 doi:10.20944/preprints202011.0496.v1

The policy framework of natural resource management in oil-dependence countries

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ABSTRACT

The resource curse indicates that economic growth performs poorly in countries with significant natural resources. Nevertheless, certain countries rich in energy managed to protect their resource riches in the long run. It is necessary to enforce effective policies in resource-rich countries to fully leverage the advantages which can come from the abundance of natural resources. This study aimed to evaluate how oil-rich countries would avoid resource flows by successful fiscal and management policies. By taking the guidance of Norway and implementing fiscal policy focused on tax rules on its oil management, it is proposed that oil-exporting countries benefit significantly. The framework attempts to mitigate this resource curse and utilise oil revenues in the interest of the country.

Keywords: resource management, oil curse, footprint, fiscal policy

1. Introduction

This study looks into how oil-dependence countries can manage their oil revenues more efficiently. The so-called 'resource curse' affects most oil-rich economies, and this framework attempts to mitigate this resource curse and utilise oil revenues in the interest of the country.

Growth can be generated and sustained by natural resources. It is, therefore, urgent for improving the management of natural resources for long-term, pro-poor economic development. Likewise, the international context of managing natural resources is shifting. Several emerging economies are major natural resource importers. This growing demand for natural resources enables better management of resources even more urgent.

This study focuses on the economic dimension of the management of oil resources. The aim is to enable decision-makers from agencies, finance ministries and planning to consider natural resources' contribution to poor development, as well as the importance of policies that promote sustainable management (Ochola, Sanginga, & Bekalo, 2010; D. OECD, 2009).

In promoting pro-poor growth, several natural resource sectors play a crucial role. It is fisheries, forestry, tourism based on wildlife and nature, soil, minerals, and water security. All of them seem to be essential natural resources that can lead to sustainable pro-poor growth if effectively managed (Ramprasad, 2001).

There is a consensus that economic growth is a key requirement for the long term and is often the key contributor to growth and development. Country-by - country and time evidence shows that the long-term poverty reduction results primarily from growth because of the initial conditions (mainly levels of income and resources inequality) and whether the poor live in and are economically active in sectors and areas. This combines pattern and pace of growth and requires a joint approach to have a substantial effect on poverty reduction(Co-operation & Development, 2007).

In the literature, natural resource management categorises non-renewable and renewable natural resources. Therefore, it is appropriate to classify natural resources to distinguish between different type of resources. The economic development is focused on a range of natural commodities, renewable or non-renewable. Timber and non-timber wood products, wild fish catches, etc. are commodities made from sustainable natural resources. Oil and minerals are mainly goods derived from non-renewable natural resources; in many developing countries, these commodities constitute the backbone of the economy. In some low-income countries of Africa, Asia, and Latin America, natural tourism is an essential component of international tourist receipts. Farm activities, a vital part of the economy in many developed countries, soil and water supplies are crucial (Conrad, 1999). Coal mining has a

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significant effect on the development of countries like Botswana. Renewable resources can play a vital role in maintaining access to energy for poor people (Ahuja & Tatsutani, 2009).

A wide range of positive externality is generated by natural resources at local and international level. Natural resources also provide better service in addition to products, such as water filtration and purification systems. Natural resource resources at state or regional levels, for example, provide soil stabilisation in the wetlands supported by upstream vegetation that allows downstream water storage, irrigation and hydroelectric facilities work well. Global services include forest or land carbon sequestration to contribute to climate change mitigation(OECD, 2009).

The natural resource basic function is broadly divided into two

- Provide important raw material for the productions of good and services
- Various environmental services, environmental services will diminish if natural resources are depleted.

There are two effects in terms of resource management which are:

1- Depletion resources

2- Degradation of resources

In this sense, many approaches have been proposed to endorse better natural resource management. This section aims to analyse these concepts in investigating whether they could contribute to the development of natural resource policy of countries in the sustainable use of natural resources (Shardul Agrawala et al., 2003).

Sustainable use of natural capital faces particular problems. Sustainable resource management relies on the ability to monitor stocks and takes corrective measures when they are seriously damaged or declined.

2. Sustainable development

Sustainable development defined as "development that meets the needs of the present without compensating the ability of the future generations to meet their own needs" (Emas, 2015, p. 1)

In general, a consensus on sustainable development is at minimum captures two essential ideas:

1- It contains three dimensions, economic, social, and environment. To be sustainable, development has to balance between the two different elements that contribute to the overall quality of life (Economic & Affairs, 2013).

2- An obligation for this generation has to be met to future generations for leaving adequate capital of economic, social and environmental resources for them to live welfare live or at least as high as this generation (Economic & Affairs, 2013).

