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**Public steering in the hydro-fuel sector: conditions for
trajectory bifurcation in Chad and Mauritania**

Geert van Vliet* and Géraud Magrin**

* *Economist*, CIRAD, Montpellier, France, geert.van_vliet@cirad.fr

** *Geographer*, CIRAD, Paris, France, geraud.magrin@cirad.fr

Public steering in the hydro-fuel sector: conditions for trajectory bifurcation in Chad and Mauritania

Geert van Vliet * and Géraud Magrin **

* CIRAD, France, geert.van_vliet@cirad.fr

** CIRAD, France, geraud.magrin@cirad.fr

Summary

In several Developing Countries (DC's), national governments, NGOs and multilateral organisations have been looking for ways out of the so-called "resource curse" by improving the public capacity to steer the hydro-fuel activities. These intents were particularly difficult in the Least Developed Countries (LDC's), characterized by profound legitimacy crises of the State and strong asymmetries between multinational firms, multilateral organizations, national States and civil societies. The recent unfolding of events in Chad (changes in the oil revenue law, renewed rebel attacks) and Mauritania (military coup of August 2008) seem to provide new arguments to the defenders of the "resource curse" approach. We argue however that because of their same nature, hydrofuel activities are themselves triggering new demands and changes which in turn might be characterized as critical junctures opening the way for alternative paths. We will conclude by summarizing the key domains of potential bifurcations. Further research is suggested concerning the issue of their probability and viability.

Key words: trajectories, bifurcation, resource curse, oil and gas resources, public steering, low-governability, Mauritania, Chad.

“Je t’ai fait confiance, Jean. Tout le monde t’a fait confiance. Mais aujourd’hui, nous ne comprenons plus. Tu n’as pas nationalisé les pétroles. Tu n’as pas fait élire de Constituante. La presse n’est pas libre. C’est pour tout ça qu’ils avaient fait la Révolution ». Jean Paul Sartre, l’Engrenage: scénario (1946), Les Editions Nagel, 1962 : 135.

Introduction

In several Least Developed Countries (LDC’s), multilateral organisations have been looking for ways out of the so-called "resource curse". In Chad, since 1998, the World Bank first invested with expertise and counselling and then accepted the challenge of participating with financial resources (and its political capital) in the Cameroon-Chad Oil project (Pegg, 2009, Magrin and van Vliet, 2009). In Mauritania, since 2001, the Norwegian and Dutch Embassies, the World Bank and then the International Union for the Conservation of Nature (IUCN)¹, have aimed to contribute to systematic capacity building in the field of the management of oil and gas activities and their impacts (Kloff, 2007; van Vliet et al, 2009). Nevertheless, the unfolding of events in Chad and Mauritania seems to provide new arguments to the defenders of the "resource curse" approach.

The notion of “resource curse” points to the often found correlation between a sudden access to natural resource revenues and the occurrence of four phenomenes: (i) a deterioration of economic performance, (ii) an increase in the intensity or the duration of conflicts, (iii) a tendency towards the consolidation of authoritarian regimes (refer to Rosser’s comprehensive literature survey, Rosser, 2006) and (iv) negative impacts on environment. The notion of the “resource curse” has generated debates not least because of the frequent confusion between

¹ The IUCN intervened either through the Working Group on Social and Environmental responsibility of the Private sector (SEAPRISE), belonging to the Commission for Economic, Environmental and Social Policies (CEESP) or through the Business and Biodiversity Programme.

correlation and causality -numerous exceptions being found (Rosser, 2006)-, but also because of the limitations of the tools for analysis that have been mobilised and foremost because it hardly encourages the exploration of possible escapes to the seemingly rigid path that it describes (Magrin, van Vliet 2009). Some authors proposed dual track strategies to conciliate the need for a change in behaviour with the financial and political interests of the elite, the last being usually the main obstacles to reforms from within (Auty, Pontara 2008). Soares (2007: 157) asks himself whether predatory strategies by elites in the Guinea Gulf oil States could last for long. Although Suarez can certainly not be classified among the defenders of the notion “resource curse” (he explicitly develops Albert Hirschman’s caution against the error of underestimating the capacity of elites to adapt²), the general message of his brilliant essay remains builded around the notion of “succesfull failed States” (Soares, 2007: 49), which again projects the idea of a determinist path, despite the broader intentions of the author. Beyond the dependency on a “path”, we agree that there is a need to learn more on the conditions and spaces for its modification (Capoccia, Kelemen, 2005), without ignoring the restraints imposed by colonial history and by the evolution of deeper and longer term political and economic structures (Sartre³, 1962; Favre, 2008).

