constituting 33%. In all cases,

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the local government had more students in attendance. This remarkable development was a result of the policy of decentralization.

During the period, efforts were also made to provide science education in some designated science schools. In Brass Local Government Area, the following three schools served this purpose - Government Secondary School, Twon-Brass; Mater Dei High School, Imiringi and Nembe National Grammar School, Nembe. In Sagbama Local Government Area, the Government Secondary School, Sagbama, served as a special science centre, while in Yenagoa Local Government Area, the Bishop Dimeari Grammar School, Yenagoa, served as a designated science centre.

Generally, both primary and secondary schools lacked adequate teaching staff to ensure the attainment of government goals. For example, there was noticeable shortage of staff at all levels of the educational system. The absence of qualified teachers and adequate facilities resulted in the poor performance of pupils in the First School Leaving Certificate Examination in 1985. Brass Local Government Area registered a failure rate of 45.6%, Sagbama Local Government Area 34.2% and Yenagoa Local Government Area 33.2%. The paucity of teacher training centres was also responsible for the problem. For example, only one Teacher Training College i.e. Government Teacher Training College, Okordia-Zarama, was available to cater for the training of all the teachers in Bayelsa State. The poor performance of students from this college in the 1986 Teachers Grade Two Certificate Examinations (State Papers) confirmed how ill-equipped they were to undertake the challenging job of teaching. For example, the college registered a failure rate of 56.6% in 1986.

Before the creation of Bayelsa State on October 1, 1996, both primary and post-primary education in the state had a lot of problems which affected their smooth administration and the enrollment of students. The state as at its creation had "9 pre-primary schools; 399 primary schools with 141,744 pupils and 2,832 teachers; 87 post-primary schools with an enrollment of 26,427 and 730 teachers; 1 Technical College with 108 students and 8 teachers and 4 craft centres" (Angaye, 1997:4) A study of

the development of the secondary schools from 1994 to 1997, shows that in 1994 there were a total of 84 secondary schools distributed among the eight local government areas with a student enrollment of 25,748. In 1995 while there was no change in the number of schools, the student enrollment increased to 26,472. In 1997 the schools increased to 98, but the student enrollment dropped to 23,756.

In 1994 there existed 399 primary schools with a total enrollment of 140,843 pupils. While the number of schools decreased to 383 in 1995, the total enrollment increased to 141,745. This is not to say that there was no decrease in enrollment in the various districts. As shown by Inko et al (1997), in 1994/95 the ten schools in the Nembe district recorded a dropout of 639 pupils. The first term enrollment which was 4,883 dropped to 4,244 during the third term. Similar dropout was noticed in 1995/96 when the first term enrollment which was 5,803 dropped to 5,326 during the third term. Some of the factors responsible for the general dropout include, early marriage, parental demand for domestic assistance, malnutrition, and lack of motivation for both parents and pupils. Others include, brutality by teachers who transfer their aggression from the authorities to innocent children, bad peer group and sheer inability of children to cope with academic work. Angaye (1997) also identified some of the problems which were responsible for the poor quality of primary and post-primary schools in Bayelsa State. These include lack of basic amenities such as light, potable water, roads, transportation and health facilities. Others are lack of residential accommodation for staff, non-availability of classroom space for students, lack of workshops, furniture, laboratories and equipment, poor remuneration for teachers, embargo on employment of teachers due to the prevailing economic depression, difficult riverine terrain caused by such natural hazards as perennial floods and erosion, poor communication caused by scattered small towns and villages and poor and inadequate supervision of schools. At all levels, there is a noticeable shortage of teaching staff. For example, in 1994 730 teachers were engaged in 87 secondary schools whereas 1,740 teachers were needed. This meant that there existed a total of 1,010 unfilled vacancies. Although this situation has

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improved slightly with the transfer of teachers of Bayelsa State origin from Rivers State in 1996 following the creation of the new state, there is still much to be done.

## **Conclusion**

The educational system of Bayelsa State needs to be improved. Government should live up to its responsibilities in meeting the needs of the citizenry by improving this aspect of its social services. As a new state, there is every need for investing in the manpower development of the people, realizing that human resources constitute a vital factor in both state and national development. The fact that there is no single higher institution in the state is a matter for serious concern. The government should not ignore the fact that more teachers should be trained and equipped with the necessary professional skills in order to realize good results. Both Angaye (1997) and Inko et al (1997) agree that lack of qualified teaching staff contributes to the high incidence of dropouts and failures in the state.

The issue of providing quality education to the teeming, youthful population should be the joint responsibility of every citizen. It is sad to observe that twenty-three years after the existence of the Technical College, Ekowe, it has not gained accreditation. This revelation by Angaye (1997) poses a serious challenge to every member of the new state.

## CHAPTER TWENTY-SIX

# HEALTH

*E. D. O. Mangete, U. E. Dambo and M. E. Amaegbe*

### **Traditional medicine**

Traditional medicine probably developed out of trial and error. When *homo-sapiens* became conscious of himself and his environment, he tried out the properties of several leaves, barks, stems, fruits and roots. Those that had nutritive value he regarded as food, those that were poisonous he avoided and those that had medicinal values he earmarked for treatment of minor ailments. As society became developed some men and women devoted themselves to the management of ailments and passed the tradition to their children or close relations thus a culture of family based traditional medical practice was founded. The traditional healers were, in most cases, the priests of some national gods or goddesses which were believed to give them powers beyond the natural.

It is most likely, that the early inhabitants of the area now known as Bayelsa State brought with them such traditions from wherever they might have migrated from.

The practice of traditional medicine in Bayelsa does not differ much from those of other less developed societies. Minor ailments such as coughs and colds were generally regarded as part of nature and were treated with known herbs and roots. More serious ailments were seen as punishment meted out to the sick by the ancestors for acts of omission or commission or inflicted on the victim by his enemies through some supernatural means. Consequently, management of such diseases were bound in secrecy, the slaughter of a sacrificial animal and incantation. Magic formed a great part of the healing methods of such traditional healers. Some of the repertoires of the traditional healers include:

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### (i) Bone setting

This seems to be developing into a speciality of its own. Patients travel long distance to consult a renowned bone setter. Often these bone setters provide in-patient care. The technique of bone setting used by the traditional bone setters is very similar to that employed by orthodox medicine and consist in reduction of a fractured or dislocated limb followed by splinting. For splint they use bamboo stems that are woven into various sizes. Mobilisation is quite early compared with orthodox medicine, this together with poor reduction account for some of the poor results.