2.1 The resource management Approaches

There are many sets of representative concepts that imitate the main approaches to resource management. Two main ideas are discussed:

2.1.1 Carrying capacity

Concepts consider the notion of carrying capacity in which the use of resources services is compared with a defined bio-physical limit for the supply of such resources.

"Carrying capacity indicates the maximum number of a species that a given unit of land can "carry" indefinitely" (Wisniewski, 1980, p. 55). It is argued that this concept is not relevant to humans. The carrying capacity has increased due to technological changes which indicate that no clear, recognisable fixed biological limit. However, many other concepts for resource management try to compare the goods and services that are available from nature for a given population and standard of living. Similar to the idea of carrying capacity is the concept of ecological Footprint (Akkucuk, 2015).

2.1.2 Ecological Footprint

The ecological footprint in the 1990s, as the use of water and land for production of all resources that human consume and eliminate the waste material that population generate. It is a comprehensive measure that many

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studies use to indicate the degradation of the environment. Each county encounters challenges with regard to the balance between country growth and global environment production. In this sense, the footprint is responsible for the degradation of the environment. Several studies use this as an index for environmental degradation(Hassan, Xia, Khan, & Shah, 2019; Siche, Pereira, Agostinho, & Ortega, 2010)

This index has the advantages of directly and indirectly demonstrating the environmental effects of production and consumption. It has been addressed in the literature in many aspects, the effect economic growth on the ecological Footprint (Aşıcı & Acar, 2016; Hassan, Baloch, Mahmood, & Zhang, 2019; Hassan, Xia, et al., 2019), the impact of FDI (Liu & Kim, 2018; Udemba, 2020; Zafar et al., 2019), socio-political factors (Charfeddine & Mrabet, 2017; S.-T. Chen & Chang, 2016; Dogan, Taspinar, & Gokmenoglu, 2019), and globalisation (Ahmed, Wang, Mahmood, Hafeez, & Ali, 2019; Figge, Oebels, & Offermans, 2017; Rudolph & Figge, 2017; Sabir & Gorus, 2019).

However, the literature in the influence of natural resource management is mostly ignored. The world economy is heavily depending on the of countries abundance, and especially developing countries which represent a substantial share of their GDP. On average, every megajoule of crude oil has emissions of 10.3 grams. Investing in crude oil infrastructure and policies could bring more significant climate benefits. A policy or regulatory operation must be the challenge with flaming. Yet, even in the best global estimates of crude oil production, large gaps have existed thus far, as economic data estimating how many barrels of oil companies were expected to deliver based on fuel prices over that time were reversed. Hence, many of the fundamental mechanisms that contribute to pollution are absent. (Masnadi et al., 2018).

The footprint can be used to evaluate the limits of consumption of natural resources and considering the resource's depletion. If sustainability is defined in such a way can be measured and consistent, sustainable resource management will be possible. However, the footprint does not provide a complete picture of sustainable resource management. Furthermore, the footprint neglects the quality of life, in which they only reflect the lifestyle's pull on nature (Beske-Janssen, Johnson, & Schaltegger, 2015).

The assessment of the footprint is only that, if overshooting is to be avoided, the total use of natural resources should not exceed the regeneration level of nature. Most important, it seems that the carrying capacity is quite irrelevant where yield's resource in the case renewable resources can be increased, and the depletion in the case of non-renewable resources can be expanded by ethnology. Hence, appropriately managing natural resource leads the carrying capacity to be enhanced and enlarged. Moreover, technological efficiency is a crucial strategy to reduce the draw of humanity on nature (Chambers, Simmons, & Wackernagel, 2014).

In this sense, these countries must reduce their level of the footprint by more managing effectively and protect their ecological resources as these are becoming an increasingly important strategic part of natural wealth. The results will be not only national but global sustainability if countries perform in their long term of interest.

The intervention of national policies of governments which can be divided into three groups can influence how resources are managed:

A. Gathering data

Selecting which statistics are obtained determines what is deemed to be important on many natural resources, including the performance of fiscal, social, trade and resource use. In addition, it is ensuring that both individuals and organisations comply with regulations and legislations. For that to be the case, transparent and publicly available sustainability indicators and accounts that measure key sustainability requirements are needed to be established. It evolves establishing accounts of natural capital or (biological capacity) and setting specific goals of the use of the natural capital (Programme, 2016).

B. Managing national assets

Governments handle a variety of national assets. These include educational institutions, transport and communication services, etc. Each of these resources must be dealt, which ultimately can help shape the stability of society. For that to be the case, and for the sustainability, adapting infrastructure such as small-scale energy-saving and support research for sustainability, strengthen the contribution of education to sustainability (Terrapon-Pfaff, Dienst, König, & Ortiz, 2014).