In that sense the metaphor of “turning point”, “critical juncture” or “bifurcation”⁴ is useful, but only if precisely defined (Thom, 1990: 585; Capoccia, Kelemen, 2005). We intend to study a specific process (the steering of oil and gas activities), by a given organisation (the State) in a specific context (two LDCs in subsaharian

² Hirschman A. “On Hegel, Imperialism and Stagnation”, in *Essays in Trespassing : Economics to Politics and Beyond*, Cambridge University Press, 1981, p. 167, cited by Soares, 2007 : 157.

³ In his inspiring scenario “L’Engrenage” (“Trapped in the gears”), Sartre (1962) describes how succeeding elites are unable to modify the parameters of their relations with the oil sector and how they are trapped in the gears of a vicious circle (social violence, violent revolutions, pressures from larger countries, failed promises to nationalize the oil sector, increased social control and lack of democracy, engendering new violence...).

⁴ “L’histoire est bourgeonnement. Dans les multiples cheminements possibles, l’un devient histoire” (Hugon P., 1991, p. 357).

Africa). In this specific setting the notion of bifurcation will be utilised to describe an observable change in the internal resource base and/or in the environment of an organisation (Matus, 1987), which substantially broadens the range of options available to the organisation and increases the potential⁵ reach of the consequences of the decisions eventually taken (Capoccia and Kelemen, 2005: 11). The use of the notion of bifurcation involves a well described risk: it is easier to look at bifurcations looking back, as an explanation for past processes, than to explore them prospectively (Hugon, 1991; Hugon ed., Sudrie ed., 2000; Capoccia and Kelemen, 2005).

Chads production is presently at 130.000 barrels a day and oil provides today directly (through royalties) or indirectly (through taxes) two thirds of the total State revenues. While bearing in mind that Mauritania is still far from acquiring the status of “oil rentier State” (see Soares de Oliveira, 2007), because Mauritania’s production sticks today at only 13.000 barrels a day, we recognise that in both countries, the sudden access to oil and gas resources ought to to be indeed considered as a critical turning point. We argue however that this initial bifurcation will not necessarily be followed by the foreseeable and tragical unfolding “path” announced by the defenders of the resource course approach and that the nature of the production processes in oil and gas activities and the demands thus exercised on public steering in Mauritania and Chad do provoke by temselves new critical junctures with possible consequences for the broader functioning of the State, critical junctures which need to be further explored.

To make this general argument this text proceeds in 4 sections. We first recall the historical context of public steering in Mauritania and Chad. The second section describes some essential characteristics of oil and gas activities. We will recall

⁵ Capoccia and Kelemen argue that “it is illogical to define a critical juncture strictly as a moment in which an “off-path” change was made, altering the trajectory of historical developments. A situation of fluidity may as well give rise to reequilibration, that is, aborted change. If change was possible and plausible, considered and ultimately rejected, then there is no reason to discard these cases as “non-critical” junctures (Capoccia and Kelemen, 2005 : 4).

some basic hypothesis regarding the evolutions of behavior of several of the actors involved around this technological path (multinational firms⁶ and local actors). Although the facts confirm the validity of these hypotheses, our analysis shows that additional considerations have to be taken into account. Seemingly rigid technological paths are accompanied by ongoing modifications in the strategies and tactics deployed by a variety of actors, which create new demands on public steering. The third section analyses how the interactions between oil and gas activities and public organisations create the conditions for the emergence of new bifurcations. The final section draws together our main conclusions.

I. The context: trajectories of the States and public steering in Chad and Mauritania

Before the oil exploitation era, Chad and Mauritania were already considered as very fragile States. The Nation and State building process began only with the independence in 1960. These processes had to cope with human heterogeneity and historical divides – mainly between Muslim and non Muslim people in Chad, white Maures and Black ethnic groups (called Negro-african Mauritians) from the Senegal Valley River in Mauritania.

Even if the levels of violence and instability were higher in Chad, the State trajectories were similar: since a rebellion broke up in 1965, and led to the fall of the first president François Tombalbaye in 1975, Chad never remained in peace. Beyond the North / South divide (Magrin 2008), rebellions against the government emerged from the peripheries of the country, backed by neighboring countries (mainly Libya and the Sudan). Rebels sometimes succeeded like Hisssein Habre in 1982, overthrown by his lieutenant Idriss Déby in 1990. The civil war culminated

⁶ These firms may be private or public, from OECD or non-OECD countries (OECD: Organisation for Economic Co-operation and Development).

between 1979 and 1984 in Djamena and in the South (Buijtenhuis, 1987). Since 2002, insecurity and violence sprang in the Eastern part of the country, due to the contagion of the Darfur crisis (Favre, 2008).

