Power: West African politics and energy

A study on ECOWAS’ institutionalized cooperation regarding renewable energy

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Abstract

This thesis contains a study on ECOWAS’ institutionalized cooperation regarding renewable energy with special attention to Nigeria – a large oil producing and exporting regional hegemonic power in the West African region. On the one hand, hegemonic stability theory was assumed to be a suitable theory to explain this puzzling situation, thanks to the role Nigeria played in the formation of ECOWAS. On the other hand, the representative organ of the regional organization is able to conduct deviant agency. ECOWAS Commission succeeded in regional organization diplomacy in various other sectors. This research found out that the principal-agent hypotheses collectively contributed to the process towards the institutionalized cooperation in ECOWAS regarding renewable energy. ECOWAS Commission framed renewable energy as a complement in energy accessibility in rural areas; openly stressed the importance of renewable energy policy during an ECOWAS Conference; and proposed probably the formation of ECREEE.

**Keywords**: ECOWAS, renewable energy policy, institutionalized regional cooperation, regional hegemon

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# Introduction

“Nigeria's Delta region is home to vast oil reserves, which make the country one of the world's biggest oil exporters. But the region remains poor, undeveloped and riven by conflict. … A lot of the efforts have been bogged down in corruption and inefficiency. Still very little money has trickled down to the people.” (BBC News, 2006).

In the West African region, Nigeria is a deviant country. The image of Nigeria is well described in the quote of the BBC. Nigeria is much richer than the other countries in the region. Nigerian GDP was approximately 121 billion dollars in 2005; GDP of Côte d’Ivoire, second place in West Africa, reached nearly 15% of Nigerian GDP (The World Bank, 2015f). Nigeria became this rich due to exploiting its oil and gas reserves. The oil rents were 37.6% of Nigeria’s GDP in 2005 (The World Bank, 2015i). The average of oil’s account in the export percentage was about 95% before 2008 (Akuru and Okoro, 2010). Despite the high revenues of oil, the Nigerian population is poor and the country is undeveloped. By cause of mismanagement and corruption, the capital is concentrated among high officials, “in hands of those few who can operate the licenses for marketing and distribution of oil products” (Ezeaini, 2014, p.388). As a consequence, the Nigerian population becomes frustrated. For more than a decade, armed gangs of youths in the Delta have attacked oil pipelines and kidnapped foreign workers for blackmail money (BBC News, 2006). In addition, the Nigerian population becomes frustrated because of the environmental impact. Land and water is polluted. The cause remains obscure. On the one hand, there has been asserted that the lack of maintenance of oil refinery plants is causing the pollution. On the other, representatives of multinational oil corporation claim that Nigerian armed gangs of youths sabotage the pipelines and steal oil in order to sell it at the black market, an underground economy (Shell, n.d.). In conclusion, oil causes inequality and environmental trouble for a large part of the Nigerian population. Perhaps an alternative for oil would reduce these problems. However, oil production is in the interest of the government representatives due to the oil revenues.

Some global actors perceive the developments in Niger Delta in a different light. Recovered oil in the Niger Delta will be transported to elsewhere in order to transform crude oil into electricity and motive power. This transformation process, oil combustion, produces an adverse side effect, notably greenhouse gasses emissions. These emissions lead to climate change, which entails a rise in temperature and sea-level, forced change in ecosystems and land use, and health problems (O’Neill, 2009). Because some of these environmental consequences are not directly visible or tangible in our daily lives, it is difficult to find support and to achieve collective action. Since 2000, there are regularly summits organized aimed at overcoming the problem of climate change. In order to mitigate these problems the utilization of renewable energy is put forward as the appropriate alternative (IISD, 2004).

Energy accessibility is a third aspect of the energy debate which is important for the West African region. All countries in West Africa experience an energy deficit; nearly 20% of the household in West Africa have access to electricity (ECOWAS & UEMOA, 2006). The conventional energy plants are not able to meet the energy demand. Particularly in the rural areas, people do not have access to electricity. In addition, the current conventional energy plants are unreliable in their energy supply. In order to be less dependent on these plants, the renewable energy industry should install the required installations in rural areas and be a complement to conventional energy plants (Akuru & Okoro, 2010).

Renewable energy is involved in these three different debates. Although it seems a suitable option to certain problems, the development of renewable energy policies in West Africa experiences barriers. The main interfering factor is the Nigerian government. A large oil producing and exporting state prefers as much oil rents as possible, therefore, renewable energy as an alternative to oil that may suppress the price of oil due to the market structure is not a desirable good to establish enabling policies for. Moreover, a preponderant state in the region bases its power on the possession of enabling military resources, whereas other states in the region rely on the imports of oil from the preponderant state. If oil, currently the most salient resource, can be substituted, the military balance of power will be more equalized, which can never be in the interest of the Nigeria. Consequently, it is not expected that Nigeria will allow or support renewable energy policies on a regional scale.

When considering studies on regional energy policies in other developing countries, it is less likely that developing countries put effort into institutionalized cooperation regarding renewable energy. Even though security problems of resource supply increase, institutionalized cooperation remained limited to low-impact dialogue activities. Government representatives of developing countries embrace nationalist policies. They prefer state control over market mechanisms, because particular domestic groups benefit from these policies. Sovereignty is of paramount importance to government representatives during negotiations for regional energy initiatives. For instance, the National Energy Policy of the Republic of Indonesia in 2006, just as Nigeria a large oil producer and exporter, makes no mention of international cooperation at all (Wilson, 2015).

In spite of other expectations, regional institutionalized cooperation regarding renewable energy occurred. In 2008, Economic Community Of West African States (ECOWAS) established legally the ECOWAS Center for Renewable Energy and Energy Efficiency (ECREEE). ECOWAS is a 15-member regional group of West African states with a mandate of promoting economic integration in all fields of activity of the constituting countries. ECOWAS intended to incorporate renewable energy policies into the regional integration process (ECREEE, n.d. b). ECREEE acts as an independent body but within the legal, administrative and financial framework of the ECOWAS rules and regulations. The Executive Board is the highest decision-making body of ECREEE, which guides, approves, reviews, and monitors the overall performance and work of ECREEE. The Executive Board consists of: three representatives from the ECOWAS Commission (Infrastructure, Administration and Finance, and Legal Affairs), a representative from ECOWAS Energy Ministers; a representative from ECOWAS Environment Ministers; three representatives from donors; an Energy Expert from the ECOWAS Region; and The Executive Director of ECREEE. The Technical Committee, which provides technical guidance and advise, consists of experts and representatives of the Commission, of the member states, and of the several related parties (ECREEE, n.d. a).

It is puzzling who was behind the process of the formation of ECREEE prior to 2008. This problem will be at the center of this thesis, from which the following research question is derived:

*Why is there institutionalized regional cooperation in ECOWAS regarding renewable energy, while Nigeria, the preponderant power in the region, is a large oil producer and exporter (and renewable energy seems to be against its interest)?*

Olatunde J. B. Ojo published in 1980 an article containing a systematic analysis on the nature of Nigeria's role in and its impact on and probable consequences for the formation of ECOWAS. Nigeria committed to the formation of ECOWAS through diplomatic activities, financial contributions, investments in joint-venture projects, and its granting of many concessions to member-states. This examination of the role Nigeria played may give some insights into future behavior and the probable fate of ECOWAS. The history of the formation of ECOWAS seems to be made for the theory of hegemonic stability. The hegemonic stability theoretical argument assumes that preponderant states are most willing to cooperate, when they are the single advanced state in the region (Lake, 1993, p. 470). Although the concerned issues is supposedly not in Nigerian interest, the Nigerian government allowed the legal establishment of ECREEE. According to J. Samuel Barkin (2004), a regional hegemon is only under certain circumstances, when it concerns a certain kind of ‘public good’, willing to provide institutionalized cooperation for its sphere of influence. This will be further elaborated in the theoretical chapter.

Hegemonic stability theory appeared to be only concerned with the preponderant state, since structural realists presume that big states determine how the international order is structured. However, cooperation, the dependent variable, is happening on the regional level, why would we not look there for the answer? Denial even in theory that there is another actor involved would be foolish, since the regional organization is closer and more frequent involved with cooperation than the great states. A regional organization with officials that work daily in a regional cooperative environment develop collectively their own preferences that might be different from the states that once established the regional organization. Remarkably, the website of ECREEE states that: “In recent years, the ECOWAS Commission has gradually taken steps to mainstream RE&EE into its regional activities and policies. The experience of the European Union (EU) has shown that regional integration can be a useful tool to facilitate the adoption and implementation of RE&EE policies and incentive schemes on national levels (e.g. EU Directive with binding renewable energy targets).” (ECREEE, n.d. b).

This statement conveys the impression that the ECOWAS Commission emulates the European Union (EU) Commission, a relatively independent organization. Regionalism, interaction between states and between states and non-state actors, was in West Africa in 1960-1990 a matter of attempts to cooperate and integrate economically and politically in order to take advantage of economies of scale, and to enhance African bargaining power on the international stage. Unfortunately, there was little result in this time period. Among other reasons overlapping membership in competing regional organizations, and protectionism restrained the efficacy of the regional organization’s effort (Iheduru, 2011). After 1990, regional integration enhanced. In the revised Treaty, ECOWAS Authority, heads of all member states, extended the number of organs. As the EU model, ECOWAS established a West African Parliament, an economic and social forum, and an ECOWAS Court of Justice. ECOWAS entered a development paradigm, and fosters a shared security culture. ECOWAS even succeeded in regional organization diplomacy, distinct from the interest of their member states by promoting democracy and human rights (Iheduru, 2011, p.218-220). The dynamics in last decades call for an understanding of regional organizations as independent influential actors. The theory that can inductively be derived from these developments is the principal-agent theory. The principal agent theory gives the impression to be the converse of hegemonic stability theory. Where hegemonic stability theory emphasizes the importance of the great states (principals), is principal agent theory more concerned with abilities and intentions of the regional organization (agent). It would make sense to allow a theory as an alternative for hegemonic stability theory that acknowledges the engagement of the regional organization to be tested.

The research in this thesis will be a single case study. The two theories provide different perspectives for the puzzling situation, in which institutionalized regional cooperation in ECOWAS regarding renewable energy occurred, while Nigeria, the preponderant power in the region, is a large oil producer and exporter and renewable energy seems to be against its interest. From each theory there will be hypotheses derived, which will be tested by process-tracing. A thorough examination of the develop towards process of the formation of ECREEE will take place in order to detect causal mechanisms.

### Relevance

As though it was destined to not bias this research, nearing the completion of the analysis an article of Kathleen J.Hannock (2015) was encountered, which has a similar puzzle as this research. The article states

*“I use the diffusion theoretical framework to analyze the organization’s founding, with a focus on the actors who created the organization. I find that three extra-regional states – Austria, Brazil, and Spain – are the key players behind the creation and support of ECREEE. The states supporting the organization all have self-identities as leaders in renewable energy as well as, in the case of Austria and Spain, longterm commitments to provide development aid to West Africa. Finally, a political entrepreneur with a long-term interest in sustainable energy and connections to the UN, private industry, and the Global Forum on Sustainable Energy, an NGO she founded, had a critical role in creating ECREEE.”* (abstract)

Her research accredits extra scientific relevance to the research in this thesis. In her research, certain rival hypotheses are not supported by arguments why they cannot be confirmed or even should be disconfirmed. She deals with categories of actors, notably global great states, regional great states, regular donors, issue area powers, regional organizations, non-governmental organizations and individuals, but rejects the importance of Nigeria and ECOWAS without argumentation. As mentioned before, historical developments demand an explanation in which the regional hegemon or the regional organization are involved. Therefore, in this thesis are two theories deliberately chosen; hegemonic stability theory which stresses the importance of big states and principal-agent which stresses the importance of regional organizations. Hence, this thesis can contribute to the scientific literature on the debate whether state actors as unitary actors determine the international system or whether certain non-state actors are of a similar importance for devising the outcome of the international order.