C. Guide the market

Governments are most noticeable in managing their economies that accomplished not merely by monetary policies, but also by putting standards and regulations in place by developing inducement systems (taxes and subsidies) for market direction and revenue generation and even in the contest of international negotiations. This

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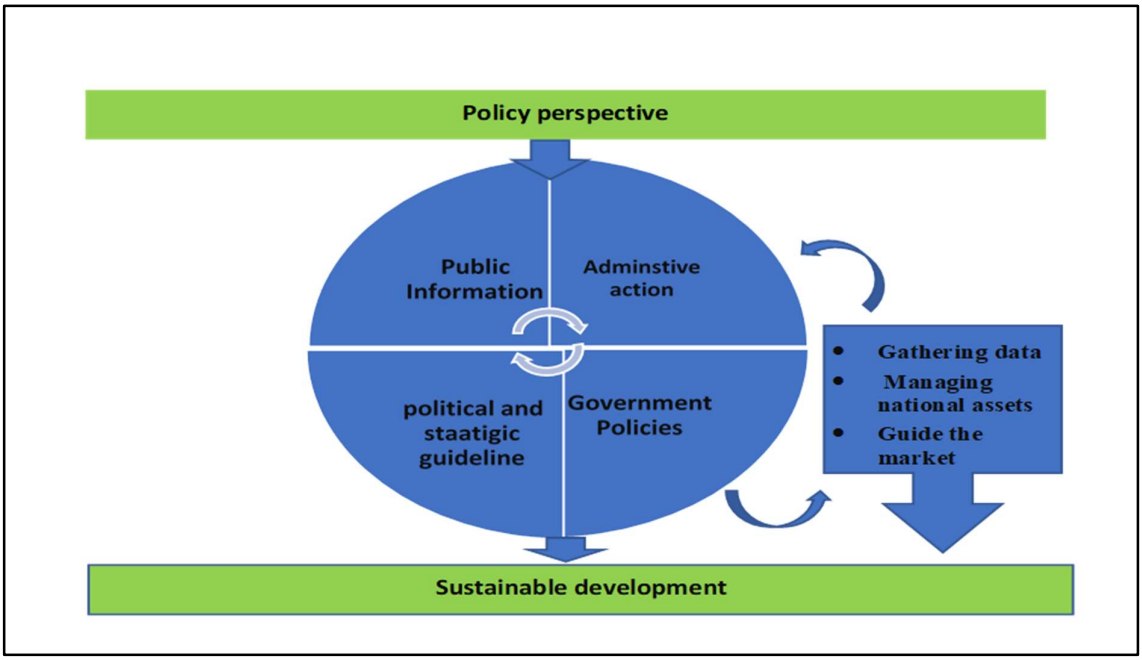
could be achieved by putting in place regulations that promote sustainability (taxes and subsidies), for instance, that encourage an equitable reduction in the consumption of resources that promote the use of resources.

Management strategies aiming at sustainability must, therefore tackle the ecological footprint in terms of life-cycle solutions to sustainable development. To be used successfully to monitor progress towards sustainability, ecological footprint must consider land requirements to maintain local activities. The footprint index offers policymakers the ability to monitor the utilisation of local resources (Wiedmann, Minx, Barrett, & Wackernagel, 2006). Even though the ecological footprint index tends to be insufficiently reliable to compare jurisdictions globally, it can be of practical use as a resource for local policy management. It can be explicitly used for the following three goals(Steer, 2008).

- It is assuring publicly available information, community discourse and engagement by person footprints. Accessibility through the Internet of individual footprint calculators is a particularly useful way of fostering and raising public awareness that is important for the political purpose of ecological information.
- To allow and motivate official action through the use of footprint analysis as part of impact assessments;
- Structuring government guidelines as a framework for strategic planning and sustainable development.

Chart 1.1: From the ecological footprint to sustainable development – A framework for policymakers



Source: Author elaboration

Due to its utility in evaluating environmental effects, energy consumption, and natural resource management, the ecological footprint may also be important in governmental processes and particular projects.

The assessment of ecological footprint is important in strategic planning initiatives such as local master-planning or annual reports. It can direct environmental management processes, provide a basis for data collection and coordination, set goals and monitor success, assist ecological monitoring efforts, and inform regional economic growth strategic decision-making (Wiedmann et al., 2006).

Environmental policy development and other government policies increasingly require the involvement of multiple participant groups, including economic agents, political-administrative and multi-stakeholder, and experts.

Thus, introducing new issues into the national environmental policy agenda, the use of footprinting should be followed by political goals to achieve results that could impact the political and social context. The first target for

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governments might be to decrease the ecological footprint over time, but attention should also be extended to other environmental issues and priorities.

