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Poverty Reduction in Nigeria's Niger Delta through Indigenous Enterprise: A Case Study of the Gin Industry

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ABSTRACT

This paper examines poverty reduction in the Niger Delta region of Nigeria through production enterprise with the domestic gin industry of the Niger Delta as a case study. The entrenchment of unemployment and poverty in the Niger Delta occasioned by the destruction of the traditional occupations of fishing and farming through petroleum oil exploration activity and the imperative to reduce poverty are in line with the current global call for sustainable resource use as a strategy to reduce the incidence of poverty globally. Aside palm wine which is distilled to produce gin, the manifold utility of the various species of raffia palms native to the freshwater swamps of the Niger Delta and their exploitation on a wider scale seem a viable strategy for employment generation, stemming rural-urban drift, improving the socio-economic lives of the people and ultimately reducing the incidence of rural poverty. Palm wine and the locally distilled gin popularly known with epithets and appellations like *Ogogoro, Sapele water, push- me-I-push-you, agbakara* to name a few, occupy important places in the cultural space of the Niger Delta. A large market exists in the Niger Delta and beyond for palm wine, gin and the by-products of the raffia palm made from piassava, bamboo, fronds and other parts. The paper argues further that due to increasing youth restiveness and the perennial disruption of oil production in the region, there is the need to reinvent the Niger Delta gin industry by establishing resource based cottage industries and the expansion of those in existence.

Keywords: Environmental degradation, Sustainable development, resource utilisation, gin production, poverty reduction.

Introduction

It is undeniable that alcohol is one of the most important substances ingested by human beings. It is the most widespread in use, and the most deeply embedded in diverse cultures. In fact, for centuries, alcohol has played prominent roles in the religious, economic and indeed cultural activities of African societies, Niger Delta inclusive. The brewing and fermenting of alcoholic beverages such as beer, spirits and wine sourced from locally grown crops and plants dates back to history- whether rum from sugar cane, whisky from barley, brandy from grapes, vodka from rye or *Ogogoro* from raffia palm wine. Alcoholic beverages are also fermented from millet, guinea corn, maize, plantain and others (Schler 2002).

The gin industry of the Niger Delta has not been accorded the attention it deserves, even though it provides an example *par excellence* of a sustainable and viable economic enterprise capable of reducing the incidence of unemployment and poverty in the Niger Delta region. This is not surprising. Centuries of trade in palm oil and kernels between Niger Delta and Europe meant that the palm oil industry was promoted above the gin industry. Also, the importation of European liquor affected the fortunes of the local gin industry. The colonial government's perception and labelling of local gin as "illicit gin" with a view to prohibit and preventing it from emerging as a competitor to foreign gin led to the promulgation of numerous legislations to outlaw its production, consumption and even to outlaw its production, consumption and even documentation (Korieh 2003). Prohibition legislations were relaxed only in the 1970s.Apparent neglect of the gin industry also stems from lack of adequate knowledge about the botany, physiology, agronomic values and method of cultivation of the raffia palm Although government has long recognised the usefulness of raffia palm and its contributions to economic development since the 1950s, its efforts in the conservation of renewable natural resources in Nigeria has not improved the renewability of raffia palm forest lands, as compared with the forest lands in the arid vegetation belts of Northern Nigeria. However, the establishment of the Forest Research Institute of Nigeria and the Nigerian Institute for Palm Oil Research heightened research into the various species of raffia palms found in Nigeria, when the government mandated the latter in 1964 to expand its research activities to include raffia palms (NIFOR 1971). Actual research started in the 1970s with the establishment of more raffia palm plantations such as the Raffia Sub-station at Onuebum, Rivers State and the Raffia Experimental Station at Otegbo, Delta State. Thus, official interventions have largely been directed towards research into raffia palms rather than their utilization for production.