The decisive resource for Hancock’s outcome is, supposedly, an in-person interview with the Austrian foreign Minister, the policy entrepreneur. Obviously, the Austrian foreign Minister would like everyone to know that it was her idea and that she enabled ECREEE. Since there are no interviews with the ECOWAS commissioner of energy or the Nigerian minister of Energy, who attended the Peace and security Conference, this piece of evidence might be biasing her conclusions. Therefore, the research in this thesis primarily used resources data mainly from before the agreement year in 2008.

With regard to the societal relevance, this research might be relevant for government officials in developing countries. Although certain governments in their entirety are not interested in renewable energy policies, frequently, the environment ministers are interested (United Nations Environment Programme [UNEP], 2004, p.20). During an African Ministerial Conference on the Environment (AMCEN) meeting, the African ministers in other regions might be interested how come that ECREEE has been established in West Africa. Moreover, the accomplishment of establishing ECREEE could encourage other regional organizations in other regions to attempt to establish a similar specialized agency. Additionally, non-governmental organizations that are concerned with the environment, eradication of poverty, and socio-economic development are interested in the dynamics of renewable energy policies. Employees of NGO’s can learn how renewable energy policies can be regionally established.

### Thesis outline

This chapter introduced the puzzling situation of the formation of ECREEE; the process towards institutionalized cooperation regarding renewable energy in ECOWAS. The next chapter will deal with hegemonic stability theory and principal-agent theory. The theories will elaborated so that they can compete in the analysis. From those theories in total seven hypotheses are deductively derived. In the third chapter, the method and the case will be justified. In addition, the seven hypotheses of the theory will be operationalized. Chapter four will present a chronological and historical overview of the process towards the institutionalized cooperation regarding renewable energy in ECOWAS. This overview will provide most of the relevant information to test hypothesis, which will be conducted in chapter five. Finally, the concluding chapter starts-off with a summary, and thereafter a discussion with respect to the hypotheses. Then, there will be an attempt to answer the research question. Subsequently, the limitations of this research will be presented. Consequently, implications for theory and recommendation for further research will be suggested.

# Theoretical Frameworks

This chapter presents first the hegemonic stability theory, and second the principal-agent theory. These two theories suggest to be able to explain institutionalized cooperation in a new policy issue, which is the purpose of this thesis. Additionally, these theories are competitors, because they centralize one kind of actor and deliberately oppose it to the other actor in the international system. Hegemonic stability theory stresses the importance of great states, while principal-agent theory concentrates on the regional organization.

### Hegemonic stability theory (structural neorealism)

The structural neorealist theory that is acknowledged for explaining patterns of (economic) cooperative relations among states is hegemonic stability theory. This theory presupposes that one particular distribution of power among states can create cooperation, a single state with predominance power. If there is only one preponderant state, then we classify the system as a unipolar system and label the preponderant state as a *potential* hegemon. John J. Mearsheimer (2001) endorses this argument, he alleges that cooperation might only occur, when the problems of cheating and relatives gains are overcome. In order to overcome cheating the international order needs a state that has the capabilities to provide goods almost all by itself (Krasner & Webb, 1989).

The preponderance of a state is substantiated by firstly its latent power - a raw estimated socio-economic power to assess the state’s potential to become a hegemon. Latent power enables the military power, implying material resources: money, technology, personnel, and resources (Mearsheimer, 2001). Secondly, the dominance of a state is supported by military power, which implies mainly the size and strength of the army, supported by the air and naval forces. Affluent states that have a relatively weak military are dependent on other states that supply (collective) security for them (Mearsheimer, 2001). This stresses the importance of military power added to the economic latent power. Mearsheimer even presumes that the balance of power is almost equal to the balance of military power.

*Regional power*

Initially, the hegemonic stability theory pertained to the preponderant power in a global system. However, hegemonic stability theorist acknowledges *regional* hegemons as well, which have an additional feature from the global hegemon. A regional hegemon is the preponderant power within its region, but a small, middle or great power within the global system; most frequently a middle power. A middle power is able to have international systematic impact providing that they cooperate with other middle powers, for instance through an international institution. A regional hegemon frequently pursues stability or status quo on the global level, so the regional hegemon is not distracted from developments in its own region (Flemes & Nolte, 2010). Thus, a regional hegemon invests in regional order, but an extra factor to take into account is its attitude towards the international dynamics outside its region. From now on in this thesis, a hegemon is considered to be a regional hegemon.

The occurrence of regional institutionalized cooperation is regarded as the dependent variable in hegemonic stability theory. Robert R. Keohane has a clear idea how cooperation should be understood. Potential or actual conflict always precedes cooperation. Actions of states motivated by interests normally collide. If this is not the case, then Keohane speaks of harmony, a place where no matter whose policies change they are regarded by all others as facilitating the attainment of goals of all within the system. But harmony is very rare. Discord is totally the opposite, but the expected outcome when there is no unipolar system. When actions and interests of states collide and there is no coordination possible to mutually adapt policies of the different units, then discord emerges (Keohane, 2005). Because Keohane excluded some options what cooperation might be, defining cooperation becomes evident. Cooperation is the mutual adaption of policies of the different units through coordination by the regional hegemon. The process from temporary discord that is to say, the conditions of potential or actual conflict to cooperation is a process hard to go through. Therefore cooperation is problematic to accomplish, and is in need of a hegemon.

When cooperation is accomplished, there have been two processes at work. Firstly, the conditions that have to be met to assess whether a state is a hegemon, i.e. the hegemon’s ability to make regional policy. Secondly, the causal mechanism that the hegemon initiated cooperation on a certain issue that is not in the hegemon’s interest. The conditions to assess whether a state is a hegemon are based on the framework of Stephen D. Krasner’s article (1976). Briefly, these conditions are about the size of the state and level of developments of states. If a state is much larger and relatively more developed than other states in the system, then the state is more capable of carrying the burden; the initiation and maintenance of a cooperative organization (Krasner, 1976). The three indicators of assessing a state’s capabilities are gross domestic product (GDP), population size, and energy consumption to measure latent power. According to Mearsheimer (2001), the latent power must be complemented with military power. Military power is able to supply security, which is a necessary condition to enable cooperation. The indicator for military power is the amount spent on the military relatively to other states in the region. If these indicators are met, then a cooperative open economic system is very likely to occur. Despite the slightly different dependent variable, Krasner and Mearsheimer’s research are aimed to trade policies integration, the theoretical framework is applicable for the explanation why a state is capable of reconciling the different preferences of the members in the system, and thereby able to establish regional institutionalized cooperation in a new issue area. The costs and benefits of a certain cooperative organization are not the same for all members in the system. Costs and benefits depend on the position in the system regarding, as earlier mentioned, the size of the state and level of developments of states. Thus, only one particular distribution of power among states, namely the hegemonic system, can create a cooperative regional organization (Mearsheimer, 2001).

Charles P. Kindleberg (1981) wrote an article about how leaders, great states, in the international economy cope with the ‘logic of collective goods’. He assumes that a hegemon is able to adopt a leadership style to provide collective goods for its region. The collective goods are frequently provided by institutionalized cooperation. Economic stability assured by an encouraged liberalization in international economy and cooperative regimes is presumed to be a public good. The public good will normally be underproduced due to free riding, and therefore a hegemon with sufficient power and motivation needs to play the role as stabilizer. Following this logic, Keohane criticized that a hegemon is neither a sufficient nor a necessary condition for cooperation. There are examples of theoretical situations such as ‘prisoner’s dilemma’ and ‘collective action problem’ that demonstrate that even though it is in both parties interest to cooperate, cooperation will not occur due to lack of information and distrust. Moreover, cooperation may occur when neither of the parties in a regional system is a convincing preponderant power, thus cooperation occurs not only when there is a regional hegemon. Kindleberg centralizes the logic of public collective goods in hegemonic stability theory. The logic of public collective goods will be further elaborated on in the ‘willingness’ paragraphs.

Actually, Kindleberg and most critics of hegemonic stability misunderstand a certain essence of the neorealist theory and neglect the assumption that an actor will pursue always relative gains (Krasner & Webb, 1989; Mearsheimer, 2001). According to Lisa L. Martin (1992), the consideration of power and interest of state actors lead to hypotheses about the design of a regime that states create in pursuit of their interest. In order to maintain an open and cooperative regime, the hegemon needs to undertake certain activities, namely enforce rules and govern the system that are accepted by the periphery due to the system’s stableness and continuousness. The system generates growth for both the periphery and the core of the region. While ‘logic of collective goods’ version of the theory supposes that the hegemon is likely to support cooperation for collective goods, since it is a common interest which entails that it may raise absolute welfare for all; the security version disagrees that cooperation would occur in all sorts of these situations. If the gains relatively decline for the regional hegemon due to cooperation and thereby the security of the hegemon will be threatened, then discord is likely to occur (Krasner & Webb, 1989). In addition to the advantage of a hegemon to overcome the cheating problem, a corollary easily made, the advantage of the existence of a hegemon is the concentration of a considerable amount of capabilities relatively to the other states in the region. The hegegemon is therefore less frightened by challenges by other states and thereby more likely able to facilitate cooperation.

*Willingness*

The presence of a hegemon is not sufficient for cooperation to occur. The state must be somehow willing to invest in cooperation and willing to maintain the interstate relations (Keohane, 2005). In general, there are two situations in which cooperation is likely to occur, according to structural realists. The first opportunity for cooperation to occur, is when cooperation on a certain policy issue is relatively upgrading the hegemon’s security position. The state’s *only* interest is enhancing its security position through improving its military and economic assets. According to Waltz (1979) and Mearsheimer (2001), the structure of international politics determines that states are looking for survival. The means for survival is security strategies. This pursuit of security has two implications. The first implication indicates that states within an anarchic system are only concerned with their relative security position in the international political order, which entails that security issues subordinate cooperation for mutual gain to the state’s interest. The second implication is that states within an anarchic system want to maintain and enhance their degree of independence. States want to rely on their own natural resources for building up military capabilities to be more secure. If a state has been a regional hegemon for some time and after a while suddenly aspires to cooperate on a certain issue, then it is expected that the regional hegemon changed its interest a priori to cooperation. Rules in international agreements frequently change, since they have to adapt to the exigencies of the moment concerning the hegemon’s relative security position. The regional hegemon must have some ideas that they can enhance their position. Improving wealth is a means to enhance a certain state’s power, particularly when it concerns increasing natural resources. There need to be an inducement for state officials of the preponderant state to set up a plan and to bolster a new regional cooperative agency (Keohane, 2005). However, this situation entails that cooperation is in the hegemon’s interest, while this thesis probably relies on the other possible opportunity for cooperation to occur that concerns a situation that the hegemon facilitates cooperation on an issue that is not in the hegemon’s interest.

