An Environmental History of Palm Oil Development in Dahomey in the Twentieth Century

Giovanni Tonolo*

ABSTRACTS

The relation between development and the environment has only occasionally been taken into consideration by historiography so far. This article stresses its importance by focusing on the development of palm oil production in Dahomey/Benin in the twentieth century. On the one hand, the respective development projects were determined by the experts' reading of the surrounding environment. On the other hand, the outcomes of the projects included concrete ecological transformations.

The initial French understanding of the palm groves as a "natural" environment made their protection the primary concern of development. This conservationist view informed the choice of development measures. From the end of the 1920s the colonial administration opted for a more active approach by planting high-yielding palms. Nevertheless, the environment that the French wanted to develop and protect did not correspond to the existing one. This became evident after Dahomean independence (1960), when development interventions created a new landscape with standardized plantations.

Das Verhältnis von wirtschaftlicher Entwicklung und Umwelt ist in der Historiographie bislang nur vereinzelt berücksichtigt worden. Dieser Artikel bezieht sich auf dieses Verhältnis, indem er die Entwicklung der Palmölproduktion in Dahomey/Benin im 20. Jahrhundert untersucht. Auf der einen Seite waren die entsprechenden Entwicklungsprojekte vom Verständnis der Experten der sie umgebenden Umwelt bestimmt. Auf der anderen Seite führten die Ergebnisse dieser Projekte zu konkreten Veränderungen der Umwelt.

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Die ursprüngliche französische Wahrnehmung der Palmenhaine als „natürliche" Umwelt machte ihren Schutz zum wesentlichen Anliegen der wirtschaftlichen Entwicklung. Diese vom Naturschutz geprägte Sicht beeinflusste die Wahl der Entwicklungsmaßnahmen. Seit Ende der 1920er Jahre entschied sich die Kolonialverwaltung für einen aktiveren Ansatz, indem sie hochertragreiche Palmen pflanzen ließ. Doch die Umwelt, die die Franzosen entwickeln und schützen wollten, entsprach nicht den ökologischen Gegebenheiten. Dies zeigte sich nach der dahomeanischen Unabhängigkeit (1960), als durch Entwicklungsinterventionen eine neue Landschaft mit standardisierten Plantagen entstand.

1. Introduction

Palm oil is well known today for consumers' concerns about its effects on human health and on the environment. Its name is often associated with deforestation, destruction of ecosystems, and species extinction. Especially in Southeast Asia, with Indonesia and Malaysia supplying almost the entirety of the world demand, these perceptions mirror the reality of the quick expansion of palm plantations at the expense of the rainforest.[1] However, the development of palm oil production – and with *development* I mean here all the interventions by public or private authorities aimed at fostering the productivity of oil palms – has a much more long and turbulent history that dates back to the nineteenth century.

Originally, oil palm (*Elaeis guineensis*) was native to West Africa. Here, initially African kingdoms, and later on colonial states, and European scientists and businessmen started exploring new solutions to enhance the productivity of palm groves. From the first half of the nineteenth century, indeed, palm products were increasingly used in Europe as lubricators in the new factories and as ingredients for soap and candle manufacturing. Since then, the expansion of palm oil production in the world has had multi-faceted outcomes for the different ecological contexts where it took place.[2]

In this article, I aim to look at the history of the development of palm oil production in Dahomey (present-day Benin), by foregrounding the environment as the main subject of inquiry, considering it not as a natural given but as the result of the continuous interaction between humankind and nature. Following the recent historiographical shift of focus from top-down development planning to the concrete practice of development projects, historians of development have taken into consideration the environment, in

1 Oil palm cultivation is reported to have been responsible for 50 per cent of deforestation on the island of Borneo between 2005 and 2015, whereas it only has only accounted for 2–3 per cent in West Africa since 1972 (E. Meijaard et al. [eds.], Palmiers à huile et biodiversité: Analyse de la situation par le Groupe de travail de l'UICN sur les palmiers à huile, Gland 2018, p. vii). Important research has been done recently concerning the Asian oil palm plantations: S. Chao, In the Shadow of the Palms: More-Than-Human Becomings in West Papua, Durham 2022; T. Murray Li/P. Semedi, Plantation Life: Corporate Occupation in Indonesia's Oil Palm Zone, Durham 2021.

2 See V. Giacomin, The Transformation of the Global Palm Oil Cluster: Dynamics of Cluster Competition between Africa and Southeast Asia (c. 1900–1970), in: Journal of Global History 13 (2018), pp. 374–398; J. E. Robins, Oil Palm: A Global History, Chapel Hill 2021.

particular when it comes to agricultural and food projects, or huge infrastructural constructions.[3] Nonetheless, the dependence of development interventions on the existing environment has been a more significant factor than the attention of historians so far suggests. Furthermore, the relation between development and environment is more complex than it might seem: if most development policies had a productivist rationale, this did not mean that their relation to the environment was merely extractive. On the contrary, this paper illustrates that the conservation of natural resources could sometimes be the main prerogative of development, even under colonial rule.[4]

More generally, I argue that embracing an environmental-history perspective on development concerns the intellectual as much as the material world. It means asking how the various actors perceived and imagined the environment and its transformations. Importantly, both perceptions of and interference in the environment evolved over time, as a result of the unequal but decisive interaction between "scientific" and "local" knowledge, between development interventions and farming practices, between botanical experiments and changing ecological conditions. Furthermore, and at a more concrete level, an environmental history of development implies being particularly sensitive to all of the small, seemingly unimportant changes: even the most mundane modification, like planting an oil palm (or felling it), cannot be regarded as neutral.

The first section of this article discusses the initial French interpretations of the Dahomean palm landscape and the measures the colonial officials adopted at the beginning of the twentieth century. Whether they understood active farming as the origin of the palm groves or not, the French observers all shared the belief that it was time for them to be protected from peasants' activity.

After WW I, the global palm oil market witnessed increased competition. The colonial administration thought that the conservation of the palm groves would not suffice to maintain the Dahomean exports. For this reason, the French started planting high-yielding selected palms in the territory. The second and third sections deal with this attempt at renovating the Dahomean palm groves.

The article finishes with a focus on the development schemes of post-independent Dahomey. These envisioned the creation of large standardized oil palm plantations, which led to the installation of an entirely artificial landscape in the south of the country:

3 See, for instance, T. Robertson, Cold War Landscapes: Towards an Environmental History of US Development Programmes in the 1950s and 1960s, in: Cold War History 16 (2016) 4, pp. 417–441.

4 The development interventions concerned with conservation were often aimed at countering soil degradation: see W. Beinart, Soil Erosion, Conservationism and Ideas about Development: A Southern African Exploration, 1900–1960, in: Journal of Southern African Studies 11 (1984) 1, pp. 52–83; C. Pessis, The Tractor as a Tool of Development? The Mythologies and Legacies of Mechanized Tropical Agriculture in French Africa (1944–56), in: G. Hödl/J. M. Hodge/M. Kopf (eds.), Developing Africa: Concepts and Practices in 20th Century Colonialism, Manchester, 2014, pp. 179–203; R. Schuknecht, British Colonial Development Policy after the Second World War: The Case of Sukumaland, Tanganyika, Berlin 2010, p. 23. On the contradictory aspects of colonial conservationism, see K. Brown, "Trees, Forests and Communities": Some Historiographical Approaches to Environmental History on Africa, in: Area 35 (2003) 4, pp. 344, 347. On forms of colonial "conservationist practices" grounded in misinterpretations of the surrounding environment, see J. Fairhead/M. Leach, Misreading the African Landscape: Society and Ecology in a Forest-Savanna Mosaic, New York 1996.

ordered monocrop oil palm plantations replaced fallows, forests, and former plantations associated with food crops. The paper is based on colonial sources conserved in French and Beninese archives, on sources produced by the so-called donors with regards to the development schemes of the 1960s, and on oral interviews with people involved in the realization of these projects.

2. Protecting the Palms, Protecting the Climate (1890–1920)

With the end of the slave trade, "for many parts of West Africa, the nineteenth century was the century of palm oil", as historian Martin Lynn put it.[5] The first documented palm oil exports from the kingdom of Dahomey date back to the 1770s, and in the 1840s slaves and palm products contributed equally to the kingdom revenue; from then onwards, the latter took the lead.[6] During that decade, King Guèzo encouraged the production of palm oil through a series of measures: he imposed the compulsory creation of palm plantations on the villages, he prohibited the felling of palm plants for palm wine production, and he reformed the *kuzu* tax (the major source of royal revenue, up to then a levy on agricultural products) so that it could be paid through palm oil.[7] Eventually, the French military conquest of the territory (1892-94), driven by the will to rival the British presence, was encouraged by Marseillaise palm oil traders, such as Cyprien Fabre and Louis Mante Régis, to secure their own interests.[8]

French expectations were based on the exploitation of the vast palm groves through the improvement of the transport infrastructure: a port was inaugurated in Cotonou in

5 M. Lynn, Commerce and Economic Change in West Africa: The Palm Oil Trade in the Nineteenth Century, Cambridge 1997, p. 4. For a historical assessment of the role of the slave trade in the kingdom of Dahomey, see P. Manning, Slavery, Colonialism and Economic Growth in Dahomey, 1640–1960, Cambridge 1982, pp. 9–12.

6 Manning, Slavery, Colonialism and Economic Growth, p. 13. On the complementarity of the two trades, see Lynn, Commerce and Economic Change in West Africa; E. Soumonni, The Comptability of the Slave and Palm Oil Trades in Dahomey, 1818–1858, in: R. Law (ed.), From Slave Trade to 'Legitimate' Commerce: The Commercial Transition in Nineteenth-Century West Africa, Cambridge 1995, pp. 78–92.

