Environment, Culture and Development in Rivers State: From the Pre-Colonial to the Colonial Period

By

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Abstract

The history of Nigeria is a never-ending exercise with new facts emerging that provide clues in our search to reconstruct the past and interpret certain aspects of our everyday culture that unite us rather than divide us as a nation. This work looks at the environment, culture, and development in Rivers State: from the pre-colonial to the colonial epoch. The study intends to add to African historiography the important role the environment played in the formation of the culture of the people that occupy this littoral state. The heterogeneous nature of the state makes this study unique as it reveals the indigenous cultural response to the environment in the course of its development in the period under review. The research utilizes oral tradition and written material from primary and secondary sources, as some reports of early European explorers and anthropologists and cultural relics that survived "Europeanization" have provided sufficient clues on the thriving indigenous technology. The analysis reveals that there existed a virile indigenous fishing, farming, building, and land reclamation culture before the advent of imperialism which has continued to survive after colonialism, and that these traditions

play an important role in the sustainability of our society and for the advancement of further research on the subject matter.

Keywords: Environment, Development, Farming, Fishing and Building.

Background

Nigeria is made up of thirty-six federating units and a Federal Capital Territory. Among the federating units is Rivers State, which is one of the littoral states in the Niger Delta, Gulf of Guinea[1], and is located in the South-south geopolitical zone of the country. The state was carved out of the defunct Eastern region by a military decree of the General Yakubu Gowon administration on May 27, 1967[2] and subsequently was partitioned to create Bayelsa State by another military decree in 1996 by the General Sani Abacha junta. The state shares borders with Imo to the north, Abia and Akwa Ibom to the east, while Bayelsa and Delta are to the west. The State capital, Port Harcourt, is the largest city in the South-south and South-east geopolitical zones and is a metropolis that is considered to be the commercial capital of the Nigerian oil industry.

Being that it is Nigeria's seventh most populous state, Rivers State according to the 2006 population census figures stands at 5,198,716[3]. Also according to the World Population Review (Population of Cities in Nigeria), the capital city of Rivers State, Port Harcourt is ranked 4th on the list[4]. The state enjoys a variegated mix of ethnic and linguistic diversity consisting of ethnic groups like the Abua, Obolo, Ekpeye, Bille, Eleme, Egbema, Kalabari, Ndoki, Ndoni, Okrika, Ogoni, Engenni, Etche, Ibani, Ikwerre, Ogba, and Odual. The state is particularly noted for its 28 indigenous languages, including Ikwerre, Igbo, Ogba, Abua, the Etche, Ogoni, and Ijaw languages[5]. The inland part of the state consists of tropical rainforest, and towards the coast, the typical Niger Delta environment features many mangrove swamps. Rivers State has a total area of 11,077 km2 (4,277 sq miles), making it the 26th largest state in Nigeria by area[6] and its geography is dominated by about twenty-two rivers that flow through it, including the Orashi River, Sombreiro, New Calabar River, Santa Barbara and Bonny River.

The area currently called Rivers State was part of the Oil Rivers Protectorate from 1885 till 1893 when it became part of the Niger Coast Protectorate[7]. In 1900, the

region was merged with the chartered territories of the Royal Niger Company to form the Protectorate of Southern Nigeria. In the early days of the colonial period, several protection treaties were signed between various indigenous communities and the British colonial government. Some of these communities had hoped that with Nigeria's independence, the treaties of protection they signed with Britain would also lapse and thus, they would become independent states[8]. Thus, with the start of World War II, a new vista of knowledge and nationalism arose that from 1941 through 1952, agitation for the creation of Rivers Province began with the formation of the Ijo Rivers People's League. By 1953, the Council of Rivers Chiefs was birthed as a replacement for the Ijo Rivers People's League and by December of the same year, the leaders of this organization collaborated to form the Calabar Ogoja Rivers (COR) State Movement in Uyo. The Council of Rivers Chiefs was later renamed in 1954 to Rivers Chiefs and People's Congress and in 1956, the organization became known as the Rivers Chiefs People's Conference[9]. During the Constitutional Conference in 1958 as the country's nationhood was affirmed, hopes of an independent state resonated with an agreement reached on some measures to mitigate the fears of the ethnic minorities. These developments made the Calabar Ogoja Rivers State Movement break away from the Rivers Chiefs People's Conference to press their case. The British established a commission in November 1957 led by Sir Henry Willink to look into the objections raised by the minority groups. The Willink Commission did not support the creation of more regions or new states, it suggested the entrenchment of Fundamental Human Rights (FHR) in the independence constitution, that the police should be under federal control, that minority areas should have special councils, and that there should be a special development board for the Niger Delta[10]; thus initiating the conception of the Niger Delta Development Board (NDDB). The commission's report fell short of the people's expectations as they were hoping for a state or nation of their own. This did not go down well with some Niger Deltans who started a revolution in February 1966. A student union activist at the University of Nsukka sued the Federal Government over the conduct of the 1964 elections and condemned the January 1966 coup that killed Alhaji Abubakar Tafawa Balewa his boyhood hero. Isaac Adaka Boro claimed that the killing of Prime Minister Tafawa Balewa, whom he described as the 'protector' of all Ijaws, and the installation of the Igbo officer, Major General Aguyi Ironsi, convinced him that revolution was the only way out for the Ijaw. Boro advocated

a rejection of the new regime, which he told his followers to have nothing to do with them. [11] From 22 January 1966, Isaac Boro, Samuel Owonaro, and Nottingham Dick returned home and began to recruit young men between the ages of 18 and 33 to join the Niger Delta Volunteer Service. A camp was opened behind his father's compound in Kaiama, in Taylor Creek, a tributary of the River Nun. In three weeks some 120 recruits were enlisted.