Logic of a state cooperating on an issue that is not in its current interest does not exist, except when simply put, the current interest of the state decreases relatively to its long-term interests with respect to the improvement of its security position. Thus, the only other opportunity for cooperation to occur is, when cooperation on a certain policy issue relatively decelerates the decline of the hegemon’s security position. In this situation, there must be some change in the environment of the preponderant state that made the state’s position to stagger towards a weakened position assuming that they do not take action. This situation is far more complex than the previous described situation where the hegemon merely pursues its interest. Krasner (1983) alleges that hegemonic stability theory is in some ways compatible with the logic of the ‘public’ goods, but only if the correct category of ‘public good’ is distinguished (Barkin, 2004), which will be elaborated on below.

The tragedy of the commons is a term to denote a situation where common resources due to their non-excludable, but rival features are depleted by independent and rational actors assuming they do not cooperate (yet). In general, the state that can hold out longest before committing itself to a cooperative agreement will have greater bargaining power. Another assumption, a group of states that value future gains relatively more to current gains (as mentioned below as the possession of low discount rates) will be expected to cooperate more effectively in the situation of the tragedy of the commons, than a group of states that include at least one state that values current gains relatively more to future gains. Particularly, the rival characteristic of a good/resource, the extent to which a good is diminished by use and might run out, affects the negotiation rounds. Since the resource is rival, the state that values current gains relatively more to future gains (i.e. a states has high discount rates) has more bargaining power (Barkin, 2004).

Barkin presented a mathematical formula to demonstrate the working of rivalness of a good and the relating outcome of likelihood of cooperation.

P(B)(x-y)/da > Ca

Here, we see the difference between the two player’s preferences (x-y) divided by the discount rate (da), thus taking into account the value of the state’s current and future gains/preferences. This is multiplied by probability that player B, the other player, will concede. The other part of the equation is concerned with costs of non-cooperation. In general, as long as the costs of non-cooperation are lower than the benefits of delaying the agreement, there will be no cooperation (Barkin, 2004). This is in line with the argument of structural realists claiming that due to the international structure the choices of actors frequently result in this outcome.

The part of the equation concerned with costs of non-cooperation is composed of the costs of delaying the agreement plus the costs of the depletion over time of the goods in question. The exploitation of a good leads to a decline in potential future benefits due to mismanagement or overconsumption. Excessive use of the common good can completely eliminate the future value of this good. Unfortunately, failed negotiation often entails a considerable amount of time goes by until there is a new negotiation round and thereby enough time for considerable resource depletion. The actor with the lower discount rate, entailing valuing future benefits over current benefits, has an incentive to concede to an agreement as quick as possible. While the actor with the higher discount rate, entailing valuing current benefits over future benefits, can hold out longer in the negotiation rounds. Thus, the state with high discount rates has more bargaining power relatively to states with low discount rates in a situation of the tragedy of the commons (Barkin, 2004).

However, costs of non-cooperation can change over time. Barkin (2004) expressed this in an equation:

ΔCa = Rq/da

In this equation the q is the potential future benefit; exploiting the good decreases potential future returns per turn by a set amount per turn. This number is divided by the discount rate (da), thus taking into account the value of the state’s current and future gains/preferences. Rivalness is expressed in R, this indicator can have a value between 0 and 1. Value 1 means that the situation concerns a perfectly rival good. Generally, the faster the good is depleted, and the smaller the discount rate of the state with the state in question, the more the costs of non-cooperation will increase (Barkin, 2004). A situation in which the preponderant power, potential hegemon, is the state with the highest discount rates, is the only situation in which the hegemon might facilitate cooperation with respect to common pool resources, and therefore is the one state to examine. Rivalness, thus, affects the costs of holding out in negotiation; the bargaining power of a state changes according to its discount rates. Barkin (2004) recognizes three processes that affect the bargaining position of the state with high discount rates. The rise of costs of holding out in negotiations can be initiated by the manipulation by third parties, the availability of new information, or by embedding the issue in a broader perspective.

First consider the manipulation by third parties. Unilateral efforts of the hegemon with respect to the continuation to exploit the common resource might be manipulated by third parties. A state within or beyond the potential regional cooperation can pose a threat to interfere in the current benefits of the hegemon. If this threat is considered credible by the preponderant state, this state will recalculate their current potentially obtainable gains (Barkin, 2004). Second, the availability of new information may affect the bargaining power of the hegemon. The exploitation of the common resource affects the environment (Barkin, 2004). Over time, scientists are discovering more facts about the impact the exploitation has, the negative externalities. In addition, interest groups and expert groups estimate of the rivalness of the good. A group of states with low discount rates will probably emphasis that a common good must not be run out and should be preserved for the future. The redefinition of the problem is changing the bargaining power of a certain group. The new information on impact of exploitation and the degree of the rivalness of the good changes the valuation of future gains, this applies even to the hegemon (Barkin, 2004).

Finally, Barkin (2004) suggests to states that wish to cooperate on a certain issue that is not in the hegemon’s interest to embed the controversial issue for the hegemon in a broader perspective. In this case, the regional hegemon is inclined to demonstrate calculated, strategic behavior. A seemingly tactic move of the regional hegemon is ‘*issue linkage’* (Keohane, 2005, p.89-92). For this matter, the argument of enforcement is relevant. Although enforcement or compliance is not at stake in the question asked here, the expected possibility of enforcement has consequences for the potential agreement to cooperate. The likelihood of enforcement can be gauged by estimating the degree of excludability of the good. The argument is that if a good is excludable, then there is a manner to retaliate an actor that does not comply with an agreement by excluding the actor from the good. Conversely, if a good is non-excludable, the usual way to revenge a non-compliant actor, exclude the actor from the good, is not possible. This logic eases the way for actors to come to an agreement with respect to common pool resources that is not restricting for the hegemon in a practical way. Moreover, conceding on an issue not in the preponderant state’s interest results probably in conceding of the other states on an issue that the preponderant power is interested in (Barkin 2004).

Issue-linkage might seem tempting for the hegemon. Issue-linkage is a strategy to get a certain party to the negotiation table to cooperate on two issues. Issue-linkage can be a construction of a relation between totally unrelated issues, such as side-payments, where one state gives (an)other state(s) something on one policy sector in return for help on another policy (Keohane, 2005). In addition, issue-linkage can be a construction of a relation between issues that are somehow interrelated. It is common for instance that environmental issues are related to humanitarian (health) problems, and therefore assessed to be a threat to mankind (O’Neill, 2009). Barkin (2004, p.378) argues *“the more tightly the link between the two types of goods can be drawn, the less prevalent free ridership on the regime is likely to be over the long-term”.* The incentives of non-hegemonic countries in the system to cooperate is when they can get a sufficient amount of their interest done. If non-hegemonic countries interests are neglected, then they will consider to defer or balance against the hegemon. For non-hegemonic countries issue-linkage is an effective instrument in order to achieve regional institutionalized cooperation on an issue in a new (rival) policy area.

The elaboration of hegemonic stability theory has framed conditions, and causal mechanisms, which result in regional institutionalized cooperation on an issue in a new (rival) policy area. Hence, from the theory are expectations derived, as follows:

*Expectations*

*If there is manipulation by third parties and thereby discount rates of the hegemon decrease regarding an issue in their interest, then regional institutionalized cooperation on an issue in a new (rival) policy area is likely to occur.*

*If there is new information available and thereby discount rates of the hegemon decrease regarding an issue in their interest, then regional institutionalized cooperation on an issue in a new (rival) policy area is likely to occur.*

*If there is the issue embedded in a broader perspective and thereby discount rates of the hegemon decrease regarding an issue in their interest, then regional institutionalized cooperation on an issue in a new (rival) policy area is likely to occur.*

Having elaborated on hegemonic stability theory, it is now time to discuss principal-agent theory.

### Principal-agent theory (institutionalism)

The principal agent theory, elaborated by Mark A. Pollack in his book ‘The Engines of European Integration’ (2003), is deductively derived from rational choice institutionalism. Methodological and theoretical underpinnings in his work are drawn from rational choice studies concerning American politics (Pollack, 2003). Actors are assumed to weigh costs and benefits and, subsequently base their strategic choices on the expected outcomes, implying the adjustments of only their behavior (Pollack, 2003). Agents are unitary actors, such as (departments of) regional organizations, with exogenously given and fixed utility functions and related interests which they attempt to maximize within the constraints of the principal-agent relationship, shaped by a certain contract. This is not assertion that in reality regional organizations are not composed of individuals with inherently different preferences, but rather an assumption for building a theory that regional organizations represent collective interest and behave accordingly towards other actors (Pollack, 2003).

The principal agent model stems originally from the economic principal-agent model elaborated in Stephen A. Ross’s article (1973): *‘*the economic theory of Agency: the principal’s problem’. This model can be applied to every contractual relationship, where the agent acts for, on behalf of, or as a representative for the principal in a particular domain of decisions. The concepts and assumptions are derived from an economic model, the firm. The employer wants its employees to produce optimal results. However, the employee wants to maximize her income, but minimize his input. Therefore, the employer tends to achieve optimal results by creating incentives for the employees to choose the correct actions; this is called avoiding moral hazard. Here, the principal pursues controllability, and deviant agency is not at all desirable (Ross, 1973).

*Delegation: The creation of a regional organization*

Pollack (2003) made an attempt to translate the economic model into a midrange theory that is applicable to political contracts. In his study, he applied the principal agent theory to the European Union, where the member governments are the principals and the departments of the EU are the agents. In this thesis, it is particularly interesting to explain what an executive department of a regional organization does. The principal agent contractual relationship is about principals delegating tasks to the agent. The first relevant to examine part of this theory is explanations why governments wish to create a regional organization, i.e. why would you create an extra actor in politics that inherently develops preferences that might be different from the principals’ preferences. The functions an agent is able to perform can underpin the motivation why principals create an agent, a regional organization. First, the agent is able to provide expert regulation concerning complex and technical issues. These regulations will be considered as credible, since a slightly independent actor creates this regulation. Second, the agent is able to set the formal agenda for legislation, whereby their proposal is influential on the actual legislation (Pollack, 2003). These functions will help to understand the motivation of the creation of regional organizations; this motivation is notably the desire to minimize the transaction costs of interstate cooperation (Morsut, 2014). The transaction costs are explained by Pollack as the revelation of policy-relevant information of other states or within your own state in order to improve the regulation, and as the costs states have to make to establish credibility for their commitment regarding the agreement. The argument for the demand for policy-relevant expertise is straightforward. The principal prefers to outsource the task to collect sufficient relevant policy information to an agent that can do it more efficiently, since we live in a dynamic world that demands expertise in policy-making decisions. The reason, establishing credibility for their commitment regarding the agreement, set by states for the creation of a regional organization needs more elaboration. Principals might encounter difficulties to establish cooperation and to convince other states that they will commit themselves to the agreement. Their credibility can be enhanced, if cheating is a less likely option. Without a shared organization, cheating is likely to occur. If a principal considers to renounce - rational for the short-run policy, but not optimal for the long-run - then the principal encounters a dilemma. It may be the case as well that your successor prefers to renounce, then a regional organization can prevent this. Or perhaps, your position as a principal is sensitive to other forces in society. In these cases states can rely on the functions, monitoring compliance and filling in the details of the incomplete agreements, which a regional organization is able to provide (Pollack, 2003).