7 E. G. Bay, Wives of the Leopard: Gender, Politics, and Culture in the Kingdom of Dahomey, Charlottesville/London 1998, p. 194; R. Cornevin, La république populaire du Bénin: Des origines Dahoméennes à nos jours, Paris 1981, p. 126; A. Le Herissé, L'ancien royaume du Dahomey: moeurs, réligion, histoire, Paris 1911, pp. 86–87. More recent historiography has relativized the impact of these measures: according to historian Dominique Juhé-Beaulaton their effects were confined to the Abomey highland, whereas social scientist Dorothea Wartena has argued that the kuzu reform was not particularly important in spreading oil palm cultivation. See D. Juhé-Beaulaton, La palmeraie du Sud Bénin avant la colonisation: essai d'analyse historique, in: M. Chastanet (ed.), Plantes et paysages d'Afrique, une histoire à explorer, Paris 1998, pp. 13–14; D. Wartena, Styles of Making a Living and Ecological Change on the Fon and Adja Plateaux in South Bénin, ca. 1600–1990, PhD dissertation, Wageningen University, 2006, p. 260.

8 Bay, Wives of the Leopard, pp. 284–304; S. C. Anignikin/C. B. Codo/L. Dossou, Le Dahomey (Bénin), in: C. Coquery Vidrovitch (ed.), L'Afrique occidentale au temps des Français, Paris 1992, pp. 373–375. On Marseillaise palm oil traders' role, see X. Daumalin, Commercial Presence, Colonial Penetration: Marseille Traders in West Africa in the Nineteenth Century, in: X. Daumalin (ed.), From Slave Trade to Empire: Europe and the Colonization of Black Africa 1780s–1880s, Abingdon 2004, pp. 209–230; J. D. Hargreaves, Towards a History of the Partition of Africa, in: The Journal of African History 1 (1960) 1, pp. 102–105; I. Scheele, Les relations transimpériales: L'exemple du Togo allemand et du Dahomey français à l'apogée de l'impérialisme européen, Berlin 2021, pp. 110–111.

1893, whereas the works for the railroad started in 1900.[9] This, together with soaring selling prices, succeeded in making Dahomey the second world exporter after Nigeria, with over 30,000 tons of palm products exported on average in the 1909–1913 period.[10] Actually, the French had not even considered the possibility of improving the cultivation methods of oil palm up to then because, as botanist Auguste Chevalier frankly admitted in 1910, they did not know that oil palms had to be cultivated.[11]

Indeed, Europeans saw in the oil palms a sign of a naturally favourable environment, rather than the result of long lasting agricultural activity.[12] Similarly, French observers had interpreted the landscape of Bas-Dahomey as partly or mostly composed of palm forests, with the exception of the clearly artificial plantations created around Abomey under Guèzo's reign.[13] Indeed, until the military conquest, the French presence had been constrained to the coast, and the interior was only partially known. In 1892 colonel Edouard Lambinet, in charge of an exploratory expedition to Dahomey, described the oil palms as constituting either forests (like north of Ouidah, or along the route which linked Porto-Novo to Sakété, or again to the east of Nokoué lake) or merely some scrubland (like around Abomey).[14] In 1899 palm oil trader Georges Borelli claimed that Dahomey was "a natural plantation of a million hectares of oil palms", as spontaneous as the pine forests in Provence.[15] The book presenting the territory at the Paris universal exposition added that this natural plantation "multiplies spontaneously and does not require any maintenance"; furthermore, these "palm forests" seemed "inexhaustible".[16] In his 1901 report, agronomist Jean Daniel argued that oil palm grew everywhere in Bas-Dahomey "without any cultivation".[17] Natural scientist Henry Hubert, back from a mission in the territory, wrote in 1908 that oil palms formed a forest, at times dense, across the territory.[18]

At the beginning of 1910 botanist Auguste Chevalier arrived in Dahomey, as part of a two year-long mission in French Guinea, Côte d'Ivoire, Dahomey, Haute-Volta, and Mali. The mission, supported by the general government of French West Africa, by the

9 Anignikin/Codo/Dossou, Le Dahomey (Bénin), pp. 380–381.

10 F. Rouget, Les palmistes de l'Afrique Equatoriale Française, in: Congrès d'agriculture coloniale 21–25 mai 1918, vol. II Section des oléagineux, Paris 1920, pp. 318–319.

11 A. Chevalier, Documents sur le palmier à huile, Gorée 1910, p. 4.

12 Robins, Oil Palm: A Global History, p. 43.

13 On pre-colonial developments, see Juhé-Beaulaton, La palmeraie du Sud Bénin avant la colonisation: essai d'analyse historique. On the superimposition of forest and palm groves in French writings, which led international organizations in the 1980s and the 1990s to exaggerate the forest coverage in Dahomey at the beginning of the twentieth century, see J. Fairhead/M. Leach, Reframing Deforestation: Global Analysis and Local Realities: Studies in West Africa, London/New York 1998, pp. 98–100. For a discussion of the roots of the concept of "forest" itself in Western environmental epistemology, see C. McEwan, Representing West African Forests in British Imperial Discourse c. 1830–1900, in: R. Cline-Cole/C. Madge (eds.), Contesting Forestry in West Africa, Aldershot 2000, pp. 16–35.

14 E. Lambinet, Notice géographique, topographique et statistique sur le Dahomey, Paris 1893, pp. 21–57.

15 G. Borelli, Le Dahomé: Ressources économiques et avenir commercial, Marseille 1899, p. 6.

16 L. Brunet/L. Giethlen, Dahomey et Dépendances, Paris 1900, pp. 366, 368.

17 J. Daniel, Le palmier à huile du Dahomey, in: Revue coloniale, 1902, pp. 187, 191.

18 H. Hubert, Mission scientifique au Dahomey, Paris 1908, p. 523.

museum of natural history of Paris, and by the Académie des sciences, was aimed at surveying the flora, and the agricultural and forestry resources of the territories.[19] The main result of his stay was the realization that the existence of oil palms in Dahomey was largely the outcome of intense human activity rather than a natural environment. The scientist reckoned that it was impossible to determine where the oil palm grew spontaneously and where it was "simply naturalised", since it had already vastly multiplied, but he claimed to have found "undisputable evidence" of the presence of "a big virgin forest" in Bas-Dahomey, where *E. guineensis* did not grow spontaneously.[20] "Human population density" along with the "large number of slaves" waiting to be sent to America, Chevalier argued, had led the Dahomeans to destroy the original forest and replace it with food crops and oil palms. It was therefore thanks to the farmers' active role that every maize field, at times "regrettably" created through deforestation, was bound to become a palm grove.[21]

French observers approached African vegetation with the conviction that it was undergoing a process of gradual desiccation.[22] The Dahomean palm groves were part of this vision of degradation: on the one hand, they took them as a sign of the previous presence of original forest which had been destroyed; on the other hand, they believed that the survival itself of the palm groves was threatened by ill-suited climate conditions, which in turn had been determined by previous deforestation. Although being one of the original sites of the evolution of the oil palm, Dahomey did indeed have an ill-suited climate for palm oil production. The territory is part of what scientists today call the "Dahomey gap": the area of savanna which separates Africa's two great zones of rain forest. One might say that palm oil production increased in nineteenth-century Dahomey at the same time due to but also despite its ecological conditions: if atmospheric precipitation was inadequate, the absence of forest cover made the spread of palms easier.

Colonial scientists of the time lacked the necessary tools to discover that the "climatic exception" of Dahomey was not driven by humans but the result of a combination of terrestrial, atmospheric, and oceanographic factors, rooted in a climatic change that had occurred at least 4,000 years earlier.[23] Consequently, with almost no botanical knowl-

19 A. Chevalier, Rapport sur une mission scientifique dans l'Ouest Africain (1908–1910), Paris 1912.

20 Chevalier, Documents sur le palmier à huile, p. 14. On the impossibility of distinguishing between wild and "farmed" palms, see also C.W.S. Hartley, The Oil Palm, London 1977, p. 5; Lynn, Commerce and Economic Change in West Africa, p. 55. For a problematisation of the very categories "wild", "domesticated", and "cultivated" as reflections of Western conceptions of nature, see W. Beinart/K. Middleton, Plant Transfers in Historical Perspective: A Review Article, in: Environment and History 10 (2004) 1, p. 18.

21 Chevalier, Documents sur le palmier à huile, pp. 19–20. That same year agronomist Jean Adam arrived at the same conclusions regarding the regular transformation of maize fields into palm groves, see J. Adam, Le palmier à huile, Paris 1910, p. 97.

22 See also Fairhead/Leach, Misreading the African Landscape, pp. 246, 263; R. Groves, Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600–1860, Cambridge, UK/New York 1995. On the link between deforestation and desiccation made by European colonizers in Africa already in the nineteenth century, see Brown, "Trees, Forests and Communities": Some Historiographical Approaches to Environmental History on Africa, pp. 344–345.

23 J. Jenik, The Dahomey Gap: An Important Issue in African Phytogeography, in: Mémoires de la Société de Biogéographie 3ème série (1994) IV, pp. 125–133; U. Salzmann/P. Hoelzmann, The Dahomey Gap: An Abrupt Clima-

edge of oil palms, and the lasting assumption that the plant simply had to be harvested, the French administration believed that the best way to develop Dahomean palm oil and kernel production was to protect the palm groves from the Dahomeans.