These were instructed to seize all motor boats belonging to the Nigerian Government and oil companies but not to harm any expatriate worker. [12] After less than a month of training in guerrilla tactics with funds raised through the seizure of goods from illicit gin sellers, accompanied by the stockpiling of explosives, which were easy to acquire because they were widely used by the oil industry and available in local markets, and contacts established in Yenagoa, Ahoada, Degema, Oloibiri, Patani and Bomadi, Boro's Niger Delta Volunteer Service launched its offensive to establish the Niger Delta Republic on 23 February 1966. The rebellion was sternly resisted by the Federal Government under General Aguiyi-Ironsi and the Governor of the Eastern Region Colonel Chukwuemeka Odumegwu Ojukwu. The twelve-day rebel was arrested with his accomplices and sentenced to death for high treason. In May 1967, the Gowon administration granted him amnesty and enlisted him in the Nigerian Army to be commissioned as a Major; Isaac Boro recruited over one thousand men of Ijaw extraction who volunteered to serve under him and trained at Escravos. His group was attached to the 3rd Marine Commando under the command of Colonel Benjamin Adekunle. Their knowledge of the creeks of the Niger Delta, understanding of the local languages, ability to live off the land, and swift but less tactical accomplishments in places like Opobo, Obodo, Opolom, Andoni, Oranga and Buguma are commendable. The General Yakubu Gowon administration went further on 27 May 1967 to issue Decree No. 14 of 1967 to create Rivers State to allay the fears and agitations of the populace and gain their support for Nigeria during the Nigerian Civil War.

Methods of Data Collection

The data for this research is collected from historical sources mainly in written or documentary form and comprises written historical matter in textbooks, sourcebooks, monographs, journals (whether learned or lay), magazines and

newspapers, theses or dissertations, and learned conference papers, the constitution of the Federal Republic of Nigeria 1999 (as amended), acts of parliament and judicial pronouncements or proceedings, commission reports, government white papers or blue books, letters, dispatches, and memoranda, minutes of meetings, diaries and memoirs, encyclopedias, directories and other reference materials, cenotaphs, calendars, certificate and ledgers, abstracts, genealogies, parchments, inscriptions and online publications.

The fact that something is written does not prove its authenticity, making historical methodology challenging in addressing issues of objectivity, selection, incompleteness, incorrectness, perspective, fraud, and propaganda[13]. Since no historical material is beyond historical interpretation, this study to some extent historicizes the discourse. Carr supports this assertion when he posits that the belief in hard copies of historical facts existing objectively and independently of the interpretation of the historian is a preposterous fallacy[14].

Eluwa supports that the evaluating procedure for oral sources should apply to written sources as well when he observed that while in almost all cases, the researcher on oral (data) will be dealing with the current or living language of the people he is interviewing, he may about written sources be faced with ancient or archaic forms of literature[15]. In that case, he will need to equip himself with the peculiar language of the remote period in question, particularly the conventional form of the documents of the time and even the type of writing materials used at the time. This equipment will enable him to estimate fairly accurately the date of an undated document or the age of a document inaccurately or falsely dated. He will thus be in a position to reject as spurious a document whose form or content is anachronistic.

It is important to cross-check written sources with oral evidence and also to cross-check reported and edited accounts of an event against their originals, this will in effect enable the historian to critically analyze data as source material for research[16].

Environment of Rivers State

Rivers State has a peculiar environment as it lies at the edge of the Atlantic Ocean the inland part of the state consists of a tropical rainforest and the typical Niger Delta environment features many mangrove swamps in the coastal parts. It is located in an area characterized by rainfall in the coastal region of the eastern Niger Delta. Rainfall in Rivers State is periodic, varying, and heavy. Generally, south of latitude 05Â°N, rain occurs, on average, every month of the year, but with unpredictable duration. The State is characterized by high rainfall, which decreases from south to north. Total annual rainfall decreases from about 4,700 mm on the coast to about 1,700 mm in the extreme north of the State. It is 4,698 mm at Bonny along the coast and 1,862 mm at Degema. Rainfall is adequate for all year-round crop production in the State. The duration of the wet season is not less than 330 days, of which a great number are rainy days (days with 250 mm or more of rain). For Port Harcourt, the rainy days are about 182. Mean maximum monthly temperatures range from 28°C to 33°C, while the mean minimum monthly temperatures are in the range of 17°C to 24°C. The mean monthly temperature is in the range of 25°C to 28°C. The mean annual temperature for the State is 26°C. The hottest months are February to May[17]. The difference between the dry season and wet season temperatures is only about 2°C. Relative humidity is high in the State throughout the year and decreases slightly in the dry season[18].

The land surface of Rivers State can be divided into three zones: freshwater swamps, mangrove swamps, and coastal sand ridges. The freshwater zone extends northwards from the mangrove swamps. This land surface is generally less than 20m above sea level. As a lower Niger floodplain, it contains a greater silt and clay foundation and is more susceptible to perennial inundation by river floods. The floodplain's total thickness rises to about 45m in the northeast and over 9m in the beach ridge barrier zones to the southwest.