### (ii) Lancing of abscess

This is widely practised and as in orthodox medicine, lancing is carried out when the abscess is ripe. "*Otoin mi biate*" (Nembe) means "the boil is ripe," and therefore could be lanced. They also differentiate between boil and carbuncle and are fully aware that the latter known as *agbagba otoin*, is a serious disease condition.

Pendulous tumours were excised, while other swellings are scarified in the hope that whatever caused the swelling will gradually ooze out of the multiple incisions.

History taking and examination of the patient is never done in detail. In Nembe, traditional healers always palpate for the liver and this is done properly and the actual position of the liver below the coastal margin is determined - in Nembe "*ababa bei duba nimi*" means the liver is enlarged, which is no surprise in a region where malaria is rampant. The sclera is examined for colour - jaundice.

Generalised swelling of the limbs accompanied by swelling of the belly is recognised for what it actually is - a very serious disease condition and is dreaded. *Abanga obi* is so dreaded that the pronunciation of these words is taboo. This is understandable as the signs point to disease of the kidney, liver or heart which pose difficulties in management even to orthodox medicine.

Traditional birth attendants, mostly women, as was the case in Europe in the Middle Ages and beyond, abound everywhere. Superstitious beliefs

are rife here. Obstructed labour is not regarded as a natural occurrence, is attributed to acts committed by the woman in labour or inflicted upon her by her enemies who hold back quick and safe delivery. The woman in labour is usually well positioned in the supine position, manipulations are usually external and on the walls of the abdomen. *Yeni* - (Nembe) here pressure, is applied downwards starting from the epigastric region and is usually accompanied by instructions to bear down.

After delivery, care of the baby and mother are very similar to those of orthodox medicine, the umbilical cord is severed and tied at both ends and the delivery of the placenta is awaited.

Circumcision is carried out on the 8th day after delivery in males and for communities that practice female circumcision, the tip of the clitoris is cut off at puberty.

### Modes of treatment

Most drugs are liquid, the active ingredient being squeezed out of the leaves, or in the case of roots and stems, extracted by means of locally brewed gin with a very high alcohol content. Administration of the drug is mostly through the oral route, although the ocular route is also used. In Nembe - the liquid from the leaves of the *obori-ituka* - is applied through the ocular route, the analgesic component relieves headaches within a short period.

In Nembe also removal of *pule* is widely practised - *pule sin*. The traditional healer takes firm grip of the site of the pain and squeezes it, this is done with such ferocity that the patient screams for pain. At the end of the exercise the healer displays the cause of the pain in his hand, usually a periwinkle shell or a needle around which some black thread is wound.

The traditional birth attendant, in Nembe, *ira koribo*, not only ensures safe delivery of the baby and takes care of mother and child for weeks after delivery, she also treats some cases of infertility in women. She does this by various manipulations on the uterus, (*odu nyanaowei bei toun nimi* - Nembe) which means, "the uterus is retroverted". After manipulations through the vagina, herbs are given orally. Naturally some of these women

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get pregnant after such manipulations thus strengthening the belief in the efficacy of this mode of treatment.

## **Mental health**

The area in which the traditional healer achieves great success, and may be, greater success than the western trained medical doctor, is in the area of psychiatry. Since the belief that disease is caused by evil spirit or an object the enemy has thrust into the body of the sick, sacrifice, magic, and incantations aimed at expelling the evil spirit does lead to cure as long as the sick person believes that the evil spirit has been cast out.

## **Western orthodox medicine**

During the colonial period, health care facilities and personnel were provided by a combination of the colonial government and the missionaries. The missionaries were mostly of the Anglican Communion. There were no general hospitals. Dispensaries and maternity homes were built in the larger towns like Nembe, Twon, Akassa, Amassoma, and Yenagoa.

The services of a medical doctor were available about once a week. The doctor was itinerant and made his journey in a steam boat. Unlike the clerics, the colonial medical services did not interfere with the traditional methods of healing, this no doubt accounts for the fact that traditional healing methods have not only persisted but flourished. We may note also that orthodox medical facilities have never been any where close to meeting the needs of the people.

## **Existing health facilities and health manpower in the state**

There are presently eight (8) secondary health facilities (General Hospitals) and no fewer than one hundred and thirty-two (132) primary health centres and a leprosy unit in the state. Of the eight hospitals, Yenagoa General Hospital has been upgraded to a Specialist Hospital. Though still lacking in facilities, arrangements are in place to upgrade the available facilities to provide the much needed specialist services. At least

one General Hospital is being sited in each of five Local Government Areas while the remaining three Local Government Areas do not have any functioning hospital yet. (See Table 26.1)

There are, of course, uncompleted hospital projects in these three Local Government Areas which have to be completed in the future to provide health services.

Six of the hospitals are run by the State Government while two General Hospitals - Nembe General Hospital and the Cottage Hospital at Okoroba, are run by Shell Petroleum Development Company (with Government providing the staff) as part of the Company's contribution to the health sector in the State.

The existing hospitals have a total bed space of about 400 and cot space of about 95 to serve the people of the state. There are presently 36 medical doctors among whom are two dental surgeons; 396 nurses and three (3) pharmacists in the state services. There is also a reasonable number of paramedics serving in the hospitals.

Government is addressing the issue of specialist manpower development which is lacking in the state.

Only a few private medical clinics are available in the state and they are mainly sited in Yenagoa.

The Ministry of Health has put in place a machinery for the proper registration and regulation of all private health related services according to Federal Government guidelines. This includes the registration of traditional medicine practitioners which is in line with Federal Government policy. Traditional medicine practitioners still offer services especially in the rural areas of the state.