In sum, to achieve sustainable resource management, its crucial to concentrate on the critical requirements of sustainability, and the most important thing is to avoid the ecological overshoot which considered the most central concern of resource management. Investing in a sustainable future, raising awareness of the value of applying ecological constraints to decision-making, making government choices that diminish the footprint.

3. The economic approach to resource management

Under this concept, the management of natural resources is less straightforward than the previous concept.

3.1. Management of non-renewable resources

The basic economic concept of non-renewable resources which by definition is limited will decline if the resource is used. Nonetheless, the availability of these resources can be mitigated by technological progress, recycling and discoveries of new deposits(W. Chen & Lei, 2018; Grosse, 2010).

The exploitation of this type of resources ensures that the size of the stocks will reduce its supply. This ensures that a society of current exploitation and use will bear the opportunity cost and will consume less in the future, considering the present rate of consumption (Carvalho, 2017).

Non-renewable resource management is concerned with how the stock of resources should be used optimally. Therefore, the concern is to put forward strategies to concentrate on the role of government policies and institutions on the management of the non-renewable natural resources. Particularly natural resource-based economies and how they manage on the revenue of these resources optimally, while keeping the previous concept (footprint) under control and eventually achieving sustainability through management (Collier & Laroche, 2015; Viñuela, Kaiser, & Chowdhurie-Aziz, 2014).

Managing natural resource poses unique challenges. The economies with natural resources are vulnerable to periods with boom and bust. Also, when a country unexpectedly finds and begins exporting vast volumes of natural resources, the exchange rate will change dramatically, leading to a collapse in the productivity of other industries. This situation is known as "Dutch disease" (Van der Ploeg, 2011b). Important policy responses to these "boom and bust" and "Dutch disease" periods include stimulus funds, specific public spending financed by windfall income, export diversification, appropriate use of tax regimes, and sustaining external debt at a sustainable level (Berg, Portillo, Buffie, Pattillo, & Zanna, 2012).

Furthermore, there is a growing world perspective on the management of natural resources. Many developing economies are big natural resources importers. This increasing need for natural resources allows effective use of resources much more critical (OECD, 2009).

With sound management, the long-term, balanced pro-poor development may be focused on natural capital. They must be used efficiently, equitably and sustainably to ensure that the natural resources not only endorse, but also sustain growth. For instance, by improved efficiency or production, the commercial value can be maximised, and its profitability can be expanded through engaging in human resources and intellectual development. Fiscal revenues may be channelled through weak expenditure, whereas policy mechanisms that enable diversification outside of the exploitation of natural resources may stimulate further value-adding growth (OECD, 2009).

The transition of natural resources into specific types of wealth, including human and social capital, will only provide a foundation for sustainable growth when certain conditions are fulfilled (e.g. by education investment). Both related to social, economic, and environmental considerations must be taken into consideration in decisions to turn nature capital into other types of income. Often there are trade-offs between various stakeholders and critical transformation levels that should not be reached. Oil income and the associated stream of economic, social and environmental gains can fall beyond certain limits, quite often irreversible. Some natural resources are indispensable and must be conserved to sustain long-term growth and sustainable development (OECD, 2009).

3.2. The governance dimension of the natural resource's management

The nature of these resources and the stakeholders involved, and the institutional structure and rules should be informed about the governance of natural resources. Under weak natural resources institutions (e.g., uncertain

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rights, lack of market and remote locations), unique challenges in this respect are established. (Agrawal, 2001; OECD, 2008).

Specifically, the ability of elite groups to exploit access and exclude the poor is a challenge which often leads to small elites benefiting from natural resources and does not promote the growth of the nation, let alone lifting people out of poverty. Apart from corruption and weak governance problems, a variety of possible uses – sometimes mutually contradictory – of natural resources generate trade-offs and conflicting interests and objectives(OECD, 2008). Natural resources governance requires political decisions like market-based measures, regulations, collaboration, and information. These policies have different distributional effects. To ensure a pro-poor outcome, significant involvement of the poor in governance mechanisms must be paid special attention(OECD, 2009).

This section attempts to determine the best way for oil-dependence countries to manage oil revenues. As has been said, most countries that are rich in oil are affected by the so-called resource curse, which seeks to mitigate the oil curse and use oil income to government advantage. A limited number of success stories can be established in the developed and developing countries, such as Norway, on which a successful framework and fiscal policy can be designed and enforced. These policies may prevent or mitigate the resource curse into long-term growth (McKay, 2012).

For those countries, the oil sector has generally been relatively poor, characterised by frequent production disruptions, limited domestic development, and limited income inflows and allocations. Furthermore, the tax policy was often revised, and the implementation of the policy is yet to be completed. The resource curse has impacted these countries heavily, and their full growth potential has never been reached despite massive oil wealth (Arezki, Dupuy, & Gelb, 2012).

