



Munich Personal RePEc Archive

**"Rubber will not keep in this country":  
Failed development in Benin, 1897-1921**

Fenske, James

University of Oxford

21 April 2011

Online at <https://mpra.ub.uni-muenchen.de/30328/>  
MPRA Paper No. 30328, posted 21 Apr 2011 12:04 UTC

# **“RUBBER WILL NOT KEEP IN THIS COUNTRY”: FAILED DEVELOPMENT IN BENIN, 1897-1921**

JAMES FENSKE<sup>†</sup>

**ABSTRACT.** Although Nigeria’s Benin region was a major rubber producer in 1960, the industry developed slowly. The colonial government encouraged rubber production from 1897 until 1921, when it abandoned the industry as a failure. I explain why rubber did not take hold in this period. The government was unable to protect Benin’s rubber forests from over-exploitation. Expatriate firms were reticent to invest in plantations, and private African plantations remained small to 1921. The colonial government promoted the development of “communal” plantations, but these suffered from labor scarcity, a weak state, limited information, and global competition.

## 1. INTRODUCTION

Why does development fail? Institutions, information, and inequality all figure highly in the uneven success of efforts to promote new technologies in Africa. Institutions such as property rights affect investment incentives. In West Africa, this is particularly true for the adoption of tree crops (Besley, 1995). Information matters. Learning about a new crop takes time, and individuals learn from their neighbors through social networks (Bandiera and Rasul, 2006; Conley and Udry, 2010). Individuals may free-ride on the costly experimentation of others, and will adopt a “wait and see” approach that slows diffusion (Foster and Rosenzweig, 2001). Planners are often prejudiced and misinformed. Many colonial projects, including the Office du Niger, forestry management in Guinea and Nigeria, the East African Groundnuts Scheme, terracing in Kenya and Tanzania, and the Thaba-Tseka Project in Lesotho, floundered because officials misunderstood the local environment (Beusekom, 2002; Bromund, 1997; Fairhead and Leach,

---

<sup>†</sup>DEPARTMENT OF ECONOMICS, UNIVERSITY OF OXFORD

*E-mail address:* james.fenske@economics.ox.ac.uk.

*Date:* April 15, 2011.

I would like to thank my advisors Timothy Guinnane, Benjamin Polak, and Christopher Udry for their guidance. I am also grateful to Dickson Oriakhi, Benson Osadolor, Uyilawa Usuanlele, Pauline von Hellermann, Charlotte Walker and to the participants of the Yale Economic History lunch and the IIAS Conference on “Understanding African Poverty in the Longue Durée” in Accra for their comments and advice. Archival research for this project was made possible with support from the Coca Cola World Fund at Yale, the Georg W. Leitner Program, the John F. Enders Fund, and the Economic Growth Center at Yale. I would also like to thank Joseph Ayodokun (victoria005@yahoo.co.uk, <http://www.toperesearchnigeria.com/>), Monday Egharevba, and Amen Uyigüe for their valuable research assistance. In addition, I owe many thanks to Isiaka Bakare and the staff of the Rubber Research Institute of Nigeria for their considerable logistical support in collecting oral histories that are part of my larger project on rubber in Benin.

1996; Ferguson, 1990; Maack, 1996; Mackenzie, 1998; von Hellermann, 2007). Inequality too matters. African participation in many “successful” colonial industries was compelled. Poll taxes often created the supply of migrant laborers (Arrighi, 1970). Mozambiquan peasants who refused to produce cotton were threatened with forced labor and deportation (Isaacman, 1996). Many early coal miners in Enugu were slaves whose masters appropriated a share of their wages (Brown, 2003). In this paper, I show how institutions, information, and inequality hindered the development of rubber in Benin to 1921.

In 1961, Nigeria was Africa’s largest (and the world’s 6<sup>th</sup> largest) producer of natural rubber (faostat.fao.org). Rubber production underwent a substantial boom during the Second World War; Nigerian exports rose from 3,135 tons in 1938 to 10,518 tons in 1945, and continued to grow afterwards, reaching 57,167 tons on independence in 1960 (Anschel, 1965). The bulk of this production was in areas formerly under the control or influence of the Benin Kingdom. After conquest in 1897, despite colonial encouragement, rubber was slow to develop. In 1921, Nigeria exported only 85 tons, and the colonial government officially abandoned its support of the industry. Motivated by low producer prices and Britain’s global policy of reducing rubber acreage, the incoming Director of Agriculture wrote that his department would cease distributing seeds to “ordinary farmers,” since it was “not desirable that we should appear to in any way be advocating the planting of this product” (Anschel, 1965, p. 51).

This failure contrasts with rubber’s later success. Benin was suitable for rubber, but took decades to adopt it fully.<sup>1</sup> It also contrasts with other Africans’ rapid adoption of new crops in other cases. New world crops such as maize and cassava were assimilated quickly (Jones, 1959; McCann, 2005). Under colonial rule, smallholders eagerly planted cocoa in southwestern Nigeria and Ghana (Austin, 2005; Berry, 1975), and cash crops had to be suppressed in East Africa where African cultivation threatened settler interests (Brett, 1973; Mackenzie, 1998). Africans today readily apply their specific ecological knowledge to changing economic circumstances and opportunities (Amanor, 1994). Why was Benin different?

Neither prices nor government disinterest are explanations. Nominal prices were roughly 17% higher during the post-war rubber boom (1946-1960) than from 1900 to

---

<sup>1</sup>Brazilian *Para* rubber thrives best with 1900-2000 mm of rainfall per year, temperatures between 24 °C and 32 °C, deep fertile soil, and altitudes below 300 m (Okpeke, 1992). Mid-Western Nigeria fits these conditions closely. In present-day Edo state, rainfall averages 1,500-2,500 mm annually, and the typical diurnal temperature range is from 22 °C to 36 °C. Benin City is at an altitude of 79 meters. The Acting Colonial Secretary reported in 1907 that “there are large tracts of country admirably suited for growing rubber.” (Southern Nigeria Annual Report for 1907.)

1921,<sup>2</sup> but annual physical output was more than 35 times greater during the later period.<sup>3</sup> Further, production steadily rose from 1932 to 1939, when prices averaged a meagre £37 per ton. Before 1921 the government had encouraged collection of wild rubber, private African plantations, communal African plantations, and European plantations.

I divide my explanation into separate treatments of wild and planted rubber. I argue that wild rubber failed because, after undermining Benin's pre-colonial political and chieftaincy structures, the colonial government could not create property rights institutions to adequately manage exploitation of Benin's wild rubber resources. What could have been a regulated common property resource degenerated into open access, and the region's endowment of *Funtumia elastica* was over-exploited. I further argue that private plantations of *Funtumia* and *Para* rubber failed to take off because potential African and European planters faced high labor costs and lacked the information needed to give them confidence in their future profits. British encouragement of "communal" plantations suffered due to labor scarcity, limited state resources, difficulties in transmitting skills and information, and low returns. Further, the benefits of these plantations did not accrue those whose labor was necessary for their success.

I proceed as follows. In Section 2, I provide background on the world rubber trade to 1921, on Benin, and on the primary and secondary sources used for this study. In Section 3, I show how Benin's untapped forests of wild rubber helped motivate British conquest, I describe the regulations created by the the colonial state to protect these, and I outline the reasons why the British failed to successfully police their exploitation. In Section 4, I discuss the failures of plantation rubber, and deal with European, African, and communal plantations in turn. I show that Europeans largely refrained from production. I argue that African plantations were few in number. I provide evidence of the challenges faced by the communal plantations. In Section 5, I conclude.

## 2. BACKGROUND AND SOURCES

The vulcanization of rubber in 1843 made it useful for hoses, tubing, springs, washers, diaphragms, and other industrial uses, spurring demand that was accelerated by the later spread of bicycles and automobiles (Harms, 1975). UK rubber consumption rose from 608 tons in 1851 to 10,983 in 1900 (Woodruff, 1955). By 1921, England imported 42,100 tons of rubber (Rae, 1938). From 1860 to 1910, the Amazon basin accounted for some 60% of world rubber output (Barham and Coomes, 1994, p. 80). In 1872, Henry Wickham smuggled 70,000 rubber seeds out of Brazil with the help of the British consul; these went via Kew to Ceylon, and on to Southeast Asia (Resor, 1977). In 1910, Southeast Asia exported 9,544 tons of rubber; in 1921, this figure was 238,040 tons (Voon, 1976).

<sup>2</sup>Anschel (1965) gives price figures that average £153 per ton from 1900 to 1921, and £179 per ton from 1945 to 1960.

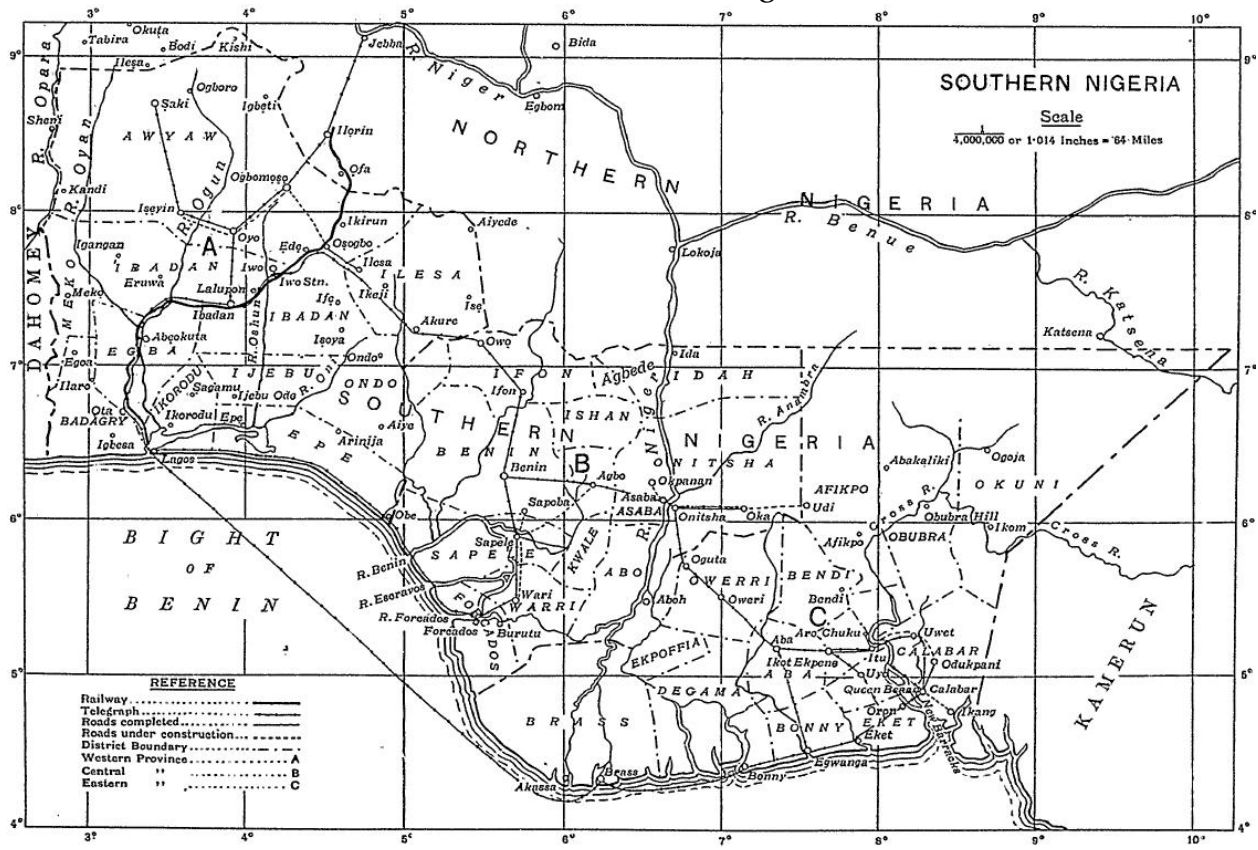
<sup>3</sup>25,884 tons versus 701, on average (Anschel, 1965).