Initially, the French turned their attention to two common agricultural practices in Dahomey: palm wine production and the use of bush fires. Sap extraction for wine-tapping, a production practice particularly common in the Mono region (Southwestern Dahomey), implied the logging of the plant. But as Dorothea Wartena has argued, palm wine was both economically and environmentally sustainable. On the one hand, it provided the farmers with a higher revenue in comparison to palm oil; on the other hand, palm plantations, periodically cut for wine-tapping, also worked as a fallow and improved soil conditions.[24] Conversely, the practice of bush fire was aimed at destroying the old grasses and eliminating the parasites inhabiting them, and it was therefore a quick procedure to clean and renew the soil. Despite acknowledging the ecological advantages of bush fire, French officials believed that this practice was jeopardizing the oil palm.[25] Therefore, on 23 August 1907 Governor Charles Marchal enacted a decree that prohibited both the felling of palms and starting of bush fires within the palm groves. Those found guilty of these practices were punished by a fine (from 5 to 50 francs) and 15 days of prison; furthermore, they were expected to plant four times the number of palms they had destroyed.[26] These harsh punishments reveal how the French approached the colonial environment with the assumption that the practices of locals were an "ecological catastrophe".[27]

French colonizers knew that the Dahomean climate was at times detrimental to the palm plant.[28] Although all share the same latitude, its dry seasons are much longer than those of Nigeria and Côte d'Ivoire, and the overall amount of rainfall is not comparable. Agronomists argued that the minimum annual rainfall for palm oil production was 1,500 millimetres: if Nigeria received up to 3,000 millimetres, in Dahomey the rainfall exceeded 1,200 millimetres only in the Porto-Novo region and not even always.[29] The French thought that protecting both the palm groves and the remaining forest was a way

tically Induced Rain Forest Fragmentation in West Africa during the Late Holocene, in: Holocene 15 (2005) 2, pp. 190–199.

24 Wartena, Styles of Making a Living and Ecological Change on the Fon and Adja Plateaux in South Bénin, p. 302; D. Wartena, Local Oil Palm Management Styles in Benin: Wealth or a Source of Wealth?, in: Indigenous Knowledge & Development Monitor 7 (1999) 1, p. 15.

25 Adam, Le palmier à huile, p. 112; Chevalier, Documents sur le palmier à huile, pp. 70–71. On the persistence of the colonial reading of grassland fires as responsible for deforestation in Madagascar, see C. A. Kull, Deforestation, Erosion, and Fire: Degradation Myths in the Environmental History of Madagascar, in: Environment and History 6 (2000) 4, pp. 423–450.

26 Chef du Service de l'Agriculture à C. Marchal: A.S. de la destruction du palmier à huile, 15 June 1907, in Archives Nationales du Bénin, Porto-Novo (hereafter ANB), 3R1/5.1; Adam, Le palmier à huile, p. 228. On the punishments enacted in the Southwest, see Wartena, Styles of Making a Living and Ecological Change on the Fon and Adja Plateaux in South Bénin, pp. 310–311.

27 C. Bonneuil, Mettre en ordre et discipliner les tropiques: Les sciences du végétal dans l'empire français, 1870–1940, Thèse de Doctorat, Université de Paris VII, 1997, pp. 252–255.

28 See, for instance, Chef du Service de l'Agriculture à C. Marchal, p. 1.

29 André Aubréville, Les possibilités de la production d'huile et d'amandes de palme en AOF [March 1938?], p. 4,

to preserve, and possibly ameliorate, the climate for palm oil production. For this reason, they also banned the exportation of maize, whose cultivation rapidly expanded in 1909 and was believed to be the main contributing factor to deforestation in Dahomey.[30]
The first technological innovation related to oil palms was brought to Dahomey not by the French but by the Dahomeans themselves. Indeed, some who had served in the French army imported the distillation technique to the territory.[31] After a process of boiling, evaporating and condensing in a pipe, palm wine was distilled drop by drop into a can. The resulting liquor was called *sodabi*: in contrast to palm wine, *sodabi* kept for a long time. This allowed an extended trade, and it also had the potential to replace foreign liquor, which was used in every ceremony and whose import was becoming particularly costly.[32] The potential of *sodabi* production would become evident as soon as the Great Depression hit the territory.

3. Planting and Felling the Right Palms: The First Wave (1920–1945)

After WW I, the colonial administration more actively sought to enhance the output of its palm products. This shift from conservation to expansion was also due to the increased interest of French industrialists in palm products, and to the curiosity – and fear – raised among the members of the colonial institute of Marseille by the rapid successes achieved in Asia.[33] Here, some European businessmen had been creating large-scale industrial plantations, which were showing impressive yields. Consequently, not only Marseillaise traders, but also colonial officials and scientists now agreed that the future of oil palm in West Africa depended on both the agronomic improvement of the

in Archives du Centre de Recherches Agricoles sur les Plantes Pérennes, Pobè (hereafter ACRAPP), ARMO/1900/0062 "Palmier à huile – Aménagement, développement, amélioration".

30 J. Peuvergne au Commandant du Cercle du Mono: Au sujet des déboisements, 2 April 1909, in ANB, 1R1/3; H. d'Almeida-Topor, Histoire économique du Dahomey, Bénin, 1890–1920, vol. 2, Paris 1995, p. 218; P. Manning, An Economic History of Southern Dahomey, 1880–1914, PhD dissertation, University of Wisconsin, 1969, pp. 45–46; V. Pfeiffer, Agriculture au sud-Bénin: passé et perspectives, Paris 1988, pp. 37–39. The debate about forest extension at the moment of French colonization still remains open: see Fairhead/Leach, Reframing Deforestation, chapter 5; Juhé-Beaulaton, La palmeraie du Sud Bénin avant la colonisation: essai d'analyse historique.

31 Oral evidence mentions a certain Sodabi (or Sodabi brothers), either from Ouidah or Allada: see B. Antheaume, La palmeraie du Mono: approche géographique, in: Cahiers d'Études Africaines 12 (1972) 47, p. 472; H. Bismuth/C. Ménage, Les boissons alcooliques en A.O.F., in: Bulletin de l'I.F.A.N. XXIII (1961) 1–2, p. 100; C. Fourgeau/J. Maula, Producteurs et productrices d'alcool de palme (Sodabi) dans le sud-est du Bénin, in: Cahiers d'outre-mer 51 (1998) 202, p. 201.

32 On the slower rise in the unit price of palm products compared to that of consumer goods in Dahomey, see H. d'Almeida-Topor, Histoire économique du Dahomey, Bénin, 1890–1920, vol. 1, Paris 1995, p. 399.

33 See, for instance, E. Baillaud, Le Rôle du Palmier à Huile dans la Production Mondiale des Matières Grasses, in: Bulletin des Matières Grasses 1 (1919), pp. 132–136. The plantations of Southeast Asia were a source of both anxiety and inspiration for palm oil producers in the Belgian Congo and British Nigeria as well: B. Henriet, Colonial Impotence: Virtue and Violence in a Congolese Concession (1911–1940), Berlin/Boston 2021, p. 163; S. M. Martin, Palm Oil and Protest: An Economic History of the Ngwa Region, South-Eastern Nigeria, 1800–1980, Cambridge, UK, 1988, p. 61.

plant and the industrialisation of production, and these aspects were tied to each other: West Africa had to "scientifically" react to Asian competition.[34]

For this reason, Martial Merlin, the governor general of French West Africa, assigned the task of creating a number of research stations aimed at improving oil palm exploitation to Antony Houard. The Dahomean station was funded in 1922 in Pobè: among its various activities, palm selection soon took on the greatest importance. Between December 1922 and January 1923 Houard personally browsed the palm groves around Porto-Novo and brought the first promising plants to the station, which were to be the starting point of the real selection. When in 1929 the newly appointed lieutenant governor Joseph-François Reste launched the first *plan de mise en valeur* of Dahomey, the first ameliorated palms, expected to have a 75 per cent higher yield, were ready to be delivered from Pobè.[35] The plan, although formally aimed at the development of the entire territory, mostly dealt with the palm groves. Besides the planting of selected palms, it foresaw the distribution of some machines for the transformation of fruits into oil.[36] This focus on a single product was in line with the instructions given in 1921 by Albert Sarraut, the Minister of Colonies, who expected each territory to specialize in the production of just a few commodities needed for satisfying the metropolitan demand.[37]

Reste was especially worried about the state of the palm groves around Porto-Novo, the most important for French exports. The lieutenant governor can be considered as an embodiment of the larger concern with environmental degradation described above. Already at the beginning of the century agronomists Jean Daniel and Jean Adam had attributed the decline in the production of the *portonovienne* palm groves to soil exhaustion.[38] Reste, instead, was convinced that the Dahomean palm groves had entered a critical ecological phase, and claimed that the peasants, "living in the present and caring only a little about the future", had not been planting new palms "for fifty years". By extending food crop cultivation – he argued – they had prevented the natural palms from growing, and the existing ones were now becoming too old to produce a sufficient yield.[39]

34 Y. Henry, Rapport d'ensemble, in: Études et projets d'amélioration de l'exploitation du palmier à huile: Stations expérimentales, Paris 1922, p. 25.

35 A. Houard, Le palmier à huile au Dahomey, 10 October 1930, pp. 3–4, in ACRAPP), ARMO/1900/0062 "Palmier à huile – Aménagement, développement, amélioration".

36 A. Houard à J-F. Reste, D 12: Amélioration de la Palmeraie, 24 June 1929, in ACRAPP, ARMO/1900/0062 "Palmier à huile – Aménagement, développement, amélioration".

37 C. Bonneuil, "Mise en valeur" de l'empire colonial et naissance de l'agronomie tropicale, in: C. Bonneuil/M. Keliche (eds.), Du jardin d'essais colonial à la station expérimentale 1880–1930: éléments pour une histoire du CIRAD, Paris 1993, pp. 45–46. On post-war French economic colonial policies, see also A. Conklin, A Mission to Civilize. The Republican Idea of Empire in France and West Africa, Stanford 1997, chapter 7; M. Thomas, Albert Sarraut, French Colonial Development, and the Communist Threat, 1919–1930, in: Journal of Modern History 77 (2005) 4, pp. 917–955.

38 Daniel, Le palmier à huile du Dahomey, pp. 189–190; Adam, Le palmier à huile, p. 7. Conversely, in 1924 the colonial official Cazaux had been ambiguous by writing about the "exhaustion" of the palm groves of Porto-Novo – and not of its soil: see Cazaux, Rapport d'ensemble, 25 April 1924, p. 17, in Archives Nationales d'Outre-mer, Aix-en-Provence (hereafter ANOM), 1 AFFECO 876.