4. Theoretical background

A wealth of natural resources means for resource-rich countries several challenges. This involves loss of competitiveness in sectors of non-oil sector, the excessive use of commodity resources for government revenues, and export profits by the so-called 'Dutch disease (Macartan, Sachs, & Stiglitz, 2007). The Dutch disease occurs when the additional wealth generated by the sale of natural resources leads to an appreciation of the real exchange rate. That, in effect, reduces exports in the non-resource industries and decreases imports (Lartey, 2011; Van der Ploeg, 2011a).

The and the Institutional Model and Rentier State model Theory are the theoretical models that best explain the phenomenon of the resource curse. In terms of commodity price increases that are not related to increased productivity, the model theories that resource-rich countries acquire significant revenues (Van Ingen, Wait, & Kleynhans, 2014). Rent-seeking involves looking for financial benefits or taking advantage of non-productive economic activity. A rentier state earns large rentals from foreign businesses, organisations, or governments. Such governments are autonomous from their people due to their surplus of profits from extractive industries. Ultimately, a society with almost no middle class, and no democracy (Van Ingen et al., 2014).

The institutional model emphasises the poor economic policy and management, where political institutions are weak. Political leaders are likely to collect profits, while bureaucracy and economic inequality flourish. The resource curse is responsible for considering the absorption of sales revenue as capital consumption provided that the non-renewable government depends on its oil revenue to fund the expenses of mobilising resource projects, which enable resource mobilisation and boost productivity. They are frequently abandoned later (Coutinho, 2011; Macartan et al., 2007).

The resource curse threatens to exacerbate governance and weakens government institutions. Large leases, which are derived from the profits of natural resources, contribute to rent-seeking behaviour. Rent-seekers diverts money and generates deadweight losses for society from successful uses (Hausmann & Rigobon, 2003). Political elite rent-seeking behaviour has adverse effects on governance in oil-rich countries that are all too high. Nevertheless, economic factors have a little inexorable impact on national economies, as states will minimise their impact by pre-emptive policies (Van Ingen et al., 2014).

Countries that can generate oil revenue also have less dependence on citizens' taxes which often leads to weak connections between governments and the public. Resource and non-resource income are adverse in studies by (Bornhorst, Gupta, & Thornton, 2009; Macartan et al., 2007).

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Fluctuations in income are the result of natural resource price volatility, in particular oil. This volatile source of income leads to future financing uncertainties and long-term planning. Uncertainty contributes to high expenditure levels in good years, with severe cuts in decreasing years (Bartsch, Cuc, Malothra, & Katz, 2004; Segal, 2012).

4.1. Fiscal Policy

Like in most major oil-exporting countries, upstream oil activities are regulated by state oil companies; oil revenues collect in the country directly and exclusively. The use of oil income is, therefore, a fiscal policy choice, and it is through public spending that oil revenues, including inflation, affect the real economy.

When resource-dependent countries develop a minimum stabilisation function, they would be able to investigate how to manage saving and expenditure correctly. In establishing a country-specific tax policy system for the allocation of natural resource income, investment is higher now relative to budget projections in future generations. Not all states will consider it helpful, beyond what is necessary to maintain short to medium-term stability (i.e. in the round of oil markets, to conserve natural resources revenues).

In other terms, it may be in the benefit of certain countries to invest as much money now as the stabilisation system allows, rather than conserve further resources for future generations. Studies also concluded that the usage of natural resource income in the domestic economy by capital-starved resource-rich emerging countries would be growing (see, e.g. (Baunsgaard, Villafuerte, Poplawski-Ribeiro, & Richmond, 2012; Van der Ploeg, 2011a).

Poorer countries should invest more and save less on economic growth. The stabilisation financing strategy of overcoming this problem is to devise a mechanism for sharing natural resource earnings (the deposit and withdrawal rules) in place of current budget expenditure by generating savings beyond the stabilisation and short-to medium-term saving steps.

Even if a country wants to spend more now, the economy may well not be capable of absorbing enhanced spending and investment quickly and productively. And a developed nation may have reasonable reasons to conserve more existing income before they become more competitive and sustainable.

The regulation of petroleum revenue will significantly boost a tax policy strategy. Such countries should structure their tax policy around non-oil deficits that are lower than expected prices and based on oil revenues. The oil-price fiscal rule should link government expenditure to the long-term projected price of petroleum. This legislation would reduce the uncertainty of government spending and save a large portion of the existing oil receipts.