Before Asian supply ended the period of high prices, Africans exported wild rubber. From 1890 to 1905, the Gold Coast was the largest producer in the British empire (Dumett, 1971). This came from *Funtumia* trees and *Landolphia* vines in the forests north of Cape Coast. In Upper Guinée, the rubber trade went through two historical phases (Osborn, 2004). From 1880 to 1901, local collectors and Muslim traders exported their product through British-controlled Freetown, while after 1901 European merchants entered and redirected the trade to Conakry. Twenty-six companies were floated in Britain to invest in (mostly wild) rubber production in West Africa between 1905 and 1914, but the colonial office was hostile towards creating monopolies for the collection of wild rubber, while expatriate firms suffered from inadequate financial and managerial resources (Munro, 1981). In East Africa, 22 companies were floated (Munro, 1983). These largely planted *Ceara* rubber in Kenya and Tanganyika, and *Para* in Uganda. These suffered from high labor costs and low yields, and investors did not fully anticipate the negative price effects of Asian production. During the 1880s, the governor of Lagos imported Fanti tappers to promote rubber production. Output, however, peaked in 1896 and then declined. British officials blamed overtapping and cutting down of trees, some 75% of which had died by 1899. Omosini (1979) blames the pervasiveness of slaughter-tapping on the example left by the Fantis and the failure of the colonial office to properly instruct Yoruba tappers. In the Congo Free State, company agents took hostages to ensure rubber quotas were met and cut off of hands to account for cartridges used (Hochschild, 1998). The records of Abir, a concessionary company, suggest that by 1905 Congolese rubber supplies were largely exhausted (Harms, 1975).

In this paper, I focus on rubber production on the area once under control of the Kingdom of Benin. This coincides roughly with the Benin District depicted in Figure 1. The Edo-speaking state was a major regional power, but the state became isolated from the coast during the palm oil trade of the nineteenth century. In 1897, following the massacre of an expeditionary party led by Consul-General Phillips, the British sacked Benin City. Benin was part of the Niger Coast Protectorate until 1900, Southern Nigeria until 1914, and Nigeria thereafter.

Though rubber was important to Benin's late colonial economy, the industry has received little academic notice. Anschel (1965) and Blanckenburg (1965), in a dissertation and in a short report respectively, describe the industry as it was in 1965. Egboh (1985) briefly outlines the history of rubber in Nigeria as a whole, within a larger work on Nigerian forestry. Afigbo (1970) describes the regulations on rubber tapping as part of Ralph Moor's policies for the development of Southern Nigeria. Igbafe (1979) gives a few pages to the early industry in his discussion of Benin's colonial history. Usuanlele (1988), similarly, gives a few pages to the communal plantations. I add to these accounts, using

FIGURE 1. Southern Nigeria



Source: Southern Nigeria Annual Report for 1907.

colonial annual reports, records of the West African Lands Committee (WALC), and correspondence from the National Archives of the United Kingdom (NAUK) in Kew and the National Archives of Nigeria in Ibadan (NAI).

### 3. WILD RUBBER

While Europeans stressed humanitarian motives and removing the tyranny of the Oba (king) as motives for the conquest of Benin in 1897, Igbafe (1970) has shown that economic motives played an important role. Little can be added to his argument here, except to note that traders in the region and British officials noticed Benin's untapped rubber resources, were dismayed at the lack of local production, and hinted that regime change would bring them into production. In an 1892 report, the Commissioner of the Niger Coast Protectorate wrote to the Foreign Secretary that "[t]here is plenty of rubber in the country, but the natives have a great disinclination to start working a new commodity."<sup>4</sup> One trader in 1896 reported to the Liverpool chamber of commerce that the Oba would not allow his own people to crack kernels, sell gum, or collect rubber, and turned back British traders who endeavored to open up the trade (Ofonagoro, 1979,

<sup>4</sup>NAUK, FO 2/51. Enc. in Jan 12, 1893: Macdonald to Rosebery.

p. 149). Miller's agent at Ughoton informed Acting consul Phillips in 1896 that, while there was "plenty" of rubber produced in the country, he was unable to get a "rubber man" from Cape Coast to collect it in any quantity, since he would not go far from Ughoton, having been twice "maltreated while away in the bush" (Ryder, 1969, p. 277). In the same letter, he hinted that if "Benin was under proper Government and the resources of the country properly developed, [he was] firmly of the opinion that the exports would be very great."<sup>5</sup>

In 1896, a man from Lagos went to see the Oba on the advice of Moor, the new Commissioner, "chiefly with a view to asking the King to start the 'rubber' industry, the country abounding in that product." Phillips reported that the man "made presents to the King to the value of over £30, but the results of his mission have been nil." He warned the Under-Secretary of State for the Colonies that his instructions "to deal with this matter by pacific means have been literally obeyed and have failed to produce the results desired."<sup>6</sup> In November 1897, soon after the fall of Benin, Moor reported the 25% increase in rubber exports to be "satisfactory," adding "and I anticipate considerable increase in the future as much trouble has been taken to open up rubber production...A rich country has been opened up to the influence of civilization and trade, containing extensive rubber forests."<sup>7</sup>

In this section, I outline the trade in wild (mostly *Funtumia*) rubber that followed this opening. I argue that the new government could not police over-exploitation of Benin's rubber resources. First, it lacked the resources to adequately police tapping. Second, it undermined the existing systems of property rights, and was unable to replace them with foreign regulation.

In the period immediately after conquest, the fugitive chiefs Ologboshi and Abohun launched a guerrilla campaign from the bush, and the British worked to impose their authority. Amidst this confusion, the government struggled to police exploitation of rubber by Yoruba and Fante tapping gangs and by the Royal Niger Company, who sought to take advantage of the change in political regime. This was part of a larger move of Hausas and Yorubas into the Anambara valley and Cross River territories, backed by the armed forces of the Royal Niger Company (RNC) and over local opposition (Ofonagoro, 1979, p. 89, 122). On February 24, Moor reported that six "Accra men, captured in the Mahin country rubber collecting during the last few months, came in from the bush heavily ironed," meaning that some of these incursions had begun even before the city's fall.<sup>8</sup> The British believed these outsiders were aiding Ologboshi and Abohun. Fosbery reported that "undoubtedly all the rubber cutters in that part of the country were in his favour, and on the day of the first engagement our men were cursed from the bush by

<sup>5</sup>NAUK, FO 2/102: 24 Nov, 1896: Phillips to Under-Secretary of State; Enc: 9 Nov, 1896: Brownridge to Phillips.

<sup>6</sup>NAUK, FO 2/102. 16 Nov, 1896: Phillips to Under-Secretary of State.

<sup>7</sup>Niger Coast Protectorate, Annual Report for 1896-7.

<sup>8</sup>NAUK, FO 881/7002: Feb 24, 1897: Moor to Salisbury.

Yorubas.”<sup>9</sup> Later on, he met a man called Deji, living at Isua. “This man’s residence,” he noted, “was undoubtedly the head centre of all the Yoruba rubber cutters in that part of the district; both these men were arrested, with several of their followers.”<sup>10</sup>

The Royal Niger Company took advantage of the removal of the Oba to expand into Benin territory. RNC agents moved into subject towns, encouraging them to ignore the British officers in Benin City, in order to divert trade. Moor reported that, during the expedition against Ologboshi, arms and ammunition had “found their way into the disaffected area from the territories of the Royal Niger Company, and were no doubt exchanged for the rubber.”<sup>11</sup> It was his belief that there had been a “a general league between the rebels, the local inhabitants, and the Yorubas who were in the territories as traders in rubber.”<sup>12</sup> While some of the rubber trade had managed to find its way into Benin City, the majority he believed had been pushed into the territories of the RNC, whose mark had been found on kegs of powder held by the guerrillas. Rubber continued to bleed into RNC territory after this; the defendants in *Regina v. Akonweli, Odutala, and Ola*<sup>13</sup> claimed to be employed by a man named Omoli, living in RNC territory, who had sent them to Ipoki to work rubber.

Intensive tapping by these outsiders raised yields but damaged the trees. In a situation that had quickly come to resemble open access, the predictable result was degradation of the resource. This was the principal challenge faced by the British in dealing with wild rubber. In 1901, the Resident recalled that it was “deplorable to see what destruction was wrought by the foreign element some years ago around Ibewhe. Dead rubber trees can be counted by the hundred.”<sup>14</sup> Fosberry expressed concern that the Yorubas had killed many of the local *Funtumia*, but also described his hope that the recently enacted rubber regulations (described below) would improve the situation:

The bush passed through between Iho and Isure, Isua and Ihuekpe has been a very rich rubber country, but I regret to say is now full of dead rubber trees. ... Close to Deji’s house at Isua there were steps down an incline made of a dead rubber tree. The natives stated they never worked rubber, that it was done entirely by the Yorubas. I expounded the rubber regulations on every available opportunity, and urged the people to protect the riches of their country. ... This rubber has of course been a great source of

<sup>9</sup>Benin Territories Expedition Correspondence 1899: Enc 4: Report on Expedition against Ologboshi and Abohun by Fosberry.

<sup>10</sup>Benin Territories Expedition Correspondence 1899: Enc 4: Report on Expedition against Ologboshi and Abohun by Fosberry.

<sup>11</sup>Benin Territories Expedition Correspondence 1899: #1: May 27, 1899: Moor to Chamberlain.

<sup>12</sup>Benin Territories Expedition Correspondence 1899: #1: May 27, 1899: Moor to Chamberlain.

<sup>13</sup>NAI, Ben. Prof. 8/2/1, Case Book 1898-1899.

<sup>14</sup>NAUK, CO 520/7, 26/2/1901: Resident Benin City to Moor.



revenue to Ologboshi, and I am certain a good deal of it found its way to Benin City.<sup>15</sup>

British efforts to restrict tapping began with “makeshift” regulations, imposed in 1897 “to stop foreigners entering the Benin country for the purpose of working the economic products therein.”<sup>16</sup> These have been outlined by Afigbo (1970). Foreigners, defined as those not speaking Edo as their mother tongue, were required to obtain licenses from the Resident every 6 months for a fee of 10s. Further, the regulations prohibited all persons from “tapping rubber trees in such a manner as to permanently damage them or to interfere with their future yield.” The “Chiefs of the districts” were made responsible for supervising adherence to this rule, and were to be awarded half penalties in all cases of conviction. The colonial office was unsure whether these regulations were legal; one margin note (signed HBL on April 10, 1899) read, “I do not quite see how these regulations have the force of law. They appear to be Queen’s Regulations made without the Queen’s consent.” Another note (signed by RW, on May 6) pointed out that it was unclear if Queen’s Regulations made under the Africa Order in Council 1889 could be enforced against Lagos persons. These legal niceties did not prevent Fosbery from promoting the regulations during his operations against Ologboshi.

