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## Contesting the oil zone: Local content issues in Niger's oil industry

Jannik Schritt\*

Institute for African Affairs, GIGA, Hamburg, Germany

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## ABSTRACT

This article explores the emergence of public controversies around the development of a new technological zone and its associated energy infrastructure. It focuses on the moment when Niger became a new oil producer in 2011, and traces its historical genesis, to show how new oil-related infrastructures were contested in a series of socio-technical disputes. These controversies centered on connecting, counting and knowing oil and were produced, at least in part, by the standardizing effects of the oil industry and its role in the formation of a technological zone. The way the disputes unfolded opens up an epistemic window onto larger questions related to the oil industry in Niger. Going beyond the resource curse and rentier state models' focus on rentseeking and greed, I argue that disputes over the oil infrastructure in Niger reveal what is at the heart of everyday politics and society at the moment of entering the oil-age, namely local content and participation. I identify three common strategies adopted by host countries to gain a foothold in the oil industry and to achieve national development: resource control, sector links, and indigenization. Analyzing these strategies allows us to gain a nuanced understanding of resource politics and standardization in Africa.

## 1. Introduction

Five decades after oil exploration began, Niger finally entered the oil industry in 2008 when the government signed an oil contract with the China National Petroleum Corporation (CNPC). Agreeing on a fundamental condition set by the Nigerien government, the signing of the oil contract included the construction of an oil refinery in the south-east of the country (near its second largest city, Zinder). With both domestic production and refining becoming operational by the end of 2011, Niger's entry into the oil industry was accompanied by a series of public debates and controversies around the construction of an export pipeline to sell the crude, the transportation of newly refined fuel within the country, working conditions and training for Nigerien oil workers and refiners, and other topics.

In this article, I examine forms of contestation in relation to the particular politics of oil infrastructure and the standardizing effects of "technological zones" in which oil is extracted or produced. For Barry, these "technological zones" are trans-territorial spaces "within which differences between technical practices, procedures and forms have been reduced, or common standards have been established" [1]. He divides the technological zone into three different forms: the infrastructural zone, which relates to connection standards; the metrological zone, which relates to measurement standards; and the zone of qualification, which relates to knowledge standards. For Barry, such a technological zone is contested, unstable and uncertain, and may

produce unpredictable and dynamic effects. I thereby understand the standardizing processes in their widest sense to include a whole socio-technical assemblage of people and technologies that participate in or dispute practices of the oil industry. Using Barry's notion of the oil industry's normalizing effects in infrastructural connections, measurement technologies and knowledge systems as the starting point, I look at how processes of connecting, counting and knowing oil are contested and produce public controversies in Niger. Examining these controversies helps reveal not only the everyday struggles of social and political participation in the oil industry at play in Niger at the moment the country enters the oil-age, but also the nature of these standardizing processes themselves. I contend that such an approach allows us to gain a more nuanced understanding of resource politics and standardization in Africa. First, it goes beyond simplistic notions about corrupt and authoritarian African states as *the* impediment to development. Rather, African states such as Niger do also try hard to gain a foothold in the oil industry and to achieve national development. Second, the controversies both confirm and question some of Barry's very assumptions on path-dependent but complex technological standardization in technological zones.

Barry argues that a historical-ethnographic approach – with the emphasis on ethnographic – is necessary to capture and analyze the contested and contingent effects of these standardizing processes. For Barry, ethnographic fieldwork carried out in the midst of the event or in the process of a technological zone becoming implemented enables the

\* Present address: GIGA German Institute of Global and Area Studies, Leibniz-Institut für Globale und Regionale Studien, Neuer Jungfernstieg 21, 20354 Hamburg, Germany.  
 E-mail address: [jannik.schritt@giga-hamburg.de](mailto:jannik.schritt@giga-hamburg.de).

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researcher to capture the public controversies or disputes that emerge along the emerging oil infrastructure, before the “short window of opportunity during which many of the main elements of a technological zone are open to change” closes [1,2]. As science and technology studies have shown, an ethnography of public controversies opens up an epistemic window onto socio-technical disputes before the moments of interpretative flexibility turn into closure and routine, and the disputes become invisible [3–5]. In other words, I understand the particular moments of dispute and controversy as epistemic windows that allow insights into socio-political configurations which, once controversies are over, become closed off. In doing so, I assume that these socio-technical disputes reveal the heart of everyday politics and society in Niger at the very moment of the country entering the oil-age, namely strategies and attempts by all kinds of different actors to participate in the oil industry. As technological zones connect various centers of commerce, extraction, refinement, and transportation (and others), a multi-sited approach is necessary to trace the relations and flows of knowledge between these different sites. To address these methodological concerns in my analysis of the forms of contestation that emerged with the implementation of the technological zone in Niger, I conducted around 13 months of ethnographic field research between 2011 and 2014, both in the capital Niamey and at the oil refinement site, Zinder.<sup>1</sup> In my field research (participant observation, semi-structured interviews, biographic interviews, informal conversations), I focused on the “political arenas” – social spaces constituted by different strategic groups that contest, cooperate and negotiate with each other around an issue [7] – which formed around the emerging infrastructure and production of oil.