#### **Disease pattern in the state**

While still awaiting the production of health statistics by the Ministry of Health, a common disease pattern may be observed over the state.

Gastro-enteritis and other diarrhoea diseases, malaria and anaemia remain in a common occurrence in the vast area of Bayelsa. Childhood diseases like measles, pertussis (whooping cough) continue to show their

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presence despite the various immunisation efforts by government. Malnutrition especially among the low income group is also common. Epidemics of gastro-enteritis are common in the dry season due to non-availability of potable water for drinking as most communities resort to the unsafe river water for domestic use. The profile of other diseases including the non-communicable diseases are not different from the experience in neighbouring states.

### The challenges ahead

The challenges in the health care system in Bayelsa State are enormous. The issues of inadequate health facilities and training of specialist manpower and health care providers need to be addressed.

With our mainly marine terrain, the quick and safe transfer of patients referred from the peripheral hospitals to the centre need attention. Reasonably fast ambulance boats need to be provided to enhance this transfer.

Table 26.1: Types and Distribution of Government Health Care Institutions in Bayelsa State

L.G.A.	Specialist Hospital	General Hospital	Cottage Hospital	Comp. Health Centre	Health Centre	Health Clinic
Brass	-	1	-	1	2	4
Ekeremor	-	-	-	4	5	4
Kolokuma/ Opokuma	-	-	-	2	-	5
Nembe	-	1	1	1	6	-
Ogbia	-	1	-	3	3	14
Sagbama	-	1	-	1	7	14
Southern Ijaw	-	-	-	6	-	32
Yenagoa	1	1	1	1	20	5
Total	1	5	2	19	43	78

Primary health care services are being maintained and there is much hope for improvement. For primary health care services to be well appreciated the people in the rural areas should have free and easy access to these services.

## **Recommendations:**

### **Tertiary medical facility**

The best way to ensure adequate health care delivery is to begin by establishing a tertiary medical facility which will be identified in every respect with a full-fledged Teaching Hospital. This should be given the highest possible degree of priority. The Teaching Hospital should have a comprehensive manpower development programme to train doctors, nurses, medical laboratory scientists, health technologists, and other ancillary medical staff. This hospital should be affiliated to a science-based state-owned University.

An appropriate existing General Hospital should be selected and immediately converted into a Teaching Hospital. A committee should be set up and given the responsibility of converting the existing General Hospital into a Teaching Hospital and work out the details of its physical and manpower development, as well as its affiliation to the aforementioned University.

Similar Committees should be set up for the secondary and primary health care levels and there should be regular joint meetings of all the three committees to ensure a proper prioritisation and co-ordination of health care delivery in the state.

### **Secondary medical facilities**

#### **(a) Secondary A**

Each Secondary A health care facility should have at least one specialist in the core areas of medicine viz.: Surgery, Obstetrics & Gynaecology, Paediatrics, Internal Medicine and Anaesthesia. There should be adequate

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infrastructural facilities in each of these hospitals to ensure its smooth operation at the high level of expertise that its specialist staff are trained for.

### **(b) Secondary B**

In every Secondary B medical facility, there should be one to three specialists in the different areas listed in Secondary A, or at least one specialist in General Medical Practice. Each Local Government Area in Bayelsa State, should have at least one Secondary A or B health care facility. As a matter of policy, every Secondary B facility should eventually be upgraded to the Secondary A level.

### **Primary health care**

Comprehensive Health Centres should be so located all over Bayelsa State as to ensure that no patient going by the conventional means of transportation in any locality, travels for more than an hour to get to a Health Centre.

### **Manpower requirement**

All medical and para-medical staff who are willing to go to the new state (Bayelsa) should be absorbed so as to facilitate both the commencement and reactivation of health care facilities in the state. This policy should be strictly adhered to even if it results in an initial over-staffing of existing, Health Centres. In such cases, trained nurses can be deployed to primary health care facilities.

### **Committee on primary and secondary health care**

Working Committees should be set up for primary and secondary health care services respectively, and be given the initial task of listing all available qualified manpower, highlight shortfalls, and recommend training as well as infrastructural development needs in respect of wards, laboratories, staff quarters, etc.

As earlier recommended under Tertiary Medical Facility, there is need for these two separate committees to have regular joint meetings with the committee that will be in charge of the establishment of the Teaching Hospital. This common forum will properly prioritise, streamline, and co-ordinate the establishment of health care delivery in Bayelsa State.

### **Incorporation of traditional medical practice**

It is observed that apart from the area of neuro-psychiatry, orthodox medical doctors do not know much about the efficacy of traditional medical practice. These native healers cannot be ignored because many patients prefer to patronise them. It is therefore recommended that:

- (a) Orthodox medical practitioners should study the art of traditional medical practice.
- (b) Seminars and other fora for interaction should be organised periodically between medical doctors and traditional healers.
- (c) It is necessary to emphasise that no orthodox medical doctor should approach a traditional healer from a position of superiority as this would make the latter unco-operative.
- (d) It is in the interest of patients for traditional healers to be registered with the government as a means of easily identifying them, and indirectly monitoring their activities to check excesses, and making them assume full responsibility for any malpractices.
- (e) Traditional healers should be encouraged to refer cases to medical centres and be introduced to certain basic principles of orthodox medical care such as asepsis and anti-sepsis.

## TRANSPORT AND COMMUNICATION

*Ebi Bio Awotua Efebo, Asi. S. Akpoghme  
and A. M. Okorobia*

### I. Transportation

#### **Transport infrastructure**

The development of land-based transportation is very minimal in Bayelsa State (see Table 27.1 and Figure 27.1). As a matter of fact, the old Rivers State which was made up of Bayelsa and Rivers States had the shortest length of federal and state roads in the country, except for federal roads in Lagos State. By extension, Bayelsa State is presently among the states, (if not the state), with the shortest road length in Nigeria.