According to Igbafe (1979, p. 340-342), rubber inspectors were sent out to explain these regulations. Forestry Inspectors trained local boys in tapping, who were given licenses and would then pass their knowledge onto others. Local men with influence were appointed to assist the village chiefs in policing violations. Later, a tax of 20% was imposed on rubber worked by foreigners, split evenly between the “owners of the land” and the colonial government. License holders were required to plant rubber seeds where they worked.

The prosecutions under these regulations tell us about the foreign tappers who moved into Benin, and the difficulties involved in enforcing them.<sup>17</sup> First, it is clear that enforcement required active policing by colonial staff such as the forest guards who apprehended violators. Second, the work of these officials required the cooperation of local communities. Third, tappers often operated in large gangs, even if a few violators could be apprehended, many would escape into the bush. Together, these suggest that policing rubber tapping was difficult. Finally, the court was quite eager to use punitive sanctions to prohibit unlawful exploitation of forest products.

Apprehending violators was difficult and required active policing. The defendant in *Regina v. Olowo* had been trained by the Government rubber inspector to work rubber; he and four others had been sent out six months earlier and not seen since. Though he was arrested along with three others in Owedou, three of his other accomplices had

<sup>15</sup>Benin Territories Expedition Correspondence 1899: Enc 4: Report on Expedition against Ologboshi and Abohun by Fosbery.

<sup>16</sup>NAUK, CO 444/1, 5 March, 1899: Moor to Under-Secretary of State. “Margin notes” are also cited from here.

<sup>17</sup>All of the cases cited here are from NAI, Ben. Prof. 8/2/1, Case Book 1898-1899.

escaped. He and his brother had worked together, the defendant selling his product “for a piece of cloth,” and his brother for 7/6. He was sentenced to one month of hard labor. Quality too had to be policed. Regulations passed over the objections of the European trading firms in 1897 allowed for confiscation of adulterated rubber, with fines of up to £50 with six months imprisonment for violation (Igbafe, 1979). In *Regina v. Osufu Jebu, Sumola, and Bakari*, the prosecution witness (a Captain) stated that he found Osufu Jebu at Udo, carrying adulterated rubber towards Lagos – this was produced in court and “found to be adulterated and very offensive.” The prisoners claimed they had bought the rubber in Benin City and did not know it was adulterated. They were imprisoned with hard labor for six months, and the rubber was destroyed.

Community cooperation was necessary. The same Captain told the court in *Regina v. Jegidi and Agbi* that, while in the same area, the residents of Obahon informed him that the defendants were cutting rubber. They claimed to be from Umapa, but “the natives of that village,” told him that they had never seen the men before. The Captain was also the prosecution witness in *Regina v. Ground Nut, Jack, and Josiah*. The defendants in that case had been arrested by the headman of Rejain with “a lot of tools etc. used for working rubber.” The Captain told the court that he had previously instructed the headman to arrest all those cutting rubber without a license. Their sentence was two years imprisonment with hard labor. In addition, the court noted that Ground Nut was a Mendi (likely Mende, from Sierra Leone) who had deserted government service and was charged with raping a small child.

Monitoring was made more difficult by the size of tapping gangs. The defendant in *Regina v. Thomas Ouami* was charged with being the headman of a gang of illicit rubber workers. The chief prosecution witness, T.A. Moses, a rubber inspector, told the court that he found the prisoner in the act of working rubber with a large gang of men under him. On recognizing Moses, Ouami ordered his men to escape at once, begged Moses not to report him to the Consul, and offered him a bribe. He later sent three men who lived in the same house in Benin City to “beg” Moses not to report him. Ouami’s undoing was his claim that he had asked the three men to ask Moses to serve as an interpreter for him in an upcoming debt case; this contradicted their testimony. The acting resident also considered a prior record against the defendant for obtaining money by false pretences as evidence of his bad character (for which he had received 6 months hard labor and a dozen lashes), and sentenced him to 9 months of hard labor.

In *Regina v. Ipapa, Ehenua, Obasuye, Asaota, and Jegede*, the defendants were described as “a portion of a gang of 150 who were surprised by the Yorubas of the town working rubber near Okiewo.” They were found with rubber just collected in a calabash and rubber gouges, and were sentenced to 1 year hard labor each. The defendant in *Regina v. Jagbohun* was charged with not leaving Benin territory, after the court had found him guilty of “complicity with illicit rubber workers,” and ordered him to vacate the area within three days or face imprisonment. Ten days later, he was brought down

from Isua, pleading that he was in fact trying to catch some illicit rubber workers. The incredulous Acting Resident (he or Fosbery serve as judge in all these cases) sentenced him to six months hard labor.

Punishments were harsh. In *Regina v. Gbeson and Aburonke*, *Regina v. Adeanju*, and *Regina v. Lawojo and Omoleye*, the defendants were each sentenced to six months or one year each for “illicit rubber working” or “working rubber without a license.” By contrast, a man who stole a goat from the market to pay a debt of 8s was sentenced to 14 days hard labor, a man who three times abducted the same female slave of a chief was fined £1 and given three dozen lashes, and a man convicted of “resisting the government” was given one year of hard labor.<sup>18</sup> Notably, there is only one rubber case in this record book in which the defendant is acquitted.<sup>19</sup>

Almost immediately, these regulations were seen to be inadequate (Afigbo, 1970). In October of 1898, Gallwey reported that the Benin country was “full of rubber,” but that the Acting Resident had “continually been complaining” over the past year of the destruction of rubber trees, which he attributed to “the manner in which the natives tapped them.” The number of trees killed, he suggested, “amount to no small figure.”<sup>20</sup> In February 1899, Moor similarly stated that he found it “utterly impracticable to preserve the rubber forests in the Benin City District unless there be a special European officer detailed for the work as the natives in collecting will cut and damage the trees, and also tap them in the wrong season.” Since the capture of Benin City, officers had tried to deal with it but due to their “enormous amount of other work” it was impossible to supervise the Native Inspectors. In his opinion, the matter was a “pressing” one, and “of great importance for the rubber forests in question are of very considerable extent and of great value.”<sup>21</sup>

In 1899, the rubber regulations were amended. The maximum imprisonment was extended to two years, and violators were required to forfeit any illicit produce. In addition, a closed season was imposed from December to June, and tapping that caused damage to the trees was prohibited (Afigbo, 1970). Prosecutions made under these regulations are also preserved in the Case Book for 1898-1899. In *Regina v. Akinbo*, the defendant, charged with “illicit rubber working,” pleaded guilty to “working rubber during the close time,” and was sentenced to 6 months of hard labor. The defendant in *Regina v. Aluko* was a “foreigner” caught by the above-mentioned Captain working rubber unlawfully at Udo, and found with a large quantity of rubber in his house covered over with cinders. He was sentenced to two years imprisonment with hard labor. *Regina v. Ejei et al* saw six men out of a larger group arrested. Ejei, their leader, had formerly worked under a Fanti headman who had been expelled from the country by the acting Resident.

<sup>18</sup>*Regina v. Peter*, *Regina v. Bujlu* (?) *Abudu Ipede*, and *Regina v. Oriegbe*, respectively.

<sup>19</sup>*Regina v. Osun and Abiomo*; no reason is given for why charges are dismissed.

<sup>20</sup>NAUK, FO 2/185; Oct 26, 1898: Gallwey to Salisbury.

<sup>21</sup>NAUK, FO 2/185; 17 Feb, 1899: Moor to Under-Secretary of State.

The defendants claimed to be traders who had ceased working rubber since the new regulations were made, but were sentenced to two years imprisonment with hard labor.

The Forestry Department was created in 1900; according to Gallwey the “first matter that required dealing with by this department was the preservation of the extensive rubber forests in the Benin territories.” In his annual report, he gave great credit to Hitchens, the Forestry Inspector, for the “very energetic manner in which he carried out this work, and for the successful efforts he made to educate the Binis to safeguard the rubber trees.”<sup>22</sup> Hitchens reported that he had personally inspected and assessed the value of the rubber forests belonging to nearly 100 Bini towns and villages, and created “staffs of ex-officio rubber inspectors” in each of them, proportionate with the size of the forest.<sup>23</sup> He instructed locals in tapping, explained the regulations, and “constitute[d] every Bini an ex-officio policeman to bring to justice any rubber gatherer infringing on the regulations.” In his view, the Bini “responded with alacrity,” exercising “such restraining influence on prohibited rubber-tapping and adulterated rubber-producing that not a single rubber gatherer is free from close ‘shadowing,’ and not a single ball of rubber and prohibited root rubber could work its undetected way to Lagos or our own trading factories.” He did not believe it was possible for rubber to leave any portion of the Benin territories, even in the newly acquired Eastern districts. Moor’s regulations were initially only in force in the Benin territories. In 1900, the Forestry Proclamation was issued; this required licenses be acquired from the District Commissioner to tap rubber, provided details on the permitted methods of tapping, and were applied to all persons, not just foreigners (Afigbo, 1970, p. 390)

At first, these restrictions appeared to work. More than £700 was collected as license fees from the Benin territories in 1900.<sup>24</sup> Probyn, the Acting High Commissioner, noted a fall off in rubber exports in 1902, arguing that timber has attracted “many who formerly collected rubber, and the legislation which has stopped the destruction of rubber trees is probably a second cause which accounts for the decline.”<sup>25</sup> In 1904, Egerton suggested that the Forestry Department was then “fully organized and capable of exercising an efficient control over timber cutting and, in a lesser degree, over the proper tapping of rubber-bearing plants.”<sup>26</sup>

In the Report on the Forest Administration of Southern Nigeria for 1906, Thompson wrote in particularly glowing terms about the license system, which he believed had

worked very satisfactorily in the Benin Districts of the Central Province where the native communities take a lively interest in forestry matters and are fully alive to the importance of preserving the plants – an annual source of revenue to themselves.

<sup>22</sup>Southern Nigeria Annual Report 1899/00.

<sup>23</sup>Southern Nigeria Annual Report 1899/00.

<sup>24</sup>Southern Nigeria Annual Report for 1900.

<sup>25</sup>Southern Nigeria Annual Report for 1902.

<sup>26</sup>Southern Nigeria Annual Report for 1904.

He felt that the rubber and timber rules were working “very smoothly” in the Central Province, where the chiefs had taken “and active interest in protecting their forests, and the inhabitants are becoming very law-abiding in this respect.” 1114 licenses were issued, resulting in £671 10s paid. 645 of these were given in Benin City. He did, however, add a word of caution about the “natives”; “as long as they are encouraged by the trade to ruthlessly destroy the rubber-yielding plants by getting as much as possible out of them in the shortest possible time and then to leave the rest to chance, I am afraid but little attention will be paid by them to more prudent advice.”