On coastal sand ridges, the soils are mostly sandy or sandy loams. Various crops are supported including coconut, oil palm, raffia palm, and cocoyam. The drier upland region of Rivers State covers 61% of landmass while the riverine areas, with a relief range of 2m to 5m, take up 39%.

Due to its geographical location, Rivers State has always played an important role in the natural history of Nigeria, having been found to host a vast array of wildlife

and plants. Its tropical rainforests are home to more species than all other local biomes combined thanks to its climate and canopy structure. Some of the upland forested areas have seen disruption from human activity, impacting negatively on the biodiversity and ecological functions of natural habitats. In most places, the dominant vegetation usually consists of *Elaeis guineensis* which has the highest productivity among all recognized oleaginous crops[19].

The riverine part of the state has three hydro-vegetation zones such as beach ridge, salt water, and freshwater. Each zone has its characteristics and composition, with the freshwaters encompassing the upper and lower floodplains of the Niger Delta. One of the world's Ramsar Convention-listed wetlands, Upper Orashi Forest, is a 252 km2 (97 sq miles) protected area in Ahoada West. It has been identified by BirdLife International as an Important Bird and Biodiversity Area (IBA) because of its importance to global populations of grey parrots and other birds. [23] The Biseni Forest in the northwest of Ahoada and west of Upper Orashi Forest have also been designated an Important Bird Area. The forest has an area of 219 km (136 miles) within which mammals like red-bellied monkey and yellow-backed duiker are found along with raffia palms and some woody broadleaved species such as *Symphonia globulifera* and *Ficus* spp[20]

Rivers State lies on the recent coastal plain of the eastern Niger Delta. Its surface geology consists of fluvial sediments. This includes the recent sediments transported by Niger River tributaries and other rivers, such as Andoni, Bonny and New Calabar. These materials deposited as regolith overburden of 30m thickness are clays, peat, silts, sands, and gravels. The depositional sequence exhibits massive continental sandstones overlying an alternation of sandstones and clays of marginally marine origin but eventually grading downwards into marine clays. Sands, by far, form the largest group of rock types in Rivers State, while mud constitutes all the polluted brackish waters of the riverine areas. However, peat constitutes the various vegetable and animal remains that lie in bogs and shallow pits. The gravel and pebbles form the last unit of the subsurface rock type and are usually found at the base of the river channels.

The flood plain is a geomorphic structure whose trends westwards and southwards are broken in many places by small hogback ridges and shallow swamp basins[21]. The southern part is affected by great tidal influence.

Most water channels in the freshwater zone are bordered by natural levees, which are of great topographical interest and great economic importance to the local people for settlements and crop cultivation. The upland is undulating to the hinterland and attains a maximum height of 30m above sea level at Okubie, to the southwest. The narrow strip of sandy ridges and beach ridges lie very close to the open sea.

The soils of the sandy ridges are mostly sandy or sandy loams and support crops like coconut, oil palm, raffia palm, and cocoyam. Fourteen of the twenty-three LGAs of the State are located on the upland with varying heights between thirteen to 45m above sea level. These include Ogoni, lkwerre LGAs, Ahoada, Abual/Odual, 0gba/ Egbema/Ndoni LGAs and Port Harcourt LGAs. The drier upland area of Rivers State covers about sixty-one percent while the riverine area, with a relief range of 2m to 5m, covers about thirty-nine percent of the State. The entire topography of the State is also characterized by a maze of effluents, rivers, lakes, creeks, lagoons, and swamps crisscrossing the low-lying plains in varying dimensions.

Drainage is poor, being low-lying, with much surface water and a high rainfall, of between 3,420 mm and 7,300 mm. Thus, almost all riverine LGAs are underwater at one time of the year or another. Again, some areas of the State are tidally flooded, while others are seasonally, thus limiting agricultural practices and nucleated/urban settlement development that would have enhanced social welfare facility provision. The State is drained by two main river systems, i.e. freshwater systems whose waters originate either outside or wholly within the coastal lowlands, and tidal systems confined largely to the lower half of the State. Drainage densities of rivers within the state have a typical value of 1.5 km and sinuosity ratios are more than 1.9 km, indicating that the meandering channels are tortuous. These systems have a general downstream increase in width and velocity, especially in the freshwater zones. The State is drained by the Bonny New Calabar river systems and by a maze of effluent creeks and streams. River bank

levees are prominent and valley side slopes are very gentle and experience a great deal of erosion and accretion. All the rivers enter into the sea through wide estuaries.

Soils: There are three major soil groups in Rivers State, namely: the marine and fluvial marine sediments; the mangrove swamp alluvial soils; and freshwater brown loams and sandy loams. The marine and fluvial marine sediments are found in the wet coastal region. The soils are organic in nature and essentially sandy in texture. Some consist of mud mixed with decayed organic matter. The mangrove swamp alluvial soils are found in the northern part of the coastal sediments zone. They are brownish on the surface, sometimes with an unpleasant and offensive odor. The soils of the swamps are rich in organic matter in the top layer but contain too much salt, especially in the dry season.

The third soil group, the brown loams and sandy loams are found in the freshwater zone of the delta. The levees that form the common landforms of this zone are made up of rich loams at their crests, changing to more acidic and more clayed soils along their slopes.