The state is also likely to be among the states whose total length and densities for all types of roads are far below the national mean. The excuse for this neglect is usually hinged on the difficult terrain of the state. Consequently, water transportation which should normally be an alternative to land-based transport is now the dominant mode. However, attempts have been made with varying degrees of success, especially since the 1980's by the Rivers State government and the Directorate of Food, Roads and Rural Infrastructure (DFFRI) to open up the state, by the development of several roads including those already listed in chapter 21 of this book.

In the 1975-80 Plan Period, some efforts were also made to improve the infrastructure in the marine transport sector. Some 15 modern landing jetties were constructed in the Brass, Yenagoa and Oporoma Divisions (Ebi-Efebo, et. al. 1989). Government Marine Dockyards were built in Brass and Yenagoa for the repair and dry-docking of large vessels (Dakolo and Gabriel, 1995). Air strips were also built in Brass, Ukubie and Oloibiri.

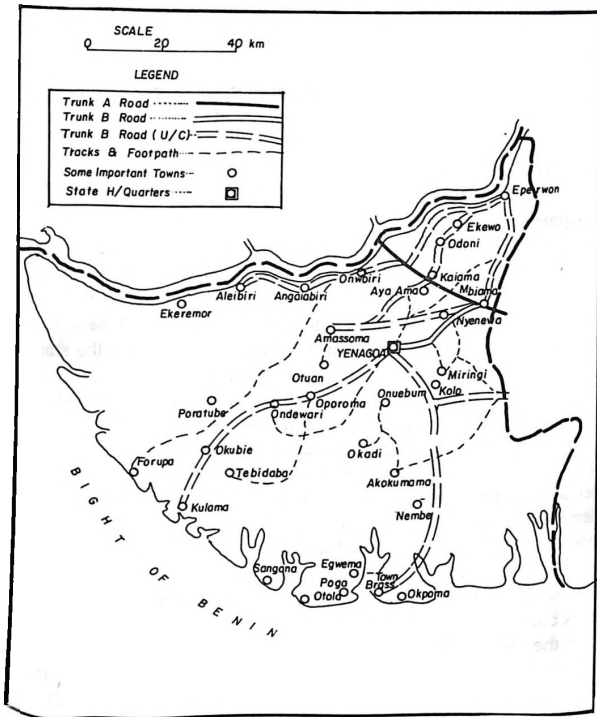


Fig. 27.1: Transport network of Bayelsa State

### Major water route network

The Niger Delta area is characterized by a complex network of rivers and creeks which empty into the Atlantic Ocean. In spite of the many rivers in the Bayelsa area, the only rivers navigable to bigger vessels are the Brass and Nun. The others are only important for local crafts. The effective utilization of these rivers for navigation is quite limited, due to fluctuation in their volumes, shoaling of their entrance, shallowness of their banks or blocking of the waterways by sediments, weeds, fallen trees, and other obstacles. Government efforts to carry out clearing, dredging, channelization and canalization programmes have been limited (Table 27.2).

Apart from the ancient dug-out canoe, the major modes of water transportation are the out board engine boat, the in-board engine boat and the speed-boat. Although the speed-boat is the smallest of them all, it is the fastest and the most flexible in spatial operation, essentially because of its shallow draught. The outboard engine boat on the other hand is generally the slowest but is usually more flexible than the in-board engine boat. The advantage of the in-board engine boat lies in its carrying capacity. It has the largest carrying capacity when compared to the speed boat and outboard engine boat. Whereas the speed boat is strictly a passenger vessel, the other types carry both goods and passengers.

Although rarely used for travels, canoes and rafts are quite common for penetrating otherwise inaccessible creeks where heavier mechanized crafts are usually disadvantaged (Ikporukpo, 1987 and Sambo, 1997). They are, however very slow.

The operators of the motorized boats are almost exclusively private entrepreneurs. Where government is involved, the operations have been insignificant and largely unreliable (Ikporukpo, 1994).

Generally, the most used mode is the out-board engine boats. This is very closely followed by the speed-boat which leads in terms of the frequency of patronage by individuals. The most important reason for mode choice is ready availability. However, cost, comfort and speed are other reasons (See Ibegi, 1985; Ikporukpo, 1994 and Sambo, 1997). The reasons for choice are to a large extent related to the nature of transportation problem in the area. Consequently, the irregularity in operation and cost are the most important criteria.

Table 27.1: Roads in Bayelsa State (1979)

No	LGA	Land Area Sq. km.	Fed. Roads km.	State Roads km.	Fed. & State Roads, km.	Road Densities		Fed. & State metres/Sq. km.
						Federal	State	
1.	Brass (i.e. Brass, Nembe and Ogbia)	3,296	40.4	42.6	83.0	12	13	25
2.	Yenagoa (i.e. Northern & Southern Ijaw)	3,820	56.8	137.2	194.0	15	36	51
3.	Sagbama (i.e. Sagbama & Ekeremor)	1,817	7.8	-	7.8	4	-	4
4.	ALL BAYELSA	8933	105.0	179.8	284.8	31	49	90
	Median Value	3296	40.4	88.9	83.0	12	24.5	35
	Sample Range	1903	49.0	94.6	186.2	11	23	47

Source: Extracted from Idachaba (1986). The Rural Infrastructure in Nigeria. Ibadan University Press for Federal Department of Rural Development, Table 619.

Table 27.2. Canals in Bayelsa State

LGA	No. of Canals	Length Canals km.	Cost ₦
1. Yenagoa (i.e. Yenagoa, Kolokuma/Opokuma and Southern Ijaw)	3	6.9	882,344.70
2. Brass (i.e. Brass, Nembe and Ogbia)	1	0.5	62,320.05
3. Degema-Brass	1	41.4	1,310,538.00
	5	48.8	2,255,202.75

Source: Extracted from Idachaba (1986). The Rural Infrastructure in Nigeria. Ibadan University Press for Federal Department of Rural Development, Table 619.

### II. Communication

Communication is defined as the imputing, conveyance or exchange of ideas, knowledge or information". (Oxford Dictionary).

In Bayelsa State, the predominant forms of communication were traditional folk media which included songs, dances, wrestling, story telling, riddles, wise sayings (parables), ceremonies and puppetry. Traditional symbols such as marks appearing on parts of the body, beads (*ila*), strings, animal skins, fish, foodstuff packaged in unique ways were also used to convey various types of message. Important and confidential messages were sent by means of drums or stringed musical instruments.