The regulations were, however, ultimately unsuccessful. Trees were still being destroyed in large numbers. The Annual Report for 1908 was gloomy, stating that “[r]ubber appears to be a rapidly decaying business ... the Southern production in 1908 was 713,000 lbs. only, as compared with 1,656,000 lbs. in 1907. Some portion of the shortage may be attributed to the prohibition of tapping in certain districts, but the reckless destruction of trees by excessive bleeding is largely responsible for the drooping business.” In spite of this, there were only 12 prosecutions and 10 convictions under the rubber rules. In 1913, the annual report for Benin Province commented on a marked falling off in the amount of rubber exported, blaming this partly on the drop in price “and also to the fact that the wild rubber is much scarcer than formerly.”<sup>27</sup> British regulation had not stopped resource exhaustion.

Why did the regulations fail? First, it was physically difficult to police violations. The rubber regulations diverted some of the rubber trade from Benin to Lagos, as the Acting High Commissioner recognized in 1901.<sup>28</sup> Similarly, because Northern Nigeria had no similar regulations on rubber collection, rubber was smuggled from the South to the North (Egboh, 1985, p. 57). In 1901, the representative of Miller Brothers wrote to Moor, informing him of the difficulties involved. “Few of those who bring down rubber,” he argued, were “able to give a detailed account of its history from the time of manufacture, as it may have passed through many hands before reaching theirs.” Rubber was sold in many markets on its way to the coast, and “many of the rubber traders here are preparing to leave the district as they profess themselves unable any longer to conduct business here under the vexatious conditions in force.” He felt that, though under the law every Bini was made a “rubber detective” and was eligible for a reward of £2 for any conviction, the people had not looked after their own interests; “they show themselves in that respect unworthy to benefit by the rubber regulations as they have already proved themselves in other respects, through not yet devoting the slightest attention to the manufacture of rubber.”<sup>29</sup>

1905, the Governor recognized that the prohibitions on root rubber were no longer being enforced.<sup>30</sup> Christy (1911) pointed out that, while 221,566 lbs were exported from

<sup>27</sup>NAI, BP 138 1914: Annual Reports Benin Province.

<sup>28</sup>NAUK, CO 520/9. 17 Oct, 1901: Acting High Commissioner to Secretary of State

<sup>29</sup>NAUK, CO 520/9, 13 July, 1901: McLucas and Schaumburg (for Miller Bros and Bey & Zimmer) to Moor

<sup>30</sup>NAUK, CO 520/30, 5 March, 1905: Egerton to Lyttelton.

Southern Nigeria in 1907, only £53/10 was collected in license fees.<sup>31</sup> It was impossible that 107 license holders could be responsible for this quantity of rubber, so the bulk must have been illicit. Even if the forestry staff were to be increased fifty times, he thought it would be impossible to police the area needed:

So long as the native can sell his 'lump' rubber at an enormous profit, so long will he continue his destructive methods of tapping, and his dirty, primitive system of preparation, despite voluminous rules and regulations, which he could not understand, even supposing them ever to reach himself or his chief (Christy, 1911, p. 13).

Second, the British undermined the systems of property rights that existed before the fall of Benin, and lacked the public trust necessary to replace them with effective colonial regulation. Ostrom (1991) has argued that regulation of common property resources by local communities is often preferable to privatization or state intervention. Effective resource management requires defined boundaries, easy identification of those with user rights, rules appropriate to local conditions, accountable monitors, graduated sanctions, rapid and low-cost conflict resolution, and recognition of users' rights to devise their own institutions. British conquest weakened Benin's borders, rules were imposed by an external authority without local participation, colonial agents lacked accountability, and courts in Benin City were eager to impose maximum penalties.

Before 1897, Edo villages could control access to their forest resources. Any Bini could farm in any part of Benin territory (Egharevba, 1949, p. 79), though outside of his own village he would need to obtain permission from (and give annual gifts to) the local Enogie or Odionwere, until he settled permanently (Bradbury, 1957, p. 45). Hunters in the forests, "native and non-native" were required to turn the hand of any animal killed to the local Enogie, and the Oba was owed a leg and tusk of any elephant killed (Egharevba, 1949, p. 43-44). The only non-Edo who could exploit local resources were those who settled and assimilated in Bini villages (Bradbury, 1957, p. 45). After 1897, outsiders came in seeking rights to farm, fish, and reap palm fruits, and the colonial government was slow to establish effective regulations to control these demands. Immediately after 1897, many Yoruba settlers succeeded in gaining land without holding title through the Oba; these were not regularized under a Native Court Rule until 1914 (Rowling (1948, p. 11)).

An 1896 editorial in the Lagos Weekly Record asserted Oba's power make "short work" of intruders, wishing that "the greedy rubber hunters" in the Lagos hinterland "should one and all be dispatched to the domains of the expeditious King of Benin" (quoted by Ofonagoro (1979, p. 120)). The 1908 trade report for Southern Nigeria reached a similar conclusion; the *de facto* situation with regards to property rights was not adequate to protect rubber trees from destruction:

---

<sup>31</sup>Though this contradicts the figure in the Annual Report, the figure in that report is larger, making the argument stronger.

It is generally realized that not until rubber trees are owned by individuals, who will see that they are duly protected, can this industry be looked upon as a permanent one in Nigeria. Thousands of trees in the forests, which are practically a 'no man's land,' are destroyed each year by over-tapping, and although every effort is made by the Forestry Department, with the staff at its command, to regulate the gathering and to prevent indiscriminate bleeding, the task in so large a country and amidst dense forests is, it must be admitted, and extremely difficult one.<sup>32</sup>

The Forest Guards installed to replace these systems were inadequate, corrupt, or both. In 1899, the defendant in *Regina v. Amidu*<sup>33</sup> was charged with seizing a government rubber inspector. The inspector came across a "large gang of Lagos rubber cutters," headed by a man named Gbadamosi. The prisoner seized the inspector along with his two carriers, tied them up, and gave the inspector a "severe flogging." The Resident of Benin City complained in 1901 that the "ignorance of some of the native rubber Inspectors may also have had something to do with the failure of last year's sowing... Three of these men have lately brought into Benin City seed in a green and half grown condition, absolutely useless and of course wasted. One would-be Rubber Inspector, was a small boy about 14 who would be of about much use as a process server in Ireland of the same age."<sup>34</sup> In 1907, Egerton noted their frequent abuses of power (unfortunately, not mentioning what these were), stating that "there are the strongest objections to the multiplication of native Forest guards with semi police powers carrying on their work in places far away from European supervision."<sup>35</sup>

It was becoming clear that the future of rubber was in plantations. The 1904 Annual Report for Southern Nigeria stated that experiments were in progress to improve the tapping of trees, "the present method pursued by natives being most injurious and in fact responsible for the death of numbers of trees." Notably, there was "little doubt that the future supply of rubber largely depends on the cultivation carried on during the year by the natives in the Western and Central Divisions." Similarly, Egerton wrote in 1907 year that, after three years in West Africa, he did not "consider it feasible to efficiently supervise the collection of latex from rubber bearing plants in the West African forests."<sup>36</sup> Rather, he felt that the colonial office should "recognize that the future of rubber is in the cultivated article and that all that is necessary as regards the forest produce is to spread the knowledge of the best methods of extracting the latex and the folly of improper tapping."

The failures of wild rubber production in Benin reflected those experienced elsewhere. Exhaustion of natural rubber supplies was repeated in Guinée (Osborn, 2004),

<sup>32</sup>Quoted in Southern Nigeria Annual Report for 1908.

<sup>33</sup>NAI, Ben. Prof. 8/2/1, Case Book 1898-1899.

<sup>34</sup>NAUK, CO 520/7, 26/2/1901: Resident Benin City to Moor

<sup>35</sup>NAUK, CO 520/45: Minute Dated 12 April, 1907 by Egerton.

<sup>36</sup>NAUK, CO 520/45, Enc. 14 April, 1907: Egerton to Elgin.

in Ghana (Dumett, 1971), and in the Congo (Harms, 1975). In none of these scenarios could colonial officials or concessionary companies establish institutions that created effective incentives to extract rubber at a sustainable rate, or restrict tapping to methods that did not injure the trees.

#### 4. PLANTATION RUBBER

By 1907, it was obvious that wild rubber had little future in Benin. The local *Funtumia* could be used to create plantations, and Brazilian *Hevea* had been introduced to the country in 1895 (Anschel, 1965, p. 49). By 1921, however, plantations had not transformed Nigeria into the major rubber producer that it would become after the Second World War. In this section, I outline the difficulties faced by the three types of plantation in Benin. *European plantations* were few in number, because of their own challenges, government hostility to creating concessions, and the general preference of European firms for horizontal over vertical integration. *African plantations* are of only limited visibility in the archival record, but these too appear to have been few in number and faced challenges in securing labor. *African communal plantations* were established with the support of the colonial government, but these suffered from labor scarcity, limited state resources, difficulty in transferring information, and low returns.

**4.1. European plantations.** Early on, British firms applied for concessions. Officials such as Moor and Gallwey, however, opposed these, preferring “development by the natives themselves.”<sup>37</sup> The only serious attempt by a European firm to create a rubber plantation in Benin was that of Miller Brothers. The firm acquired roughly five hundred acres at Sapele in 1905, and acquired another 560 in 1911 on the condition that it would be planted by 1916.<sup>38</sup> This *Para* plantation was begun with 10,000 seeds imported from the East; 6,800 germinated successfully.<sup>39</sup> In 1908, the plantation was “doing very well” and showing “good growth”; 8,000 plants were 33 months old, and 22,000 plants were 18 months old.<sup>40</sup> Cowan, the director, testified to the West African Lands Committee (WALC) in 1913 that the plantation was paying rent to 5 or 6 different local communities. At that time, 800 acres were under cultivation and the bulk of the 400 laborers did not come either from Benin or from Sapele, but rather from the Opobo, Kwa, and Ibibio territories (WALC, 1916, p. 468-475).

In 1915, a return of agricultural plantations in Benin province listed five – J.G.M Cranstoun and Company’s at Sapoba, Messrs. MacIver’s at Sapoba, I.T. Palmer’s at Sapoba and

<sup>37</sup>NAUK, FO 2/179: 28 July, 1898: Gallwey to Under-Secretary of State. See also his letter from 13 May, 1898 in the same volume.

<sup>38</sup>NAI, BP 311/1914: Rubber Plantation on the Ologbo Road, 18 March, 1911: Provincial Commissioner Warri to Provincial Commissioner Calabar.

<sup>39</sup>Southern Nigeria Annual Report for 1905.

<sup>40</sup>Southern Nigeria Annual Report for 1908.



Abraka, and the Nigerian Mahogany and Trading Company's at Unutu.<sup>41</sup> MacIver and Palmer (an African) were both said to have rubber in good condition at this time. Egboh (1985, p. 159) states that Cranstoun had two plantations in 1908, totalling 1,280 acres. MacIver reported in 1917 that they were doing no business in rubber, though by 1927 their holdings had expanded to 2021 acres.<sup>42</sup> This (and possibly Cranstoun's as well) was later taken over by the United Africa Company, becoming the Jamieson Estate Plantation (Usuanlele, 1988).