The "upland" area was originally occupied by rainforest which has been drastically modified by human activities. In most places, economic trees, particularly oil palm, have been preserved, and thus the sobriquet for this vegetation is "oil palm bush." The riverine area is divisible into three main hydro vegetation zones namely, the beach ridge zone, the saltwater zone, and the freshwater zone. The beach ridge zone is vegetated mainly by freshwater swamp trees, palms, and shrubs on the sandy ridges and mangroves in the intervening valleys or tidal flats. The saltwater zone is the tidal flat or swamps vegetated by the red stilts rooted mangrove (Flhizophora racemosa) and two other species of mangrove. The outliers of raised alluvial ground or coastal plain terraces within the swamps are vegetated by tall forest tree species and oil palms. The freshwater zone is mainly the Upper and Lower Delta flood plains of Niger, having freshwater forest trees which are the edaphic variants of the rainforest. The Abura tree, oil palm, raffia palm, shrubs, lianas, ferns, and floating grasses and reeds are the typical vegetation. Ecological Problems: Deforestation is among the ecological problems confronting the State, as mass deforestation of both mangrove and rain

forests is extensive. In fact, in some parts of the State, derived Savannah exists. Rivers State is a State of physical difficulties, such as low-lying terrain riddled with an intricate system of natural water channels; too much surface water, and a high rainfall; uninhabitable mangrove swamps and some parts of the state suffer from inaccessibility. The character of Rivers State relief, drainage, and geology poses many problems to resource exploitation and economic development. Other ecological problems include severe beach erosion associated with sea level rise due to global climatic change; annual inundation by river floods; salty soils especially in the dry season; too much leaching of soil fertility due to excessive rainfall; and susceptibility of settle merit sites along the creeks to creek erosion. Oil spills and gas flares with associated thermal, air, water surface, and aquifer pollution, caused by oil exploration and production, are taking a toll on the agricultural output of the land, fisheries, vegetation, and wildlife.

People, Population and Settlement

Ethnic Composition, Languages, Culture, and the Arts: The ethnic composition of Rivers State is very diverse. These include Kalahari, lkwerre, Okrika, lbani (Bonny and Opobo) Ekpeye, Ogba, Etche, Khana, Gokana, Eleme, Ndoni, Abua, Odual. Linguistic scholars have grouped these communities into six major linguistic groups, namely ljoid, lower Niger (lgboid), Ogoni, Central Delta, Delta Edoid, and Lower Cross. The ljoid group comprises four groups of dialects namely eastern ljoid (Kalabari, Bille, Okrika, lbani, and Nkoro). The Lower Niger (lgboid) comprises dialects such as Ekpeye, lkwerre, Ogba, Egbema, Ndoni, Etche, and lgbo. The Ogoni group includes a large number of dialects which can be grouped into four Khana, Gokana, Eleme, and Ogoni. The Lower Cross group has only one member in Rivers State, with the rest being in Akwa Ibom and Cross River States. The language, Obolo, in this group, is spoken in Andoni and Opobo Local Government Areas[22]. Rivers State, with its diverse ethnic and linguistic groups, is very rich in culture and the arts. Several cultural bonds exist, particularly in music, dances, plays, and masquerades. Literature in Rivers State consists of the oral tradition of folk tales, legends, myths, proverbs, riddles, and poetry in religious incantations, and so on. More modern literature includes the novels and poetry of writers like Elechi Amadi, Gabriel Okara, and the late Ken Saro-Wiwa. Production of traditional fired clay and bronze is also common. Population Size and Distribution: The population of Rivers State is 3,187,864 according to the 1991

National Census figures, with 51.9 percent of the population being males and 1,532,217 or 48.1 percent being females. Rivers State thus accounts for 3.58 percent of Nigeria's population. The population of Rivers State is unevenly distributed among LGAs, towns, and villages, such that ecological and physical conditions underscore the observed population distribution pattern. Population density in the State is roughly 284 persons per sq. km against the national average of ninety-six persons per sq. km., therefore the state's population density is very high. The fact is that because of the physical conditions of the state, the limited land area for agricultural practices, and constant floods, Rivers State's population is concentrated in a few towns and the state headquarters (Port Harcourt). The low density of population in the central and western parts (riverine area) is due to the limited dry and safe land area for settlement and agricultural practices. Over fifty-six percent of the State's population is concentrated in eight LGAs out of which five of them are in the upland region of the State[23].

Rural/Urban Settlement: The degree of urbanization in the State is very low and only nineteen out of 1,079 settlements in the State have a population above 20,000. Generally, the urbanization index is very low (0.24) while the main towns are Port Harcourt, Abonnema, Omoku, Okrika, Oyigbo, Elele, Bonny, and Opobo. According to the 1991 population census, the population of these towns constituted 28 percent of the State population, and therefore the low urbanization index of 0.24. Concerning urban-rural gender composition, Salawu showed that the urban population had more males than females while the rural population had more females than males[24]. This is a possible reflection of the rural-urban migration which is male dominated. The Problem of Urban Primacy: The primacy of Port Harcourt is not in doubt, as that city alone accounts for 14 percent of the State population and 39 and 21 percent of state-owned secondary schools and hospitals, respectively. It has the largest number of private secondary schools and hospitals and controls over 86 percent of all manufacturing activities in the State. By 1991, the total population of Port Harcourt was 440,399, followed by Buguma (82,865) and Okrika (81,558). Thus, Port Harcourt's population is five times larger than that of Buguma or Okrika (Nigeria, 1991). The creation of more LGAs, the number of which now stands at twenty-three, economic development via industrialization, the neglect of the rural sector, and sustained rural-urban migration have all accelerated urban growth and development in Rivers State. The

number of urban centers with a population of 20,000 and above increased from one in 1963 to nineteen in 1991[25].