In this section we shall focus on the use of symbols as forms of communication in the various parts of the state. We will also devote some time to modern communication technology since this is the life blood that transmits messages from one place to another over great distances.

#### Non-verbal modes of communication

Non-verbal mode of communication is the sending of messages from one person or group of people to another without uttering a single word. These messages may be transmitted by body postures and movements, facial expressions, gestures, touching, eye contact, vocal intonation and use of space. Although not much attention is given to it, non-verbal communication is as much a part of the interaction process as is verbal communication. This means that for effective communication to take place between two people, attention must be given to both verbal and non-verbal communication. In essence probably more feelings and intentions are sent and received non-verbally than the total combined verbal effort.

In their daily lives today, the people of Bayelsa frequently use parts of their bodies as a means of communication. This mode of communication is quite vast and includes all possible ways of attracting attention as in touch, gestures, facial expressions, visual signs, symbols, dances etc. Below is a list of various parts of the body used in non-verbal communication.

## Social Services

Part of Body	Action	Message Conveyed
Head	Nodding	Agreement, approval
Head	Shaking of the head from side to side	Disapproval, refusal Disagreement, surprise
Hair	Cutting off all the hair from the head	Bereavement
Finger	Beckoning	Calling
Finger	Pointing	Showing, direction, accusation, warning
Palm		Show of Anger
Hands	Spitting on the Palm and pointing it to a person	
Hands	Clasping of hands on the head	Sorrow, fear
Hands	Folding of hands in front of the chest	Sorrow, guilt, sadness, contemplation
Hands	Stretching out the hands	Emphasizing large size of an object
Mouth & Eye	Folding hands across the chest touching shoulders	Demoralized, giving up of hope, self-pity
Mouth	Simultaneous wide opening of mouth and eye	Horror, surprise amazement
Hands	First finger on lips with the sound shii	Call for silence
Hands	Touching	Affection and love, identifying an object
Hands	Hitting one's chest	Self-pride, anger
Hands	Dancing or wriggling	Happiness, enjoyment attraction, enticement.

Additional symbols in communication

people of Bayelsa have developed and used a system of traditional symbols for a very long time. These symbols take different forms and depending on how and when they are used they convey different meanings. For example, beads worn around the waist symbolizes beauty. If the beads are mixed with pieces of

medicinal plants, they can serve as contraceptives. When men wear the beads around their neck, it symbolizes authority and status. Coral beads worn on the left wrist indicates priestly or chiefly status.

The talking drum is one of the earliest modes used by the people of Bayelsa to send messages over fairly long distances. It is given different names in different areas. For example, in Yenagoa, it is called *Oje-genes*. In Igbogene, it is called *Igurubia*. The expert drummer could transmit his message far away by beating his drum. By this means, people have been warned of coming dangers; summoned to meetings where vital decisions were taken. To avoid confusion, each settlement in the state has its own drum signal. For example, the drum name (beat) of the Nembe people is

Kala Ekulema Nembe  
Kala Ekulema Nembe  
Ama òkò òkò bío kpo

This literally means, "The small brave city state founded by Kala Ekule". Within each settlement, most houses (*wan*), chieftainces and important individuals have drum names by which they are praised. Most of these drum names are backed by ancestral traditions. Nowadays the art of communicating with talking drums can be observed at ceremonies and masquerade displays especially winged masquerades such as *alagba* and masquerades carved in the form of water creatures. During such displays, the drummer calls the drum name of the various settlements of the area and the masquerade is expected to understand and respond.

Apart from the drums, town criers use gong or disc produced in different sizes of metal or wood. These instruments are used as community information organs to proclaim to members of the community new developments from the government, call to communal labour, and the passing of new laws. The rhythm usually connotes the type of information or message to be conveyed. When struck in any area of the community, usually at night or the early morning, absolute quietness descends. The town crier then delivers his messages. In Yenagoa, the gong (*ogele*) is always with the chief or village head. Similar *Ogele* can however be used

## Social Services

by individuals who have permission from the chief to proclaim some message.

The gong has other uses too. During group hunting the hunters use it to tell their position. Native doctors use it to invoke the spirits of their ancestors to come and help solve difficult problems. Hollow India Bamboo when beaten by individuals may indicate the loss of something precious or the proclamation of someone admitting to committing an offense.

During burial ceremonies, the rattling of knives, machetes, axes etc. indicates that the dead man's economic trees i.e. crops notably plantains, coconuts, oranges etc. are being felled in payment of the traditional last respect to the dead and in appeasing his spirit.

Simultaneously jiggling of bells means that wrestlers are about to perform a display of traditional respect to the dead if he was a notable wrestler during his life time.

Other symbols with universal significance in the state include the palm frond or the plume of oil palm tree. Depending on where it is found, the palm frond conveys different messages. When tied around a piece of land, it signifies that the piece of land is due for cultivation. When tied on an economic tree, the people understand that the owner does not want any interference. On moving vehicles or boats, it indicates to any observer that a corpse is being conveyed home. In some parts of Southern Ijaw, when the palm frond is pinned standing, it signifies something good whereas if it is lying flat, such as at the doorsteps of someone's house, that signifies something bad. It may mean that the owner of the house (or the head of family) is being accused of committing a grievous crime e.g. adultery, theft etc. In Ekeremo and parts of Sagbama, the palm frond is similarly employed in communicating important messages. For instance, it is used in seeking for peace either when individuals are involved in a dispute or two communities are engaged in a protracted land dispute. It is also used in summoning members of the community to the town-square or community hall for the dissemination of information. The handing over of a palm frond to any individual conveys the status of the message and compels whoever is given it to attend the function or ceremony at all costs.

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The sight of the palm frond pinned in a shrine shows that a fresh sacrifice has been made. It is also used by secret societies to warn members of the community who do not belong to the fold to keep off.