39 J.-F. Reste, Circulaire aux Chefs du Service de l'Agriculture et du Service zootechnique et aux Commandants de

Originally charged with jeopardizing a natural resource with their farming practices, Dahomean farmers were now found guilty of not planting enough.

Reste, however, was wrong. In 1932, Pobè experts already made it clear that the ageing of the palm groves was not "a serious immediate threat": not only did the palms "naturally" renew themselves, but they were also not entirely exploited yet; the declining yield was rather due to soil degradation.[40] Reste's position was therefore driven more by the need to justify the impending major human intervention in the palm groves, as foreseen by his plan, rather than by an accurate scientific understanding of the local ecology.

Far more than any development plans, though, it was the Great Depression that had a strong impact on the development of the Dahomean palm groves. The planting campaign was confronted with falling prices and the consequent disinvestment affecting palm oil production: if in 1929 20 litres of palm oil were sold at 40 francs at the Allada market, in 1933 they cost 3.50 francs.[41] The Dahomeans were more inclined in felling palms rather than planting new ones. The Great Depression certainly created favourable economic conditions for the producers of *sodabi*. Peasants became less interested in getting oil and kernel from the palms, whereas the administration further increased the taxation on imported spirits to compensate for the budget loss. Along with the markets for *ogogoro* in Nigeria and *akpeteshie* in the Gold Coast, the *sodabi* market exploded in the 1930s.[42]

Consequently, the practice of palm felling, which had until then been confined to the Mono region, suddenly affected the entire southern Dahomey.[43] In response, the colonial administration prohibited the production of *sodabi* in 1931, promising a reward to anyone denouncing violations.[44] The French often wrote about the palm groves around Porto-Novo as if an entire ecosystem was being lost – in 1936 palm felling was reported to be "increasingly widespread",[45] and the area comprised between Affamé and Adjohon

cercle sur l'intensification de la production agricole et pastorale au Dahomey, 1 November 1930, p. 3, in ANB, 1R9/1.1; see also J.-F. Reste, Circulaire aux Commandants, 14 June 1929, in ANB 1R7/13.2.

40 L. Aujas à E. Baron, TLO n° 6649 AE.AG/I: A/S production de la palmeraie, 22 October 1932, p. 1, in ACRAPP, ARMO/1900/0062 "Palmier à huile – Aménagement, développement, amélioration". See also Boulmer, Mission sur l'agriculture, 11 January 1934, p. 21, in ANOM, 1 AFFECO 101BIS; A. Rancoule, Production d'huile et d'amandes de palme au Dahomey [May 1938], p. 2, in ACRAPP, ARMO/1900/0062 "Palmier à huile – Aménagement, développement, amélioration".

41 Mission Boulmer sur le mouvement commercial du Dahomey, 10 April 1934, p. 16, in ANOM, 1 AFFECO 101BIS.

42 E. Akyeampong, Drink, Power, and Cultural Change: A Social History of Alcohol in Ghana, c. 1800 to Recent Times, Portsmouth 1996, pp. 96–98; S. Heap, Those That Are Cooking the Gins: The Business of Ogogoro in Nigeria during the 1930s, in: Contemporary Drug Problems 35 (2008) 4, pp. 574–576; C. J. Korieh, Alcohol and Empire: "Illicit" Gin Prohibition and Control in Colonial Eastern Nigeria, in: African Economic History 31 (2003), p. 117.

43 Service de l'agriculture et des forêts, Rapport Agricole de l'année 1930, 15 January 1931, p. 133, in ANB, 1R5/5.4.

44 A. Annet à Léon Geismar, n° 1566/AE: Aménagement des palmeraies naturelles, 5 September 1938, pp. 5–6, in ARMO/1900/0062, "Aménagement, développement, amélioration, sous dossier Palmier à huile au Dahomey"; Fourgeau/Maula, Producteurs et productrices d'alcool de palme (Sodabi) dans le sud-est du Bénin, p. 203. Similarly, the colonial police in the Gold Coast started prosecuting distillation in 1930–31: see J. E. Robins, "Imbibing the Lesson of Defiance": Oil Palms and Alcohol in Colonial Ghana, 1900–40, in: Environmental History 23 (2018), p. 303.

45 J.-H. Desanti aux Administrateurs: abatage palmiers, TLO n° 7, 14 January 1936, in ANB, 1R13.

at risk of experiencing "a complete destruction of the palm groves"[46] – but their means of reacting were limited. Besides personnel shortages (the first forestry guards exclusively responsible for monitoring palm felling were hired in 1939), the French found it particularly difficult to prevent liquor production because of complicit silence: the Dahomean chiefs were often the first to breach the prohibition.[47]

It was in this context that the administration started planting the new selected palms. Whether it was to save the palm groves, as Reste claimed, or "just" to extend them and ameliorate their vegetal material through selection, from 1928 to 1933 Pobè delivered 486,840 plants.[48] Reste, as he wrote in a circular letter in November 1930, expected 1 to 2 million selected palms to be planted per year[49] – a figure that the research station would reach only after Dahomean independence. According to Reste's plan, the palms were to be given to volunteers, initially at a symbolic price (between 0.10 and 0.25 francs per plant) but later for free as well. As a form of encouragement, the Dahomeans who planted at least 100 palms and respected the indications provided by the agricultural instructors, were entitled to a monetary reward up to 2,000 francs.[50] The efforts were concentrated on the *cercle* of Porto-Novo, and the first to receive the ameliorated palms were Dahomean chiefs and notables. Some of them, if we believe the French chief of the Sakété subdivision, were concerned like Reste with the declining production of their palms and were willing to pay for new plants.[51]

However, towards the end of the rainy season of 1932, the agricultural service of the colony could not find a spot for many selected plants and was forced to leave some of them in the nurseries. It eventually became clear that the voluntary Dahomean planters were few in the end. As a consequence, the chief agricultural engineer argued that to respect the *plan de mise en valeur*, which for example foresaw the plantation of 600 to 700 hectares (i.e., 84,000 to 98,000 palms) per year just in the *cercle* of Porto-Novo, the administration had to rely "less on the popular goodwill and more on its authority". Moreover, and especially in the southern area of the *cercle*, cutting down the existing subspontaneous palms was essential to plant selected palms in favourable places – but this was something the farmers would never accept to do, if they were not forced.[52]

46 Service de l'agriculture, Première Circonscription Agricole, Rapport annuel de 1938, 14 February 1939, pp. 38, 59, in ANB, 1R14/9.

47 Rapport de tournée effectuée en avril 1944 dans la Subdivision d'Adjohon par l'Agent de culture Kounasso, 16 May 1944, in ANB, 1R11/10.2. Chiefs' complicity was found in neighbouring Nigeria as well: see Heap, Those That Are Cooking the Gins, p. 593.

48 Mission Boulmer, pp. 23–24.

49 Reste, Circulaire aux Chefs du Service de l'Agriculture et du Service Zootechnique, p. 1.

50 Arrêté n° 1241 portant attribution de primes aux Agriculteurs-Dahoméens pour les Plantations nouvelles de Palmiers à huile et de cocotiers, 3 September 1929, in ANB, 1R7/13.2. On the price of the palms, see A. Houard à J.-F. Reste, p. 24; Chef du Service de l'Agriculture au Commandant du Cercle de Porto-Novo, TLO n° 564: Cessions gratuites palmiers [1933], in ANB, 1R1/9.

51 Chef de la Subdivision Banlieue au Commandant du Cercle de Porto-Novo, TLO n° 275, 3 June 1929, in ANB, 1R9/3.1.

52 Ingénieur Chef de la I Circonscription Agricole au Commandant du Cercle de Porto-Novo, 23 August 1932, in ANB, 1R1/9.

Since the French felt they could not rely on the farmers' co-operation, in the first years they assigned the majority of palms not to individuals but to collective plantations of about 10 hectares, whose product was to remain the property of the village. In general, Dahomean *chefs de canton* were in charge of forcibly recruiting the manpower for the planting of selected plants.[53] Nonetheless, the land available for collective plantations soon became scarce. From 1935 onwards, the administration planted the exceeding palms on glades or on fields cultivated with food crops by force. Landowners could not but assist in this combined intervention of forced labourers and colonial guards who inserted the plants within their cultivations. What is more, the farmers who were found to have let the selected palms die were forced to substitute them at their own expense. If they did not, they were sanctioned. Furthermore, the agricultural instructors had to give the names of those village chiefs who were believed to be protecting the alleged violators.[54]

Out of 167,500 palms planted in 1935, more than 80 per cent had died just two years later. The administration often blamed the farmers for being "recalcitrant to palm planting".[55] They were reported not to understand that the new palms would be more productive than the ones they already owned. Moreover, since they received the palms as gifts from the administration, they feared to be obliged to pay a tax on them: traditionally, the palm belonged to the one who planted it.[56]

Actually, the existing sub-spontaneous palms were already much larger in number than the Dahomean farmers were able to exploit. Given the fact that they often conceived oil palm as a potentially infinite source of complementary income to pay taxes and fulfil other needs, they did not understand why they had to carry out additional labour like land clearing or palm felling in order to plant more fragile plants, which the selected palms were, when they could simply harvest a higher number of plants in case of need.[57] Even contemporary French officials acknowledged that the responsibility of the Dahomeans for the problems was only partial. According to Pobè director Elie Baron, the reason for the high mortality rate of palm plants, particularly in the *cercle* of Porto-Novo, was that the administration had planted them too late. Similarly, in 1935 another colonial official argued that the waste of selected palms in the Banlieue region was mostly due to poor soil and lack of fertilizer, rather than to Dahomeans' unwillingness to tend to

53 Chef de la Subdivision de Sakété au Commandant du Cercle de Porto-Novo, 13 May 1933, in ANB, 1R1/9.

54 Instructions relatives à la campagne de plantation – Année 1936: Instructions destinées au moniteur agricole Idriz Philippe en Service à Sakété, February 1936, in ANB, 1R11/10.2.