The manifold utility, importance of raffia palms and the local gin in the economy of the Niger Delta obviously call for increased intervention by reinventing this enterprise which is popular in the wilds of the swamp forest as viable and alternative sources of poverty reduction in the Niger Delta. This is imperative in a region where petroleum oil exploration activities have left lasting negative vicissitudes of environmental degradation and ruin on the ecosystem and rendered many inhabitants unemployed and poor.

Theoretical Framework

The least cost theory of industrial location will be adopted as a framework of analysis to accomplish the objective of this paper. This theory has as its elements agglomeration economies, labour and transport costs. In adopting this theory, it is borne in mind that production involves the use of inputs to produce output in the form of useable goods. This theory attempts to explain location of enterprises in terms of the minimization of factor (input) costs such as raw materials that go into the production process with the aim of maximizing profits. Thus, the theory assumes that production activities having a high level use of raw materials should locate near supply sources. Alfred Weber's work entitled *Theory of the Location of Industries* (1999) is considered to have established the foundations of modern location theories. Subsequent works either built on or expanded Weber's theory.

Although location theories were formulated for advanced societies, they are of relevance to developing societies as well since human beings are generally rational in making decisions and choices whether in developed or developing societies. As Forae (2010) notes, the economics of the Niger Delta gin industry reveals that proceeds from distillation of gin and sale of palm wine were major sources of revenue or income among palm wine tappers and distillers. The gin and palm wine are also important elements in the cultural, religious and ritual activities of the people and beyond (Erivwo 1991; Ilega 2001; Olokor 2001). Gin is demanded by the urban and rural dwellers. Thus, the increasing business for profit nature of gin production led to the need to reduce production costs and to maximize gains by building distilleries in close proximity to the swamp forest. Optimum location consideration among distillers then is underscored by costs and benefits considerations: the need to economize on transportation of bulky raw materials as a result of shorter distance between inputs and the distillery. For example, costs are reduced by both distillers and palm wine tapper by ferrying large quantity of wood and palm wine to the distillation site thus economizing on transportation.

The need to locate close to sources of raw materials is also an economic consideration and rational choice among canoe builders and weavers. This is informed by the availability of economic timber in the drier portions of the swamp forest and the manifold uses to which the by-products of the raffia palms such as thatch, piassava fibre, bamboo, raffia, are put by weavers to earn a living. A large market exists in the Niger Delta for various hand woven raffia handicrafts. As the raffia palms are fairly dispersed in the wet forest, canoes are needed by distillers who double as palm wine tappers to reach the palm trees in order to tap and fetch the wine back to the distillation camps. Canoes are also needed by fishermen who sometimes double as palm wine tappers as they sell the wine to distillers. To this end, agglomeration economies are assumed to be derived from the cluster of ancillary occupations connected to the gin industry as this enables such activities to reduce costs. The need to maximize gains is directly related to labour requirements for gin distillation. Distillers benefit from cheap labour. Since distillation is a wholly family affair, every member of the family is involved in the enterprise; hence permanent shelters are built close to the distilleries.

The Incidence of Poverty in the Niger Delta

Poverty is one of the main symptoms or manifestations of underdevelopment and its reduction is generally considered synonymous with development (*Salmen* 1992). As an area of research and action-oriented subject, poverty is currently attracting varying degree of attention. This is in line with the new global call for sustainable development and the Millennium Development Goals (MDG). Among other aims, poverty alleviation remains one of the key focuses of sustainable development, while the eradication of extreme poverty and hunger constitute the first goal of the Millennium Development Project (*UN* 2004). Achieving this goal is pertinent to sub-Saharan African where on average 45-50 percent of the people live below poverty line - a much higher proportion than in any other region of the world except South Asia (*Mbaku* 1994). The incidence of poverty is so high at individual and household levels that an increasing number of Nigerians are finding it difficult to eat and clothe themselves. A recent survey by the Federal Office of Statistics shows that the incidence of poverty has increased tremendously since the mid1980s. The survey shows that about a third of Nigerians lived below the poverty line in 1992, while a United Nations Development Programme (UNDP) report puts it at 50 per cent in 1990. The survey also reveals that the incidence of poverty is greater in the rural than in the urban areas.