4.1.1 Fiscal revenue management policies

Countries that depend on oil should enact effective policies to guarantee economic development, providing financial benefits from resource extraction and tax and revenue management policies (McKay, 2012). Certain oil-exporters have been able to alleviate the consequences of the resource curse through adequate policies. This section reflects on the most successful government policies (Abata, Kehinde, & Bolarinwa, 2012; Coutinho, 2011; Iimi, 2007).

In particular, policy on revenue management encourages harmony and social stability by creating an income distribution mechanism. This is generally done through the management of public investment (Van Ingen et al., 2014). Government bodies should develop a tool for evaluating longer-term oil revenues forecasts and outline fiscal policies that are propitious to oil-producing countries' long-term growth strategies.

5. Fiscal policy of oil producers

The collection, investment, and utilisation of oil income should be governed under the fiscal framework. Hamilton and Ley state that revenue should be generated through the fiscal policy of resource-rich countries. The strong financial positions make it possible for governments to pursue growth strategies without the volatility of petroleum revenue (Bjerkholt, 2002).

Literature has accepted that petroleum-producing countries will be pursuing a tax-related strategy. Hamilton and Ley (2012) defining fiscal regulations as the fiscal performance summary indicator. The established tax rules include permanent fiscal regulations on wages, cautionary fiscal management, and current oil expenditure. Non-oil balance is a useful indicator for assessing the sustainability of fiscal policy. However, it is challenging to determine permanent income in the future, and the rule does not take into consideration future spending, such as social security liabilities. It isn't easy to estimate future income as it does not include future spending on social security.

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Non-oil balance is a useful indicator to evaluate the sustainability of fiscal policy. To ensure fiscal sustainability, governments will strive to achieve a sustainable income balance. However, it is challenging to determine permanent future incomes, and the rule takes no account of potential spending, such as social security liabilities. The model is based on a permanent hypothesis of income (PIH) (Bartsch et al., 2004; Khalid, 1994; Olters, 2007).

On the other hand, the precautionary fiscal rule is focused on oil revenue volatility. The rule is intended to ensure a reasonably stable future oil usage, even if the oil sales stop suddenly. Consequently, governments limit the flow of revenues from accumulated financial assets to consumption. North Sea oil producers, especially Norway, have succeeded in turning oil wealth into economic growth (Bartsch et al., 2004; Valdés & Engel, 2000).

An alternative rule is based on a framework in which the government spends entirely on current oil revenues. Most oil-exporting countries, such as Nigeria, have a fiscal policy regulation of that kind. That is not a sustainable policy. It prevents and is not desirable long-term growth(Stevens, 2003).

5.1. Revenue management

Responsible governments must be proactive in turning their countries' non-renewable oil resources into long-term production. Governments must guarantee fiscal restraint by avoiding the burden of spending. Oil production produces large flows of oil production; government institutions can be placed under pressure. Revenue spent would, therefore, be driven by correct policies on revenue management aimed at infrastructure investment (Stevens, 2003; Sy, Arezki, & Gylfason, 2011).

Besides, a revenue management framework should be structured to ensure that government departments and relevant players have transparency and accountability. Oil proceeds are used to minimise public debt utilising the widely accepted benchmark framework for petroleum exporting countries (M. J. M. Davis, Fedelino, & Ossowski, 2003; Sy et al., 2011).

5.2. Public investment management systems

To ensure that oil income in low-income countries contributes to public investment instead of increased private consumption, effective public investment management systems are essential. Economic growth is dependent upon core public goods which are frequently lacking in underdeveloped countries. Governments may use oil revenues in a structured way to enable countries to support development. Research indicates that investment returns on infrastructure could be high, generally from 15 % to 20%. World Bank forecasts that the long-term growth rate can be raised by at least 2 per cent a year in investment infrastructure(M. J. M. Davis et al., 2003; Macartan et al., 2007).

The life cycle of public investment can usefully be grouped into various component processes from the perspective of a finance ministry. Procedures for the selection and approval of new projects to obtain funding from the budget are called Processes. Besides, this process will allow the Project to take place before approval is considered in the budget. Investment project processes are referred to as the implementation of the Project. The procedures for the management of assets after the end of the building are called service and maintenance. Processes for assessing projects until finished to help guide better investment planning ('evaluation')(Miller & Mustapha, 2016). Thus, public investment management has been regarded as being a framework composed of mechanism groups connected to the annual budget cycle at some crucial points in an investment management period (chart 1.2).

In project collection, life cycle planning, budgeting, implementation, monitoring, and confirmation, the government should start working for the improvement of public investment management. That is the most compelling restriction. Given the need for urgent infrastructure investment, the government prioritises and phase out projects as we strengthen our absorption capacity. And considering the capacity constraints, we cannot simultaneously fix or construct every road, rail, water system, and human development.