Building Culture of Rivers State: Before the arrival of the Europeans, there had been a traditional building culture with techniques that had long existed in antiquity. These techniques require ways of fortifying the foundations in the mostly marshy lands of the riverine areas for the construction of houses. Amaury-Talbot records that the "Bush" Ijaw lived in wretched-looking rectangular dwellings with walls consisting usually of sticks, palm mid-ribs, or rough-hewn planks with the interstices occasionally filled in by mud. The roofs are always of palm mats. The house is sometimes divided into two by matting, and at one end is the fireplace, over which are racks for storing or smoking fish[26]. Among the richer Kalabari, the houses are usually in three parts, the central or general room called "Bio-kiri", contains the shrine to "Tamuno" and is flanked on one side by the "Kala-bio" the women's chamber, and on the other side by the "Wari-ku" or kitchen[27].

In Abonnema where clay is available, square compounds are raised which enclose a larger open space surrounded by clay walls or corrugated iron fencing, inside of which various houses are grouped in a European pattern. Many Chiefs possessed "Storied" houses of the bungalow type, and corrugated iron roofs were used by all who could afford them. there are no latrines, but people go into the nearby forest or the waterside in towns like Abonnema, separate latrines are provided for women and usually for men. At Okrika contrary to general custom, it is the women who make the palm leaf mats [28].

In the Degema division, the houses are always oblong with palm leaf mats. In some, clay benches or seats are covered with incised patterns and are "Roman" in shape. The outside walls are often ornamented with designs cut in the soft clay by gay-coloured plates etc., fixed into the surface or by cowries. The compound is usually surrounded by a mud wall about a foot thick. The entrance gate is as a rule surmounted by a kind of porch and near it is the "Obiri" or open shed where the family congregates for conversation or work. To the right generally lies the Chief's small private compound, while in other parts are the houses of his sons, wives, etc[29].

Occupation and Industry: The occupation of the people was mainly subsistent and centered on gathering wild plants, pursuing aquatic animals and small fauna, farming, fishing, animal husbandry, and hunting or trapping. It is difficult to distinguish between occupations as those who farm were also hunters and those who were fishers were also farmers of some sort according to their pleasure or need. In the upland areas, a considerable portion of men's time was taken in the collection of palm nuts and palm wine, while the women prepared the palm oil, for which the nuts were boiled then pressed or beaten, and the resulting pulp boiled and reboiled until the oil has been extracted. The riverine people were mainly fishermen[30].

The other main occupation of the people of Rivers State before and during the colonial era was local and petty trading mainly conducted by the women, whereas the distant and more lucrative is done by the men. Women as a rule were confined to the neighbouring markets, while men had the leverage to travel far. The men cleared the bushes for farming, cut the sticks for the yam vines, and took part in other kinds of farm work, did all the fighting and the greater part of the fishing.

Weaving was done by both men and women, metal, leather, and woodwork were done by men while pottery, dyeing, and mat-making were entirely done by women. Among the uplands, farms are worked on the family system. After work, they all sit at the Obiri to savor palm wine. All fiancés have to render assistance on the farms of the fathers of their betrothed. Among the riverine, very little farming is done by Ijaw, which is only natural considering that the greater part of their land consists of swamps and creeks. Among the Kalabari and Okrika, the scanty farms are generally worked by slaves. Yams and foodstuffs are obtained from the upland in exchange for dried fish, salt, and European goods[31].

They live in scattered communities comprising of few families on frail dwellings borne on arched mangrove roots over the waters where their livelihood is drawn. Only small quantities of their catch are eaten, as all is smoked, with the smaller fish tied together on little frames in the shape of tennis racquets called "Kasa" and are dispatched by traders to the interior. Trespassing on another community's rivers, creeks, or ponds is regarded as more serious than on the land since it affects

the interests of the whole people. Every stretch of water is owned by some village or the other.

The most common method of fishing is by traps, some are made of basket-work. When a piece of land is swamped in the rains, a small dam is often raised to catch fish when the floods go down streams are dammed and the fish are scooped out using hand nets, baskets, etc. Many kinds of nets are used, some are set across a current so that the fish become entangled in the meshes. Most times a fence of sticks is arranged so that this forms a chamber into which they can find their way, but from which escape is impossible. Lines and hooks are used in larger rivers, which are normally weighted with lead and stones. The bait commonly used are the fresh intestines of fish and chicken, occasionally bows and arrows are put to use during night fishing. Night fishing is mainly conducted with torches or hurricane lamps[32].

The people devised better ways of getting large catches by throwing a shrub of the species of *Diospyros* composed generally of *Tephrosia Vogelli* into a pool or dammed river which is poisonous to the fish who immediately are dazed, floating to the surface, and are easily caught.