*Discretion: autonomy versus controllability*

The second and the last step to examine in this theory is how a department of a regional organization behaves, what its incentives are, and why it is capable of implementing its preferences. This interrelated questioning chain should start with explaining the degree of discretion, in other words the characteristics of the act of delegation. In the contract between the principal and the agent, a guideline is elaborated that presents the acceptable behavior. The agent receives a certain degree of autonomy, the scope and importance of the tasks delegated, but on the other hand the principal prefers to keep a certain degree of controllability. The net of these two weights, delegation and constraints, is the measure for discretion or agency (Pollack, 2003). The discretion described in the contract is translated to the design of the corresponding institution, the regional organization. In this contract and in the related institution, there are control mechanisms registered to maximize the utility of the delegation from the perspective of the principal. The principal can control an agent ex ante through documenting the scope of the delegation, the optional instruments available for the agent, and precisely articulate the details of the procedural requirements. The last ex ante control mechanism is particularly relevant for principals due to information revealing purpose and the consequence that the information asymmetry decreases.

These control mechanisms seem to be effective to constrain the agent, though the principal encounters difficulties in controlling the agent. The principal consists of multiple entities, who may not share identical policy preference. Thanks to certain procedural regulations, such as unanimous decision-making regarding the constraining of the agent, states will find it difficult and costly to impose sanctions on the agent. If one entity of the collective principal benefits from deviant agency, the agent will not be constrained and is able to expand its zone of discretion. Since constraining of the agent is difficult, the corresponding policies will not develop, while the environment where the principal and the agent are operating in is continuously changing (Pollack, 2003). Moreover, the frequently mentioned sanctions provided that we can speak of a collective principal, agreement among the principals (Bauer, 2002), such as dismissing agency personnel, cutting agency budgets, overruling the agency with new legislation and refusing to comply with the agent’s decision, are merely partially effective (Pollack, 2003). These sanctions may apply beneficial for the principal to the model of the firm due to the chance of the employee’s fear of dismissal. However, in a political environment many of these sanctions are not possible due to procedural regulations documented in the contract between the principal and the agent (Bauer, 2002). For instance, the agency dismissal might only be possible if you dismiss all personnel that fulfill a position in the department of the regional organization, while the principals are not content with solely one particular individual and its actions in the department.

All these instruments to control the agent are apparently necessary. Deviant agency occurs, since the theory assumes that the agent has a beneficial position concerning available information. This asymmetric information entails shirking as the prominent form of agency losses. Shirking implies that the agent is pursuing its own preferences, rather than the preferences of the principal, in other words it is named ‘bureaucratic drift’. The agent is able to do this, because the agent has its own resources, expertise and budget, and better information on its own expenditure of effort and performance, its budgetary needs, the technical requirements of a specific budgetary proposal, and so on. Principals are at a disadvantaged position and can only structure the agent’s position through the earlier mentioned control mechanisms (Pollack, 2003). The agent exploits its position and manipulates the principal through certain causal mechanisms, which will be later elaborated (Bauer, 2002). The presupposed asymmetric information contributes to the agent guiding the principal to take certain decisions or permitting certain decisions made by the agent. The decisions made by the agent that deviate from the principal’s preferences concern mostly the integration of regional organization, and thereby it results in increasing institutionalization of the agent’s position.

*Agency for regional organizations: Engines of integration*

The agent establishes interests that demand more autonomy on certain issues. The problem of the principal is that it cannot directly ensure that the agent is always acting in its best interests, as Ross’ article suggested (1973). It is in the agent’s interest to cooperate on as much issues as possible, since it receives more work and thereby becomes more institutionalized. Although the agent in the public sector has less to fear for its survival than the employee must in the model of the firm due to the chance of dismissal, the agent in the public sector still feels the incentive that the more cooperation, the more probable an agent will survive. For institutionalism, cooperation has a partly similar definition as structural realists, signifying the mutual adaption of policies of the different states coordinated by the agent (Bauer, 2002; Morsut, 2014). Normally, the delegation of tasks is regulated in a set of rules, whereby these rules tend to avoid conflict between the principal and the agent. However, there are occasions that the interest of the agent and principal diverge. The following paragraphs are about factors/mechanisms at work, when an agent tends to guide the principal to decide to cooperate on an issue in a new area, where the policy outcome opposes the principal’s interest. In some way the agent perceives this new issue as important for their interest.

Regional organizations are particularly relevant for developing countries, which have been marginalized on the international stage for decades. In order to be influential in international politics, governments must agree that the regional organization needs some degree of actorness, according to Hulse (2014). Groenleer & Van Schaik define actorness as the quality on the combination of certain indicators, namely cohesion, authority, autonomy and recognition. Scoring ‘present’ on these indicators entails that the regional organization has influential agency in relation to other actors in the international system. Specifically, influential agency on governing its member states. Cohesion is the ability to formulate and articulate internally consistent policy preferences. Successful experience in other policy sectors is giving the regional organization courage to expand its scope. Authority is the legal competence of the regional organization to act (Groenleer & Van Schaik, 2007). The legal procedures documented pertaining to the initiation of legislative proposals, the manner of voting and amending affect the effective decision-making position of the agent relative to the position of the principal (Pollack, 2003). Autonomy is the ability of the regional organization to operate relatively independently from the member states (Groenleer & Van Schaik, 2007). Autonomy in practice comprises capabilities enabling the agent to implement certain policies. These capabilities consist of the budget and the institutionalized implementation instruments for transforming policy (Hulse, 2014). Recognition is understood as the acceptance of the regional organization by other actors in the international system. The expectation of others, induced by global forums, are motivating the agent to cooperate on particular new issues. Agents are able to use their recognition as leverage in the deployment of sub-national programs (Hulse, 2014). These four indicators have to be present in a regional organization to declare it to have actorness (Groenleer & Van Schaik, 2007), or agency as it will be called in the sequel.

Bauer (2002) presents a framework of causal mechanisms that agents deploy, when the agent conceives a policy in a certain issue area in its interest. Bauer argues that theorists inclined to controllability neglect the positive implications of deviant agency behavior (Bauer, 2002). Bauer suggests to analytically improve the concept of the mechanisms at work by making a distinction between on the one hand discourse framing and lobby sponsoring, two forms of focus on background processes, and on the other hand stretching as a form of explicitly aiming at policy outcomes. The first causal mechanism explained here is discourse framing. This implies a “subtle strategy to influence the interpretation of the problem, thereby pre-determining possible answers” (Bauer, 2002, p.386). Pollack has called this informal agenda setting through policy entrepreneurship. This is feasible when the principal has imperfect and uncertain information; the policy solution has less re-distributional consequences for the states that are encompassed by the collective principal; and the policy solution has relatively low transaction costs relatively to alternative policies (Pollack, 2003). Informational asymmetry is a salient operating factor, since the agent is frequently the initiator of the discussion on a certain topic, it is delegated to assess which policy is best for the principals. Even though the agent knows that the policy solution resulting in less re-distributional consequences for the collective principal is more likely to be approved due to self-interested states that might veto, it is frequently more interesting for the agent to attempt to frame the discourse of controversial subjects (Bauer, 2002).

An agent can exploit lobby sponsoring to conduct deviant agency. What Pollack considered as a factor enabling the policy entrepreneur to set the agenda, the ability to mobilize sub-national or transnational non-state actors (Pollack, 2003), is for Bauer a distinct causal mechanism (Bauer, 2002). Bauer argues that the agent initiates or intends to intensify the communication with societal or interest groups in order to raise support for the agent’s proposals concerning particular policy solutions. It is an indirect (less transparent) lobby strategy via third-parties. These third-parties can exist of all organized non-state actors, such as expert groups and social movements. These groups collectively determine the public agenda (Bauer, 2002).

Stretching is at work when an agent tends to guide the principal to decide to cooperate on an issue in a new area. Stretching implies that the agent openly promotes a particular policy on an issue in a new sector, where the agent purposely attempts to ignore the signals of principal resistance, even at the risk of the consequences for the agent and its relationship with the principal. Even though the agent is quite secure about remaining in position, the agents are expected to be highly risk averse. The principal may not be that collegial and permissive, when the agent abuses its autonomy to act contrary to the interest of the principal. The Liberal Intergovernmentalists argue, for instance, that the principal can tie in the autonomy of the agent or limit the issues of the agent’s work. However, theoretically and empirically to act defiantly is an option for the agent. The agent will calculate the importance of their interest and whether it can get away with deviant behavior (Bauer, 2002).

Formal agenda setting is not suggested in the Bauer-framework, but Pollack has offered it as a causal mechanism through which deviant agency can be exploited. Formal agenda setting implies submitting actual proposals to the decision-maker. It is one of the documented sorts of delegation to design policies. The influence of an agenda setter is dependent on regulation concerning the initiator, voter, amending. If this regulation is formulated in such a way that accepting a policy proposal is easier than amending the policy proposal for the principals, then an agent has in effect a decision-making function. This hypothetical context displays a situation, where the agent has the most leverage of all possible causal-mechanism-situations to exploit agency (Pollack, 2003).

The elaboration of principal-agent theory has framed conditions, and causal mechanisms, which result in regional institutionalized cooperation on an issue in a new (rival) policy area. Hence, from the theory are expectations derived, as follows:

*Expectations*

*If a regional organization has agency and performs discourse framing, then institutionalized cooperation on an issue in a new policy area is likely to occur.*

*If a regional organization has agency and performs lobby sponsoring, then institutionalized cooperation on an issue in a new policy area is likely to occur.*

*If a regional organization has agency and performs stretching, then institutionalized cooperation on an issue in a new policy area is likely to occur.*

*If a regional organization has agency and performs formal agenda setting, then institutionalized cooperation on an issue in a new policy area is likely to occur.*

Having elaborated on hegemonic stability and principal-agent theory, it is in the following chapter time to justify the methodology of this research.

# Methodology

This chapter will justify the methods and operationalize the hypotheses derived from the theories presented in the previous chapter. The operationalization of the concepts in these hypotheses will provide a structure to detect the indicators during the analysis. Furthermore, I will justify what data was selected to be analyzed in chapter four and five.

### Single case versus Small-N

Small-N analyses have some benefits over single case analyses. Generalization of accepting a theory for the time-being is within qualitative research only possible through cross-case comparative methods, when evidence of a causal mechanism is detected in a least-likely case. Then, there is the expectation to find this mechanism in other cases with similar contexts as well (Beach and Pedersen, 2013). Thus, if one of the mechanisms is true for a single case, then we cannot say anything on the necessity or sufficiency of the mechanism in other cases with similar contexts (Beach and Pedersen, 2013). No claims can be made about whether the mechanism was the only factor that contributed to the outcome. In addition, no claims can be made about whether the mechanism is always necessary to create a certain outcome. We can only trace down the presence of the mechanism, there is no affirmation of sufficiency or necessity (Beach and Pedersen, 2013). Small-N analyses using cross-case comparative methods are suitable to eliminate rival explanations based on the logic of necessary and sufficient causation (Mahoney, 2000).

Small-N analyses have some disadvantages as well. The utilization of cross-case comparative methods distracts from what happens within cases and remains too concerned with finding why certain cases are suitable to compare (Mahoney, 2000). This entails that the operationalization phase remains abstract as the theoretical framework due to the operationalization must applicable to all cases. In addition, spurious correlation are made, when the researcher passes by the finding of the causal mechanism (Mahoney, 2000). Furthermore, in international relations states take global dynamics into account, entailing the governments continuously adapt behavior towards other states in the international structure. When researchers use cross case analyses, they accept one official document as evidence for categorizing the state having certain interest and policies and overlook that there are documents contradicting a previous one (Mahoney, 2000).