In Mauritania, the first president Moktar Ould Daddah was overthrown in 1978 by a military coup handed by strong tribes from the North, in the context of the Occidental Sahara war. Three military Presidents have succeeded to each other. After the repression of a coup by Negro-african officers in 1988 and the "1989 events" between Mauritania and Senegal, Maouiyya Ould Taya took power and consolidated an authoritarian military regime until 2005, based on a coalition of Maure tribes from the North (see Choplin 2006).

In both countries, the governments were facing internal rivalries and strong external pressure. Hence, their powers were granted mainly by strength and the use of coercion, as well as by foreign support from western (France, United States) and Arabian States. Furthermore, as in other similar African countries, the context of the 1970-80' was characterised by the Sahelian droughts and the economic crisis. They led to the implementation of the structural adjustment plans, which weakened the States. Most of the legitimacy functions of the States (education, health, infrastructures, etc.) were then progressively assumed by the international donors and the NGO's (van Vliet, Magrin, 2007).

After the end of the Cold War and the Conference of La Baule, donors asked African regimes to democratize. However, in Chad as in Mauritania, the limits of democratisation without real countervailing power could be perceived (Collier and Hoeffler, 2005a, 2005b). The cycles of elections didn't change the reality of power, even if some public freedoms were tolerated, like for the written media in Chad. Power was still controlled by a small elite, composed mainly by a President and members from his tribe, and, at a second level, by rulers of the dominant presidential party.

In this context, the prospect of oil exploitation in Chad at the end of the 1990's and in Mauritania in the beginning of the 2000's rised strong oppositions among national and international civil society organisations. These organisations feared the widely advertised effects of the resource curse: decline of non oil sectors of economy, rise of corruption, authoritarianism, conflicts, environmental impacts (see Magrin 2001 and 2003 on Chad; on Mauritania see Oilwatch, 2005; Kloff, Wicks, 2005).

The World Bank considered the Chadian Oil exploitation project of Doba as a challenge. This project was explicitly presented as a pilot experience to test a way out of the resource curse. It was based on three main pillars: the first was a State

capacity management reinforcement project funded by the World Bank; the second was a multilevel social and environmental monitoring system; last but not least was a system of oil revenue management. The system was founded on the law n°001 of 1999, which stipulated that the largest portion of the oil revenue was to be assigned to priority fields identified in the anti-poverty policy framework. The control of the use of oil revenue was to be enforced by the “Collège de contrôle et de suivi des revenus pétroliers (CCSRP)”, a supervising body with participation from civil society organisations.

In Mauritania, in 2005, vigorous societal debates and a conflict on the terms of the contract between the Mauritanian government and Woodside - the Australian company which started the exploitation of the off-shore field “Chinguetti”-, incited the government to ask the IUCN for advice. By the end of 2007, the IUCN installed a scientific independent panel to propose legal, organisational and technical measures in order to better manage the social and environmental risks associated with oil and gas exploitation.

Recent developments in both countries seem to provide arguments for the defenders of the “natural resource curse” approach. Chad, which was once considered as a possible model, seems now to be fulfilling all the criteria of this curse (Magrin, van Vliet 2009): abandoned by the State and by private investors, the productive sectors outside the oil economy went on declining (the cotton system being the most affected). The system intended to control the management of oil revenues did not prevent corruption, mainly in the building of infrastructures. In 2006, the government modified the revenue management law of 1999, by adding public administration and security - which allowed buying weapons -, to the list of priority domains within the anti-poverty policy. After the start of oil exploitation in 2003, conflicts were stimulated: rebel groups based in Sudan brought war two times inside the capital city, Ndjamena, in 2006 and 2008, but failed in overthrowing president Déby. The quest for oil rent was without doubt one of their key motivations. On the other hand, the rent allowed president Déby to purchase guns for war (as it did for Sudan, who backed the rebels). In the same time, the public institution in charge of the environmental monitoring of oil activities was dismantled by government. A first small but noticeable oil spill (an estimated 34 barrels) occurred in August 2008 (IAG, 2009: 7). The same IAG report indicates that the National Oil Spill Intervention Plan has not yet been adopted by parliament (IAG, 2009: 8).