55 Notice sur le fonctionnement de l'agriculture [1937], p. 9, in ANB, 1R13/9.1.

56 La situation agricole [1938], in ANB, 1R7/12.1; A. Rancoule, Production d'huile et d'amandes de palme au Dahomey [May 1938?], p. 4, in ACRAPP, ARMO/1900/0062 "Palmier à huile – Aménagement, développement, amélioration".

57 The context in the more populated regions (like Porto-Novo and Abomey) might have been slightly different: see A. Rancoule, Étude sur les causes de fléchissement de la production du palmier à huile au Dahomey, 28 October 1932, p. 6, in ACRAPP, ARMO/1900/0062 "Palmier à huile – Aménagement, développement, amélioration". See also M. Dissou, Développement et mise en valeur des plantations de palmier à huile au Dahomey, in: Cahiers d'Études Africaines 12 (1972) 47, p. 490.

them.[58] Moreover, a lot of plants died also because the French installed them where the Dahomeans did not want them to be.[59]

In 1937, the administration for the first time assigned rewards for those planting new palms.[60] This, together with an increase in selling prices, encouraged the demand for plants, which for the first time exceeded the figure prescribed by the plan. From the French perspective at least, there was no need to use force to plant palms in 1938 and 1939; rather, the station of Pobè had some difficulty to satisfy the requests.[61] However, the peasants often abandoned the plants after having received the award; this was the case with "almost all the plantations established in 1938 and whose owners had been prized in 1939" in the subdivision of Sakété.[62]

This is why from 1943 onwards the administration decided to interrupt the planting of selected palms in the plots of individual farmers. Instead, its staff tried to plant in a more systematic way than before: rather than spatially dispersing the efforts, the palms were to create compact blocs. The agricultural service looked for places where sub-spontaneous palms were absent or particularly sparse, and planted the selected palms there, against the will of the locals. Landowners were compelled to ensure the continued employment of the required labour force and the maintenance of the seedlings. In return, they became the proprietors of the new palms. The main advantage was that these blocs could easily be guarded by the administration. Moreover, this procedure would create homogenous palm groves, made of plants of the same age, which would become productive at the same time and could be more efficiently exploited.[63]

In 1943, some 300 hectares were planted in this way in the *cercle* of Porto-Novo.[64] Local chiefs were still charged with recruiting the labour force. Each village had to provide 50 men, and each yard was surveyed. Each worker was expected to dig 50 holes per day, and

58 E. Baron, Rapport de tournée sur les plantations de Palmier à Huile sélectionnées, 1 November 1934, p. 16, in ACRAPP, ARMO/1900/0062 "Palmier à huile – Aménagement, développement, amélioration"; Subdivision Banlieue, Rapport économique trimestriel, fourth trimester1935, p. 3, in ANB, 1Q18/204.

59 The French carried out a similar experiment in Sénégal in the mid-1930s with the so-called "Terres neuves", an extension project of selected groundnuts in the colony: see Bonneuil, Mettre en ordre et discipliner les tropiques, pp. 467–84. See also forced kola-planting in Guinée in Fairhead/Leach, Misreading the African Landscape, p. 242. On the Great Depression and the consequent intensification of coercive practices in the colonial empires, see for instance M. E. Ochonu, Colonial Meltdown: Northern Nigeria in the Great Depression, Athens 2009; C. Coquery-Vidrovitch, Mutation de l'Impérialisme Colonial Français dans les Années 30, in: African Economic History 4 (1977), pp. 103–152; B. Jewsiewicki, The Great Depression and the Making of the Colonial Economic System in the Belgian Congo, in: African Economic History 4 (1977), pp. 153–176.

60 Décision n° 1844: Primes aux cultivateurs, 29 November 1938; R. Guerard à H.-E. Martinet, Primes d'encouragements aux planteurs du palmier sélectionné, 15 July 1938; both documents are conserved in 1R9/4.1.

61 La situation agricole [1938], in ANB, 1R7/12.1; Première Circonscription Agricole, Rapport annuel de 1938, 14 February 1939, p. 26, in ANB, 1R14/9; Rapport de tournée du mois de mai et juin 1939 du conducteur des travaux agricole Duprez, 26 August 1939, pp. 17–20, in ANB, 1R15/5; A. Aubréville, Les deux stations expérimentales du Palmier à huile, in: Revue de botanique appliquée et d'agriculture coloniale 19 (1939) 209, p. 13.

62 Rapport de tournée du mois d'Octobre 1941 de l'agent de culture Kounasso, 8 November 1941, in ANB, 1R15/5.

63 Valentin, Rapport concernant l'organisation de la plantation rationnelle des palmier à huile de Pobè et la revalorisation méthodique de la Palmeraie [April 1944], pp. 6–12, in ACRAPP, ARMO/1900/0062 "Palmier à huile – Aménagement, développement, amélioration".

64 Dahomey, Rapport économique: année 1943, pp. 33–34, in ANOM, 1 AFFECO 912.

then to install 100 palms per day. The sub-spontaneous plants which the agricultural instructor considered too old, or sterile or too high to be harvested were marked, and their owners were obliged to cut them off.[65] In 1944, the recruitment of labour proved to be difficult despite the employment of the guards.[66] Indeed, these bloc plantations were introduced when a tragic famine hit Southern Dahomey.[67]

While acknowledging in 1944 that the distribution of more than three million plants in the colony had achieved "zero results", the administration did not question that "the future belonged to selected palms". The fact that the fruit pulp of the selected palms delivered by Pobè was four times that of the sub-spontaneous ones appeared to the French as a self-evident plus. Moreover, the fact that Dahomey was producing far more selected palms than neighbouring Nigeria was an additional reason for the French administration not to slow down the process.[68]

4. Planting and Felling the Right Palms: The Second Wave (1945–1960)

After WW II, the world market was short of vegetable oils. Already in 1945 the planning bureau of the Ministry of Overseas France started elaborating a plan of production for fats which was focused on palm products, groundnuts, and shea.[69] A development plan for oleaginous products in West Africa was launched in 1947. It had been prepared by the Institut de recherche pour les huiles et oléagineux (IRHO), a private research institute founded in 1941. It was aimed at vertically organizing and strictly controlling the colonial production from Paris, indeed imitating the structures of the Asian rubber sector. The institute itself was dominated by planters and managers who had until then been operating in Southeast Asia.[70] Its president, Robert Michaux, was a successful manager of both rubber and oil palm plantations with an international reputation.[71] Already in July 1941, Michaux had been asked by Charles Platon, the Vichy Secretary of State for

65 Valentin, Rapport, p. 5; Service de l'agriculture, Rapport agricole annuel 1948, p. 150, in ANOM, 14 MIOM 1887.

66 G. Jambon, Rapport de tournée effectuée courant Avril 1944, dans le Cercle de Porto-Novo, 15 May 1944, in ANB, 1R11/10.2; G. Jambon, Rapport de tournée effectuée courant mai-juin 1944, dans le cercle de Porto-Novo, 4 July 1944, p. 3, in ANB, 1R16/8.1.

67 Maurice Assier de Pompignan à Pierre Cournarie: Pluviométrie et baisse de la production, 7 May 1945, in ANOM, 1 AFFECO 449–450; A. I. Asiwaju, Western Yorubaland under European Rule 1889–1945: A Comparative Analysis of French and British Colonialism, London 1976, p. 176; Pfeiffer, Agriculture au sud-Bénin, p. 44.

68 Régénération palmeraie, 27 June 1944, in ANB, 1R1/9; Projet de plan quinquennal 1938–1942, pp. 23–25, in ANB, 1Q7/65. On Nigeria, see also E.-J. Usoro, The Nigerian Oil Palm Industry (Government Policy and Export Production, 1906–1965), Ibadan 1974, p. 44; Martin, Palm Oil and Protest, pp. 63–64.

69 Comité directeur du FIDES, Note sur la création d'usines d'huile de palme en Côte d'Ivoire, au Dahomey, au Togo, au Cameroun et en AEF [1947], in ANOM, 1 AFFECO 475.

70 Bonneuil, Mettre en ordre et discipliner les tropiques, p. 497; R. Tourte, Histoire de la recherche agricole en Afrique tropicale francophone, vol. V: Le temps des stations et de la mise en valeur 1918–1940/1945, Rome 2005, pp. 117–119.

71 C. Hodeir, Stratégies d'Empire. Le grand patronat colonial face à la décolonisation, Paris 2003, p. 44.

the Colonies, to work on a development program for the oilseed products.[72] Back from a mission to West Africa in 1942, and perhaps intent on justifying a strong control by IRHO in future interventions, Michaux sounded as alarmed as Reste with regards to the palm groves: he claimed that the "very existence of the oil palm was at risk in Dahomey" and that this would "soon" be the case in Côte d'Ivoire as well. Furthermore, he believed that maize and manioc intercropping was the main threat to the precious palm plants. Therefore, the African palm groves had "to be entirely renovated".[73]

However, as the authors of the 1947 development plan eventually acknowledged, even "the most ingenious tricks of modern technology" would not "entirely correct the unfitness" of the Dahomean environment to oil palm: its exploitation nevertheless "remain[ed] a necessity, in absence of any other serious source of agricultural income" for the territory.[74] This did not mean that palm oil production was forced through against nature, but that experts were aware that any improvements would eventually be constrained by the ecology of the territory. Nonetheless, since development planning was mostly intended to foster the exports of the colony, palm oil remained the only solution in their view.