When generalization and elimination of rival explanations based on the logic of necessary and sufficient causation is not priority, then a single case analysis is more appropriate than small-N analysis to get a good grasp on what happens. This thesis is intrigued by what happens in ECOWAS regarding renewable energy policies and thereby could formulate suitable operationalizations for the hypotheses of this case. The theories hegemonic stability theory and principal-agent theory are tested by means of the operationalized hypotheses. When causal process observations disclose the hypothesized causal mechanism in ECOWAS, then the theory can be accepted at present.

### Case justification

Environmental politics receives increasing attention in International Relations studies. Many environmental problems require transboundary policies, solutions and measures, which could be produced through multilateral cooperation of states (O’Neill, 2009). In these multilateral cooperation forums, the emphasis is always on bolstering sustainable development, a policy strategy of which renewable energy is an important component. With respect to climate change, the Western countries disassociate themselves from the developing world, since the participant states accepted the principle of "common but differentiated responsibilities" in the Kyoto Protocol. This means that the ‘developed countries’, responsible for the current state of the environment, have to reach certain targets to reduce greenhouse gas emissions. Developing nations, including all sub-Saharan African countries were not restrained to limits, but showed concern by setting up international platforms where representatives of African countries could deal with climate change (UNFCC, n.d.).

However, not everyone on the African continent is content with the new development of renewable energy. ECOWAS is the most interesting case for researching cooperation regarding renewable energy sector, since ECOWAS’ preponderant power Nigeria is a deviant country on the African continent. Nigeria is a rich country, 25st world's largest economy in 2013. Nigeria even exceeded South Africa as the richest country of the continent in 2014 (The World Bank, 2015a). This can be considered as a capacity of the Nigerian state to become a regional hegemon. Nigeria became this rich due to exploiting its oil and gas reserves. In 2012, oil remained an important part of Nigerian’s export of goods and services, namely about 63% (The World Bank, 2015a; The World Bank, 2015b), while according to Akuru and Okoro (2010) the average of oil’s account in the export percentage was about 95% before 2008. These numbers demonstrate that high oil rents as revenues for the states are desirable. Renewable energy as an oil substitute for energy and transport purposes is a threat to Nigerian revenues. Moreover, if renewable energy becomes indeed an oil substitute for military capacities such as energy and transport, then the military balance of power will be more equalized in the ECOWAS region. It is interesting to learn why a regional organization is not interfered with respect to improving the renewable energy sector by a government of preponderant state due to its oil producing country.

A study on ECOWAS as regional organization form a principal-agent point of view is relatively new, while a similar study on the EU has been conducted many times. ECOWAS has exemplified the EU model for their own structure. Therefore, it is interesting to know whether EU related theories are applicable to other regional organizations as well. Regional studies beyond the EU are emerging. This research attributes to that literature. Hulse compared the agency of the Southern African Development Community and ECOWAS on trade issues. ECOWAS had on average a better score on her indicators of agency (Hulse, 2014). Although agency differs per issue, her research creates the impression that ECOWAS has the qualities of an influential agency.

### Process tracing

In the beginning of the theoretical chapter, there is accounted for the exploration manner to address the puzzle in this thesis. There does not seem a straightforward answer for the relation between potential independent variables and the dependent variable, cooperation as the solutions of complex issues. According to Derek Beach and Rasmus B. Pedersen (2013) process tracing methods are the only method that allows the investigation of causal mechanisms in a single case research design. A causal mechanism is a complex system, which produces an outcome by interaction of a number of parts. This deeper knowledge on certain parts within the complex system is necessary in this thesis. For instance, Barkin (2004) argued that qualitative research generates in-depth information on the different variables in a formula, which is based on a theory. For principal agent theory, it is difficult, but relevant to understand how the motions within the causal mechanism work. Process tracing, unpack causal relationship in a deterministic way, is the one way to conclude whether a causal mechanism produced an outcome (Beach and Pedersen, 2013).

The theory-testing variant of process tracing is being used to test whether evidence shows that each part of a certain causal mechanisms is present or absent (Beach and Pedersen, 2013, p.3). In order to test midrange theories, such as hegemonic stability theory or principal-agent theory, there need to be a situation, wherein certain conditions and the dependent variable are present. The dependent variable is in this case institutionalized regional ‘cooperation’. The conditions are dependent of the selected theory. For hegemonic stability theory, there need to be figured out whether there is a hegemon in this case; while for principal-agent theory, there need to be figured out whether the regional organization has agency. If the conditions and the dependent variable are present, then the next step is to test which of the hypothesized causal mechanisms can explain for the outcome. There are three causal mechanisms deductively derived from hegemonic stability theory, and four causal mechanisms deductively derived from principal-agent theory. The operationalization of these hypothesis occurs later in this chapter (Beach and Pedersen, 2013).

Given the choice for process-tracing, following the Bayesian logic in this thesis is most appropriate. Bayesian logic is “the likelihood of finding certain evidence if a theory is true versus the likelihood of finding this evidence if the alternative explanation is true” (Beach and Pedersen, 2013, p.83). This definition prevents the merely copying of previous research methods with the same data, because it emphasizes how much our confidence in the validity of the theory is *updated* (Beach and Pedersen, 2013, p.83-88). Confirmation of a theory through using Bayesian logic cannot be completely certain due to the nature of empirical observations. Evidence for an investigation depends on the causal process observation and the scholar’s interpretation (Beach and Pedersen, 2013). In order to overcome the problem of overly subjective interpretation of the data, in this thesis several causal mechanism, derived from rival theories, are tested. Finding that one of those did not apply, endows extra valuation to the mechanism that survived the test (Beach and Pedersen, 2013). Therefore, confirmation is assessed in degrees of (updating) confidence of validity of the theory (Beach and Pedersen, 2013).

### Operationalization

In the following paragraphs, the theoretical expectations will be transformed in operational hypotheses. In all hypotheses the dependent variable is the same. The theoretical dependent variable is: Y) regional institutionalized cooperation on an issue in a new (rival) policy area is likely to occur. Since I centralized renewable energy policy in this thesis, the operational dependent variable is: Y) the occurrence of institutionalized cooperation in ECOWAS on renewable energy. The various concepts of the independent variable will be operationalized per hypothesis below.

**Hegemonic stability theory**

*If there is X) manipulation by third parties or new available information or if the issue is embedded in a broader perspective and B) thereby discount rates of A) the hegemon decrease, then Y) regional cooperation on an issue in a new (rival) policy area is likely to occur.*

A) Regional hegemon:

A Great state in a region with a) latent power and b) military power considerably stronger than its main competitors in *all* following aspects:

a) Latent power: Indicators for measuring preponderancy or latent power differ over time. This is due to data, and the change in material resource that are considered to be important for enabling military capacity (Mearsheimer, 2001, p. 62-67): GDP, population size, and energy consumption.

GDP: The measurement of the GDP is adopted from the Word Bank Data. This is to predict how much money the government of the preponderant power is able to spend more assuming that they are able to increase taxes on military capacity compared to the other states in the region.

Population size: The measurement of the population size is rather straightforward. This is to predict how many people the government of the preponderant power is able to deploy more in the army or the air and naval forces compared to the other states in the region.

Energy consumption: The measurement of the energy consumption is rather straightforward. This is to predict how much resources the government of the preponderant power is able to transfer into energy compared to the other states in the region. Generally, the structural realists measure the resources a state possesses with respect to energy. However, in this thesis a developing country will be examined that has resources. The ability to use the resources is questionable, therefore this will be assessed instead of the possession of resources. Otherwise, the measuring of this indicator will result in a too optimistic way.

GDP, population size, and energy consumption need to be collectively present in order to assert that a state has latent power.

b) Military power: In order to measure the size and strength of the army, supported by the air and naval forces, there will be investigated how many money the government spends on military capacity compared to the other states in the region.

B) Decrease in discount rates:

Despite the lack of interest of the regional hegemon (probably Nigeria) to cooperate with respect to the energy-issue, developing states do cooperate under a certain condition, according to Antony Frogatt (2013). Changing discount rates are the condition that cooperation might occur among developing states with respect to the energy-issue. Discount rates are the valuation of the state’s current and future gains/preferences. The preponderant state has high discount rates; the state that values current gains highly relative to future gains (Barkin, 2004, p.367). However, measuring state’s current and future gains/preferences is very difficult. It is clear that the exploitation of fossil resources is in a great state’s economic and military interest, for Nigeria its is oil producing. States are concerned with their relative security positions; increasing the relative security of the state or relatively decelerating the decline of the hegemon’s security position. With respect to oil, the magnitude of its impact is greater than that of any other resource, in part because oil is by far the most valuable commodity traded on global markets (as measured by the total value of exports and imports) (Colgan, 2005, p. 150). In addition, oil is one of the elements of a state’s latent power, an enabling resource for the state’s military power (Mearsheimer, 2001, p.55-57). Moreover, the market for oil is truly global, in that supplies from one region can be shifted to another relatively easily (Colgan, 2005, p. 150). Oil is the most important aspect for measuring state’s current and future gains/preferences, but what has changed recently is that it became common knowledge that the direct consequence of using oil for energy purposes is greenhouse emissions. These greenhouse emissions might have severe consequences regarding air pollution and climate change for the hegemon’s future preferences. Since this is a very complex relation, here, it is not a feasible task to measure the actual current and future gains/preferences.

Nevertheless, there is a tool to find whether the discount rate has decreased or not. Frogatt did research on how the regions Europe and Asia dealt with the coal-industry. His framework will be used to assess the balance of energy-resources, because African states are like Asian states concerned with energy security rather than climate change (Frogatt, 2013, p.288). Particularly, the approach used to examine Indonesia, since it is a large fossil fuels-supplying state (Frogatt, 2013, p.297-300), like the Nigerian case in this thesis. If the hegemon indeed valued its future preferences over its current potential gains, there need to be a decrease in oil gains. Thus, there need to be two points in time. Measure oil gains, as oil rents, one year before an event that could be considered as one of the causal mechanisms, a time-period that was not yet affected by the causal mechanism, and one year after the cooperation, the potential causal-effect relation had sufficient time to be conceivable.

X) Causal mechanism that changed discount rates:

Manipulation by third parties: A state within or beyond the potential regional cooperation can pose a threat to interfere in the *current* benefits of the hegemon. These benefits are in this case related to the profit of oil gains. There might be a disturbing factor in the supply oil chain which results in less gains for Nigeria. Actors in the supply chain that can credibly pose a threat is the US due to their major appearance on maritime transport of oil, and second the Organization of the Petroleum Exporting Countries (OPEC) can determine the amount of Nigeria’s oil-supply. Hughes & Long (2005, p.187) did a supply-chain analysis of the potential for coercion in the international oil market and they concluded that the US imposes significant costs on others through a sustained reduction in the supply of oil as they dominate the maritime transport. OPEC’s coordinates the petroleum policies of its Member Countries, including Nigeria, to ensure the stabilization of oil markets (OPEC, n.d.).

*If there is X) a threat regarding oil supply posed by OPEC or US and C) C1)a decrease of the A) hegemon’s (probably Nigeria’s) current gains or an C2) increase of the hegemon’s (probably Nigeria’s) future gains, then Y) institutionalized cooperation in ECOWAS on renewable energy is likely to occur.*

Available new information: By discovering more facts about the impact the exploitation of oil has and the differently estimated degree of the rivalness of oil and ‘clean air’ due to greenhouse gas pollution due to new available information, the valuation of *future* gains changes. Oil and renewable energy both produce energy, but have different outcomes with respect to the amount of greenhouse gasses emissions, and climate change. The emission of greenhouse gasses are the direct tenable consequences of the combustion of fossil fuels, such as oil, for electricity and transport purposes. This increases the global mean temperature. Global warming entails an enormous impact on the environment, which is encompassed in the concept climate change. Scientific understanding of global warming is increasing through new knowledge discovered by research of scientific expert groups (Platform Communication on Climate Change [PCCC], 2011). This newly available information must be documented in reports. The method used to find these reports over 2003-2007 is systematically checking the African archive of ‘*the International Institute for Sustainable Development’*. In addition, the problem must be acknowledged and redefined by state leaders, including the ones of the hegemon. In these reports there must be documented whether a Nigerian representative was attending the conference, and perhaps there is recorded what the Nigerian government’s statement was in these gatherings.