In Mauritania, the oil exploitation era coincided with the return of political instability. A coup overturned Maouyia Ould Taya in 2005, just before the start of exploitation in 2006. However, after a pacific transition and a democratic election held in 2007, another coup overthrew the elected president, Sidy Ould Cheikh Abdallahi, in

August 2008, leading to condemnations and severe restrictions regarding access to international aid. An agreement was however brokered in June 2009 by president Wade of Senegal with support from the international community. Although ratified by most stakeholders, its implementation is lagging behind schedule at the time of submission of this text. Inbetween, through intense lobbying, some of the oil companies attempted to enlarge the authorised domain for oil exploration and exploitation in areas bordering the Parc National du Banc d'Arguin (PNBA). The PNBA is a very sensitive area, rich in biodiversity, which plays a crucial role in the national and sub-regional fishing economy. Oil spill intervention plans are still lacking and government coordination is running far behind the needs (van Vliet et al, 2009).

As noted above, the low level of oil production in Mauritania – 10 to 15.000 barrels a day, whereas the foreseen production was over 60.000 – is not sufficient to confirm the “oil curse”. But other elements of Mauritians rentier economy (based on iron extraction, fisheries and international – economic, social and environmental - aid) were certainly reinforced by the generated oil revenue which contributed to 20% of the State budget in a context of high world prices by end 2007.

In the next section we try to unravel an apparent paradox in the oil and gas industry, by firstly describing the longterm technological rigidities which seem to characterise decision making along the production cycle in this sector. We will then recall the discussion of some hypothesis which may provide a framework for understanding the social dynamics around this seemingly rigid technological path. We will then explore the consequences in terms of demands of the oil and gas activities on public steering in the two LDCs concerned.

II. Rigid technological paths versus social dynamics

Oil and gas activities involve long term and rigid production cycles (usually more than 20 years). During this production cycle decisions within the firms -to invest, to

leave and to sell or to close things down- are progressively narrowed, thus creating a succession of points of no return. The cycle starts with the strategy setting within the firm, a phase that may start many years upstream in the decision tree⁷. Based on prospective scenarios, the strategy defines in which countries, when, with whom and how to operate, under which financial parameters, and under which level of acceptable risks. Preliminary exploration activities are then implemented (geological studies, seismic surveys), once the rights to explore have been negotiated, and once all authorisations (including the eventually required environmental impact assessments) have been cleared. The exploratory drilling phase is implemented only if the preliminary exploration results are deemed positive taking into account the evolution of the firm's strategy, the evolving market conditions and the available financial leeway within the firm or consortium. If the exploratory drilling is successful, and after eventual additional negotiations, the development phase is implemented (with the building of all required infrastructures extraction, stockage and transformation sites; transport, logistical and housing infrastructures). The production phase can then start. At the end of the cycle, the production sites have to be abandoned and should in principle be restituted under conditions initially defined in the contracts although a not recommendable practice is that this is often re-negotiated at the end of the cycle with the stakeholders then in charge.

Large oil and gas projects usually associate a considerable number of industrial and financial partners (consortium leader, consortium members, other associates, contractors, subcontractors, workers unions, banks etc.). Because of the huge investments involved, and because of the narrowing down process of decisions, the concepts of "irreversibility" and technological path dependency seem relevant, as has been analysed for the case of other large infrastructures (Freixas, 1987).

However, the same factor time ends up affecting both the once chosen technologies and the behaviors of the involved stakeholders. According to a set of

⁷ The authors wish to thank Bopp van Dessel (independent environmental consultant for the oil and gas sector, the Netherlands) for his insights on the production cycle.

hypotheses suggested by van Vliet (1998), initially, only the best available technologies are utilised. But then, over time, the equipments need to be maintained, then when possible replaced, then get frankly outdated, in some cases overutilised and finally burnt out. Once the infrastructure building stage has been completed and production is underway, the environmental and social impacts are first unnoticeable, but become increasingly visible. The behaviors of the firms and of the involved local stakeholders display also noticeable changes along the cycle. Before and at the start of the activity, the firm's disposition to indemnize, to take corrective measures and to indemnize is very high. The firm starts with an open and inclusive public relations strategy. Over time, changes occur in staffing (staff specialized in opening new business, negotiating deals and smoothing obstacles is displaced to new ventures and replaced with routine managers). Changes may even occur in terms of operators. At the end of the operation, operation costs are increasing because of outdated equipments, and the room for public relation gestures has disappeared while eventual negative impacts are now more visible. Contrary wise, before and at the start of the operation, the capacity of local stakeholders to formulate demands and influence the behaviour of the firm is low. This capacity increases over time, but by the time awareness and negotiation capacities have been generated, local stakeholders face increasingly unwilling firms. As a consequence, while huge amounts remain unspent at the start of the cycle (because not demanded for), social and political contradictions sharpen at the end of the production cycle because of unmet demands thus paving the way for more or less violent conflicts (van Vliet, 1998).