The use of white clay mark on the face is fairly common throughout the state under certain circumstances. When the white clay (chalk) i.e. *fitoru*, is marked around the eye or/and the forehead, it symbolizes priesthood. If elders use it to make marks on the forehead, it indicates that they have lost a colleague. If a person is accused of a crime e.g. witchcraft and proves his/her innocence, then the white chalk is used all over the person's body in a public ceremony. This is common among the Nembe people. The use of cannon shots to indicate the commencement of burial rites is also very common throughout the state. The number of shots signifies the age and status of the deceased. No shots are fired for the under-aged that is, below 50 years in some areas.

### Dressing as mode of communication

To the uninitiated, it is difficult to see how the mode of dressing of Bayelsa men and women can serve as a vehicle of communication. But to the indigenes of the state, the mode of dressing symbolises status, rights and announcement of events.

Traditionally, any one who wears a *doni* (a longer jumper with long sleeves) is a chief. The *doni* is not meant for everybody. When a wealthy man who is not a chief dies, he may be dressed in a *doni* while lying in state. In some areas, the eldest son (although not chief) of a renowned person or chief who is deceased on special occasions may be asked to put on a *doni*. On such occasions, that person represents the late renowned person or chief.

In many parts of the state, the type of clothes put on by a woman signifies her age group or status. For example, traditionally in many parts of the State, females who were not yet initiated into womanhood could not tie double wrappers.

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### **Verbal modes of communication**

Today, as in the past, the people of the state address themselves in various dialects. This takes the forms of spoken, written and song communication. Spoken communication includes proverbs, riddles, narratives, simple commands etc. during daily engagements and at social gatherings. Song communication includes those for mourning, war, announcement of the birth of babies, title praise e.g. during wrestling and festive occasions. Funeral songs convey messages of sorrow, loss, grief etc.

They also employ work songs as communal labour accompaniments, conveying messages of strength, prowess and dignity of labour. War songs also take place among these people encouraging valour in most instances, these are confined to war period or celebrations of victories after wars.

Songs are sung during ceremonies to convey messages of respect and loyalty. Praise songs are also sung to welcome war heroes, men of achievement and eminence.

The people also employ proverbs, riddles and folk tales whenever necessary to enhance communication. Proverbs, for example, are used to rebuke, praise, advise etc. individuals or groups during social gatherings. It is used also in giving information. Riddles are used mostly among children during social gatherings, and in their socialization. Folk tales are told to children during moonlight recreations. Such tales tell about the qualities of animals, human and supernatural beings.

Communication in Bayelsa State is however, no longer strictly restricted to the aforementioned. Today, it has extended to modern modes of communication, the spoken and written languages of the electronic and print media. Thus communication is also carried out through newspapers, magazines, cinema houses, radio, television sets etc.

### **Modern modes of communication**

The state is planning to set up a radio and television stations at the state capital. It is also a joint owner for now of Rivers State Television Channel

22 and the AM/FM Stations in Port Harcourt. These electronic media serve the interest of the state.

Newspapers can be considered the schoolmasters of the common people. Thus the Rivers State Newspaper Corporation jointly owned by the Bayelsa and Rivers State governments publishes a daily newspaper - *The Tide*; and on Sundays, the *Tide on Sunday*. The paper carries news information from all parts of the state in particular and the federation and international news in general. Occasionally, important new information from the government is printed and distributed all over the state.

The state is linked to other parts of the nation through NITEL telephone lines. The number of lines or the number of telephones in the state is still quite small, and efforts to link each local government area capital to the state capital are set to bear fruit. In sum, then, Bayelsa State is yet in a state of infancy in the area of modern communications development, although her communities were quite advanced in the use of traditional means of communication.

## CHAPTER TWENTY-EIGHT

# SOCIAL WELFARE SERVICES

*Sam B. Nwideeduh*

### Introduction

The federal government of Nigeria in its blue print titled, *Social Development Policy for Nigeria*, published in 1989 defined the philosophy of social development. The government asserted that, "The National Social Development policy flows from a deeply entrenched concern, on the part of our communities, for the overall well-being of their individual members and sub-groups" (FRN, 1989:5). This assertion owes its background to the fact that "the welfare and capacity of the nation depends very much on the contributions of the people, as individuals and as groups". If these individuals and groups are to function in productive capacities, it is only natural that they should be prepared adequately for these challenges. It is within this milieu that the policy defines Social Development as "the process of continuous improvement of the social structure, institutions and programmes in order to create a societal condition in which the rights of citizens are advanced and protected; their welfare enhanced; and their effective functioning and self-actualisation ensured" (FRN, 1989:3). Out of the five institutions which constitute the main components of Social Development, social welfare ranks first. Others are community development, women and development; youth development; and sports development.

The words social welfare evoke a mental picture of poor, disadvantaged and wretched people. This kind of picture is misleading as social welfare is concerned with more than the poor. This perception fits the narrower definition of social welfare by Klein (in Compton, 1980:28) as "the administration of certain services to individuals and families who find it difficult or impossible to maintain themselves and their dependants in material solvency and in health by their own efforts". The definitions offered by Friedlander (1961), Romanyshyn (1971) and Federico (1976)

## Social Services

define social welfare to take account of the dynamism and transformation of society with which social welfare is associated. Specifically, Romanyshyn (1971:3) defines Social Welfare as:

Including all those forms of social intervention that have a primary and direct concern with promoting both the well-being of the individual and of the society as a whole. Social Welfare includes those provisions and processes directly concerned with the treatment and prevention of social problems, the development of human resources, and the improvement in the quality of life. It involves social services to individuals and families as well as efforts to strengthen or modify social institutions.

Looking at social welfare from the sociological point of view, Romanyshyn observes that it functions to maintain the social system and to adapt it to changing social reality. From the ideological point of view, it is society's answer to that ancient and ever-recurring question, "Am I my brother's keeper?" Writing in regard to social systems, Stein (in Compton, 1980) sees the functions of social service as system maintenance, system development, and system change.

System maintenance sustains social stability and cohesion through meeting needs of people in accordance with prevailing social values and institutions. Developmental functions add in the orderly growth and change of established institutions ... System change challenges significant values and elements in the social structure including distribution of wealth and power. (p. 34).