The 1947 plan foresaw the creation of four oil mills and the renewing of the palm groves with selected plants. The delivery of palms from Pobè was not a novelty per se, but occurred on an unprecedented scale, thanks to the funding of the Fonds d'investissement de développement économique et social (FIDES) and the direction of the Secteur de Rénovation de la Palmeraie (SRP). Created in 1946, the FIDES annually channelled money from the metropole to French colonial territories to finance development projects. The SRP was an autonomous service which took over the Dahomean palm sector. In comparison to the agricultural service, which until then had taken care of the palm groves along with all the other cultures of the colony, the SRP had a larger degree of autonomy, and could rely on its own transportation means, and agricultural machinery, but also recruit salaried workers.[75]

Departing from the practices of the war period, the SRP did not install entire blocs of palm plants, but rather integrated the existing palm groves, with the aim of standardising the density at 140 palms per hectare. In a region where oil palms had to compete with food crop cultivation, and where the farmers were keen to sacrifice the younger palms to make room for maize rather than logging the old ones, the "complantation" system had the two-fold aim of increasing the productivity per hectare and renewing the palm

72 R. Michaux, Le développement du palmier à huile en Afrique Française, in: Semaine du palmier à huile et du cocotier, Paris 1943, p. 106.

73 Le palmier à huile en A.O.F. et le développement de la production d'huile de palme. Rapport de mission de R.M.E. Michaux (May–June1942), 13 September 1942, pp. 1–2, in ACRAPP, ARMO/1900/0062 "Palmier à huile – Aménagement, développement, amélioration".

74 Commissariat Général du plan, Commission de Modernisation et d'Equipement des Territoires d'Outremer, Sous-commission de la production agricole, Développement de la production de matières grasses d'origine végétale dans les territoires d'Outremer [1946?], p. 20, in ANB, 1R16/9.

75 Rapport agricole de l'année 1947, pp. 189–197, in ANOM, 14 MIOM 1882. On the abolition of forced labour in French colonies, see F. Cooper, Decolonization and African Society: The Labor Question in French and British Africa, Cambridge, UK, 1996, pp. 187–202.

groves. However, if the SRP found a plot where the density exceeded the recommended quota, its intervention consisted of felling rather than planting new palms.[76]
Nonetheless, the new approach produced problems similar to those seen in the 1930s. The Dahomeans requested more palms than those available in the tree nurseries, and pitting had to be interrupted at times. If the administration had imposed palm planting in a dramatic context of falling prices before the war, the situation was the opposite by its end. The selling prices on the world market were increasing overall. During the war palm groves had been neglected and damaged or reduced, either because the exports were blocked or, when it had become impossible to import any foreign liquor, to produce *sodabi*.[77] However, peasants asked for more palms than they were able to plant, either due to scarcity of land or of manpower; other times, they made the request just to please the administration. As a result, SRP agents planted palms without the knowledge of the landowners themselves in order not to let the plants die.[78] Furthermore, the farmers sowed maize and manioc a few centimetres from the palm seedlings and did not take measures to protect them from their cattle. Basically, they treated the selected palms like the sub-spontaneous ones, letting them coexist with other forms of cultivation.[79] This occurred especially in the Banlieue subdivision, where the planting reduced the already scarce land available for food crops. Here, the demand for oil palms was not so high.[80] Anyway, out of the 400,000 palms planted between 1947 and 1950 70 per cent were thought to have been lost.[81]
If we look closely at the shift that occurred in the SRP policies after 1953, it resembles a *déjà vu*. During the war the agricultural service had decided to plant the selected palms in a number of blocs given the disappointing experience of the 1930s. The SRP then opted for the same strategy from 1953 onwards. The IRHO was convinced that the apparent lack of success of the 1930s had been due to the poor organization of the agri-

76 M. Dissou, La Palmeraie béninoise: exploitation traditionnelle et aménagement volontaire, Thèse de Doctorat, Université de Paris, 1982, pp. 342–357.

77 See Service de l'agriculture, Rapport agricole annuel 1948, p. 97, in ANOM, 14 MIOM 1887; Territoire du Dahomey, Comité consultatif de l'IRHO, 4 February 1949, in ANB, 2Q1; Service de l'agriculture, Cercle de Porto-Novo, Rapport annuel 1949, 6 March 1950, p. 25, in ANB, 1R17/3.1; Service de l'agriculture, Cercle de Porto-Novo, Rapport annuel 1950, 28 February 1951, p. 28, in ANB, 1R17/6.1.

78 Service de l'agriculture, Cercle de Porto-Novo, Rapport annuel 1951, 27 February 1952, p. 32, in ANB, 1R17/3.1; J. Clerc/P. Adam/C. Tardits, Société paysanne et problèmes fonciers de la palmeraie dahoméenne (Étude sociologique et cadastrale), Paris 1956, p. 75; A. Cognard, La palmeraie du Dahomey, in: Comptes rendus de la Conférence Franco-Britannique sur le palmier à huile, 15–25 janvier 1956, Nogent-sur-Marne 1957, p. 94; M. Dissou, Economie de la culture du palmier à huile au Bénin et en Côte d'Ivoire: approche comparative des politiques agricoles en Afrique, Lomé, Dakar, Abidjan, 1988, p. 142.

79 Rapport agricole annuel 1948, p. 106; Service de l'agriculture, Rapport agricole de l'année 1950, pp. 166–167, in ANOM, 14 MIOM 1923; Cercle de Porto-Novo, Rapport économique semestriel: I semestre 1951, p. 14; A. Mondjannagni, Contribution à l'étude des paysages végétaux du Bas-Dahomey, Abidjan 1969, p. 125.

80 Service de l'agriculture, Rapport agricole de l'année 1951, p. 172, in ANOM, 14 MIOM 1938; Service de l'agriculture, Rapport agricole de l'année 1952, p. 213, in ANOM, 14 MIOM 1954. See also Clerc/Adam/Tardits, Société paysanne et problèmes fonciers de la palmeraie dahoméenne (Étude sociologique et cadastrale), p. 75; Dissou, Economie de la culture du palmier à huile au Bénin et en Côte d'Ivoire: approche comparative des politiques agricoles en Afrique, p. 142.

81 Cognard, La palmeraie du Dahomey, p. 94.

cultural services, but the SRP, eventually faced the same constraints, despite being better staffed and equipped. Nevertheless, the blocs introduced from 1953 onwards included fewer palms than before (100 instead of 140 per hectare), and they were separated by a number of corridors to cultivate other crops. The SRP experts hoped that integrating food crops with selected oil palms would convince the farmers to take care of the latter.[82]
In the meantime, *sodabi* production continued. In 1947, the forestry service estimated that only 20 per cent of the illegal cuttings had been prosecuted and that 500,000 palms had been cut in that year for wine-tapping.[83] The administrators were convinced they were felling more palms than those yearly delivered by the SRP. Consequently, the colonial state reinforced the repressive bodies and tightened the fining regulation against *sodabi* production: the number of proceedings regarding palm felling and the revenue they generated increased exponentially. But despite the fines, *sodabi* manufacture was still profitable for the peasants, and any reduction of the felling was not due to police action but to the increase in the selling price of palm oil and kernels.[84] As the chief of the forestry service wrote in 1953, it was pointless "to invest important capital in the renewing and amelioration of the Dahomean palm groves if the results of this material and financial effort remained at the mercy of *sodabi* producers' whim". In sum, even though the planting aspect was becoming more prominent, in the 1950s the development of the Dahomean palm groves still depended on both their renewal and their defence from wine tappers. The administration was not against palm felling if it served to maintain the "right" plant density; rather, it was against uncontrolled felling which might harm palm oil production. The palm landscape was to be protected from all the activities not aimed at producing exportable value (i.e. oil palm and kernels), such as food or liquor production. Development was intended to satisfy the metropole's demand and the colonial revenue first, not locals' needs.
This became clear in that same year of 1953: one of the main operations carried out by the SRP was the redevelopment of a 50-hectare plantation of sub-spontaneous palms in Ahozon. The project foresaw the preparation of the soil, the cutting of too old or excess palms, and the replanting of selected ones, in order to create a regular and homogeneous plantation. The peasants refused to take part in the works and influenced the operation to their advantage. They eluded the logging controllers' surveillance and felled those palms that were best-suited for wine-tapping, not those required for the project. Similarly, the young selected palms distributed to Adja peasants in the Mono region were lost in the palm wine groves.[85] As a consequence, from January 1954 onwards, the colonial

82 Secteur Rénovation Palmeraie, Rapport annuel 1954, February 1955, pp. 13–14, in ACRAPP, ETAG/2014/0005/4.
83 Rapport annuel forestier, 1947, pp. 41–43, in ANB, 3R2/8.
84 Cercle de Porto-Novo, Rapport annuel 1948, 28 February 1949, p. 34, in ANB, 1Q7/73; F. Michon, Rapport sur l'Abattage des palmiers à huile dans les Cercles du Sud – Inefficacité de la Répression, 16 February 1950, pp. 3–5, in ANOM, 14 MIOM 1905.
85 Dissou, Economie de la culture du palmier à huile au Bénin et en Côte d'Ivoire: approche comparative des politiques agricoles en Afrique, pp. 140, 142.

administration transferred control over the cutting from the forestry service to the SRP.[86] This meant that the technical service charged with the development of palm oil production additionally became responsible for prosecuting the producers of *sodabi*. Also at an institutional level, the "protection" of the palm plants from the peasants thus became the other face of the development projects.

Ultimately, also where the palms were associated with food crops, like in the SRP blocs, the peasants did not look after them: in 1958 only 42 per cent of the selected palms delivered were still alive.[87] In 1959, the Gbada bloc was reported to suffer serious damage from intercropping, bushfires, and spontaneous vegetation. Overall, 550 million francs CFA had been disbursed from 1947 to 1958 to plant 5,400 hectares of plantation blocs, to improve 2,400 hectares of existing palm groves, to distribute selected palms to individuals free of cost, and additionally to make some minor interventions to protect the plants from insects (like the DDT dispersed by air from January to February 1956 on the Ouémé valley, through which French officials also claimed to have reduced the spread of malaria among the population).[88] In sum, despite the substantial financial resources employed, the increased staff, and the considerable flow of seedlings and seeds from Pobè to the colony, ten years of SRP work had only had a minimal impact on the Dahomean landscape and on its agricultural practices.