These initial hypothesis have been broadly confirmed in the unfolding of the oil and gas cycles in Chad and in Mauritania⁸ (Magrin, van Vliet, 2005; Kloff, 2007; van Vliet, Magrin, 2007), but the analysis of the facts suggests that additional elements need to be considered when analyzing this ballet around the seemingly "rigid" technological path.

⁸ Although Woodside's choice of the reconfiguration of an old single-hull tanker into the FPSO Berge Helene can hardly be considered as the clearest exemple of the introduction of the best available technology at the start of the production cycle...

Compared to investments in core fields, ongoing and foreseen oil and gas operations in Chad and Mauritania are smaller in size. Until today, the oil fields of Chad and Mauritania are perceived as belonging to the margins of the global oil and gas system (Magrin, van Vliet, 2009). The exploration and production activities in Chad and Mauritania could only be started as the result of a specific concurrence of circumstances: the perception by firms that the oil peak is nearing; the high oil and gas prices till 2008; and the broadened acceptance of the risks involved in operating in less politically stable and more environmentally sensitive contexts.

The foreseen lifecycles of specific oil and gas investments in these LDC's are also shorter than the average duration of past oil investments in core oil and gas fields, while remaining long in relation with those in other branches of industry. In the case of Chad, in the Doba region, production was foreseen for 30 years for the whole production area, while production facilities in specific fields were foreseen to operate for far shorter periods. In order to maintain the long term production forecasts for the whole Doba area, satellite fields have been actively explored and are progressively put under production. In the Chinguetti offshore installations in Mauritania, production was expected to last for only 15 years – even if the likelihood of other discoveries has played a role in the investment decision process. Following a trend in the oil and gas industry in OECD countries - and probably influenced by the short anticipated period of production in the Chinguetti field - , the firm Woodside (later followed by Petronas) has minimised its direct exposure and outsourced as many activities as possible, from exploration activities till the operation of the Floating Production Storage and Offloading vessel (FPSO). Smaller and shorter production cycles do modify the behavior and the learning processes for all stakeholders involved, at local, national and global levels.

Based on learning elsewhere, or confronted with the effects of already ongoing extractive processes (cumulative learning), the media and local stakeholders did not wait till the problems arose at the end of the production cycles. In Chad and Mauritania, pre-emptive actions have been implemented by local and international NGO's at a very initial phase, nearing the moment at which firms implement their very initial strategic thinking. The participation of the World Bank in the Chad-Cameroon oil project – all other things put aside - certainly contributed to an increase in the level of information of international and local stakeholders.

Stronger and earlier outside social pressures might also contribute to an observable shift in the organisation and the values defended by oil and gas operators. Several large oil and gas firms from the OECD are faced with heavily publicised “legacies” (events stemming from years ago and dealing with human rights abuses, environmental damages, corruption or role in the funding of civil

wars). This publicity affects all firms in the industry, involved in these legacies or not. Scrutinised by the risk rating agencies, firms are therefore increasing their capacity to anticipate, counter and if possible avoid future controversies. The relationships with local stakeholders, NGOs and media are therefore a subject of early concern⁹. In view of remaining attractive to present and new employees, firms are obliged to modify their strategic thinking, their discourses, if not their practices (Magrin, van Vliet 2009).

Like elsewhere, the oil and gas industry in Chad and Mauritania exercise contradictory but essential demands on public steering. The first demand concerns the respect by the State of the terms of the business agreements made, regarding financial participation, fiscality, exit and transfer rules and consortia composition. The second demand is to respect the self regulating capacity of the oil and gas sector (one of the first and main industrial sectors with experience in setting standards and have them respected by the affiliated members). The third demand concerns physical security, because of the sensibility of the activity to actions from unfriendly third actors. The fourth demand, partly related to the third one, concerns the ability of the State to mediate social frictions and to insure a climate of serenity all along the production cycle. These four demands are all essential but also too far reaching or contradictory. The first demand asks for rigid and enforced policy and legal frameworks in countries where the capacity to elaborate viable rules of the game and have them enforced is low, and in situations where social forces are requesting changes in the rules of the game. The second demand sets limits to interference from the State, which is difficult to admit for States used to intervene in any matter belonging to strategic or security domains, especially under autocratic regimes. The third puts a heavy load on the capacity to ensure public security which may contradict the demand for a climate of serenity, thus jeopardizing the “licence to operate” which is so crucial for oil and gas firms¹⁰. Summed up and quite surprisingly, these contradictory demands from a large and advanced

⁹ The renewal of the partnership between Shell and IUCN sparked a wide and still ongoing internal controversy within IUCN, refer to the Letter exchange, 2008.