This chapter will examine the nature of Social Welfare Services offered by the Bayelsa Ministry of Women Affairs and Social Development since the creation of the state in October 1996. The problems associated with the social welfare services will also be discussed and some solutions proffered.

### State creation and social welfare services

Before the federal government created Bayelsa State in October 1996, the Rivers State Ministry of Health and Social Welfare operated zonal offices at the following centres which eventually served as local government headquarters: Yenagoa, Oporoma, Ogbia, Sagbama, and Nembe. Since the creation of Bayelsa State, other zonal offices have been established in all the Local Government Areas.

Social Welfare in Bayelsa State covers the following functional services: family welfare services; juvenile probation services; correctional institutions which include Remand Home and Approved School; taking care of the needy children by providing children's home; fostering of homeless children; and caring for the deaf, blind and destitute. Others include the provision of services for deviant children through school social work, pilgrim welfare services for both Christians and Moslems, day-care centres for working mothers and Home for the Elderly.

### Family welfare services

This unit settles matrimonial and paternity disputes; looks into the welfare of abandoned children; grants child custody and also handles adultery cases, etc. It is also the responsibility of this unit to mount enlightenment campaigns aimed at advising parents on the need to provide adequate financial and moral support for their wards and children. Studies undertaken by Inko *et al* (1997) and Angaye (1997) stress the point that the dropout rate from schools could be controlled to a tolerable level with better care for the children.

### Process of settlement

When a case is reported, the social worker visits the affected family to ascertain the reasons responsible for the problem(s). If the social worker is unable to reconcile the parties or couple, the matter is referred to a court that has the jurisdiction to look into the matter. The social worker carries out follow-up visits to ensure the realisation of permanent peace.

## **Social Services**

### **Juvenile welfare and probation service**

Bayelsa State, like other states in the federation, has a high rate of juvenile delinquency.

In order to intervene in the abuse of juveniles by the police who may lock them for indefinite number of days without granting them due process, social workers in Bayelsa work closely with the various authorities who hand over such cases to them. Usually, if a social worker is unable to cause the trial of the juvenile offender in court, the magistrate can treat the case in his/her chamber.

### **Remand Home**

The Ministry operates the Remand Home within the provisions of the Children and Young persons Act of 1958. Remand Home is an institution established to serve as a place of detention of juveniles awaiting trial. When a juvenile is brought before a court as a child beyond parental control (BPC) or in need of care and protection, "the courts have always sent him to the Remand Home pending the final determination of his case," (Eliias cited in Ebrimson, 1984:48). Ebrimson adds that, "where the case is pending, the Remand Home is used to enable the probation officers and the Institution Board to compile their reports and make the required observation that will help the courts in deciding what form of treatment is best for the juvenile." (pp. 48-49).

Juveniles who have committed the following crimes are usually kept in Remand Homes in Bayelsa State; stealing, murder, assault occasioning harm, loitering, breaking and entering, hawking, traffic offences, conspiracy and stealing, rape and defilement, arson and affray.

Children who are remanded are aged between 10 and 16 years and no child above the age of 17 should be admitted into the home. And according to the law, the home does not detain any inmate beyond his 18th birth-day in the home. Inmates are usually brought by their parents, relatives, police or juvenile probation unit for corrective measures.

### Approved School

Like the Remand Home, the Approved School operates under the provisions of the Children and Young Persons Act. Children committed to the school are for care and protection, children beyond parental control and those who have been engaged in crimes ranging from stealing to more serious crimes like murder, armed robbery, etc. The nature of the offence determines the duration of stay at the school; it could range from 1 year to 5 years. A child in this home must have been committed by a magistrate in a juvenile court.

The inmates in the approved school are not only counselled, they are also trained in various arts and crafts. Some also attend school outside, but they are properly watched and supervised by a social worker. At the age of 18 years the children are allowed to go home to their parents. Children aged 15 years and above but not more than 18 years who are beyond parental control (BPC) could also be admitted to the school. The After-care unit follows up cases in the Approved School. For example, parents of the inmates are contacted regularly to ensure that they meet their financial obligations to the inmates as determined by the juvenile court.

### Children's Home

Although the Children's Home is under construction, the Ministry of Women Affairs and Social Development makes all efforts to accommodate motherless babies, orphans, displaced children who are affected by such natural disasters as flood, oil spillage or those whose mothers are mentally ill. Abandoned babies are also accommodated. The notable causes of child abandonment are poverty and immorality; the latter arises from the delivery of children by free women (prostitutes found either in designated hotels or private homes) and the unmarried women who may abandon their children after they have been born. In cases where the fathers of these babies are located, they are persuaded to cater for the babies instead of them being fostered.

## **Social Services**

The law of adoption applicable in Bayelsa State is the Eastern Nigeria Law No. 12 of 1965. Application to foster may be made by a single person (married or unmarried) and a married couple jointly (Ebrimson, 1980). It is expected that foster parents must be over 25 years but where a married couple apply jointly one of them must be at least 25 years and the other at least 21 years old. Also, the foster parents must be mentally sound and ready to provide warmth and love for the child. They must also have good character and live in a conducive and decent environment. A committee made up of professional social workers pays home visits to examine the homes of foster parents and screen them.

### **Rehabilitation of disabled persons and destitutes**

The Ministry is planning to establish a formal link with the Association of Disabled Persons in the state in order to study their problems and provide the necessary assistance to its members. As part of rehabilitation services for victims of natural and man-made disasters, the Ministry, in collaboration with the State Emergency Relief Committee, performs such duties as coming to the assistance of affected persons and providing necessary counselling.

The Ministry is presently waiting for the release of funds to construct a comprehensive Rehabilitation Centre to accommodate the physically and mentally disabled towards training them to acquire vocational skills according to their capabilities. Meanwhile, some Rehabilitation Schools in the federation have been requested to send admission forms to enable the blind and the physically disabled in Bayelsa State to participate in their vocational programmes.