The Niger Delta problem has assumed a worrisome dimension with the insistence of its people on the control of petroleum oil resource owing to increasing marginalization and environmental degradation of the region which produces Nigeria's oil. Numerous studies, reports and findings on the Niger Delta problem indicate that the destruction of the traditional occupation of fishing and farming via pollution of rivers and farmlands through incessant crude oil spills has entrenched unemployment and poverty in the region. (*World Bank* 1990: *Aluyor* 1998: *Akobo* 1998, *Aluko 2004*). According to the United Nations Development Program (UNDP 2006), there were 874 reported significant cases of oil pollution between 1989 and 1999 in which marine life was completely destroyed in affected areas of Delta, Akwa-Ibom, Rivers, Cross River, Edo and Ondo States. A direct fallout or consequence from this is that most people whose main occupations are fishing and farming have thus been deprived of their means of livelihood. This affected thousands of farming and fishing families.

Aluko, (2004) notes that black substances (crude oil) covered the creeks, rivers and ponds, while many communities in the Niger Delta lost their fishing rights as all aquatic lives in those communities came to an end. Also frequent gas flares have resulted into deforestation while corrosive erosion has been traced to the oil exploration and protection activities of the multinational oil companies such as Shell and Chevron**.** Thus, majority of the people have not only been deprived of their means of livelihood, but increasing restiveness of the youthful population has resulted into kidnapping activities, disruption of oil production and general insecurity in the region. The magnitude of the problem call for concerted efforts in tackling poverty with a focus on reinventing and diversifying the local gin (*Ogogoro*) distillation industry of the Niger Delta which is a natural outgrowth due to the abundance of raffia palms in the vast fresh water swamps of the delta.

The Physical Environment, Geographical Distribution and Morphology of the Raffia Palms

The Niger Delta region is home to coastal and inland peoples such as Ijo, Itsekiri, Efik, Okrika, Urhobo, Isoko, Ibibio, Kalabari, Andoni among others. It is the largest wetland in Africa, third in the world covering an area of approximately 70,000sq.km (Alagoa 1999). Along the coast, it extends from the Benin River in the west to the Bonny River in the east. It is a low lying area riddled with an intricate system of natural water channels through which the Niger River finds its way into the Atlantic Ocean. It is divided into Western, Central, Eastern Delta and the Cross River Valley (Alagoa 1972). The division has eased discussion of its history as the activities of its inhabitants are dictated by the physical environment. The entire region is distributed in physical terms into 4 geographic belts namely; mangrove swamps, coastal and sandy beach ridges, upper delta and freshwater swamp.

Mangrove Swamps occur south of the fresh water swamps and are uninhabitable with a black silt soil poor in nutrients. Mangrove trees with silt roots are the commonest plants, though other tropical woods are to be found on the few high and forested grounds. Periwinkle, reeds and floating aquatic plants like lilies, grasses and of recent water hyacinth characterize this belt. The greatest asset of this belt lie in its marine resources which has come under increasing environmental degradation such as crude oil spills. The coastal and sandy beach ridges zone lies very close to the open sea. Fishing is also prominent with numerous cluster of huts used as fishing outposts. The upper delta belt is the area north of the fresh water belt which merges into non-deltaic landmass. It is the driest portion of all the belts. It comprises of dense human settlements with farming the main activity of its inhabitants due to its fertile lands.