*If there are X) new reports on the consequence of using oil and relating greenhouse emission and thereby C1)a decrease of the A) hegemon’s (probably Nigeria’s) current gains or an C2) increase of the hegemon’s (probably Nigeria’s) future interest, then Y) institutionalized cooperation in ECOWAS on renewable energy is likely to occur.*

The issue is embedded in a broader perspective: Issue-linkage is a strategy for the other great states in ECOWAS to get the hegemon, presumably Nigeria, to the negotiation table to cooperate on renewable energy. The other states can relate all energy security issues together, energy accessibility, the growing concern about the environmental impact of energy use, and the economic impact of energy sources regarding demand and supply problems. At first, there need to be identified which great member states, probably Ghana or Cote d’Ivoire, prefers renewable energy, this can be discovered in documents on international and regional summits. If there are related energy issues linked to renewable energy, initially brought to the cooperation agenda by government representatives of Ghana or Cote d’Ivoire, in the policy documents of ECOWAS, then issue-linkage can be affirmed. There need to be an assessed whether the issues are excludable or not. If the issues are non-excludable, then the hegemon cannot be retaliated by exclusion.

*If X) the conventional energy issues are related to other energy issues by great member states of ECOWAS (probably Cote d’Ivoire and Ghana) and thereby C1) a decrease of the A) hegemon’s (probably Nigeria’s) current gains or an C2) increase of the hegemon’s (probably Nigeria’s) future gains becomes conceivable, then Y) institutionalized cooperation in ECOWAS on renewable energy is likely to occur.*

**Principal agent theory**

*If A) ECOWAS has B) agency and X) performs deviant agency, then Y) regional institutionalized cooperation on an issue in a new policy area is likely to occur.*

A) A regional organization: Although there are many debates on what regions are, and what regionalism means (Rignér & Söderbaum, 2010, p.3; Flemes, 2010, p.2-5) , the simplest and purest form of regionalism is acknowledging regional political organization with governing functions: “an institutionalized region within a formal and mainly intergovernmental framework” (Rignér & Söderbaum, 2010, p.3). In this case, West Africa is discussed. In West Africa, there are two regional political organizations, notably ECOWAS and the West African Economic and Monetary Union (UEMOA). The latter is an organizations of former French colonies and are therefore Francophone. France supports UEMOA financially, bureaucratically, and technically since the establishment in 1994 (UEMOA, n.d.). However, ECOWAS is more important on the global stage, and for West African governments (African Union, n.d. & United Nations Economic Communities for Africa, n.d.). Moreover, Nigeria the plausibly preponderant power was not included in UEMOA. Hence, ECOWAS is the appropriate regional organization

B) Possession of agency:

Agency is a certain minimum and quality of institutionalized capacities. Scoring ‘present’ on all indicators - cohesion, authority, autonomy and recognition - entails that the regional organization has influential agency on governing its member states.

Cohesion: cohesion is the capability to converge the ideas of the several members in order to formulate and articulate policies. The website of ECOWAS will inform whether ECOWAS actually made policies and whether ECOWAS created supportive specialized institutions.

Authority: authority is the legal competence of the regional organization to act. The legal basis of ECOWAS will be found in a Treaty.

Autonomy: autonomy is the ability of the regional organization to operate relatively independently from the member states; the number of policy sectors ECOWAS representatives may engage in, the competence, and the ease of removal of the ECOWAS representatives. Regulation concerning autonomy will be found in the several legal documents of ECOWAS.

Recognition: recognition is understood as the acceptance of the regional organization by other actors in the international system. This will be measured by the acceptance of the United Nations, because it is an intergovernmental organization to promote international co-operation and possessing most members, notably 193 members (http://www.un.org/en/sections/about-un/overview/index.html). In addition, recognition will be measured by the acceptance of the African Union, since it is the continental organization aimed to accelerating the process of social, economic and political integration in Africa.

X) performance of deviant agency:

Bauer suggests to analytically improve the concept of the mechanisms at work by making a distinction between on the one hand discourse framing and lobby sponsoring, two forms of focus on background processes, and on the other hand stretching a form of explicitly aiming at policy outcomes (Bauer, 2002, p. 384).

Discourse framing: The problem perception shaped by the agent determines the way of thinking on solving the concerned problem. The first step to identify discourse framing is examining the reports presented by the officials of the ECOWAS Commission and by the officials of the Nigerian government on how to deal with oil, greenhouse gas emission and renewable energy. If these reports of the ECOWAS Commission lead to debates, and subsequently results in the redefinition of the problem, then there might be argued that the ECOWAS Commission conducted discourse framing.

*If A) ECOWAS has B) agency / (*cohesion, authority, autonomy and recognition) *and X) performs discourse framing, then Y) institutionalized cooperation in ECOWAS on renewable energy is likely to occur.*

Lobby sponsoring: The act of ECOWAS Commission to mobilize sub-national or transnational non-state actors (Pollack, 2003, p.52; Bauer, 2002, p.389) can be determined by finding a Commission’s initiative to create certain mobilize sub-national or transnational non-state actors or by supporting them financially.

*If A) ECOWAS has B) agency and X) performs lobby sponsoring, then Y) institutionalized cooperation in ECOWAS on renewable energy is likely to occur.*

Stretching: Practical options of the agent to conduct deviant action is to oppose openly are *events* the agent organizes to publicly oppose the will of the principal (Bauer, 2002, p.391-394). In this case, it is the ECOWAS commission that is expected to make a tactical move to demonstrate their interest in regional institutionalized cooperation concerning renewable energy. During or before this event, a representative of Nigeria, this could be the head of state, the energy minister or the minister of foreign affairs depending on the event is expected to express an opposite view on regional institutionalized cooperation regarding renewable energy.

*If A) ECOWAS has B) agency and X) performs stretching, then Y) institutionalized cooperation in ECOWAS on renewable energy is likely to occur.*

Formal agenda setting: Identifying formal agenda setting will be achieved through analyzing the *regulation* concerning the initiation. There will be determined whether the ECOWAS Commission has the right to create a proposal. In addition, there will be determined whether the ECOWAS Commission believes it is vital to create a proposal on institutionalized cooperation regarding renewable energy, whereupon will be discussed by the Authority of Heads of State and Government or the Ministerial Council. Furthermore, there need to be an actual proposal, wherein ECOWAS proposes to establish institutionalized cooperation regarding renewable energy.

*If A) ECOWAS has B) agency and X) performs formal agenda setting, then Y) institutionalized cooperation in ECOWAS on renewable energy is likely to occur.*

### Data-gathering

ECOWAS legally established ECREEE in 2008, therefore the causal mechanism occurred and need to be searched for before 2008. Systematically with the two theoretical perspectives bore in mind, there are documents selected. Multiple types of sources, such as reports of summits, legal documents, and official websites, are employed in search for better insight in the ‘process’ in order to trace causal process down, how come and why regional institutionalized cooperation took place in ECOWAS regarding renewable energy. The method used to find most of these reports over 2003-2008 is systematically checking the African archive of ‘the International Institute for Sustainable Development’ (IISD). IISD is a charitable organization in Canada and aims to promote human development and environmental sustainability through innovative research, communication and partnerships. One of their projects is to report every development concerning human development and environmental sustainability. If the archive did not contain documents regarding some hypothesized causal mechanism, entailing there is no evident answer in the process traced, then scientific studies were consulted. Diversification of the resources enhances the process to update confidence of validity of the theory. Unfortunately, interviews with most important participants during global, African, West-African, Nigerian, Ghanaian, Ivorian meetings would be useful contribution to resource diversification, but interviews were not feasible. Therefore, if a statement was made by a certain party, there were other reports reviewed to check whether the statement was articulated at different forums.

# An institutional history of renewable energy in ECOWAS

Chronological order is necessary to understand how the development leading up to cooperation in ECOWAS advanced over time. Hence, the events prior to the cooperation date are presented here. To display an overview, the websites of IISD are used; the international edition: **http://www.iisd.ca/**; the African edition: <http://africasd.iisd.org/>. The colors used for typing the event signify the level of organization or concern. Blue is global; red-brown is continental Africa; green is for regional ECOWAS.

Before 2003

Nigeria became a relevant player in the international oil politics in ‘70s of last century. In this decade, they started to exploit their oil reserves. In **1971**, they joined the Organization of the Petroleum Exporting Countries (OPEC); an intergovernmental Organization aimed to co-ordinate and unify petroleum policies among Member Countries. These policies tend to secure fair and stable prices for petroleum producers, an efficient, economic and regular supply of petroleum to consuming nations, and a fair return on capital to those investing in the industry (OPEC, n.d.). Over time the impact of their policies varied (Fattouh, 2007).

The legal establishment of ECOWAS was in **1975**, when the treaty of Lagos was covenanted. The idea to integrate the region in a formalized institution was advocated by Nigerian head of state Gen Yakubu Gowon and his Togolese counterpart Gnassingbe Eyadema in 1972. They made a draft of the Treaty, wherein they confined the competence of ECOWAS to set up economic policies. Chapter IX concerns energy and mineral resources. The states aim to evolve common policies in the energy sector among other infrastructural interests. The special commission (or called technical committee in the amendment of the revised treaty) will consult the Council of Ministers (ECOWAS, 1975).

In **1981**, the first international major attempt to develop a strategy for the use of alternative fuels was proposed at the UN Conference on New and Renewable Sources of Energy in Nairobi. Attendants stressed the need for an international body in the United Nations specifically concerned with new and renewable sources of energy. There is no linkage with other issues; other energy issues or the impact of the utilization of the conventional sources (United Nations General Assembly [UNGA], 1981).

The next global event was the UN Conference on Environment and Development in Rio de Janeiro in **1992**. Attendants, among them Nigeria, adopted Agenda 21, an action plan for implementing sustainable development. There is a first signal for interrelating energy efficiency, and the use of renewable and clean energies (United Nations Statistics Division [UNSD], 1992).

In **1993**, the Treaty of ECOWAS was revised due to global and regional dynamics. The heads of member states decided to expand the scope of policy areas and the powers of certain institutions within ECOWAS. The regulations and procedures are based on this revised treaty. As regards energy, art. 28 para. 2c of the Revised Treaty stated that the purpose of promoting renewable energy is the diversification of sources of energy. Renewable energy is in the environmental part in art. 29 not mentioned. Nontheless, the member states promised to undertake protecting, preserving and enhancing the natural environment policies, strategies and programs at national and regional levels and establish appropriate institutions to protect, preserve and enhance the environment, control erosion, deforestation, desertification, locusts and other pests (ECOWAS, 1993) In 1993, the EU did not yet incorporate renewable energy in their legal documents (Europese Gemeenschappen, 1992)

In **1997** the Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change, which commits its participating states by setting internationally binding greenhouse gasses emission reduction targets. The 192 states accepted the principle of "common but differentiated responsibilities". This means that the ‘developed countries’, responsible for the current state of the environment, have to reach certain targets to reduce emission. Developing nations, including West African States, are not restrained to limits (United Nations Framework Convention on Climate Change [UNFCCC], n.d.).