Others were less successful. A German firm, possibly Bey and Zimmer, planted ten acres that were handed over to the Native Authority during the First World War (Usuanlele, 1988). The African Association made an attempt in 1906 to start an experimental *Para* plantation at Warri, but James believed that they "[did] not seem to have pushed the matter further."<sup>43</sup> In 1908, they were reported to have an "excellent small *Para* rubber plantation at Eket."<sup>44</sup> The British Cotton Growing Association started a plantation in Benin territory in 1909, but in 1917 it was "neglected," containing only 228 trees.<sup>45</sup>

One of the difficulties faced by these plantations was difficulty in securing access to labor. Cowan told the WALC that his company did not use Edo laborers because, even though they were able to make arrangements with the headmen, the people were unwilling. Laborers would come to work for at maximum six months. His view was that this was "no doubt" because the authority of the Benin chiefs had declined – a development that also made it difficult to secure labor for the communal plantations.

In addition, the British were reticent to grant concessions to Europeans for working produce that Africans were capable of exploiting on their own, and so their policy for rubber and palm oil concessions differed from policies towards timber. The African Association and Miller Brothers were both rejected for concessions in the Benin City area in 1898 (Afigbo, 1970, p. 392). Evans' application to rent communal plantations was turned down in 1911 (Egboh, 1985, p. 158). As Phillips (1989) has described this general position in West Africa, the British came to favor "peasants" over "plantations" because of opposition from local chiefs, lawyers and concessionary companies to the 1897 Gold Coast Lands Bill, pressure from the so-called "Third Party" of reformers that included Mary Kingsley and E.D. Morel, their persistent inability to create a market for wage labor, resistance from the Aborigines' Rights Protection Society, negative experiences with spurious concessions in the Gold Coast, "mercantile" manufacturers such as the British Cotton Growing Association and Cadbury who seemed capable of healthy profits without engaging directly in production, and a desire to limit litigation and migration.

<sup>41</sup>NAI, BP 603 1915 Agricultural Plantations Benin Province. Two lists are given in this file; the first omits Cranstoun, the second MacIver.

<sup>42</sup>NAI, Ben Prof 2/4 BP 262 1917: Para Rubber, Benin Division, 16 Nov, 1917: Howe (for MacIver and Co) to Acting District Officer. NAI, CSO 26 09125 Assessment Report on Benin Division.

<sup>43</sup>Southern Nigeria Annual Report for 1906, Report on the Forest Administration of Southern Nigeria for 1906.

<sup>44</sup>Southern Nigeria Annual Report for 1908.

<sup>45</sup>NAI, BP 175/1917, Para Rubber Plantations, 19 June, 1917: D.O. Ubiaja to Resident.

European firms throughout West Africa remained horizontally, as opposed to vertically integrated. Usuanlele (1988) calls this a preference for “commerce” over “production.” Barred from directly engaging in agriculture and faced with a market in which export crops were produced by thousands of small, dispersed farmers, the large trading firms chose to operate in many products and colonies, but to refrain from production (Hopkins, 1976).

**4.2. African plantations.** Less is knowable about private plantations owned by Africans. Both the Annual Reports and Igbafe (1979) take an upbeat view. In 1903, forestry officers extended “very considerable” areas of rubber plantations, while “some of the more intelligent chiefs” had started operations on their own account.<sup>46</sup> In 1906, the Provincial Forest Officer stated that the “feature of the year ... [had] been the number of small private plantations made by individual natives, although it [was] difficult to say exactly how many [had] been made.” He believed there was no doubt that “the natives of the Benin Districts of this Province are, with a few exceptions, now thoroughly alive to the value of looking after their rubber trees.”<sup>47</sup> Igbafe (1979, p. 343-348) notes that 126 villages had been convinced to start plantations by the end of 1903, there were 369 private plantations by 1906, and that some 3,000 acres were owned by eleven private individuals or companies by 1925. The largest of these belonged to Palmer, reported to have 1500 acres at Abraka, employing 900 laborers who were paid the same wages as in the timber industry (WALC, 1916, p. 468-475). The Obaseki had two *Para* plantations, of 10,000 and 12,000 trees, 4 to 6 years old in 1919.<sup>48</sup>

Before 1921, however, the scale most of these plantations must have been small. Chief Ugo had a single acre at Benin (Egboh, 1985, p. 159). Thompson described those planted in the Benin City District in 1906 as “small private plantations.”<sup>49</sup> In 1909, it was estimated that private individuals owned 166,820 *Para* trees or seedlings in Southern Nigeria, “and a great development [was] expected in this direction.”<sup>50</sup> A 1917 return of *Para* plantations in Benin forwarded a list of plantations excluding those with less than 20 trees, and “small private plantations of which there is no record”. It listed 270 *Para* plantations in Benin District, started in 1914 or 1915, with 57 seedlings planted on average. These faced their own difficulties. Cowan told the WALC that there were six African-owned *Para* plantations of 10,000 to 30,000 trees in the Sapele district. They had been paying for labor by allowing workers to plant “catch crops” among the trees, and as a result, the rubber had suffered. In his view, they had “tried to make the thing pay as they went along, and they have been pennywise and pound foolish” (WALC, 1916, p 468-475).

<sup>46</sup>Southern Nigeria Annual Report for 1903.

<sup>47</sup>Report on the Forest Administration of Southern Nigeria for 1906.

<sup>48</sup>NAI, Ben Prof 2/6 BP 480 19: Agricultural Department Report.

<sup>49</sup>Report on the Forest Administration of Southern Nigeria for 1906.

<sup>50</sup>Southern Nigeria Annual Report for 1909.

**4.3. African communal plantations.** The colonial government sought to establish thousands of small plantations of mostly *Funtumia* rubber throughout Benin, owned by local communities. The government used the term “communal.” At first seen as promising, before the First World War it was clear they were in trouble. They suffered from labor scarcity, a lack of state resources, colonial difficulties in transferring skills and information, and low prices once Asian plantations began to export in large quantities.

4.3.1. *Initial promise.* The communal plantations were started early on. In 1899, nurseries were established in a few district centers, in order that plantations could be made close to the villages for seed-producing purposes. These in turn would be used to collect seed to sow in the bush at the beginning of the rainy season.<sup>51</sup> Out of 450 miles of road existing in the Benin territories, the Forestry Inspector planted 250 with rubber seed, four deep on each side of the main roads and bush paths.<sup>52</sup> In 1900, twenty large nurseries for young rubber were established in the Benin territories to supply seedlings into the forest lands between villages.<sup>53</sup> It was presumed that the labor required for transplanting and caring for the young rubber would be performed “subject to the supervision of the Forestry Inspectors, by the inhabitants of those villages which [would] ultimately be enriched by the matured rubber.”<sup>54</sup> All villages receiving timber royalties were required to establish nurseries from 1901 (Igbafe, 1979).

Undergirding these efforts was a paternalistic racism, made clear by Bedwell, the Acting Colonial Secretary, in 1903:

It is not in the nature of the average West African to lay out capital for which there is no immediate return. He can understand the yam growing at his door; he can understand the cask of oil to be filled before his “boys” can return with the required cloth, pipe or frock-coat, but he will not sew for his son to reap; nor will a village work, of its own initiative, for the benefit of the next generation that is to occupy it. It is this difficulty that has rendered so great the task of encouraging the rubber industry.<sup>55</sup>

In the villages, the government distributed seeds and seedlings and oversaw tapping. These plantations were mostly of *Funtumia*, but contained some *Para*. By the end of 1903, 145,000 plants had been established in 126 village plantations (Igbafe, 1979, p.343). There were 1,050 communal plantations in the Province in 1906, 1629 in 1907, and 2251 in 1908 (Egboh, 1985, p. 159). Similar efforts were made elsewhere in Southern Nigeria, though Benin was the model case.<sup>56</sup>

<sup>51</sup>Southern Nigeria Annual Report for 1899-1900.

<sup>52</sup>Southern Nigeria Annual Report for 1899-1900.

<sup>53</sup>Southern Nigeria Annual Report for 1900.

<sup>54</sup>Southern Nigeria Annual Report for 1900.

<sup>55</sup>Southern Nigeria Annual Report for 1903.

<sup>56</sup>These are discussed in the Southern Nigeria Annual Reports for 1904 through 1911.

The communal plantations in Benin were initially seen as promising, and were strongly encouraged by colonial officials. In 1904, Egerton saw the boom in the rubber market and the development of trade as “gratifying,” and hoped improved methods would help prices eventually close on those paid for rubber from the Straits and Ceylon.<sup>57</sup> Experiments were in progress to improve tapping, since existing methods were “most injurious and in fact responsible for the death of numbers of trees.”<sup>58</sup> In 1905, Fosbery reported that rubber continued to show a “considerable increase,” predicting that “with systematic cultivation and collection it will become a valuable addition to the exports of the country.”<sup>59</sup> In 1906, two pupils had just returned from the French School of Forestry in Sudan.<sup>60</sup>

In 1906, existing plantations of *Funtumia* were extended in reserves in the Central Province; that year, 368 plantations with 167,135 plants were made in the Benin Districts.<sup>61</sup> At that time, 916 plantations with 678,000 plants existed in the Central Province, in addition to 134 plantations with 80,000 plants in what had earlier been the Central Division.<sup>62</sup> Many seeds were sown that year in Benin City to be later distributed to the various district headquarters. The plants in the Forest Office compound had, by then, reached 12 to 15 feet.<sup>63</sup> In 1908, there were 2,251 *Funtumia* plantations in the Central Province, containing 1,125,972 trees, many of which were old enough to be tapped.<sup>64</sup> In the Benin City district that year 154,000 trees were added to the communal plantations.<sup>65</sup> In 1910, the success of the communal plantations in Benin inspired 24 villages in the Ilesha District as well as some additional communities in the Ijebu-Ode and Epe Districts to start plantations of their own.<sup>66</sup> In 1911, 224 new villages were planted out in 63,753 *Funtumia* seedlings, and 4,133 *Para* plants were put out under the same scheme. In 1912, “numerous communal rubber plantations were examined” in the Central Province, with arrangements made for extending them.<sup>67</sup>

In 1910, several thousand communal *Funtumia* plantations had become large enough to tap.<sup>68</sup> Tapping and rubber preparation were done under the supervision of the Forest Department, and in the presence of the owners. To coagulate the latex, the rubber was boiled, and then rolled into thin biscuits using a wooden roller on a table. The rubber was washed throughout with hot water. These biscuits were then hung for drying and

<sup>57</sup>Southern Nigeria Annual Report for 1904.

<sup>58</sup>Southern Nigeria Annual Report for 1904.

<sup>59</sup>Southern Nigeria Annual Report for 1905.

<sup>60</sup>Report on the Forest Administration of Southern Nigeria for 1906.

<sup>61</sup>Southern Nigeria Annual Report for 1906.

<sup>62</sup>Report on the Forest Administration of Southern Nigeria for 1906.

<sup>63</sup>Report on the Forest Administration of Southern Nigeria for 1906.

<sup>64</sup>Southern Nigeria Annual Report for 1908.

<sup>65</sup>Southern Nigeria Annual Report for 1909.