The entire operation rested both on unstable technical grounds and on a French misunderstanding of the local ecology. To begin with, even if the planners had understood that the association of food crops and oil palm was vital, there were no clear instructions detailing which food crops (and how many of them) could be cultivated per hectare through intercropping.[89] What is more, the French saw the Dahomean environment as only partially exploited, and failed to acknowledge the complex agricultural system hidden behind it. Spontaneous vegetation, which was seen as worthless and replaced with selected palms, was in fact forest fallow. As French geographer Paul Pélissier wrote in 1963, wiping it out involved jeopardizing the food crop cultivation, and therefore peasants' subsistence, by preventing the reconstitution of soil fertility. Yet, leaving a few corridors between the selected palms in the blocs to the peasants did not mean keeping intact their production regime and its ecological equilibrium.[90] This was also why the fertilizers provided by the SRP were used by the Dahomeans not for the palms, as foreseen by the

86 Service de l'agriculture, Première partie 1954, p. 200, in ANOM, 14 MIOM 1992.

87 J. Kellerman, Extraits de l'étude du projet de plantations des palmiers à huile au Dahomey en 1963, p. 34, in Archives Nationales de France, Pierrefitte-sur-Seine (hereafter ANF), 19940701/20.

88 Ministère de l'Agriculture et du Paysannat, Travaux de la sous-commission pour l'étude des questions relatives au palmier à huile, septembre 1958–février 1959, p. 11, in ACRAPP, ETAG/2014/0003/5; Service de l'agriculture, Rapport 1956, p. 41, in ANOM, 14 MIOM 2033. See also Dissou, Economie de la culture du palmier à huile au Bénin et en Côte d'Ivoire, pp. 148–151.

89 Ibid., pp. 144, 155.

90 P. Pélissier, Les pays du Bas-Ouémé (Troisième Article), in: Cahiers d'outre-Mer 16 (1963) 61, p. 104. On the interest of Dahomeans in fertilizers, see Travaux de la sous-commission pour l'étude des questions relatives au palmier à huile, p. 11. The fact that Pélissier wrote this just a few years after the conclusion of the works suggests that it was not impossible for the administrators to comprehend these dynamics in time.

experts, but for the annual crops. Pélissier also argued that the peasants distrusted "every interference by no matter which public authority".[91] From the peasants' point of view, this attitude was not surprising, given that the SRP was the same service that marked the palms to be felled to maintain a standard plant density, punished felling for wine-tapping, and hindered food production by reducing the land available for fallow.

5. Creating the Perfect Industrial Plantation (1960–1980)

The history of development and that of decolonization in Dahomey overlap but do not coincide entirely. SRP interventions stopped in 1957 with the end of the second FIDES five-year development plan, whereas the so-called Loi-cadre, approved on 23 June 1956 and implemented in the territory in 1957, extended the powers of the territorial assembly over internal issues.[92] From September 1958 to February 1959, a Dahomean study commission was charged by the Ministry of Agriculture with analysing the oil palm sector: the results paved the way for the development schemes realized after the formal independence of Dahomey (1 August 1960).

The study commission arrived at the conclusion, once again, that the "extinction" of the Dahomean palm groves was "near". The only available solution, according to the commission, was the creation of huge plantations of selected palms, which would not involve intercropping anymore – a "luxury" which Dahomey could not afford.[93] There were two main obstacles to the new design: the lack of available land, and the farmers' reluctance to take care of selected palms. The colonial officials had originally failed to acknowledge that oil palm had to be cultivated. Now, with a reversal of roles, the Dahomean administration found that the farmers were guilty of treating the plant "as a spontaneous tree".[94]

To overcome these constraints, the independent Dahomean government enacted a sort of agrarian reform based on "mandatory cooperatives". The state could impose a plantation in a certain area, while the original landowners, although formally maintaining their right of property, became members of a cooperative which ruled their existence according to the work regime required by the plantation.[95]

The fundamental guidelines behind the post-independence development of the Dahomean palm groves were in continuity with the colonial period: palm oil, thanks to the planting of selected plants and the industrialization of the transformation process, was to remain the driver of the national economy.[96] Although the Société Nationale du Dével-

91 Pélissier, Les pays du Bas-Ouémé, p. 103.

92 On the Loi-cadre, see T. Chafer, The End of Empire in French West Africa: France's Successful Decolonization?, Oxford 2002, pp. 164–172, 194–196; Cooper, Decolonization and African Society, pp. 424–431.

93 Travaux de la sous-commission pour l'étude des questions relatives au palmier à huile, pp. 1–2, 30.

94 B. Amoussou, Le développement du palmier à huile au Dahomey, in: Oléagineux 22 (1967) 4, p. 3.

95 M. Mensah, L'expérience dahoméenne en matière de coopératives de production dans le cadre des périmètres d'aménagement rural, in: Études dahoméennes 6–7 (1965), pp. 73–80.

96 On the continuities, see D. A. Awo, Puissance Publique et Développement Agricole Au Dahomey/Bénin 1960–2010, Paris 2020, pp. 92–94. For a political history of independent Dahomey, see M.-A. Glélé, Naissance d'un

oppement Rural (SONADER), responsible for the implementation of oil palm development policies, was entirely staffed by Dahomeans, the technical advisory was still mostly French. Nor did the policy vis-à-vis *sodabi* change, although the downsizing of the forest police probably diminished the efficiency of repression. The main difference perhaps resided in the scale of the operation: the first four-year development plan (1962–1965) foresaw a pace of plantation creation of 4,000 hectares per year, in comparison to little more than 7,000 hectares planted in almost 15 years since the end of WW II (the large majority of which had been lost).[97]

In the end, industrial plantations covering "only" 29,000 hectares were created from 1962 to 1979, the period in which the operations were executed, and yet this phase saw the most intrusive development intervention into the Dahomean environment. The palms from Pobè were no longer introduced to progressively erode a given landscape, but to create an entirely new one. This environment had to be "more rational", or even – as some French experts started characterising it – "more human".[98] Villages, food crop cultivations, smallholder plantations, forest relics, and underbrush were to be replaced by standardized plantations of selected plants. This implied the loss of certain plant species. Moreover, it affected air humidity, sunlight, and the action of the wind to the point that some side effects on the pluviosity of the sectors were feared as well.[99]

Since neither simple planting nor association with food crops had worked, the planners tried to create a new ecological balance out of the blue. Installing a uniform plantation meant cancelling the forest islands and the tree fallow and therefore required two countermeasures: first, introducing a food crop cultivation system which could regenerate the soil, and second, compensating for the consequent lack of firewood and construction wood.[100] For this reason, the two largest development projects – the Grand-Agonvy funded by the European Economic Community, and the Grand-Hinvi jointly financed by France and the World Bank – equally divided their surface (14,000 and 12,000 hectares, respectively) between oil palm plantation (*Zone de la palmeraie* – ZOPA) and food crop cultivation (*Zone des cultures annuelles* – ZOCA). They also added an area up to

État Noir (L'évolution politique et constitutionnelle du Dahomey, de la colonisation à nos jours), Paris 1969, pp. 169–267.

97 Étude des demandes FAC 1962 faites au titre du développement de la production rurale par le gouvernement du Dahomey – rapport de mission de M. Gaide [December 1961], p. 19, in ANF 19940063/7/3.

98 Secrétariat d'état aux affaires étrangères chargé de la Coopération, Rapport sur la coopération avec la République du Dahomey, May 1966, p. 20; Mission Dahomey – 25 mai–14 juin 1966, Notes de Tournée: La SONADER [June 1966], p. 3; both documents are conserved in ANF, 19820672/8; I. Kingbo, La Sonader: Palmiers à huile et agriculture moderne au Dahomey, Abidjan 1969, p. 46. On modernist agriculture as aimed at making the environment "legible", see J. C. Scott, Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed, New Haven and London 1998, Chapter 8.

99 Dissou, Palmeraie béninoise: exploitation traditionnelle et aménagement volontaire, p. 567; F. J. Quenum, Milieu naturel et mise en valeur agricole entre Sakété et Pobè dans le sud-est du Bénin (Afrique Occidentale), Thèse de Doctorat, Université Louis Pasteur, 1980, p. 180.

100 F. A. Jakob, SONADER. Étude de la région du Grand Hinvi: Aménagement et habitat, August 1966, p. 56, in ANF, 20000232/7.

1,000 hectares for reforestation with teak and acacia trees.[101] SONADER gave permission for tree exploitation on a case-by-case basis to the members of the coercively established cooperatives. The Dahomean administration had introduced the cooperative tool with the aim of not only taking control of the land, but also of preventing the workforce from looking for jobs elsewhere. Accordingly, the cooperatives only had male members. As a result, women, who in Dahomean rural society were usually charged with wood collecting, had to buy it or to go searching for it further away; eventually, many illicit cuttings were reported.[102]

With regards to food crops, the insertion itself of these schemes into the region caused increased ecological pressure, reducing the land available for their production. This became even more relevant with the "failure" of the ZOCA, which turned out to be less productive than the usual peasant plots.[103] The ZOCA foresaw completely new agricultural practices, according to a system of rotation prepared by the French Institut de recherches agronomiques tropicales et des cultures vivrières (IRAT). This was particularly complex, required a greater workforce than the one available, and foresaw some crops that were difficult to grow in that specific climate, like cotton and groundnuts. The peasants in the ZOCA preferred to plant maize for some years – a crop which accelerated the impoverishment of the soil and the invasion of grasses – and then abandoned the plot, searching for other land outside the perimeters of the development schemes.[104] Soil exhaustion and fallow reduction, more broadly due to fast demographic growth in the region, were therefore worsened by the development schemes.[105]

Soil degradation manifested itself with the invasion of *Imperata cylindrica*, which affected both the ZOPA and the ZOCA. SONADER fought against this grass in many ways, trying to extirpate it either by hand or through machines, or using herbicides such as the Dowpon or Trichloroacetic acid (TCA). The safety precautions were very basic: the Dahomean workers, protected only by gloves, were tasked with applying the herbicide

101 Proposition de financement: Aménagement agro-industriel de la région d'Agonvy, 23 May 1967, in Historical Archives of the European Commission, Brussels (hereafter HAEC), BAC 190/1992_922; Hinvi agricultural project: Credit 114 DA – Completion report, 11 March 1977, in World Bank Group Archives, Washington (hereafter WBGA), Hinvi Agriculture Project – Benin – Dahomey – Credit 0144 – Completion Report, 49578l, WB IBRD/IDA AFR; see also I. Droy, Étude de l'intégration des femmes dans un projet de développement rural au Bénin, Mémoire de DEA, Université de Grenoble, 1982, p. 35.