From 2000 there are at least annually global events that emphasis the importance of renewable energy. In **2000** the Group of Eight (G8) leading industrialized countries Summit established the Renewable Energy Task Force (Group of Eight, 2001).

During the ninth global session of the UN Commission on Sustainable Development (CSD 9) in **2001**, the participants acnkowledged that change will not be driven by resource constraints for a very long time to come. In order to make energy systems more supportive of sustainable development objectives, the energy mix should include a greater share of renewable energies. Furthermore, energy efficiency should be improved and there must be a greater reliance on advanced energy technologies, including fossil fuel technologies. The attendants relied still on the principle of common but differentiated responsibilities, as the way in which energy issues are addressed in a country depends on the national energy situation and needs. The Nigerian representative supported Iranian representative, when defending OPEC’s interests with respect to fossil fuels (IISD, 2001).

In 2001, The New Partnership for Africa's Development (NEPAD) was founded by heads of governments of South Africa, Nigeria, Algeria, Egypt and Senegal. NEPAD manages a number of programs and projects in theme areas; Energy is dealt with in the theme ‘Climate Change and Natural Resource Management’ and in ‘Regional Integration and Infrastructure’. Even in global summits, NEPAD is referred to as the suitable organization to cope with African challenges (NEPAD, n.d.).

In **2002** during the World Summit on Sustainable Development (WSSD), attendants adopted the Johannesburg Plan of Implementation, which addresses renewable energy in several of its chapters, including on poverty eradication (Chapter II), sustainable consumption and production patterns (Chapter III), small-island developing states (Chapter VII), and Africa (Chapter VIII). Scientific experts encouraged binding targets on the utilization of renewable resources; energy efficiency; phase out of subsidies; and linkages between energy access, gender equity and health. There were major disagreements on among other issues: renewable energy, energy subsidies, and the Kyoto Protocol (WSSD, 2002).

2003

In **January** 2003, the ECOWAS Energy Protocol was enacted in Dakar and, thereby provides a legal framework for investments in the Energy sector. Renewable energy was mentioned only in article 19 ‘Environmental Aspects’, not throughout other sections. Member states declared to have particular regard to Improving Energy Efficiency, developing and using renewable energy sources, promoting the use of cleaner fuels and to employing technologies and technological means that reduce pollution in pursuit of sustainable development, and taking into account its obligations under those international agreements concerning the environment (University of Oslo: Faculty of Law, 2003).

In **June** 2003, there was a Workshop for African Energy Experts on Operationalizing the NEPAD Initiative organized. The key objectives are eradicating poverty, putting Africa on a sustainable growth and development path and promoting the role of women in all activities (Zhou, 2003). Biomass is the frequently iterated renewable energy sort that can contribute to overcome the energy deficit that exists between urban and rural areas. However, policy dialogue and development concerning this topic must be created (Zhou, 2003).

In **October** 2003, NEPAD designed the Environmental initiative. Renewable energy is interlinked with land degradation, as alternative for fuel wood, to combat desertification (NEPAD, 2003). Moreover, efficiency of gas must be improved (NEPAD, 2003). However in this long report, renewable energy is not as frequently mentioned as expected.

During the Third meeting of the Committee on Sustainable Development in Africa in October 2003, the Chairman stressed all participants need to work within the framework of NEPAD and WSSD, both of which underscore the importance of the challenges of eradicating poverty in a sustainable way in Africa. With regard to Renewable Energy Technologies for Poverty Alleviation, the Panel recommended that efforts should be made to promote and enable these technologies in order to improve delivery of energy services for people living in poverty, thereby helping them to improve living conditions and expand opportunities for income-generating activities (Economic Commission for Africa, 2003)

2004

In the beginning of **June** the International Renewable Energy Conference (IREC), “Renewables2004” was held. Representatives acknowledge that renewable energies combined with enhanced energy efficiency, can significantly contribute to sustainable development, energy accessibility especially for the poor, the mitigation of greenhouse gas emissions, reduction of harmful air pollutants, and thereby creating new economic opportunities, and enhancing energy security through cooperation and collaboration. In other words, all possible energy issues are linked. The Nigerian representative called for affordable renewable energy technologies for developing countries through market creation and cost reduction (IISD, 2004).

In the end of **June**, the tenth session of the African Ministerial Conference on the Environment (AMCEN) was held. The African Ministers of Environment stressed their commitment to the effective implementation of the action plan of the environment initiative of the New Partnership for Africa’s Development and the follow-up response of the WSSD (UNEP, 2004). The summary report of AMCEN is much concerned with institutional issues (initiatives, challenges), such as information sharing technical assistance and assistance for compliance with global and regional agreements. The Ministers decided on certain topics, such as phasing out of Leaded Gasoline and chemical and hazardous waste management issues. The report with substantive issues highlighted priority issues and gave an overview of related interlinkages. Scientific data show that Africa has not contributed to the global climate change; Africa’s emissions of carbon dioxide are only 3.5 per cent of the world’s total (UNEP, 2004) As African countries are found to have the least capacity to cope with climate change impacts, this calls for preparedness and measures to mitigate such impacts and the related causes. If Africa is not prepared, many people will suffer from potentially dramatic negative impacts on human health, food security, economic activity, and water resources and physical infrastructure. Measures can be the development of and transfer to more climate-friendly technologies, including non-energy uses of fossil fuels, the advancement of fossil fuel technologies and carbon capture/storage; the expansion of climate-friendly energy sources (UNEP, 2004).

2005

In 2005 The Forum of Energy Ministers in Africa (FEMA) Initiative was established to advocate the NEPAD’s energy agenda to achieve the MDGs, the Johannesburg Summit targets and the tartgets listed in the Renewable2004 declaration. The ministers aim inter alia to develop a coherent energy strategy for Africa, including re-strategizing to increase modern energy supply (including renewable energy) and access (FEMA, 2006).

During the fourth African meeting of the Committee on Sustainable Development in **October 2005** Nigeria was the chairperson to arrange the meeting with the theme ‘Promoting Biotechnology in Africa’. Of the West African states, Ghana has recently put in place its biosafety framework and Nigeria has draft biosafety frameworks. Biotechnology has been identified as the leading technology of 21st century with tremendous potential to address economic, social and environmental issues, though Africa has yet to meet the basic requirements for the development, transfer and application of modern technology (United Nations Economic Commission for Africa [UNECA], 2005).

Nigeria in fact published a Master Plan regarding renewable energy in **November** **2005** regarding renewable energy. Energy Commission of Nigeria (ECN) and the United Nations Development Programme (UNDP) established this plan aiming to articulate a national vision, targets and a road map for addressing key development challenges facing Nigeria through the accelerated development and exploitation of renewable energy. Renewable energy will be part of Nigerian policy due to a foreseeable urgent transition in the energy mix (ECN & UNDP, 2005) The Master Plan will encourage a balanced development of reforms regarding diversification of the energy mix (ECN & UNDP, 2005).

During the G8 in Gleneagles Summit, the heads of state of France, United States of America, United Kingdom, Germany, Japan, Italy, Canada, and Russia agreed jointly that based on current knowledge, they need to act now to put the world on a path to slow down, stop, and then reverse the growth of greenhouse gasses through among other things renewable energy (G8 Gleneagles, 2005). With regard to Africa, the G8 Heads of States build on AU and NEPAD strategies and programs (G8 Gleneagles, 2005).

The International Renewable Energy Conference in 2005, the sequel to “Renewables2004”, was organized by a developing country, China. The conference was an initiative of China to respond to the era of high oil prices (Ren 21, n.d.).

2006

In **January** 2006, ECOWAS published ‘the White paper for a regional policy: Geared towards increasing access to energy services for rural and peri-urban populations in order to achieve the Millennium Development Goals’. This plan was adopted by the Heads of States during the 29th Summit of the Authority of States. The paper discussed the financial and technical barriers of the development of renewable energy policies (ECOWAS & UEMOA, 2006). Furthermore, the paper describes energy control policy, which comprises energy efficiency, renewable energy, and social regulation regarding pricing of electricity and fuels as a regional job (ECOWAS & UEMOA, 2006). The White paper is a complement to other existing regional energy policies (ECOWAS & UEMOA, 2006).

The Forum of Energy Ministers of Africa published a report ‘Energy and the Millennium Development Goals in Africa’ in **April** 2006. The millennium development goals – (MDGs) agreed upon at the UN General Assembly in 2000 to reduce poverty by 2015 cannot be achieved in Africa unless drastic changes are introduced in the energy sector to address this enormous challenge. As to achieve MDGs, the access to electricity and motive power must be enhanced. To this end, the use of modern biomass technologies for industrial purposes needs to be explored (FEMA, 2006). The report discusses the environmental negative externalities, notably deforestation, droughts, air and water pollution, and greenhouse gas emissions of producing energy with conventional fuel sources, such as oil, gas, firewood, and charcoal (FEMA, 2006). Renewable resources are not further discussed in this document. Africa is deficient in energy infrastructure. Although energy trading (oil, hydropower and natural gas) is progressing, more organized arrangements are needed. Activities within the existing sub-regional bodies such as ECOWAS should be fully exploited and harmonized. However, security between nations and loss of sovereignty pose some challenges for regional trade in energy (FEMA, 2006). With regard to energy efficiency, Nigeria had 30% (rather high even for Africa) transmission and distribution losses (FEMA, 2006). African Energy Ministers prioritize interstate energy provisions, such as the West African Gas Pipeline.

**May** 2006, the Eleventh session of the African Ministerial Conference on the Environment (AMCEN) took place. Environment Ministers from across Africa engaged in a policy dialogue to discuss pressing issues affecting the continent based on input from the expert group. Renewable energy was not among the discussed issues. The ministers commended President Olusegun Obasanjo and the Government of Nigeria for the Green Wall for the Sahara initiative. It is a planned project to plant a wall of trees across Africa at the southern edge of the Sahara desert as a means to prevent desertification. It also seeks to contribute to climate change mitigation and adaptation (Lambert, 2006)

In **June** 2006, the Heads of Governments amended the revised ECOWAS Treaty in order to transform the ECOWAS Executing Secretary into the ECOWAS Commission, and expand the relating powers (ECOWAS, 2006b).

In **September** 2006, a new report on climate change impacts, vulnerability and adaptation in Africa was launched thanks to the request of African states to give workshops on implementation policies that aim to adapt to climate change, which was decided upon during the UN Framework Convention on Climate Change (UNFCCC). This paper presents background information as input to the African Regional Workshop on Adaptation, and thereby contributes to overcoming the lack of observational climate data in Africa. With regard to the future of Africa, climate is predicted to become more variable; extreme weather events will be more frequent and severe. Regional differences will likely to be large pertaining to changes in rainfall, e.g. increase in the western part of the continent and decrease for the northern part (Elasha, 2006).