Salt-making was mastered by the Ijaws in the riverine. The pattern fetches sea water in great brass pans called Neptunes which when evaporated leaves a residue of salt. This pattern was abandoned for a much older one which required boiling the roots of the mangrove trees. In some parts of Kalabari, they make a small quantity from the roots as in other parts and among the Ijaws, it is obtained from the leaves. The best salt is made from the mangrove plant *Avicennia Africana*, the ashes are normally kept in large tightly woven baskets where water filters through to be boiled in native pots and forms a mist which when dried is packed in special baskets made of screw-pine leaves[33].

Anthropogenic Impact on the Environment in the Pre-Colonial and Colonial Era

The environment of Rivers State is very well endowed with human and natural resources but in the period under review, some primary anthropogenic factors have produced ecological and genetic effects contributing to extinction risk. These anthropogenic factors include the slave trade, warfare, bush burning, unnecessary

land development, overexploitation, species translocations and introductions, and chemical pollution. Man's predatory tendencies to maximize his benefit from the environment especially on animal populations generally referred to under the optimum yield theory in biology states that in fishing, shellfish collecting, and hunting activities total mortality increases with increased exploitation pressure. [34] Some of the principles of the optimum yield theory seems to explain some observed archaeological situations in the shell middens as they bear direct relevance to human exploitation strategies. The archaeological evidence suggests that *Canada senilis* was available in an appreciable quantity in the sites of Ogoloma, Ke, and Okochiri. Results indicate from field studies that this resource is scarce today but emphasize that it was a highly valued food resource in the past and was equally available[35] but was exploited to a point where extinction was inevitable in some areas.

The introduction of the factory and locally-made guns in the 16th century made a great impact on the animal population[36] Basden blames the depletion of the game in eastern Nigeria (which includes the upland part of Rivers State) upon the introduction of the gun. [37]

The formerly notorious Slave Coast from the 16th century to the Abolition of the Slave Trade in 1807, was a long coast-line that later comprised the Niger Delta. [38] The 19th century abolition of the Slave Trade dislocated the socio-political structure of the coastal City States due to the ill-understood demographic changes and their complex impacts. The states had to adjust to a change-over in the principal export from slaves to palm oil. Some of the changes that the coastal communities had to deal with included traffic with the hinterland, and the desire of Europeans to exploit the resources; the earlier points of European contact with natives for slaves became the points into the interior where slaves were once the products of exchange. The territorial structure of the eastern delta city-states maintained both economic and political rights delineated between tribal territory which is a compact area of estuaries, creeks, and waterways together with fishing grounds, mangroves, and forests, while the trading empire of each city-state contained the principal estuary or river, an anchorage for ocean-going shipping, where all European traders who wished to do business with the state resided in their trading vessels. [39] The trading empire of a state consisted of several

waterways leading into the hinterland and of the markets to which they provided access. The state did not claim political jurisdiction over these rivers or markets but maintained an exclusive monopoly of the trade between these markets and the European traders. Any trade with the outside world had to pass through its middlemen and not through those of other[40] sister states.

Before the 19th century when contact with European traders was limited to commerce in certain goods, the European supercargoes maintained no factories and could only remain for a short time due to the prevalence of tropical diseases. European influence on these trading states was only economic as the overseas slave trade had brought increased wealth to these city-states and increased the appetite for European imports and the control of this trade was instrumental to this. Jones records that the palm oil trade started with a boom, competition from mineral oil put an end to this by 1862. Transport difficulties prevented much of the hinterland oil from reaching the delta and prevented the delta states from increasing the volume of their trade to compensate for the fall in oil prices. The result of this in the Eastern Delta was competition between the different states to secure control of their rivals' principal oil markets which culminated in warfare between them, accompanied in the case of Bonny and Kalabari by a withdrawal from the coast to the northern margin of the delta closer to these markets. [41]

Conclusion

The proposition that man is a product of his environment by Hippocrates of Kos (460 - 377 BCE) is evident in the way Rivers people from both the upland and riverine have survived and thrived over many generations in this littoral state with a heterogeneous background. This study observed in detail the unique environment of the state and how the material culture of the people was fashioned in response to their environment. Most of the practices highlighted in this work have thrived from the pre-Colonial to the post-Colonial era and are still been practiced in many remote parts of the state, far from the capital city of Port Harcourt. These responses that are manifest in the social, political, and economic spheres have consolidated the intergroup relations of the diverse ethnic composition of the state and have made it easy for these groups to bond as fellow Rivers men and women under the Nigerian state.

References

Aisuebeogun, A., 1995. "The Port Harcourt Region: Landforms Characteristics of the Environment". Journal of Geographic Thought, 1(1), 10 – 14

Alagoa, E.J. and Tamuno, T.N. (eds.)., 1981. Eminent Nigerians of the Rivers State. Enugu, Nigeria: Heinemann Educational Books. ISBN 978129955X.

Alagoa, E.J. and Tamuno, T.N., (eds.)., 1989. Land and people of Nigeria: Rivers State. Port Harcourt, Nigeria: Riverside Communications. ISBN 9783033328

Alagoa, E.J., 2002. The land and people of Rivers State: Eastern Niger Delta. Nembe: Onyoma Research Publishers. ISBN 9783507559.