The article thereby contributes to the growing field of “oil and anthropology” [8] which turns its focus away from the resource curse thesis [9] and rentier state theory [10] to the hitherto underexplored phenomena of the global “oil assemblage” [11]. Academic work based on the “rentier state” or the “oil curse” theories focus (almost) exclusively on the adverse effects of oil rents on the economy, politics and society – economic decline, authoritarianism, conflicts and corruption. In doing so, however, they neglect the materiality of oil, and its extraction, processing, transportation and consumption, and the forms of agency and control these processes involve [12]. Seeking to overcome these shortfalls, several recent social science studies of oil have turned their focus to the temporality, materiality and infrastructure of oil [13,14].

Following these social science studies of oil, I show that the three forms of the technological zone of oil – infrastructural, metrological, and qualification [1] – all became highly contested in Niger. In the process, so-called “infrastructural publics” were produced, as diverse actors or groups of actors were affected, or produced themselves as affected, and took political action [15]. The emergence of these infrastructural publics opened epistemic windows onto fundamental issues around local content in the Nigerien oil-age. Local content policies in Niger, as elsewhere, were designed to promote broad-based economic growth, and included restrictions on imports and direct state intervention, as well as various measures to increase national participation in the industry, especially through the creation of linkages between the oil industry and the national economy [16].

In this article, I first look at how processes of “connecting oil” – the construction of an export pipeline via Chad to connect with the existing Chad-Cameroon pipeline operated by Esso – triggered socio-technical

disputes in which both the export of crude and speculation about the size of oil reserves became “matters of concern” [17]. Through these disputes, the petro-infrastructure became publicly meaningful, and opened up larger questions about both control over, and the size of, the nation’s resources. Second, practices of “counting oil” – the transportation of fuel within the country, missing fuel and loading procedures – produced socio-technical disputes, where access to and control over measuring technologies took center-stage. These disputes opened up larger questions about local participation and local content in the industry, also illustrating how the Chinese oil zone’s lower safety, health and environmental standards, lower labor costs and stiff profit margins (in comparison to Western oil zones) [18]<sup>2</sup> allowed for greater sector links. Third, processes of “knowing oil” triggered socio-technical disputes with the Chinese oil companies, when Nigerien oil workers complained about the lack of training provided. These disputes opened up larger questions of indigenization in the oil industry, and, in doing so, both confirm and question some of Barry’s core assumptions on standardizing processes in technological zones. By taking advantage of this epistemic window, and observing how actors contested the normalizing effects of an emerging oil zone, I argue that the dominant political and economic science framework (the resource curse and rentier state models, with their focus on financial flows) fails to account for fundamental social and political contestations: the fights to gain entry into the industry, to establish local content, and to promote national development.

Building on Barry’s combined historical-ethnographic approach to capture and analyze the contested and contingent effects of standardization in the oil industry, I start by tracing the historical genesis of the Nigerien oil zone. I then analyze contestations around Barry’s three forms of technological zones – standardizing processes of connecting, counting and knowing oil in Niger – in real time, and look at local content controversies around the emerging oil infrastructure. Finally, I use my findings to think about the nature of oil’s normalizing effects, thereby complicating and partly arguing against Barry’s claim of standardization.

## 2. The Nigerien oil zone

As in other Sahel-Saharan countries which are land-locked and have harsh operating environments, Niger long remained underexplored in the quest for new oil, despite evidence to suggest significant reserves [21]. French and American companies began oil exploration in Niger in 1958, inspired by major discoveries in neighboring Algeria two years earlier. Foreign interest in Nigerien oil increased, especially as the price skyrocketed with the 1973 oil crisis. Companies such as Conoco, Shell, Global Energy, Sun Oil, Texaco, Esso and Elf acquired permits for various oil blocks, with the Agadem block situated in the far east of Niger proving especially promising. Here, Esso, Texaco and Elf conducted seismic activities between 1970 and 1983 and drilled 12 wells, stating that three of the 12 wells had traces of oil (Madama, Yougou 1 and Yougou 2), and that two were commercially viable (Sokor 1 and Sokor 2). Although the first positive results had become known in Nigerien political circles and at least parts of the public by the late 1970s, the oil remained in what Witte calls a “state of not-yet-ness” [22]. This “state of not-yet-ness” or expectation of oil would last over three decades. In such cases, this wait is due, at least in part, to what Weszkalnys calls the “indeterminacy of first oil”, which is determined by the particular geology, potentiality, and speculation of oil reserves [23]. Three main factors contributed to delays in the start of oil exploration in Niger: the material qualities – depth and connectivity – of the Nigerien

<sup>1</sup> Due to events beyond my control, I was only able to conduct a few days of field research in Diffa, the region of oil extraction. When I presented myself to the governor of Diffa with a mission order from a private research institute, and not an official research permit as I was required to do, I was expelled from the region (for more on this issue see [6]). Although I was allowed to return once I had acquired an official research permit, I decided not to due to rising security concerns, first with the expansion of Al-Qaeda in the Islamic Maghreb (AQMI) into the Sahel-Saharan region, and later with the spread of Boko Haram to Diffa.

<sup>2</sup> China’s state-owned oil companies are said to race environmental standards to the bottom in order to create comparative advantages for entering the oil market hitherto dominated by Western oil firms [19]. Although Chinese oil companies have started to meet global standards by enacting laws and regulations, the companies have shown little commitment to implementing them [20].

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