102 Ibid., pp. 41–42, 59. On gendered division of labour in palm oil production in West Africa, see Robins, Oil Palm: A Global History, p. 55. On gendered uses of the natural environment more generally, see M. Leach/C. Green, Gender and Environmental History: From Representation of Women and Nature to Gender Analysis of Ecology and Politics, in: Environment and History 3 (1997) 3, pp. 343–370.

103 Département des projets agricoles, Dahomey: Projet de développement agricole de l'Hinvi – Annexe 2, 10 August 1971, p. 2, in ANF, 19940063/6/1.

104 Rapport de M. Casse au titre de la mission conjointe FAC-IDA de supervision effectuée au Dahomey pour le projet Grand Hinvi du 20 au 28 mars 1970 – Annexe 4 [July 1970], pp. 1–2; SONADER au Secrétaire Général de la Prospective et du Plan, 20 May 1970; both documents are conserved in ANF, 19940063/6/2.

105 S. Greuter, Paysans dans l'impasse: Étude de cas dans le sud du Bénin, Berne 1984, p. 79; Pfeiffer, Agriculture au sud-Bénin, pp. 63–64.

on every single blade of grass by hand.[106] The most efficient way to counter the growth of *Imperata* was through shade and soil nutrition. This is why the peasants, if land was available, abandoned the plots as soon as the grasses appeared, allowing for the creation of forest fallow, in order to restart the process again after some years.[107] Making room for the ZOCA through land clearing was not only often a useless expense, but also, precisely because the ZOCA were often unexploited or exhausted after maize cultivation, favoured the diffusion of *Imperata*.[108] Like in the late colonial palm blocs, the technical services acknowledged the value of peasants' knowledge only after the planned interventions had proved to be inappropriate for the local environment. Therefore, post-independence development interventions do not seem to be characterized by more in-depth ecological understanding of Bas-Dahomey than French colonial interventions.

6. Conclusion

Apparently, developing palm oil production in Dahomey had far more to do with conservation (and at times replantation) than with deforestation. Differently, in Côte d'Ivoire, under the same technical advisory (IRHO), the palm plantations set up in the 1960s and 1970s did replace vast forest areas.[109] Nevertheless, as seen in the last section, replacing or integrating sub-spontaneous palms with selected ones was not neutral to the environment, if this included the complete removal of forest fallows, spontaneous vegetation, and food crop cultivation. The colonial intervention was aimed at a gradual transformation from smallholder plantations of sub-spontaneous palms to large-scale standardized plantations. However, the latter had always been its ultimate goal – one with destabilizing side effects, such as land degradation, soil pollution, biodiversity loss, and perhaps some slight modification of the local climate.[110] The projects affected water as well. Pesticides and insecticides (HCH and lindamul insecticides were sprayed on the palms to eliminate the *Oryctes*) contaminated the groundwater;[111] palm oil mill effluents were released into the streams. At the beginning of the 1970s, SONADER built three modern oil mills in

106 Interview with P. Ravà, Casole d'Elsa, 30 September 2022; P. Huget, Rapport de visite aux essais de lutte chimique contre l'impérata, 18 March 1969, in HAEC, BAC 190/1992_929.

107 P. Saint-Bezard, Étude Imperata, 4 November 1968, pp. 18–23, in HAEC, BAC 190/1992_929.

108 P. Huget, Rapport de visite au bloc de cultures annuelles d'Adido, 10 March 1969, p. 2, in HAEC, BAC 190/1992_929; C. Bourgin, R. Rousseels, J. J. Schul, Office memorandum to R. E. Rowe, 18 May 1970, p. 4, in WBGA, "Hinvi Agriculture Project – Benin – Dahomey – Credit 0144 – P000062 – Administration – Volume 2", 1575200, WB IBRD/IDA AFR.

109 45,000 hectares out of the 70,000 hectares replaced forest (E. Cheyns/J.-P. Colin/F. Ruf, Relations entre agro-industries et dynamiques d'évolution des exploitations familiales et du milieu rural: agriculture contractuelle et industrie du palmier à huile en Côte d'Ivoire, Rome, Montpellier, 2012, p. 21).

110 This was not the case in the Belgian Congo, where the Huileries du Congo Belge set up their first standardized plantations already in the 1930s: see Henriet, Colonial Impotence, chapter 6.

111 SONADER, Aménagement agro-industriel de la région d'Agonvy: Rapport du 3e trimestre 1970, October 1970, p. 8, in HAEC, BAC 190/1992_936; G. Elwert et al., Bericht der Evaluierungsmission zum Projekt CARDER Atlantique (Volksrepublik Bénin) der GTZ im Auftrag des Bundesministeriums fur Wirtschaftliche Zusammenarbeit, p. 6, in Bundesarchiv, Koblenz, B 213–61433.

the context the three major development schemes (Houin-Agamè, Grand-Agonvy, and Grand-Hinvi). The effluents of the Agonvy mill in Ikpinlè, the only one still in operation today (owned by private company CODA-Bénin SA), are discharged into nature without any treatment: neither individuals nor environmental organizations have denounced these practices of the managing company yet. These effluents are likely to cause asphyxia to fish species and the surrounding vegetation. Similarly, they might affect the population that lives near the streams and regularly uses their water, but no surveys on possible diseases have been produced so far.[112] Scientists have underlined the dangerous effects in other African countries: comparable research in Benin would be much needed today.[113]
In sum, the case of oil palm growing in Dahomey shows how development might take the form of nature conservation, its rationalization, and finally its complete modification; also, each of these forms can coexist with the others. A historical analysis focused on the environment not only allows us to appreciate the various pathways taken by development, and the different ways in which they were perceived by the actors involved, but it also helps explain why the administration adopted certain measures, and why the peasants found them ill-suited to the local ecology. Moreover, such an approach is useful to clarify how the "nature" experts aimed to protect through development did not correspond to the existing local ecology. Finally, it shows how some readings of the environment survived throughout the decades and informed subsequent political decisions.
Shortly after colonization, the first concern of the French authorities was to defend the palm groves from the Dahomean farmers. These conservationist views – and more broadly the assumption that the Dahomean palm groves were threatened, if not doomed to extinction – largely informed the development policies implemented in Dahomey throughout the entire twentieth century. Starting from the end of the 1920s, the colonial administration claimed that the protection of the palm groves required their renovation by planting high-yielding selected palms. Nevertheless, the environment the French wanted to protect was not the actual palm grove of Dahomey with its multiple functions – at times a source of palm products, at times fallow, at times a plantation for wine tapping – but a palm grove aimed solely at producing palm oil. Only from 1953 onwards, did the SRP conceive its interventions in broader terms, by creating certain blocs which associated oil palms with food crop cultivation: still, the experts' understanding of the local ecology was too imprecise. The government of independent Dahomey, concerned in similar ways with the reduction of the palm groves, obtained international funding for development projects which, rather than improving the existing environment, created a

112 Interview with an anonymous employee of the mill, Ikpinlè, November 2021.

113 See O. O. Awotoye/A. C. Dada/G. A. O. Arawomo, Impact of Palm Oil Processing Effluent Discharge on the Quality of Receiving Soil and River in South Western Nigeria, in: Journal of Applied Sciences Research 7 (2011) 2, pp. 111–118; E. A. Gyasi, The Environmental Impact and Sustainability of Plantations in Sub-Saharan Africa: Ghana's Experience with Oil-Palm Plantations, in: E. A. Gyasi/J. Uitto (eds.), Sustaining the Future: Economic, Social and Environmental Change in Sub-Saharan Africa, Tokyo 1996; Human Rights Watch, A Dirty Investment: European Development Banks' Link to Abuses in the Democratic Republic of Congo's Palm Oil Industry, 2019; A. M. Siméon, Impact Socio-Environnemental de l'exploitation du palmier à huile (Elaeis Guineensis) en Lodjukru dans la région de Dabou (Côte-d'Ivoire), in: European Scientific Journal 14 (2018) 3, pp. 336, 338.

new one. The explicit goal was no longer to protect the Dahomean palm groves but the Dahomean exports – a goal which the projects would ultimately not fulfil.

After reaching historical lows in the 1990s, oil palm cover in Benin has accelerated again in the last decades, driven by both internal demand and by the Nigerian market.[114] This contrasts with prophecies of the imminent disappearance of the Dahomean palm groves, shared by both French and Dahomean officials throughout the twentieth century. However, none of the actions they sponsored – neither the creation of huge plantations nor the repression of *sodabi* production – is likely to have significantly contributed to the conservation of the palm groves. Conversely, it is precisely the role played by palm oil and *sodabi* in the lives of Dahomeans which made its disappearance impossible. In the end, this is the history of an announced extinction which never came.

114 Interview with J. Houssou Dégan, Pobè, 13 November 2021; Interview with N. Djegui, Pobè, 26 November 2021; N. Djegui and C. Daniel, Le développement du palmier à huile au Bénin: une approche spécifique, in: OCL 3 (1996) 2, p. 125.