Amaury-Talbot, P., 1926. *The Peoples of Southern Nigeria: A sketch of their history, ethnology, and languages with an abstract of the a1921 Census.* Volume III Ethnology. London: Oxford University Press. Humphrey Milford

Ayotamuno. A., and Ekaka, E. N., 2017. "How has Population Growth and Demand for Housing Affected Land Use in Port Harcourt, Nigeria". Global Educational Research Journal. 5(3), 563-578, Spring Journals. USA

Ayotamuno. A., and Gobo A.E., 2016. "The Effect of Climate on Land Use and Land Use Cover in Spatial Development in Port Harcourt, Nigeria". Climate Change, The International Journal. Discovery Publication, 2(7). 223 -246. UK

Ayotamuno, A., Gobo, A.E., and Owei O.B., 2010. "The Impact of Land Use Conversion on a Residential District in Port Harcourt, Nigeria". Environment & Urbanization, an International Journal. International Institute for Environment and Development (IIED). 20(10), 259 - 264. UK

Basden, G.T., 1921. *Among the Ibos of Southern Nigeria*. London. Seely Service.

Benibo, T.D. and Orji, K.E., 2022. "The Impact of the Digital Revolution on the Practice of Diplomacy and its Effect on Foreign Policy", Icheke Journal of the Faculty of Humanities, IAUE Vol. 20 No. 1 March 2022.

BirdLife International., 2023. "Important Bird Area factsheet: Biseni forests". Downloaded from http://datazone.birdlife.org/site/factsheet/biseni-forests-iba-nigeria on 08/09/2023.

Eluwa, G.I.C., 1988. *Introduction to Historical Research and Writing*, Onitsha, Nigeria, African -FEP.

Etuk, E.H., Afangideh, M.E. and Uya, A.O., 2013. "Students' Perception of Teachers' Characteristics and Their Attitude towards Mathematics in Oron Education Zone, Nigeria." International Education Studies, 6(2): 197-204.

Forsyth, F., 1969. *The Making of an African Legend: The Biafra Story*. Middlesex: Penguin Books

Gullard, J.A., 1975. "Ecological aspects of fishing research" in *Advances in Ecological Research (ed.)* J.B. Craig. Academic Press. NY.

Heath, A., 2010. Approaches to understanding experience and knowledge. Carr, E.H., 1984. Global Discourse

Isirimah, N.O., Monsi A., Kinako P.D.S., 2010. Strategy for agricultural development in Nigeria: Focus on Rivers State. Port Harcourt: Belk Publishers.

Jones, G.I., 1963. *The trading states of the oil rivers: A study of political development in Eastern Nigeria*. International African Institute. Oxford: James Currey. ISBN 0852559186.

Kari, E.E., 2019. "The Languages of Rivers State of Nigeria: An Overview". Research Gate. *Retrieved 2023-09-01*.

Mitee, L.E., 2010. *Laws of Rivers State of Nigeria: an encyclopedic guide*. Luton: Worldwide Business Resources. ISBN 978-0956198815. (Full text via Google Books.)

Nduka, O.A., 1993. Studies in Ikwerre history and culture. Port Harcourt: Kraft Books. ISBN 9782081302.

Ngah N. and Youdeowei, P.O., 2013. Salinity depths in coastal aquifers of Niger Delta, South Nigeria. Resource Gate

N. Nzewunwa. 1980. *The Niger Delta: Aspects of its prehistoric economy and culture.* Cambridge Monographs in African Archaeology 1. B.A.R. International Series 75. Great Britain.

Ogan, C., 2005. Unity of a People: Search for Peace in Okrika, River State, Nigeria. Port Harcourt.

Salawu, A.S., 1993. A study of selected vernacular newspapers in Nigeria". Unpublished M.Sc. Thesis, University of Lagos

Tebekaemi, T. (eds.)., 1982. *The Twelve Day Revolution*, Benin City: Ethiope Publishing Company,

OTHER INTERNET SOURCES

"Rivers | state, Nigeria". Encyclopedia Britannica. *Retrieved 2023-09-01*.

Niger Delta Budget Monitoring Group. 2023. "Overview of Rivers State". www.nigerdeltabudget.org. Retrieved 2023-09-01

"Nigeria: Administrative Division". City Population. *Retrieved 2023-09-01*.

"Population of Cities in Nigeria 2023". worldpopulationreview.com. *Retrieved 2023-09-01*.

"List Of States In The Niger Delta Region Of Nigeria | TheNigerianInfo". 2020-04-18. *Retrieved 2023-09-01*

"Oil Rivers | region, Nigeria | Britannica". www.britannica.com. *Retrieved 2023-09-01*

"We celebrated the creation of Rivers State in exile and bushes... The Nation Newspaper". 2017-05-13. *Retrieved 2023-09-01*.

www.nierian scholars.com. https://nigerianscholars.com/tutorials/nigerian-federalism/sir-henry-willink-commission/. *Retrieved 2023-09-01*

[1] "Rivers | state, Nigeria". Encyclopedia Britannica. *Retrieved 2023-09-01*.

[2] Niger Delta Budget Monitoring Group. 2023. "Overview of Rivers State".www.nigerdeltabudget.org. Retrieved 2023-09-01

[3] "Nigeria: Administrative Division". City Population. *Retrieved 2023-09-01*.

[4] "Population of Cities in Nigeria 2023". worldpopulationreview.com. *Retrieved 2023-09-01*.