The fresh water swamp belt stretches northwards from the mangrove swamps to the apex of the Delta. It is marked by tropical rainforest and freshwater swamps which are either flooded seasonally or permanently due to heavy rainfall and the water logged 'hydromorphic' soil type characteristics of this belt. The various species of raffia palms proliferates naturally in this environment (Russel and Tuley1966). Economic timber and the common African oil palm, *Elaisguineensis* also occur in the low-land rainforest. This belt is quite extensive covering large parts of Delta Central and South senatorial districts, large parts of Ekeremor and Southern Ijo axis of Bayelsa State, parts of Rivers, Akwa-Ibom and Cross River States. Patches of freshwater swamps can also be found in all parts of the Niger Delta. In fact, the Niger Delta is one of the world's most expansive freshwater swamps.

Raffia palms presence in the Niger Delta dates back to history (Shaw 1972). However, it was in the mid 18th century that botanists documented their presence as the dominant elements of the flora of the swamp forest (Otedoh 1981). About 20 species of raffia palms are found in tropical Africa, of which 6 are indigenous to the Niger Delta. These are: *Raphia hookeri, Raphia vinifera, Raphia regalis, Raphia longiflora, Raphia manni* and *Raphia Africana* (Keay 1985). Raffia palms have both the longest and well developed leaves in the plant kingdom as mature fronds may reach between 12-14 metres in length (Hutchinson and Dalziel 1936). The young unexpanded 'spear' leaflets (raffia) which is usually bright green above and grayish beneath may reach 1.6 metres in length depending on the species is of great economic importance. Unlike mature fronds, they are usually erect but bend over in a

complete semi-circle when mature. *R. hookeri* is popularly called the palm wine raffia because it yields a higher quantity of wine when tapped than other species, while R. *vinifera* and *R. regalis* are popular for their strong and arching petiole (bamboo). Apart from palm wine and bamboo, other raffia palms produce good piassava fibre, especially *R. hookeri* and *R. vinifera*. Piassava fibres are hard and durable and they originate from the leaf sheath. In fact, *R. hookeri* is distinguished by thick and tangled mass of piassava fibres on almost its entire trunk especially the upper part and leaf bases. (See figure). The trunk of the raffia palm may take between 5 to 10 years to reach maturity depending on the species. However, there are early maturing and quick growing species. The ripe fruit of the raffia palm is scaly, cylindrical ellipsoid to top-shaped and may measure between 8 to 10cm long and chest nut coloured. The fruits like all other parts of the raffia palms are utilized in a variety of ways. Raffia palms are propagated by seeds, though some species like *R. vinifera* can also be propagated by suckers (Russel and Tuley 1966). The inflorescences of the raffia palms bear both male and female flowers and they grow from the base (head) of the spear leaflets. A tapper cuts the base of the spear leaflets of the matured palm with a tapping knife. The sap (wine) begins to trickle after a few hours. A receptacle is usually placed below the opening to collect the run-off. Raffia palms are tapped twice a day and continuously for about 2-3 months. Each tapping process yield between 5-20 litres of wine daily per palm depending on the tapping duration, climate and species (NIFOR 1975, Ogidigben 2006).

Source: Field Study, 2012

The Gin Industry and Poverty Reduction

Palm wine and gin are products of the raffia palm. The wine is a natural clear colourless liquid or juice and when freshly tapped contains 10-12% sugar (Ogbonda 2000). It is an essential traditional requirement at the ceremony of dowry payment. It is consumed at community gatherings and during festivals. It is also poured as liberation to appease the gods and the dead; for social entertainment and as a leisure beverage. Apart from serving the above functions, native gin is widely regarded among Niger Deltans as the chief beverage for entertainment and as morning "pepper soup". The wet environment of the Niger Delta also encourages drinking. The inhabitants of the Niger Delta have long appreciated th*e* therapeutic properties of herbs, roots, barks of trees and plants. When added to gin and ingested, they are believed to serve both preventive and curative purposes to a number of diseases and ailments. There is a vast internal trade in palm wine and native gin as traders are seen in various gin distillation camps where they collect and load drums of palm wine and gin in chartered Lorries bound for many urban centres in Nigeria.

