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The Oil Climax: Can Nigeria's fuel subsidy reforms propel energy transitions?

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ABSTRACT

Recent studies in the field of political science and environmental resource governance suggest that oil-exporting economies have begun to implement fuel subsidy reforms. However, while most studies on this issue focus largely on the broader environmental and economic consequences of fuel subsidy reforms, few have examined specifically the effects on renewable energy transitions. Drawing insights from the literature on political economy and the multi-level perspective on socio-technical transitions, with empirical examples from Nigeria, first this study provides an explanation of which factors triggered fuel reforms on the basis of the interaction between landscape and regime elements and second the effects of such fuel reforms on renewable energy transitions. Findings suggest that landscape factors such as global oil crashes and pressures from international financial organisations played crucial roles in the drive for fuel reforms. Nonetheless, rentier regime members responded to these pressures by adopting institutional, discursive and redistributive measures. Of all three strategies, the institutional strategy was significantly pivotal in the proliferation of renewable energy in Nigeria. This study concludes by discussing lessons learned in shaping a transition away from fossil fuels in Nigeria and rentier countries in general.

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1. Introduction

Recent political discourses emphasise the need for fuel subsidy reforms in order to achieve climate change targets and make renewable energy technologies more attractive [1–3]. Putting this in context, in 2009, The Group of Twenty (G20) leaders pledged to phase out “inefficient” fossil subsidies in their respective countries.¹ Likewise, the International Energy Agency (IEA) and the Intergovernmental Panel on Climate Change confirmed in 2013 that two-thirds of existing fossil reserves must stay “unburned” in order to achieve the desired climate limit and avoid future dangerous climatic conditions. Accordingly, they advised that countries must limit their carbon emissions by actively reforming their fuel subsidy system. Importantly, at the core of these calls for subsidy reforms is the need for sustainability transitions.

In this context, several countries from the developed and developing world, including the United Kingdom, Japan, Norway, Ghana, Brazil, and the United Arab Emirates (UAE) have to an extent suc-

cessfully reformed their fuel subsidy system [4]. Importantly these countries have also significantly implemented numerous renewable energy policies and targets [5]. However, this wave of success has eluded other oil exporting economies worldwide. Global subsidies to fossil fuels have significantly increased from \$300 billion in 2009 (IEA figures) to almost \$5.3 trillion (IMF figures) in 2015 [6,7]. Five years after the G20's commitments, reforms have become increasingly difficult to achieve and production subsidies for fossil fuels from G20 governments have become more pervasive totalling an estimated 444 billion USD between 2013 and 2014.² Putting this in context and based on IEA's estimates, this figure is four times the sum provided for all global subsidies to renewables in 2013.³

Despite the growing emphasis on the need for concurrent fuel reforms and transitions to renewables, regime resistance appears to be increasingly stronger in oil exporting countries like Nigeria. To comprehend these dynamics this study adopts the multi-level perspective (MLP) on socio-technical transitions to analyse the complexities surrounding the emergence of fuel subsidy reforms

^{*} Corresponding author.E-mail addresses: olufolahan.osunmuyiwa@vu.nl (O. Osunmuyiwa), a.kalfagianni@uu.nl (A. Kalfagianni).¹ G20 summit, September 2009.² http://priceofoil.org/content/uploads/2015/11/empty_promises_full_report_update.pdf.³ http://priceofoil.org/content/uploads/2015/11/empty_promises_full_report_update.pdf.

and its influence on energy transitions. The MLP [8,9] presents an epistemological account, buttressed by various historical cases of the recursive paths through which technological and policy changes materialise in relation to broader economic, environmental, political and socio-cultural milieus. Based on this theory, long-term changes occur due to the interactions between regimes (body of rules, structures and norms), landscapes (exogenous factors) and niches (hubs of innovation). Importantly, long-term policy changes such as fuel subsidy reforms are embedded within deeply contested institutional, political and socio-cultural settings and are thus difficult to achieve. Policy changes of this type would necessitate substantial transformations in societal norms, cultures and industrial practices, which are likely to be resisted by incumbent regime members. Nonetheless, in the event of landscape pressure, for instance, the threat to energy security, the regime can be destabilised and forced to yield to demanded changes from niche actors.

It is critical to understand how this regime-landscape interaction is negotiated, as it provides insights on the influence of macroeconomic factors on policy changes like fuel reforms and the responses of actors to this change. In light of the above discussion, this study seeks to analyse (a) which landscape factors triggered fuel reforms in Nigeria and (b) what are the responses of the incumbent regime and (c) what are its effects on renewable energy transitions in Nigeria and rentier countries more generally, that is countries rich in natural resources whose social-political and economic systems are built around the extraction and the redistribution of rent from such resources.