However, the management of public investment poses unique challenges to the political economy. There are extensive and unrivalled public infrastructure advantages, which makes it hard for lawmakers to admit responsibility. Infrastructure creation and maintenance are complicated and costly for transactions. The long-term importance of public assets relies heavily on recurring maintenance spending. Activities may even be exposed to multiple flaws, also among dedicated policymakers. The specific challenges faced by resource-driven development countries amplify the challenges of managing the cohesive and sustainable portfolio of public investment. Usually, the limitations in certain economic industries tackle a variety of conditions and political constraints. Large rentals enable elected representatives to grow their political capital. The emphasis is generally placed on the development of new facilities at the expense of maintenance investments. Because the natural

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resources are distributed unevenly, large royalty shares are earmarked. The allocation of economic and social infrastructures can largely be considered for public investment (Barma, Kaiser, Le, & Viñuela, 2011).

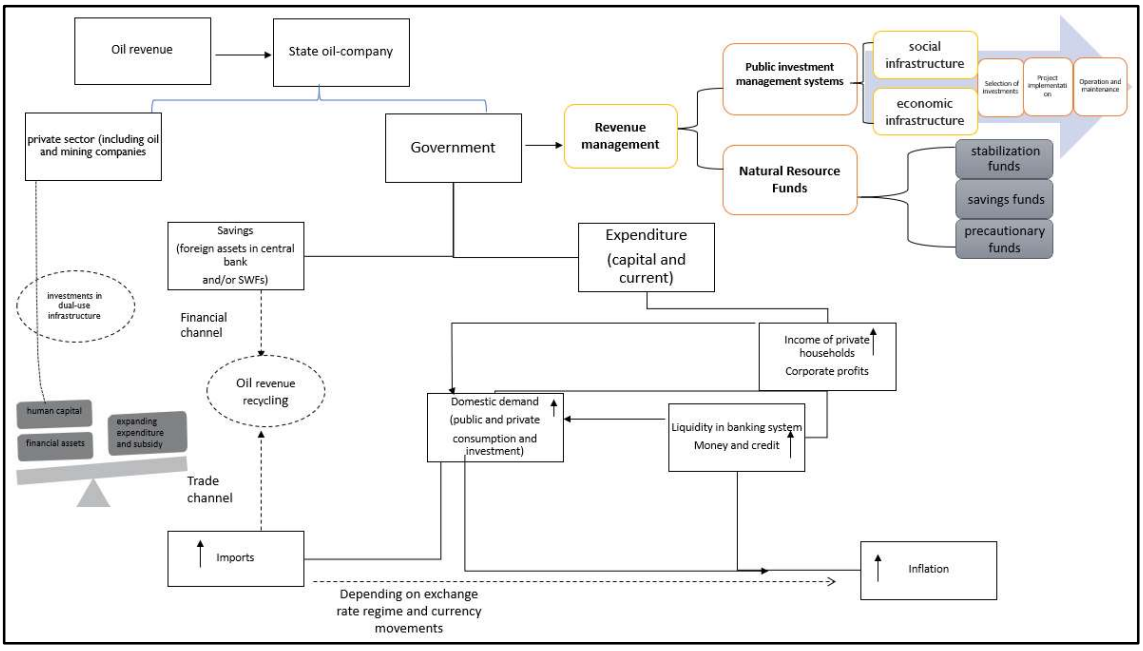
However, the function of public investment as a social capital must also be understood. Often the investment budget itself is the best choice for strategic rent utilisation. There are many concerns around policy decisions made by the natural resource-donated governments on public spending. Management downstream issues rent spending overtime throughout the public and the economy. Given the present politically charged requests, countries have to weigh intertemporal consumption decisions versus saving. Sustainability in this dimension of the resource industry value chain is an overriding criterion for assessing the performance of resource-dependent countries (Cangiano, Curristine, & Lazare, 2013).

5.3. Natural Resource Funds

Natural Resource Funds (NRF) may be introduced to facilitate the sharing of countries of wealth and to strengthen more oil income control of addition to spending and procurement legislation by public investment management framework(Van Ingen et al., 2014). Frequent oil shocks, which led to the use of oil funds by oil-exporting countries, have revealed the macroeconomic vulnerability of capital. NRF can serve as a fundamental tool to make more transparent use of oil revenues and decouple income from income inflow. Also, the oil funds are used to prop up the economy against the uncertainty of the natural resource markets, which will ensure a good long-term tax portfolio that fosters sustainable development. The capital will restrict the symptoms of Dutch disease(M. J. M. Davis et al., 2003).