Apart from palm wine and gin, raffia palms are exploited for their raffia, bamboo, fronds, piassava, fibre, fruit, trunk, roots and edible maggots. These products are of great socio-economic importance. The epidermal strips of the raffia are peeled off and dried in the sun after which they acquire a pale straw colour. The dried strips are twisted and used as twine for the local mat weaving industry. They are also used to produce sack for processing cassava, a staple crop in the Niger Delta. The petiole (bamboo) is useful in the following ways. The entire pole is used as the roofing structure of thatch houses popular in the Niger Delta. It is also used for constructing local bridges in many coastal communities and for making fishing rods. The hard outer fibre of the bamboo is useful for weaving a traditional sieve for separating fibres from dried oil palm nuts before cracking and for weaving baskets and fishing traps.

Among the Ijo, Isoko, Urhobo and other tribes of the Delta, the fibre is used for making traditional kitchen shelves where fish and bush animals are smoked and where palm kernels are dried before cracking. The pithy inner tissue of the petiole is important in the mat weaving industry. From this, beautiful and multi coloured mats are produced often with dyed and dried raffia strips (twine). A thriving and extensive market exists for locally woven raffia mats in the Niger Delta and beyond as they serve a variety of purposes such as temporary shelters for market stalls, for spreading tapioca in the sun among other traditional uses. The people of Ikot-Ekpene used to export fine and lavishly decorated locally manufactured raffia products to South Africa and Europe (Stevens 1945; Bailey 1947). Thatch obtained from the fronds of the palm is of great socio-economic importance. Its main uses include thatch for roofing residential houses, local market stalls and bicycle repairers sheds. Piassava fibre is used for weaving a variety of fish traps, while it serves as rope for tying bundle of firewood, fencing and for fastening traditional instruments used for tapping palm wine. The mesocarp of the ripe fruit of the raffia palm is eaten when boiled or made into a pulp for stupefying fish in order to get a large catch. It is also believed by the people of the Niger Delta that the dried seed of the raffia fruit has huge therapeutic values when ground and it is effective in treating a variety of illnesses such as fever, spleen disorders, swollen legs, boils and to get rid of flatulence among many other ailments (Atalawei 2011, Duophere 2012). Oil is also obtained

from the palm nuts for human and industrial needs. The root of the raffia palms is used by traditional healers for treating abdominal pains and for general body pain (Atalawei 2011). Raffia pulp, obtained from raffia trunk is reputed to have high fibre content, thus useful for the commercial manufacture of paper. In fact, the authors were shown samples of paper and paper products made from the pulp of raffia at NIFOR. The live and decaying raffia palm yield different types of edible maggots such as the larvae of rhinoceros beetles, *Oryctes spp* and the *Rhynchoporus* species. They are fried or smoked and eaten with tapioca as a local delicacy.

To this end, efforts should be geared towards establishing numerous resource-based cottage industries. The following enterprises can be established from raffia palm products: preservation and bottling of raffia wine, yeast extraction from palm wine for confectionary and health purposes, large-scale distillation of ethanol for industries, schools, laboratories and medical uses, wide-range brush and handicrafts enterprises, raffia palm oil extraction for human and industrial needs, pulp and paper manufacture, jute bag manufacture among many other enterprises.

Conclusion

From the foregoing, it is discernable that the domestic gin industry is a viable enterprise for reducing the incidence of poverty in the environmentally degraded Niger Delta. This is in line with current initiatives in proper resource utilization as a means of eradicating extreme poverty globally. The indigenous gin industry is an example *par excellence* of an enterprise capable of meeting this global challenge. Although raffia palms have been recognised as economic resources and, as potential contributors to economic development, much has not been done to improve its fortunes by way of utilization for economic development. The vast resource base and the manifold utility of the raffia palm impose the imperative to develop the gin industry including the ancillary activities connected to it, to reduce the incidence of poverty currently bedevilling the Niger Delta in the 21st century.

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