<sup>66</sup>Southern Nigeria Annual Report for 1910.

<sup>67</sup>Southern Nigeria Annual Report for 1912.

<sup>68</sup>Southern Nigeria Annual Report for 1910.

smoked in a long drying shed. The amber-colored biscuits were reported to be of “the first quality,” produced “by means of simple appliances that can easily be procured by the natives,” and were sold for 6s 6d per lb despite a falling market on which only the best *Para* could fetch more than 6s per lb.<sup>69</sup> This was seen as a “very great improvement on the usual quality of rubber exported from Southern Nigeria.” In 1911, the Chief Conservator of Forests inspected several of the communal rubber plantations. His impression was that some of these were “very fine examples of their kind and should eventually form valuable native estates.”<sup>70</sup>

4706 trees from 84 communal plantations were tapped in the Benin City district in 1910, 20,210 trees from 300 plantations in 1911, and 386 plantations were tapped in 1913.<sup>71</sup> The yield for 1911 was 1,885 lbs and 11 oz of dry rubber.<sup>72</sup> In 1912, 2,988 lbs of “good rubber” were sold locally at 3s 4d per lb, and 43 lbs of “tackey rubber” was sold for 2s 10d. Two thirds of these revenues were paid to the communities and chiefs.<sup>73</sup> In 1913, 5,612 lbs of rubber were exported from the communal plantations.<sup>74</sup> Tapping during 1913 was overseen by “native staff” of the Forest Department, along with Ogas (headmen), who supervised groups of ten to twenty villagers.<sup>75</sup> The staff encompassed the Assistant Conservator of Forests, an interpreter, a forester, ten Forest Guards, five pupils, and five Ogas.<sup>76</sup> In 1914, certificates were issued so that each village had one certified headman, “responsible for the upkeep and cleaning of his plantation.”<sup>77</sup>

4.3.2. *Problems.* Outside observers were impressed with these plantations; Christy (1911) reported that “[t]he system of native communal plantations so successful in Southern Nigeria is admirable, and should be adopted by all the west African colonies.” Several problems were, however, already apparent. One of the most notable difficulties they faced was labor scarcity. Usuanlele (1988) has made this argument for both Benin in general and the communal plantations in particular. The population density of Benin was estimated at only 25 per sqm in 1927.<sup>78</sup> I begin my discussion of the problems faced by the communal plantations by adding more evidence in favor of this view.<sup>79</sup>

The problem of labor scarcity in the Benin territories was apparent as early as 1901. That year, the Annual Report for Southern Nigeria noted that recent “changes in the

<sup>69</sup>Southern Nigeria Annual Report for 1910. The report states that only the best para could fetch 6d per lb, but this is clearly a typographical error.

<sup>70</sup>Southern Nigeria Annual Report for 1911.

<sup>71</sup>Southern Nigeria Annual Report for 1911, NAI Ben Prof 2/1 BP 364 1914: Report on the Communal Rubber Plantations for 1914 (1913).

<sup>72</sup>Southern Nigeria Annual Report for 1911.

<sup>73</sup>Southern Nigeria Annual Report for 1912.

<sup>74</sup>NAI, BP 5 1915: Report on the Tapping Operations on the Communal Rubber Plantations for 1914.

<sup>75</sup>NAI, Ben Prof 2/1 BP 364 1914: Report on the Communal Rubber Plantations for 1914 (1913).

<sup>76</sup>NAI, BP 5 1915: Report on the Tapping Operations on the Communal Rubber Plantations for 1914.

<sup>77</sup>NAI, BP 5 1915: Report on the Tapping Operations on the Communal Rubber Plantations for 1914.

<sup>78</sup>NAI, CSO 26 09125 Assessment Report on Benin Division.

<sup>79</sup>See also Usuanlele (2009) for greater detail on the communal plantations.

social conditions of the natives of these territories, particularly with regard to slavery, render it certain that the capacity of these native carriers for their transport work is not likely to increase, at all events for some years to come, until a good native labour market is established.”<sup>80</sup> The colonial response was to enact the House Rule Ordinance. This was initially intended to maintain the reciprocal obligations between House heads and members in the Niger Delta; in its actual application, however, the Ordinance made it easier for the state to rely on Benin chiefs to requisition labor, since the law enabled them to bring those who refused work before the Native Court (Igbafe, 1975). In 1906, similarly, the Provincial Forest Officer reported that the Isoko and Urhobo were too involved in road-making to devote much time to plantations; where rubber had been taken up, palm oil had been abandoned.<sup>81</sup>

Like other colonial projects in Benin (and indeed, throughout Africa), it was expected that the communal plantations would be worked with unpaid labor. Without pay, it became difficult to recruit workers. The 1913 Report on the Communal Rubber Plantations detailed five major problems that were causing them to fail: first, the weakened authority of the local chiefs; second, competing labor demand from other sectors, such as timber areas, government works, road construction, and portage; third, insufficient incentives for the local communities, even when the government waived its one third claim to the plantations’ revenue in that year; fourth, villagers’ lack of experience with the product, which was made worse by deferred payoff of rubber as a tree crop, and; fifth, sharp labor demands that conflicted with seasonal festivals and funerals.<sup>82</sup> Results on the model plantations, similarly, could only be achieved by “constantly worrying” the Obaseki and Edosomah for labor.<sup>83</sup>

The next year, the a report on the communal plantations noted that it was difficult getting upkeep work done:

The village people have shown very plainly that they do not care for the plantations. The Forest guards report that they have the greatest difficulty in getting any cleaning or clearing done. At Uburu Uku the forest Guards had been driven away when they attempted to get the plantations cleaned. ... At Ogwashi Uku and Abah very few men would be persuaded to do the work which was done almost entirely by the Forest Guards.<sup>84</sup>

Similarly, in Ishan, the people were disinclined to do the work requested, and officials felt they had been wasting their time. Especially in Asaba, Ifon and Ishan, officials had difficulty getting men to work rubber. Many chiefs complained that, “as their power had been broken, it was hardly fair to make them responsible for the boys not working...they consider it very unfair to be held responsible for the work when the Government has

<sup>80</sup>Southern Nigeria Annual Report for 1901.

<sup>81</sup>Report on the Forest Administration of Southern Nigeria for 1906.

<sup>82</sup>NAI, Ben Prof 2/1 BP 364 1914: Report on the Communal Rubber Plantations for 1914 (1913).

<sup>83</sup>NAI, Ben Prof 2/1 BP 364 1914: Report on the Communal Rubber Plantations for 1914 (1913).

<sup>84</sup>NAI, BP 5 1915: Report on the Tapping Operations on the Communal Rubber Plantations for 1914.

taken away their power.”<sup>85</sup> In addition to the work of tapping and upkeep, processing was labor intensive. Latex had to be cooked at central cooking camps and let stand for eighteen hours or more before it was ready to cook. For people from outlying villages, this was not worth the time involved, and they would not stay behind to learn how to properly cook the rubber.<sup>86</sup> Officials recognized that their own labor requisitioning contributed to this scarcity of labor – the same report noted that the question of carriers “has been a difficult one. The Assistant Conservator of Forests is obliged to find his own carriers, except on leaving a station, to take him from village to village. These carriers are not paid and this does not help to make the rubber business any more popular.” In 1916, the Resident pointed out that it was not worthwhile for villages to send small quantities of rubber to Benin, and that they did not do so voluntarily.<sup>87</sup>

This was not the only difficulty faced by the plantations. While the proceeds of the plantations were supposedly to be split between the government and the local communities, it appears that their benefits went largely to the chiefs. This was true also of the model *Para* plantation on the road between Benin City and Sapele, which was owned by eighteen Benin City chiefs who had “provided the labour for it free.”<sup>88</sup> Lugard, similarly, believed that “communal” labor generally meant “forced” labor, and opposed the communal plantations on these grounds (Egboh, 1985, p. 160). In 1924, the Resident chastised the Oba for hiring practices on his *Para* plantation, requesting the District Officer to inform him that if his workers were “called upon to work for nothing, it simply means that they will leave their villages, and either seek employment with the timber concessionaires or elsewhere outside the division.”<sup>89</sup> Bradbury (1973) notes that chiefs received one third of the wages paid for laborers they requisitioned, and received a share of the profits from rubber. Some were still profiting from these plantations as late as 1960, though he noted that this hurt their political legitimacy.

A plantation established by the Forestry Department near Usonigbe had been turned over to the local villages around 1910, but in 1914 was appropriated by the Oba. His successor was leasing it to Palmer for tapping in 1937.<sup>90</sup> A *Para* plantation on Sapele Road that had been damaged by fire was turned over to the Iyashere in 1916, since he was the only chief who had shown interest in it and it was through the disinterest of other chiefs that it had come to be damaged.<sup>91</sup> One official remarked that “looking at it from a business profit and loss point of view the communal plantations have so far

<sup>85</sup>NAI, BP 5 1915: Report on the Tapping Operations on the Communal Rubber Plantations for 1914.

<sup>86</sup>NAI, BP 5 1915: Report on the Tapping Operations on the Communal Rubber Plantations for 1914.

<sup>87</sup>NAI, Ben Prof 2/3 BP 523 1916: Proceeds from Rubber Sales; no date given, letter to Secretary, Southern Provinces.

<sup>88</sup>NAI, Ben Prof 2/1 BP 364 1914: Report on the Communal Rubber Plantations for 1914 (1913).

<sup>89</sup>NAI, Ben Prof 2/4 BP 262 1917: Para Rubber, Benin Division. 18 Feb, 1924: Resident to District Officer.

<sup>90</sup>NAI, Ben Dist 1 BD 84 Vol 2: Usonigbe Native Court and District Affairs: 16 March, 1937: Palmer to DO; handwritten note by Jull.

<sup>91</sup>NAI, Ben Prof 2/5 BP 173/1916 Communal Rubber Plantation Management of. 9 Nov, 1916: Conservator of Forests Benin Circle to Resident Benin Province.

been a failure, except to the chiefs.”<sup>92</sup> Not all revenues failed to produce public benefits, however; Dennett told the WALC that the Native Council in Benin used some of its share of rubber revenues to finance the city’s waterworks (WALC, 1916, p. 393).