[5] E.E. Kari, "The Languages of Rivers State of Nigeria: An Overview". ResearchGate. *Retrieved 2023-09-01*.(2019)

[6] "List Of States In The Niger Delta Region Of Nigeria | TheNigerianInfo". 2020-04-18. *Retrieved 2023-09-01*

[7] "Oil Rivers | region, Nigeria | Britannica". www.britannica.com. *Retrieved 2023-09-01*

[8] Niger Delta Budget Monitoring Group. 2023. "Overview of Rivers State".

[9] "We celebrated the creation of Rivers State in exile and bushes... The Nation Newspaper". 2017-05-13. *Retrieved 2023-09-01*.

[10] www.nierian scholars.com. https://nigerianscholars.com/tutorials/nigerian-federalism/sir-henry-willink-commission/. *Retrieved 2023-09-01*

[11] T. Tebekaemi, ed., *The Twelve Day Revolution*, (Benin City: Ethiope Publishing Company, 1982) 122

[12] F. Forsyth, *The Making of an African Legend: The Biafra Story* (Middlesex: Penguin Books, 1969) 18

[13] E.H. Etuk, M.E. Afangideh, and A.O. Uya., "Students' Perception of Teachers' Characteristics and Their Attitude towards Mathematics in Oron Education Zone, Nigeria." International Education Studies, (6(2) 2013) 197-204.

[14] A. Heath., 2010. E.H. Carr., 1984. *Approaches to understanding experience and knowledge*. Global Discourse.(1984)

[15] G.I.C.Eluwa., *Introduction to Historical Research and Writing*, (Onitsha, Nigeria, African-FEP, 1988).

[16] T.D. Benibo, and K.E. Orji., "The Impact of the Digital Revolution on the Practice of Diplomacy and its Effect on Foreign Policy", Icheke Journal of the Faculty of Humanities, IAUE Vol. 20 No. 1 March 2022.

[17] A. Ayotamuno, A.E. Gobo, & O.B. Owei., "The Impact of Land Use Conversion on a Residential District in Port Harcourt, Nigeria. Environment & Urbanization", an *International Journal.* International Institute for Environment and Development (IIED). (20(10, 2010), 259 - 264. The UK.

[18] A.S. Salawu., A study of selected vernacular newspapers in Nigeria". Unpublished M.Sc. Thesis, University of Lagos. (1993)

[19] N. Ngah and P.O. Youdeowei., *Salinity depths in coastal aquifers of Niger Delta, South Nigeria*. Resource Gate (2013)

[20] BirdLife International. Important Bird Area factsheet: Biseni forests. Downloaded from http://datazone.birdlife.org/site/factsheet/biseni-forests-iba-nigeria on 08/09/2023.

[21] A. Aisuebeogun., The Port Harcourt Region: Landforms Characteristics of the Environment. *Journal of Geographic Thought*, (1(1) 1995), 10 – 14

[22] Salawu., A study of selected vernacular newspapers in Nigeria". (1993)

[23] Salawu., "A study of selected vernacular newspapers in Nigeria". (1993)

[24] Salawu., "A study of selected vernacular newspapers in Nigeria". (1993)

[25] Ayotamuno, Gobo, & Owei., 2010. *The Impact of Land Use Conversion on a Residential District in Port Harcourt,* Nigeria. (2010) 259 - 264

[26] P. Amaury-Talbot, *The Peoples of Southern Nigeria: A sketch of their history, ethnology, and languages with an abstract of the 1921 Census.* Volume III

Ethnology. (London: Oxford University Press. Humphrey Milford, 1926) 880-902

[27] Amaury-Talbot, *The Peoples of Southern Nigeria:* (1926) 880-902

[28] Amaury-Talbot, *The Peoples of Southern Nigeria:* (1926) 885

[29] Amaury-Talbot, *The Peoples of Southern Nigeria:* (1926) 891

[30] Amaury-Talbot, *The Peoples of Southern Nigeria:* (1926) 903

[31] Amaury-Talbot, *The Peoples of Southern Nigeria:* (1926) 906

[32] Amaury-Talbot, *The Peoples of Southern Nigeria: A sketch of their history, ethnology, and languages with an abstract of the 1921 Census (*1926.*)* 918

[33] Amaury-Talbot, *The Peoples of Southern Nigeria: A sketch of their history, ethnology, and languages with an abstract of the 1921 Census. (*1926.*)* p.919

[34] J.A. Gullard. "Ecological aspects of fishing research" in *Advances in Ecological Research (ed.)* J.B. Craig. Academic Press. NY. (1975). p. 115-176

[35] N. Nzewunwa. *The Niger Delta: Aspects of its prehistoric economy and culture.* Cambridge Monographs in African Archaeology 1. B.A.R. International Series 75. Great Britain. (1980). p.132.

[36] N. Nzewunwa. *The Niger Delta: Aspects of its prehistoric economy and culture.* (1980). p.147.

[37] G.T. Basden. *Among the Ibos of Southern Nigeria*. London. Seely Service. 1921.

[38] T.N. Tamuno. *Oil Wars in the Niger Delta: 1849 – 2009*. (Stirling-Horden Publishers Ltd. 2011) 1

[39] G.I. Jones. *The trading states of the oil rivers*: *A study of political developments in eastern Nigeria.* International African Institute. Oxford University Press. London. 1963. p.63

[40] G.I. Jones. *The trading states of the oil rivers*: *A study of political developments in eastern Nigeria.* 1963. p.65

[41] G.I. Jones. *The trading states of the oil rivers*: *A study of political developments in eastern Nigeria.* 1963. p.73