¹⁰ We are again indebted to Bopp van Dessel for sharing his insight in the oil and gas sector.

industrial activity open the way for the emergence of a modern State in gramscian terms (Gramsci, 1975). That is, a State able to develop strategies based on coercion as well as strategies generating legitimacy and adhesion, thus creating space for it's (relative) autonomy (Poulantzas, 1968), vis-à-vis contradictory demands from a group of firms with different interests. This relative autonomy, as we show, can also be the result of the contradictory demands emanating from one firm. An increased autonomy opens spaces for choice. Paradoxically, the exercise of this autonomy might jeopardise one of the key elements of the relationship between the firms and these LDC States: whatever happens, firms need predictability. The contradictory demands exercised by the oil and gas activities on the State contain the germs of future bifurcations.

III. Oil and gas activities generate spaces for change in the context and the logics of public organisations in LDCs

The first change was crucial but went unnoticed in the two cases studied. The sudden access to “freely” disposable financial resources created an unexpected opportunity to break away from the monopoly of International Financial Institutions on national public policy thinking (Magrin et. al. 2005, van Vliet, Magrin 2007¹¹). Since the eighties, expenditures in the sectors of education, health or infrastructures were financed, oriented and managed by donors (World Bank, European Union, African Development Bank, bilateral donors). For the first time in many decades, in 2003, the Chadian State had a choice: it had the opportunity to decide on public expenditures that could contribute to create legitimacy beyond the ones related to security. In 2005, during a regional planning exercise in the oil producing area funded through the World Bank, many Chadian State functionaries had still not realised that the new oil revenues could be spent by the line ministries,

¹¹ Refer also to the case of Angola, where Shaxson (2009) shows that the rise of China's influence, related to the oil boom, weakens the influence of IMF by enlarging the negotiation field of the State.

and did not necessarily have to pass through the donor managed “project coordination units” (Magrin et al. 2005). The access to oil revenues has thus certainly created a critical juncture: by enlarging its financial resource base, the State was suddenly exposed to new public choices. It was also confronted with the unforeseen consequences attached to this new situation.

Access to oil revenues brought also an exposure to a new form of “ethic” scrutiny from international organisations. The administration of pre-oil rents (for example, international anti-poverty assistance) has never been free of problems, but these had never triggered that much attention. However, as soon as the news of possible oil revenues for the Chadian and Mauritanian States was known, NGOs and international aid agencies flocked to help preventing possible misuses (Magrin, van Vliet 2009). Chad negotiated a three layer supervision agreement with the World Bank. Soon after the confirmation of the presence of off-shore oil, Mauritania adhered to the Extractive Industries Transparency Initiative (EITI) and the first steps were implemented in order to be accepted as a candidate member under this initiative. As a consequence of intense outside training and lobbying, the Mauritanian Coalition Publish What You Pay was created (Kloff, 2007). This exposure triggered new functions within the two States: specific commissions were created, new skills had to be acquired, new formal rules had to be followed and before all, new behaviors had to be learned because of the interaction with multinational firms, a new and peculiar sort of partners.

The direct interaction with strong multinational firms (private or public) was not the kind the Mauritanian and the Chadian states were used to, despite the adaptation capacities they developed along their long history of political and economic dependence (Bayart, 1999). While fonctionnaires had learned to deal with the usual relationships with donors, and had created the kind of routines and behaviors that provided them with space and time for manoeuvre, these were of no avail when dealing with staffs from the oil and gas sector. After the apparently relaxed opening phase, agreements that were made and timelines that had been set had to be met. Delays might result in fines. Staff members from the oil and gas sector are routine