### **Juvenile probation unit**

The officer in charge of this unit is called a Probation Officer and his job is to watch, advise and assist law breakers who are placed on probation. The officer also prepares juvenile cases that have been reported to the unit which are later presented to the juvenile court, for such offences as getting beyond parental control (BPC), murder, affray, malicious damage,

breaking and entering, loitering, rape, stealing, truancy, begging or soliciting for alms, children in need of care and protection and hawking late into the night. A probation officer or his assistants can arrest children engaged in any of these acts.

Three types of treatment are usually rendered to juveniles. These include the placement of juveniles under the supervision of the probation officer for a specified period of time; committal to the Approved school, or repatriation. An offender who is repatriated is usually transferred to a more conducive environment which will act as a check on his negative behaviour. For example, the offender could be repatriated from the town or city to the village where the social setting is governed by strict, simple moral, ethical and religious norms accepted by the community. However, the success of the process depends largely on the co-operation of both the offender and his family. From this brief analysis, it is obvious that the juvenile probation unit combines the work of "correction" with that of "law enforcement".

### **School social work services**

It is the responsibility of the School Social Work Unit to ensure that children benefit from their academic programmes. With the assistance of the School Social Worker who is usually a professional, the absentees and the juvenile delinquents are identified and counselled. The School Social Workers work closely with the parents of these absentee and delinquent children and their teachers in order to determine the immediate and remote causes of their negative behaviour. This effort has helped to control the rate of dropouts in both the primary and secondary schools in Bayelsa State.

### **Difficulties encountered by social workers in the state**

Social workers in Bayelsa State feel that their services are not adequately appreciated by the government and members of the society. In other words, they lack basic working facilities such as good office accommodation, official quarters, medical services, transportation and

## **Social Services**

appropriate remuneration. The inadequate supply of boats impedes movement into the scattered communities where the social workers' clients are to be found. More trained staff are also needed. For example, with only 6 staff at the Yenagoa zonal office, it is difficult to operate at optimum level. More cars, especially land rovers, are needed to cope with the rugged terrain.

## **Conclusion**

From this discussion, it is proper to support Compton (1980:33) who observes that, "Social Welfare operates in the spaces between individuals, families, and other institutions of society when their differences or lacks appear to handicap individual development and problem solving". In other words, the absence of a functional social welfare system in a fast-growing society like Bayelsa can pose debilitating problems to the government and people. It is only a well organised social welfare institution that can integrate societal and individual needs.

It is clear that a nucleus of a welfare service exists in the new state, ready to be motivated and provided with the tools to carry out the necessary tasks of social development.

## CHAPTER TWENTY-NINE

# CONCLUSION

*Ebiegberi Joe Alagoa*

A modest degree of success may be claimed for the project to write a history of Bayelsa State and define its identity in terms of its environment and culture. The contributors provide basic data on the physical environment of the state and have begun the process of self definition.

Clearly there are wide gaps in our knowledge, and there has been all too little field research in depth in the majority of disciplines utilised in this study. Unfortunately, Bruce Powell, a zoologist with long years of field research in Bayelsa State just passed away in the course of the project. Most of the younger scholars, have had neither the opportunity nor the funding and facilities to carry out in-depth field research over an appropriate time span. The gaps appear in the human, social, and natural sciences. Accordingly, our coverage of the fauna has not been as comprehensive as expected, and the cultural history is still patchy and lacking in scope and in depth.

The oil industry remains a major subject of concern and criticism in economic, political, social and environmental studies. Yet we do not possess a secure data base derived from empirical scientific research. Indeed, we have not yet achieved complete clarity in our analysis of the impact and potential long-term role of oil.

- (1) Is it a sustainable resource on which we can rely for long-term development?
- (2) Are we properly oriented to utilize the funds that could accrue from the correction of the imbalances in the Nigerian political system which take oil revenue out of its place of origin in the Niger Delta?

## Conclusion

- (3) What is the proper role of the multinational oil companies in community development, conservation of the environment, and the restoration of resources depleted as a result of their activities?

It requires only ordinary common sense to realise that oil resources have a limited life compared to the long-term sustainable benefits derivable from the environment. But it requires great effort, imagination and creativity to learn the ways of conserving the resources of the environment for use over the long term. It is easier to contend for the immediate millions derivable from the oil industry. Indeed, the lure of the present profits of the oil industry seem to render us less and less capable of taking measures for our own community and self development.

The agricultural contributions in this volume attempt to draw our attention to the true basis of the wealth of Bayelsa State, namely, the natural resources of its environment.

Accordingly, the people of the Niger Delta would be best served by multi-nationals laying foundations for the development of self-reliant communities and a sustainable environment. Restoration of land and water damaged by oil spillage must, therefore, precede, accompany, and succeed, the payment of compensation. Angry youths and political leaders may be pacified through the payment of protection money, but only for a time, before hunger and frustration drive them back to violence.

The historical approach adopted in this pioneer study of Bayelsa State has, hopefully, achieved the objective of delineating the continuities and enduring characteristics of the culture of the people of Bayelsa State as well as the changes in their circumstances and fortunes. The land in which they live in the centre of the Niger Delta provides the most enduring factor. It is the single assurance of their future well-being.

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AGR	Agriculture
AQF	Aquatic Fauna
AST	Atlantic Slave Trade
CRD	Climate, Relief and Drainage
CUI	Cultural Institutions
DEP	Development Planning
EDU	Education
FISR	Fisheries
GAS	Geology and Soils
IAST	Impact of Atlantic Slave Trade
ICR	Impact of Colonial Rule
INT	Indigenous Technology
LAN	Languages
NCW	Nigerian Civil War
POP	Population Profile
PRD	Prehistoric Developments
RBP	Religious Beliefs and Practices
REG	Regional Government
STM	State Movements
SWS	Social Welfare Services
TAC	Transportation and Communication
TOR	Traditions of Origin
VAR	Visual Arts
VEG	Vegetation

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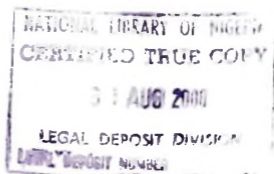
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