In addition, the colonial state was short on staff and equipment, to the detriment of the plantations. The supply of seed was not always reliable; seeds imported from Cameroon failed to germinate, while in it was reported that poor germination had lowered the number of *Funtumia* planted in Southern Nigeria from 234,878 in 1907 to 133,094 in 1908. Of the 622 plantations formed during that year, most were extensions to existing ones.<sup>93</sup> In 1910, the Agricultural and Forestry departments were separated, and von Hellermann (2005, p. 112) argues that the Forestry Department quickly lost interest in agricultural pursuits such as these plantations. Before 1911, thinning had been neglected, and the trees needed each other’s support to stand.<sup>94</sup> At Agbor and Adaba, while thinning was desperately needed, there was no staff to do the work. The report for 1913 on the communal plantations in Benin admitted neglect by the government, stating that “it is a breach of good faith and fair dealing to have started these rubber plantations as a native industry and leave them, now when maturing and needing thinning, tapping etc under European supervision.”<sup>95</sup>

The District Officer worried that the villages were “disappointed with the results of their labor.”<sup>96</sup> In Ishan in 1913, the Forestry Department was “unable” to tap the 93 communal plantations.<sup>97</sup> At times, one Forest Guard and one pupil had to supervise as many as twenty men.<sup>98</sup> That year, the senior Conservator of Forests decided to suspend tapping on the plantations, “on the ground that the trees need rest, and the Forestry Department is short of officers.”<sup>99</sup> In 1917, there were no funds available to supervise preparation and assist in the sale of rubber at Ubiaja; the District Officer proposed turning the village plantations over to their respective chiefs.<sup>100</sup>

In 1917, the government had to borrow pans, metal spoons, tapping knives, rollers, cog wheels, fittings, and bottles of acetic acid from Miller Brothers.<sup>101</sup> Local tapping knives were described as “slow and bad,” though by 1914 a local “native imitation” of *Para* knives had been devised.<sup>102</sup> Smoking facilities too were inadequate, and could not

<sup>92</sup>NAI, BP 5 1915: Report on the Tapping Operations on the Communal Rubber Plantations for 1914.

<sup>93</sup>Southern Nigeria Annual Report for 1908.

<sup>94</sup>NAI, Ben Prof 2/1 BP 364 1914: Report on the Communal Rubber Plantations for 1914 (1913).

<sup>95</sup>NAI, Ben Prof 2/1 BP 364 1914: Report on the Communal Rubber Plantations for 1914 (1913).

<sup>96</sup>NAI, BP 138 1914: Annual Reports Benin Province.

<sup>97</sup>NAI, BP 138 1914: Annual Reports Benin Province.

<sup>98</sup>NAI, BP 5 1915: Report on the Tapping Operations on the Communal Rubber Plantations for 1914.

<sup>99</sup>NAI, BP 5 1915: Report on the Tapping Operations on the Communal Rubber Plantations for 1914.

<sup>100</sup>NAI, Ben Prof 2/4: BP 403 17: Village Rubber Plantation, 3 July, 1917: District Officer Ubiaja to Resident, Benin and 9 Aug, 1917: Resident to Distirct Officer Ubiaja.

<sup>101</sup>NAI, Ben Prof 2/4 BP 262 1917: Para Rubber, Benin Division.

<sup>102</sup>NAI, Ben Prof 2/1 BP 364 1914: Report on the Communal Rubber Plantations for 1914 (1913).



prevent the cured rubber from becoming moldy.<sup>103</sup> The two smoking sheds at Benin City were poorly built, lacked proper heating and drying facilities, and were in constant danger of catching fire.<sup>104</sup>

It was also difficult for the colonial government to transmit new knowledge and skills to Nigerians. The government needed to transmit new ideas of plantation management, instructions on better tapping methods, and inducements to produce higher quality output. Much of the plant distribution had to be done from the Onisha Gardens. As early as 1906, it was recognized that this was a poor location relative to the Central Province. It was too dry and too far from the centers in which cocoa and *Para* rubber could be successfully cultivated.<sup>105</sup> *Para* yields were estimated to be five times greater than those for *Funtumia* per acre, but there were only 6,000 acres in Southern Nigeria by 1922 (Egboh, 1985, p. 162). One officer reported in 1913 that the “native idea of a clean plantation is often opposed to all Forest ideas of soil protection and the arrival of a Forest Officer often leads to the plantation being swept and scraped bare of all needful and protecting surface soil and humus.”<sup>106</sup> Individual rubber samples mentioned in colonial correspondence were often poor – in 1918 samples of locally grown rubber were reported to be “anything but good, and it is evident if the best results are to be obtained, that the Beni ‘Planter’ requires both advice and supervision.”<sup>107</sup>

The quality of Nigerian rubber, among the worst in the world after the Second World War (Anschel, 1965), was an issue throughout both the wild and plantation rubber periods. In 1906, it was reported that “up to the present practically the whole of the rubber exported is forest produce, rudely prepared by the native with little or no intelligent control of the collection.”<sup>108</sup> At that time, most *Funtumia* was shipped as either “Lagos lump” or “Benin lump,” containing a very large percentage of water and impurities.<sup>109</sup> Efforts were being made to replace these lumps with biscuits, which were easier to dry and better resisted rotting. Generally, heat, lime juice, or an infusion of *costus lucanusianus* was used as a coagulant. In addition, inferior latex from a variety of other plants was used to adulterate the latex.<sup>110</sup>

While I have found no direct evidence from Benin, the experience of the Lagos hinterland suggests that improving quality was not worthwhile for producers. While rubber produced in French West Africa using chemicals available from local plants fetched 54d

<sup>103</sup>NAI, Ben Prof 2/4 BP 270 1917: Sale of Village Rubber Plantation, 28 March, 1917: District Officer to Resident.

<sup>104</sup>NAI, Ben Prof 2/1 BP 364 1914: Report on the Communal Rubber Plantations for 1914 (1913).

<sup>105</sup>Southern Nigeria Annual Report for 1906.

<sup>106</sup>NAI, Ben Prof 2/1 BP 364 1914: Report on the Communal Rubber Plantations for 1914 (1913).

<sup>107</sup>NAI, Ben Prof 2/4 BP 262 1917: Para Rubber, Benin Division. 12 Dec, 1917: Herald to Watt.

<sup>108</sup>Southern Nigeria Annual Report for 1906.

<sup>109</sup>Report on the Forest Administration of Southern Nigeria for 1906.

<sup>110</sup>Thompson listed *carpodinus hirsuta* and *carpodinius fulvis* (*funtumia africana*, *hoarrhena wulfsbergii*, *alstonia confensis*, *omphalocarpum elatum*, *couonopharyngia pachysiphon*, *omphalogonum calophyllum*) as adulterants.

per lb in Europe, “Lagos lump” could be only valued at 18d to 24d per lb Egboh (1985, p. 166). In 1907, Thomson reported that “with one exception, the European firms trading in this produce have not encouraged the movement to the extent they might have done by paying substantially better prices for the improved article.”<sup>111</sup> Similarly, in 1909, another official complained that, while all licensees and Ogas were instructed in the “proper method” of making rubber, the Yorubas “simply refuse to do it, as they can sell bad rubber near Illushi even if not at Siluko or Benin City.”<sup>112</sup> Though an ordinance to control the adulteration of produce had been passed the previous year, Miller Brothers complained that the amount of rubber then fell; Unwin’s view was that “the natives, especially Yorubas just tried to see how long the firms would hold out before giving way, after two months the whole thing was reversed and they were told that they could make lump rubber.” A “vacillating policy” from Miller Brothers and indifference from the other European firms made it difficult to convince Africans that quality biscuits, as opposed to lumps, were actually wanted.

The Imperial Institute analysed several Nigerian rubber samples in 1908.<sup>113</sup> While comparable fine hard *Para* was selling for 3s 5½d per lb, Benin lump was valued between 1s 6d and 1s 11d. Three specimens of *Funtumia* from Benin City “were of rough appearance but of satisfactory composition,” valued from 2s 8d to 3s 8d per lb, with comparable fine hard *Para* selling at 4s 6d per lb and Benin lump at 2s 0d.

The same year, experiments were conducted to improve the quality of Nigerian rubber.<sup>114</sup> Straining the latex for impurities, washing it once it was freshly coagulated, and cutting it into thin strips that could be more easily dried in wood smoke created a product that could be sold in England for between 4s 6d and 4s 8d a lb, when Brazilian *Para* could fetch a price of 5s 2d.<sup>115</sup> This was achieved using simple articles that it was hoped could be obtained by Africans – demijohns, earthen pots, a sieve, empty bottles, and the like. These were demonstrated to the rangers, forester, forest guards and pupils in the hope that they would pass these methods onto others. F.S. James, the Colonial Secretary, optimistically assumed the price of Nigerian rubber could be doubled by such efforts, so long as these higher prices could be passed onto producers and adulteration policed.<sup>116</sup>

Two African Rangers were sent to French West Africa, and returned in 1907 on a lecture tour that did encourage some quality biscuit production in Benin, but only 35.5 lbs were actually offered for sale (Egboh, 1985, p. 166-7). Biscuits took twice as long to produce and lost weight more rapidly than lump rubber; one official estimated that it would

<sup>111</sup>NAUK, CO520/50:30 Nov, 1907: Rubber Collection (Egerton to Elgin).

<sup>112</sup>NAUK, CO 520/83, Enc. 25 Sept, 1909: Unwin to Thompson.

<sup>113</sup>Southern Nigeria Annual Report for 1908.

<sup>114</sup>Southern Nigeria Annual Report for 1906.

<sup>115</sup>Southern Nigeria Annual Report for 1906.

<sup>116</sup>Southern Nigeria Annual Report for 1906.

require 4s per lb to induce producers to switch (*ibid.*). The Adulteration of Produce Ordinance of 1897 was used between 1907 to 1909 to prevent producers from producing lump rubber, but this was quickly withdrawn due to protests from European firms who faced declining supplies. Egerton's similar proposal to forbid lump exports in 1910 was opposed by the colonial office (*ibid.*). In 1908 it was reported that attempts to improve the quality of rubber had been "rendered futile, owing, principally, to the unwillingness of the merchants to pay for the inspection and supervision of the rubber tappers and to the reluctance of the Government to follow the lead of neighbouring Governments and prohibit the sale or export of lump rubber."<sup>117</sup> In 1910, the quality of lump rubber was improved, and this was sustained through 1911, the product receiving a price of 1s 6d per lb.<sup>118</sup> In 1909, the government proposed charging local firms a fee of 1 or 2d per lb to mount an instruction campaign, but this was withdrawn following on opposition from the Liverpool Chamber of Commerce (Egboh, 1985, p. 168). In 1913, however, there was a falling off in exports "owing to the very poor prices offered for the low grade of rubber shipped."<sup>119</sup> That year, prices for Ishan rubber were said to be low due to "its inferior quality and large percentage of impurities; also owing to the large quantities of good plantation rubber now on the market."<sup>120</sup> The quality of Nigerian rubber did not improve – one 1918 textbook described "Benin ball" as "generally dirty," having "rotten, woody smell" (Pearson, 1918).

Finally, the return to rubber fell sharply once Asian production began to increase. While initially proposed as a year-to-year arrangement, the waiving of the government's share of the revenues from the communal plantations soon became permanent.<sup>121</sup> Officials realized that the failure to anticipate the collapse of the world market has a major oversight on their part; the 1914 report on the communal plantations noted that:

The possibility, in fact probability of a fall in the price of rubber was evidently not taken into consideration when these operations were started...A second and very important point is that the natives have not taken up the plantations with much enthusiasm. Every year the returns have been smaller and, most important of all, the natives have been kept waiting many months before receiving payment.<sup>122</sup>

The government admitted failure. The same report recommended turning the plantations over to the local villages, noting that it would not be remunerative to work them with paid labor. In 1916, the Forestry Department ceased to exercise any control over the

<sup>117</sup>Southern Nigeria Annual Report for 1909.

<sup>118</sup>Southern Nigeria Annual Report for 1911.

<sup>119</sup>Southern Nigeria Annual Report for 1913.

<sup>120</sup>NAI, BP 138 1914: Annual Reports Benin Province.