Unlike other oil exporting counterparts in the developed world, there are some specific dimensions to fuel reforms and their effects on energy transitions that make its analysis in Nigeria an interesting case. Nigeria is a member of the Organization of the Petroleum Exporting Countries (OPEC) and it is the 13th largest producer of oil and gas in the world but imports 60% of its locally consumed oil product [10]. This creates a large opportunity for rentierism and the redistribution of national wealth through demands for subsidies. The allocation of fuel subsidies accounted for 3–4% of Nigeria's GDP in between 2011 and 2014. In Africa, Nigeria is the second largest economy after South Africa, with an estimated population of 188.5 million, [11] and a high-energy demand. Nonetheless, Nigeria is unable to meet its energy demands with more than 60% of its population relying on off-grid-generators powered by petroleum products [12]. This has created a national opportunity for a discourse on the deregulation of the energy sector and the development of renewable energy as a means of ensuring energy security while reducing the demands for fossil fuels [13]. Finally, by analysing the effect of reforms on energy transitions in Nigeria, this study is able to verify whether developed policies on renewable energy in Nigeria coincides with identified periods of reforms, while also highlighting new developments within the renewable energy (RE) sector.

The objective of this study is to use this case to extensively contribute to the literature on the politics of regime-landscape interactions and regime resistance. Nigeria exemplifies the dynamics of energy “use” in developing countries due to its dual role as an energy importer and exporter. More importantly, the need to address poverty, ethnic and social inequality in a multicultural society like Nigeria notably amplifies the challenges linked with the delivery of transitions objectives in developing countries. As such, the study's core contribution is to move beyond current studies of transitions, which have often focused on technology, and finance to more nuanced analysis on the politics of transitions while highlighting the spatial configurations and dynamics at local and regional scale. In this sense, we engaged with recent key debates in the field of energy studies and social science [14] by focusing on the political economy of energy, while highlighting the role of institutions and transnational forms of energy governance on

national energy policy making. Furthermore, this study provides an imagery of how political systems correspond with energy transitions pathways, the shifts in cultural practices that occur, and how path dependencies in socio-technical regimes are often times traced to politico-economic regimes.

The research relies on both primary and secondary data. Data on fuel subsidies in Nigeria were difficult to access; hence the study relied on semi-structured interviews. Ten expert interviews were carried out between 2014 and 2015, with oil and gas experts, civil society organisations as well as policymakers. In terms of data validity, the study examined reports on budget allocations, subsidy scandals, reports of the Central Bank of Nigeria as well as the Transparency International's Corruption Perception Index (CPI). By comparing the governmental databases with reports from independent organisations, such as Transparency International, KPMG and PWC, we were able to assess the comparability of data. The study also made use of other secondary data such as database statistics on energy production and consumption from the International Energy Agency, communiqués from OPEC, the academic literature, and online sources such as newspapers and other media reports.

The study is organised as follows. Section 2 provides an analysis of regime-landscape interactions drawing from the literature on rent. Section 3, discusses factors which triggered fossil fuel reforms in Nigeria. Furthermore, we analyse the effects of these fuel subsidies reforms on renewable energy transitions. This will be illustrated by an empirical analysis of the fuel reforms process in Nigeria with a specific focus on the political economy of subsidies, the scale of reforms, and the effects on the development and proliferation of renewable energy. Section 4 discusses lessons learned and concludes the analysis.

2. Regime resistance and the invasion of landscapes

The MLP explicitly places emphasis on the socio-technical nature of societal change, denoting a complex connection between technology and society. This theory articulates that, for transitions or changes to take place, an embedded, robust regime (e.g., the fossil fuel dominant energy system) must experience symbiotic pressure from landscape and niche levels [15]. The landscape level refers to the broader socio-technical context shaped by demographic structures, culture, social values while the niche level represents ideation, networks and spaces at which innovation takes place. The underlying argument is that landscapes are beyond the direct influence of niche or regime actors and as such, they typically build up over a period of time while abrupt changes witnessed at the landscape level are mostly triggered by radical shocks or stress [16]. However, regardless of the state of landscapes i.e. slow build up or abrupt shock, landscapes can still significantly pressurise or create windows of opportunity for transformations within the regime, resulting in incremental or swift policy changes. A typical example is the 2015 crash in international oil prices leading to the removal of fuel subsidies in Indonesia, UAE and Saudi Arabia.

Regime analysis contains ‘policy changes’ as one element [17], but, as argued by critics, the underlying aspects of politics and power in transitions are even more significant. This perspective is slowly gaining traction in the literature and has led to a number of new studies emphasising the political nature of transitions [18,19]. Nonetheless, a number of significant questions have emerged on spaces or geographies where sustainability transitions occur. These studies have emphasised the need to assess the merits, tensions and conflicts that emerge due to social, cultural, structural and institutional influences in territories which transitions occur [20]. Highlighting this gap, Coenen et al. [21] argue that to contextualise transitions in a better way, we must connect why certain transformational instances occur due to regime interactions with

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