oriented, used to clear prescriptions and clear frameworks: the Constitution, the local labour and social laws, the contracts and their annexes were now seriously considered as a reference. Anything beyond it had to be patiently renegotiated. Official visits to oil installations, especially in the Mauritanian off-shore, were subject to strict pre-conditions and application of international maritime security rules¹². Subject to internal and external scrutiny and because of their engagement in international initiatives like the UN promoted Business Leaders Initiative on Human Rights (BLIHR), the private firms from the OECD countries wanted to avoid any open involvement with internal political repression in Chad, leaving the entire responsibility to the State. Financial discussions with multinational firms resulted thus much harsher and riskier than negotiating a loan with the World Bank or the IMF and open clashes occurred between the Chadian State and the Exxon-Petronas-Chevron consortium. While it was expected that interaction with public multinational firms (from China or from Malaysia) would provide more leeway for the States, the contrary resulted on the ground. In Mauritania, Petronas, a public firm from Malaysia, while having a different form of scrutiny at home, also asked for respect of the rules of the game¹³.

However, as was the case for many other crucial matters, neither Chad, neither Mauritania did have ready available and legitimate public rules of the game for the oil and gas sector. Public regulation had to be built overnight, meanwhile heavily and solely relying on the voluntary codes and standards adopted by the oil and gas producers. But voluntary codes and standards, while playing an essential role in a rapidly changing industry, are not sufficient to regulate the oil and gas sector. In Chad, the Law 001 on the Use of Oil revenues was elaborated with assistance from experts from the World Bank, then approved by parliament, then modified by

¹² This may include but is not limited to the Helicopter Underwater Egress Techniques (HUET) training, which every visitor, -including the authors of this paper- has to follow in order to be admitted to the FPSO Berge Helene (off-shore Chinguetti field, Mauritania).

¹³ The fact that Petronas is a member of the International Oil and Gas Producers Association (OGP) certainly provides an explanation for that behaviour and this again stresses the key role played by the OGP in setting international standards and codes of conduct.

parliament, fuelling the crisis with the World Bank but also contributing to vivid society debates within Chad. In Mauritania a comprehensive set of rules of the game has been suggested following intensive discussions within a Platform for Dialogue on Oil and Gas activities (with participation of staff from ministries, firms and NGO's). Rules have been discussed around 4 basic questions: Who may operate? Where to operate? How to operate? How to coordinate among ministries, among State and private sector, and among these and NGO's? The process of adhering to these or other agreed rules and then enforcing those still remains an open chapter in the short history of public oil regulation in these LDC's. In both countries the process of building these new rules has been rich of societal controversies that also triggered unforeseen changes.

The complexity of the decisions to be made and the irruption of new actors have triggered uncommon practices of co-steering, dialogue and negotiation. Before the start of oil exploitation, both Chad and Mauritania were characterised by authoritarian practices. Engaging in the oil and gas industry created new demands on States that were used to take decisions on their own, at least as far as their domain of decision was concerned (most other domains of activity being handled by the donors). By entering the oil and gas adventure, States from LDCs are obliged to take into account the multinational firms, organisations in which they have no seats, that do not behave like the World Bank or other multilateral agencies and with whom they cannot do else than co-steer or at least try to co-steer. Because of the open ownership structures of oil and gas firms in OECD countries, which provides space for institutional stakeholders (churches, pension funds), LDC States are forced to engage in dialogues with national and international NGO's. Working with the oil and gas sector asks thus far broader negotiation capacities: oil and gas activities have triggered unforeseen laboratories for policy experimentation.

The emergence of oil and gas rents had initially raised the question about its impacts and about the fairness of its distribution. In both countries there have been the allegations of private capture of public investments financed through oil revenues. Cases have been indeed identified where public investments (what ever the origin of the rent) have been used unefficiently or associated with practices of overvaluation and meddling. Nevertheless, we have also observed a series of public investments (probably financed with oil revenues) that are being utilised (Magrin, van Vliet, 2009). In Mauritania and Chad, when digging more in the issue of impacts and redistribution it was found that there is an absence of downstream public budget traceability. This lack of downstream traceability is in fact affecting all sources of rent, beyond the mere oil and gas revenues (aid, environment, mining, fisheries). The discussion on the public use of oil rents has thus expanded to the much broader issue of transparency on all government incomes and expenditures.

A more profound problem was then identified: the absence of a national budgetary codification which would allow to precisely tracing down the origin and the destination of public expenditures (van Vliet et al, 2009).

While public investments financed through oil revenues have tended to follow pre-oil patterns (patronage, fund diversion, misspending), direct private sector contracts with the oil and gas firms have generated new demands. In Chad, where the oil production activities started less than 7 years ago, long established merchant families have tried to modernize their activities to contribute to the supply of the oil system. The slow emergence may thus be observed of a small, discreet but significant knowledgeable local technical elite composed of transporters, ingenieurs, economists and community and environments specialists, trying to supply the new professional services demanded by the oil industry (Magrin, van Vliet, 2009). The question remains of the role that such new elites could play in a process of national economic modernisation, and it's potential political impact on a future trajectory changes.