Three specific categories of oil funds, namely savings funds, stabilisation funds, and precautionary funds, have been established. Stabilisation funds seek to alleviate short-term volatility, while savings funds are designed to promote long-term sustainability(J. Davis, Ossowski, Daniel, & Barnett, 2003). The goal of precautionary funds is to guarantee financial stability in the early stages of oil development by the steering of petroleum profits to such funds. In reality, it was controversial to incorporate NRFs into the overall fiscal policy, and the activity of these funds has made budget stability challenges. Also, there is some uncertainty regarding the degree to which oil funds will maintain fiscal sustainability. Potential lack of accountability and ease of access to the investments of such funds may encourage corruption in vulnerable countries(J. Davis, Fedelino, & Ossowski, 2001; J. Davis et al., 2003).

Chart 1.2: Conceptual framework illustrating the Fiscal revenue management policies and the economy – a stylised overview



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 doi:10.20944/preprints202011.0496.v1

An essential annual medium-term option for resource-dependent countries is to follow expansionary or prudent management of resources. Inflationary pressure, increasing the cost, and sweeping other domestic industries can lead to excessive domestic spending. Liquid financial assets function both in the face of unstable resource prices and production as vehicles for stabilisation and for saving. Some models argue that capital-scarce developing countries could generate potentially too high social and economic returns through a fast acceleration of both soft and hard domestic infrastructure investment (Cangiano et al., 2013). This segment also referred to the need to pay more attention to public investment, particularly investment via state-owned and private co-operation, beyond mainstream channels. This may serve as commitment tools for infrastructure delivery in resource-dependent settings, in particular those with low administrative capacity.

Many key policies and capacity have to confront investments made by governments in the production of oil. The absorbing capacity and the management of public investment are critical for ringfencing. The downward transformation of the extractive value chain requires the evaluation of income spending and investments as regards the tangible benefits of the creation and preservation of assets rather than just the flow of investments. As such, The outcomes that count, together with the demand for money, are significant improvements of the economically and socially efficient public capital stock (Cangiano et al., 2013). People can profit significantly from resource management by having an equitable and detailed national policy, a consistent regulatory framework, and professional institutions.

Rich assets countries have tremendous potential for developing and economic development by leveraging their natural resources. Nonetheless, if poorly managed, the exploitation of resources could cost a country heavily. It is typically the responsibility of governments as guardians of their resource extraction to manage these resources for present and future generations. An ambitious and systematic strategic plan includes efficient and equitable resource management. In that effect, the government will undertake a variety of important decisions that impact specific communities and create plans for the future. In consultation with citizens, governments can use a regional policy mechanism to direct resource management decisions in order not to take part in decisions and to create a common sense of leadership (Cangiano et al., 2013).

6. Conclusion

The resource curse indicates that economic growth performs poorly in countries with significant natural resources. Nevertheless, certain countries rich in energy managed to protect their resource riches in the long run. It is necessary to enforce effective policies in resource-rich countries to fully leverage the advantages which can come from the abundance of natural resources. This study aimed to evaluate how oil-rich countries would avoid resource flows by successful fiscal and management policies. By taking the guidance of Norway and implementing fiscal policy focused on tax rules on its oil management, it is proposed that oil-exporting countries benefit significantly. The Norwegian fiscal system follows a cautionary monetary policy strategy and a savings and stabilisation fund to handle the oil revenue of the government. The 'Norwegian model' is used to control oil income fluctuations utilising the Savings and Stabilization Fund. Many petroleum-producing countries entirely spend their oil revenues and are therefore bound by excessive oil price volatility. Norway managed, after the depletion of oil resources, to put in place effective policies for fiscal and income management to ensure sustained development. The literature considers the optimal fiscal management policy as a rule-based approach to fiscal policy with consistent savings and stabilisation.

This study also seeks to determine how oil-dependence countries can best manage revenues from the oil sector. The presence of a small number of success stories in both the developed and developing worlds, such as Norway, should serve as a foundation on which to build and enforce a successful system and fiscal policy. It is hoped this will help to mitigate the so-called ' resource curse' and to use oil revenues to the advantage of the country. It will also help to promote growth and to lift people out of poverty, as well as to reduce the impact of climate change on the oil industry and other natural resources on the economy. Two main concepts are discussed: carrying capacity and ecological footprint. Carrying capacity indicates the maximum number of individuals of a given species that can be sustained within a defined area. The ecological footprint is the use of water and land for production of all resources that human consumes and eliminate the waste material that population generates. Many studies use this comprehensive measure as an indicator of degradation of the environment. Every county encounter challenge concerning the balance between the development of the country and the production of the global climate. The world economy is heavily dependent on the countries' abundance, and especially developing countries. However, the literature in the influence of natural resource management is mostly ignored.

7. References

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