<sup>121</sup>NAI, BP 76 1914: Communal Plantations Central Province; 16 Dec, 1913: Colonial Secretary to Conservator of Forests.

<sup>122</sup>NAI, BP 5 1915: Report on the Tapping Operations on the Communal Rubber Plantations for 1914.

communal plantations, and the commissioner of the Benin Province requested the District Officer to inform the “native owners” that, since the government “has given them practical instruction in the method of planting, tapping, and preparing the rubber in those plantations, it is now their duty to carry on the work themselves without regular supervision and assistance.”<sup>123</sup> Proceeds were then divided between the Native Authority and the villages.<sup>124</sup> In 1918, the District Officer for Benin asked the Resident about his meeting with the local agent for Miller Brothers, concerning the continued purchase of rubber. “If there is no market for the Native Administration Rubber,” he warned “tapping should cease temporarily and the trees be allowed to rest.”<sup>125</sup> The export market had collapsed. It was then “impossible to import rubber into the United Kingdom.” Miller Bros were unable to ship rubber from Sapele to Great Britain. He sighed:

It appears that rubber will not keep in this country, and unless a market can be found for the rubber products of the communal rubber plantations and the para plantations, it would appear to be a waste of both time and money to continue tapping and preparing rubber, as is now being done by the Native Administration (*ibid*).

In 1921, the Director of Agriculture wrote his above-quoted memorandum making the abandonment of rubber official government policy.

## 5. CONCLUSION

This was not the end for the rubber industry in Benin. The government abandoned its support of the industry in 1921. After 1935, however, planting took off and exports began to grow. Anshel (1965) believed that this was due to increases in the global price of rubber that followed on international supply restrictions (of which Nigeria was not a party). As pointed out above, however, the prices of the 1930s were below those that prevailed to 1910, and were low during the early years of the planting boom. Usuanlele (1988) suggests instead that the impetus for planting came from colonial demands for taxes, paid in cash, from land alienation for forest reserves against which plantations of tree crops were a viable defence, from urban residents looking for investment opportunities, and from migrant peasants looking for new sources of income. Indeed, the rapid expansion of forest reserves is one of the dominant themes of Benin’s history from 1916 to 1938 (von Hellermann and Usuanlele, 2009). In addition to tree crops as a Lockean claim on land, this changed the factor ratio making labor less relatively scarce. The British supported both plantation and wild rubber during the war, but were ambivalent to its future prospects. Their concerns notwithstanding, Benin’s rubber exports continued to rise through independence, peaking in the 1970s.

<sup>123</sup>NAI, Ben Prof 2/5 BP 173/1916 Communal Rubber Plantation Management of, 2 March, 1916: Commissioner Benin Province to District Officer.

<sup>124</sup>See, e.g. NAI, Ben Prof 2/3 BP 523 1916: Proceeds from Rubber Sales.

<sup>125</sup>NAI, Ben Prof 2/4 BP 262 1917: Para Rubber, Benin Division; 4 July, 1918: DO to Resident.

In this paper I have argued that problems of institutions, information, and inequality can all prevent or delay development. In the case of Bini rubber, the British could not replace existing property rights with institutions that encouraged preservation of natural resources. The British could not forecast the world market and plan accordingly, nor were they effectively able to pass new skills onto Nigerians. Neither expatriate firms nor Nigerians had the information needed to forecast profits with reasonable security. Officials expected the bulk of the necessary work to come from those who stood to benefit the least. It should not be surprising, then, that the Nigerian rubber industry was so slow to grow.

#### REFERENCES

- Afigbo, A. E. (1970). Sir Ralph Moor and the economic development of Southern Nigeria, 1896-1903. *Journal of the Historical Society of Nigeria*, 5(3):396–421.
- Amanor, K. S. (1994). *The New Frontier: Farmers' Response to Land Degradation—A West African Study*. Zed Books, London.
- Anschel, K. R. (1965). Economic aspects of peasant rubber production in Midwestern Nigeria.
- Arrighi, G. (1970). Labour supplies in historical perspective: a study of the proletarianization of the African peasantry in Rhodesia. *Journal of Development Studies*, 6(3):197–234.
- Austin, G. (2005). *Labour, land, and capital in Ghana: from slavery to free labour in Asante, 1807-1956*. University of Rochester Press, Rochester, NY.
- Bandiera, O. and Rasul, I. (2006). Social networks and technology adoption in northern Mozambique. *The Economic Journal*, 116(514):869–902.
- Barham, B. L. and Coomes, O. T. (1994). Reinterpreting the Amazon rubber boom: investment, the state, and Dutch disease. *Latin American Research Review*, 29(2):73–109.
- Berry, S. (1975). *Cocoa, custom, and socio-economic change in rural Western Nigeria*. Clarendon Press, Oxford.
- Besley, T. (1995). Property rights and investment incentives: Theory and evidence from Ghana. *Journal of Political Economy*, 103(5):903–37.
- Beusekom, M. M. V. (2002). *Negotiating development: African farmers and colonial experts at the Office du Niger, 1920-1960*. James Currey Ltd.
- Blanckenburg, P. (1965). Rubber farming in Benin area, a study of some socio-economic factors influencing rubber production. *Preliminary Report*.
- Bradbury, R. E. (1957). *The Benin kingdom and the Edo-speaking peoples of southwestern Nigeria*. International African Institute.
- Bradbury, R. E. (1973). *Benin studies*. Oxford University Press.
- Brett, E. (1973). *Colonialism and underdevelopment in East Africa: the politics of economic change, 1919-1939*. NOK Publishers.

- Bromund, T. (1997). *Field of dreams: An environmental approach to the origins and failures of the East African groundnuts scheme, 1946-1948. Working Paper.*
- Brown, C. A. (2003). *"We were all slaves": African miners, culture, and resistance at the Enugu government colliery.* Greenwood Press.
- Christy, C. (1911). *The African rubber industry and Funtumia elastica ("kickxia").* J. Bale, Sons & Danielson, Limited.
- Conley, T. G. and Udry, C. (2010). Learning about a new technology: Pineapple in Ghana. *American Economic Review.*
- Dumett, R. (1971). The rubber trade of the Gold Coast and Asante in the nineteenth century: African innovation and market responsiveness. *Journal of African History*, pages 79–101.
- Egboh, E. O. (1985). *Forestry policy in Nigeria, 1897-1960.* University of Nigeria Press.
- Egharevba, J. U. (1949). *Benin law and custom.* Niger Press.
- Fairhead, J. and Leach, M. (1996). *Misreading the African Landscape: Society and Ecology in a Forest-Savanna Mosaic.* Cambridge University Press.
- Ferguson, J. (1990). *The anti-politics machine: "Development," depoliticization, and bureaucratic power in Lesotho.* Cambridge University Press.
- Foster, A. D. and Rosenzweig, M. R. (2001). Learning by doing and learning from others: Human capital and technical change in agriculture. *Readings in the Theory of Economic Development.*
- Harms, R. (1975). The end of red rubber: A reassessment. *The Journal of African History*, 16(1):73–88.
- Hochschild, A. (1998). *King Leopold's ghost.* Houghton Mifflin.
- Hopkins, A. G. (1976). Imperial business in Africa part II. interpretations. *The Journal of African History*, 17(02):267–290.
- Igbafe, P. A. (1970). The fall of Benin: A reassessment. *The Journal of African History*, 11(3):385–400.
- Igbafe, P. A. (1975). Slavery and emancipation in Benin, 1897-1945. *The Journal of African History*, 16(3):409–429.
- Igbafe, P. A. (1979). *Benin under British administration: the impact of colonial rule on an African kingdom, 1897-1938.* Humanities Press, Atlantic Highlands, NJ.
- Isaacman, A. F. (1996). *Cotton is the mother of poverty: peasants, work, and rural struggle in colonial Mozambique, 1938-1961.* Heinemann, Portsmouth, N.H.
- Jones, W. O. (1959). *Manioc in Africa.* Stanford University Press.
- Maack, P. (1996). *"We don't Want Terraces." Protest and Identity under the Uluguru Land Usage Scheme.* Custodians of the land: ecology & culture in the history of Tanzania. James Curry.
- Mackenzie, F. (1998). *Land, Ecology and Resistance in Kenya, 1880-1952.* Edinburgh University Press, Edinburgh.

- McCann, J. (2005). *Maize and grace: Africa's encounter with a New World crop, 1500-2000*. Harvard University Press.
- Munro, J. F. (1981). Monopolists and speculators: British investment in West African rubber, 1905-1914. *The Journal of African History*, 22(2):263–278.
- Munro, J. F. (1983). British rubber companies in East Africa before the First World War. *The Journal of African History*, 24(3):369–379.
- Ofonagoro, W. I. (1979). *Trade and imperialism in Southern Nigeria 1881-1929*. NOK Publishers International.
- Okpeke, L. (1992). *Tropical Tree Crops*. Spectrum Books Limited, Onitsha.
- Omosini, O. (1979). The rubber export trade in Ibadan, 1893-1904: Colonial innovation or rubber economy. *Journal of the Historical Society of Nigeria*, 10:21–46.
- Osborn, E. L. (2004). 'Rubber fever', commerce and French colonial rule in upper Guinée, 1890-1913. *Journal of African history*, 45(3):445–465.
- Ostrom, E. (1991). *Governing the commons: The evolution of institutions for collective action*. Cambridge University Press.
- Pearson, H. C. (1918). *Crude rubber and compounding ingredients: a textbook of rubber manufacture*. The India rubber publishing company.
- Phillips, A. (1989). *The Enigma of Colonialism: British Policy in West Africa*. Indiana University Press.
- Rae, G. (1938). The statistics of the rubber industry. *Journal of the Royal Statistical Society*, 101(2):317–375.
- Resor, R. R. (1977). Rubber in Brazil: Dominance and collapse, 1876-1945. *The Business History Review*, 51(3):341–366.
- Rowling, C. W. (1948). *Notes on Land Tenure in the Benin, Kukuruku, Ishan and Asaba Divisions of Benin Province*. Lagos: Government Printers.
- Ryder, A. F. C. (1969). *Benin and the Europeans, 1485-1897*. Humanities Press.
- Usuanlele, U. (1988). State and class in Benin Division 1897–1959: A history of colonial domination and class formation.
- Usuanlele, U. (2009). Communal plantation system in Benin Province 1901-1924: Environmental conservation or deforestation? *Working Paper*.
- von Hellermann, P. (2005). things fall apart? a political ecology of 20th century forest management in Edo State, southern Nigeria.
- von Hellermann, P. (2007). Things fall apart? management, environment, and taungya farming in Edo state, southern nigeria. *Africa*, 77(3):371.
- von Hellermann, P. and Usuanlele, U. (2009). The owner of the land: The Benin Obas and colonial forest reservation in the Benin Division, Southern Nigeria. *The Journal of African History*, 50(02):223–246.
- Voon, P. K. (1976). Western rubber planting enterprise in southeast Asia, 1876-1921.
- WALC (1916). Minutes of evidence. *West African Lands Committee*.

Woodruff, W. (1955). Growth of the rubber industry of Great Britain and the United States. *Journal of Economic History*, 15(4):376–391.