IV. Conclusion: domains and indicators of potential bifurcations

We have tried to show that while oil and gas activities do show many of the characteristics of "large infrastructures", marked by irreversible choices, rigidity and thus technological path dependance, these same technological processes are triggering active social dynamics that do question the same technological processes from where they emerged. The oil and gas activities thus create opportunities for new public choices, but these also trigger new obligations and new behaviors. The contradictory demands exercised by oil and gas activities on public steering are thus triggering conditions for larger and smaller bifurcations.

The first domain of bifurcation is related to the sudden widening of public choices as a consequence of freely disposable oil and gas revenues. Access to unconditioned resources creates conditions for more autonomous public policy making. This new space may be utilised to escape from the traditional IMF and WB policies tending to privilege investments (thus infrastructures) over operation (thus salaries and functioning expenses). Indicators of this bifurcation are the number of policy documents and decisions elaborated by the national ministries instead of by donors or by donor financed consultants. Another indicator would be the evolution of the operational expenses and the quality of services delivered in key sectors (as education and health). The probability of this bifurcation is not low. The increase in the number of functionaries in the health and education sectors is a condition sine qua non but not sufficient for an increase in the quality of services delivered, the

challenge being to avoid the plethora but ineffective ministries from before the structural adjustment programs.

Freely disposable resources also introduce another basic new choice in these LDCs: the choice between coercion and legitimation, our second domain of bifurcation. Indicators of this bifurcation are the evolution of spending in military and security investments versus other public investments (education, health, infrastructures and justice). The spatial (rural versus urban, region X versus region Y) and social (income class I versus income class II) spreading of investments will also be indicators of the materialisation of this bifurcation. The adoption of more precise budget nomenclatures in order to facilitate downstream budget traceability will represent an additional indicator. The probability of this bifurcation is higher in Mauritania than in Chad, because of accumulated learning experience in dealing with rents (mining, fisheries and aid).

Freely disposable resources trigger new forms of scrutiny and new obligations in terms of responsibility. The third domain of bifurcation is related to the acceptance of interdependencies (working with multinational organisations and NGOs) and the enfollowing increased national and international scrutiny. Indicators of this domain of bifurcation are the continuing respect of international voluntary agreements (like EITI), the continuation of tripartite dialogues (between firms, civil society and the States) and their translation in viable, legitime and enforced rules of the game. The robustness of the approved national Constitutions as a reference for dealing with internal political and social conflicts constitutes another indicator of this domain of bifurcation. The probability of a materialisation of this bifurcation is uncertain in both countries.

The fourth domain of bifurcation is related to the former and concerns the evolution of the State. A State that would be able to answer the requirements of the oil and gas sector, and that would also take into account these new social demands, would need to dispose of a space of relative autonomy (Poulantzas, 1968) vis-à-vis the oil and gas firm(s) and vis-à-vis the scattered other demands in Society. But this same autonomy might imply the renegotiation of the agreements made with these firms (as was the case of Chad and Mauritania). Indicators of this bifurcation are: the number of renegotiated contracts, the nature of the changes introduced, the new repartition of the rent that emerge of these changes. The increased role of national parliaments and the level of tolerance to certain forms of direct democracy (including the tripartite dialogues evoked above) certainly represent other indicators of a change in the evolution of traditionally authoritarian States, although we do not believe that the quest for direct without representative democracy would be viable in Chad and Mauritania. The probability of a materialisation of this bifurcation is uncertain in both countries.

Several spaces for bifurcation have been identified, as a result of the new context created by oil and gas activities. The question remains how these bifurcations triggered by the oil and gas activities will interact with the longer term and deeper rooted socio-political and cultural trajectories trajectories and more specifically, with their bifurcations.... The answer to this question will probably provide more insight in the probability of the materialisation of the oil and gas related bifurcations which we identified. Further research will be needed to understand whether the moments of bifurcation within these two types of trajectories do indeed match or are disphased. Likewise it would be interesting to analyse wether the bifurcations in each type of trajectory are compatible and reinforcing a certain change in behaviour, or wether these bifurcations mutually cancel each others effects.

Oil, gas and energy: this will never be a “finished business” (Lejourne J, 2009) and the paths are beyond doubt more open than the defenders of the resource curse pretend.

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