During the UNFCCC African Regional Workshop on Adaptation in **September** 2006, this report was the fundament of the discussion to devise implementation strategies for Africa to be less vulnerable to climate change. Attendants suggested regional collaboration (IISD, 2006). Participants also discussed the need for policies such as soil conservation and renewable energies that address both adaptation and mitigation (IISD, 2006) The Nigerian representative stressed the general absence of information on cost estimates and, requested clarification on opportunities for accessing the various funds for adaptation. Moreover, Nigeria asked for strategies closing the gap between policy and research (IISD, 2006)

In **November 2006**, Kenya hosted the second meeting of the Parties to the Kyoto Protocol, in conjunction with the twelfth session of the Conference of the Parties to the Climate Change Convention. One round of the meeting dealt with the UN’s assistance to Africa in adaption to climate change and better Clean Development Mechanism access. The UNDP’s and UNEP’s promised to Sub-Saharan Africa financial and technological assistance. In order for developing countries to succeed in tackling climate change, they need to bring carbon dioxide capture and storage, the creation of new efficiency standards for vehicles and investing in clean energy that was renewable, low in carbon dioxide emissions and affordable to a wider use (UNFCCC, 2007) Moreover, the regional hands-on training workshops are in general appreciated, such as the African Regional Workshop on Adaptation in Ghana.

In **December 2006**, there was a briefing paper made for the sixth meeting of the Global Forum on Sustainable Energy, which reviewed the current strategies and programs of the ECOWAS. ECOWAS perceives access to energy as a fundament for all socio-economic activities, and intends, therefore, to achieve this through increasing provision of modern energy services to its population. The paper specifically focuses on three recent ECOWAS initiatives: the West African Power Pool; the West African Gas Pipeline; and the White Paper for a regional energy services policy, of which renewable energy occupies a large part aiming at achieving the targets of the Millennium Development Goals (MDGs). Particularly, the White Paper plan needs extra support for providing energy to rural areas (ECOWAS, 2006a).

In **December 2006**, the sixth meeting of the Global Forum on Sustainable Energy was held recently at the Diplomatic Academy of Vienna. The event convened under the theme “Africa is energizing itself” and focused on topics such as biofuels, hydropower, the Clean Development Mechanism (CDM) of the Kyoto Protocol, and financing. In 7 out of 8 of the plenary sessions, renewable energy was discussed as a solution for energy issues. The summit was co-organized by the Austrian Development Cooperation at the Federal Ministry for Foreign Affairs, the Austrian Energy Agency and the Austrian Ministry of Agriculture, Forestry, Environment and Water Management (IISD, 2006b).

2007

The main themes of the Eighth African Unit Summit held in **January/February** 2007 were “Science, Technology and Scientific Research for Development” and “Climate Change in Africa”. The Executive Council of the African Union adopted 33 decisions. With regard to Climate Change in Africa, the representatives in the Executive Council endorse the decisions and the Brazzaville Declaration on the Environment adopted at the eleventh Ordinary Session of AMCEN. The decisions related to Hydrocarbons (Oil and Gas) are mainly concerned with the alleviation of the impact high oil prices can cause. Furthermore, participants support the increase in the volume and improvement of the quality of petroleum products in Africa. In addition, the participants encourage the formulation of policies and strategies for the development of new, clean and renewable energies, particularly bio-fuels as an alternative to hydrocarbons (IISD, 2007b). The Chair of the NEPAD Heads of State and Government Implementation Committee, Olusegun Obasanjo, President of Nigeria opened the sixteenth Summit of NEPAD Heads of State and Government and appreciated the achievements of NEPAD, but did not mention energy issues (IISD, 2007b).

In **March** 2007, the second meeting of the Forum of Energy Ministers of Africa (FEMA) took place. The background paper of this meeting stresses two messages; placing the highest priority on productive uses of energy and income generation, and achieving between 50 % and 100 % access to modern energy services by 2030. The ministers acknowledge that renewable energy can be complement to the energy mix in Africa to provide energy in the different sorts of areas (Brew-Hammond, 2007, p.14). However, the push for renewable energy systems at all costs is not in the African Ministers’ interest. For them, the choice for conventional energy resources and technologies or the renewables depends on the more financially and technically viable option for the specific situations. Diversification is the best-practice to cut costs (Brew-Hammond, 2007).

The 15th session of the UN Commission on Sustainable Development (CSD 15) in **May** 2007 addressed energy issues as contained in Agenda 21, the Programme for the Further Implementation of Agenda 21, the Johannesburg Plan of Implementation and the Millennium Declaration. The G-77/China highlighted the need to increase access to energy, improve energy efficiency and enhance international and regional cooperation. With other oil and gas producing countries, the Saudi Arabian delegate stressed the complementarities between fossil fuels and renewable resources, and proposed recommending the increased development and use of advanced fossil fuel technologies. There are no explicit statements of Nigerian representative. The EU noted the need for CSD-15 outcomes to include time-bound regulations for a significant increase in the share of renewable energy sources, energy efficiency and access, and a review arrangement (IISD, 2007c). The EU and Switzerland rejected the final document of the summit, because it did not address the challenges in the thematic areas, meet world expectations or add value (IISD, 2007c).

The informal thematic debate of the UN General Assembly on climate change as a global challenge in **August** 2007 was held to consider the development of a post-2012 (end of the 1st Kyoto-term) framework. During this gathering two panel discussions were held involving experts and representatives of intergovernmental organizations and academic institutions. Regarding energy and transportation, one of the experts supported scaling-up renewable energy sources and hybrid vehicles (IISD, 2007a). Nigerian expert, Anthony Olusegun Adegbulugbe, noted that developing countries’ tendency is to downplay climate change compared with development concerns, while noting a growing recognition of their vulnerability to climate change. He stressed the synergies between climate mitigation strategies and development policies in areas such as energy efficiency, fuel substitution, renewable energy resources, afforestation, and land and waste management (Permanent Mission of Nigeria to the United Nations, 2007a).

The First High-Level Biofuels Seminar in Africa in **August** 2007 was jointly organized by the African Union Commission, the Government of Brazil and the United Nations Industrial Development Organization (UNIDO), and aimed to identify social, economic and environmental concerns regarding biofuel development in Africa. The summary report of the seminar emphasized the importance of the Green Wall for the Sahara Initiative launched by the former President of Nigeria, Olusegun Obasanjo, and additionally the use of renewable and alternative energy sources to reduce direct reliance on (traditional) biomass for domestic energy consumption (IISD, 2007d). One of the experts identified the need to move Nigerian production from ethanol to butanol production in the future and to establish bioenergy scientific intelligence units for promoting innovation in the energy and agricultural sectors (IISD, 2007d) Bioenergy production presents a promising opportunity for African countries. However, broader renewable energy options, such as geothermal energy, should also be considered. Given that 70% of global water consumption occurs in the agricultural sector, the expert cautioned that biofuels may increase pressure on water resources, especially as biofuel crops are among the most water-intensive (IISD, 2007d).

ECOWAS representatives acknowledged among other things the need to establish a regional centre to promote Renewable Energy and Energy Efficiency (RE&EE) articulated in the Ouagadougou Declaration, the final document of the ECOWAS Conference for Peace and Security in **November** 2007 (ECREEE, n.d.). Unfortunately, there is no report regarding ECOWAS Conference for Peace and Security the retrievable on the website of ECOWAS online documentation or on the ECREEE website, and even not on the internet in general. Austria supports ECOWAS in implementing its rural energy policy and has played a leading role with UNIDO in setting up ECREEE. According to the Austrian Development Cooperation paper, access to sustainable forms of energy raises the quality of life in villages and curbs rural exodus (Austrian Development Cooperation, 2010).

The Africa-EU Energy Partnership established in **December** 2007 is one of eight strategic partnerships that emerged from the Africa-EU Joint Strategy and Action Plan which is a framework for structured political dialogue and cooperation, and focuses on three key areas: energy access; energy security; and renewable energy. The partnership aims to mainstream climate change into development cooperation in the area of energy through support to implement renewable energy policies. Moreover, the parties inspect the options for the initiation of a major cooperation program in the field of renewable energy sources in Africa, including the possible establishment of regional centers for promotion of renewable energy and energy efficiency (EU Council, 2007).

2008 and post-2008

ECOWAS adopted the regulation C/REG.23/11/08 and thereby gave the ECOWAS Regional Centre for Renewable Energy and Energy Efficiency (ECREEE) a legal basis in **2008** (ECREEE, n.d.) The documentation of the adopted the regulation is not findable on the http://documentation.ecowas.int/legal-documents/regulationsacts/ or on the internet in general.

On 6 July **2010**, the official inauguration of ECREEE completed the preparatory phase and introduced the operational phase of the Centre. The event contained the signing of the ECREEE headquarter agreement between the Government of Cape Verde and the ECOWAS Commission, as well as the constitution and first meeting of the ECREEE Executive Board (ECREEE, 2010).

The main activities of ECREEE are designing annually the work plan and periodically the Business plan. Only the latest work plan of the Centre is receivable by request. The Business plan **2011-2016** provides a powerful strategic long-term framework containing a vision, a plan, objectives, milestones, performance indicators, activities, and human and financial resources requirements. The Center and the corresponding work and business plan is concerned with energy, development and climate issues, notably the rising energy security concerns, continued lack of access to energy services as well as the need for climate change mitigation (ECREEE, 2012).

Conclusion

The institutional history of renewable energy in ECOWAS learned that in 1981 there were global actors concerned with renewable energy. The issues linked to renewable energy developed over time. All interlinkages we know today with renewable energy were already explicit and concrete articulated during the *2004renewables Summit*. The UN Commission on Sustainable Development is the organizations that remains a well-institutionalized gathering. At global summits, renewable energy is especially considered to be a solution to climate change. Global summits are mostly indecisive and remain merely a dialogue, such as the Informal thematic debate of the UN General Assembly on climate change.

Remarkably, representatives at most African summits are not eager to the global obsession with renewable energy. There are even summits which are most likely to deal with renewable energy, but the attendants do not discuss it, for instance the 11th AMCEN. Even though Africa is the continent least prepared for climate change, the African governments do not care for renewable energy due to its climate change mitigation results. In 2006, bio-fuels was considered to be a profitable renewable energy resource to invest in, but this resource turned out to demand a lot of water.

Surprisingly, ECOWAS did develop energy policies at an early phase of their existence. Renewable energy was already mentioned in the revised treaty of 1993, but actual policy concentrated on renewable energy emerged in 2008. The first occasion that the idea of creating a specialized agency in ECOWAS regarding renewable energy was explicitly put forward, was at the ECOWAS Conference for Peace and Security. The formation of a regional centre to promote Renewable Energy and Energy Efficiency (RE&EE) and the several documents emerged is an evident manifestation of regional institutionalized cooperation. The next chapter will shed more light on why this happened only in 2008.

# Empirical analysis

In the previous chapter, there was illuminated how the development leading up to cooperation in ECOWAS advanced over time. This helped to understand the context in which one of the causal mechanisms occurred. In this chapter, there will be explained why certain causal mechanisms contributed to the emergence of the dependent variable, notably regional institutionalized cooperation regarding renewable energy.

### Hegemonic stability analysis

*Regional hegemon*

Among the ECOWAS members, there is assumed for decades that Nigeria is the regional hegemon (Iheduru, 2011). However, there are arguments that Nigeria is not capable of creating hegemonic stability, mainly when it concerns military security (Bach, 2007). For the hegemonic stability theory, the presence of a hegemon in a region is the main condition for potential cooperation. Therefore, in this thesis it is just to measure it and not merely follow previous research. A regional hegemon can be measured by its score on the several indicators regarding the latent power (notably GDP, population size, energy consumption) and military power compared to the score of the first potential competitor.

As regards GDP, from 2000 to 2008 Nigeria was dominant considering its GDP compared to other states in ECOWAS. Nigeria had a GDP of 67,850,915,773$ in 2000. This number increased enormously in the following years. Nigeria’s GDP more than doubled (from 2000), and was 129,759,108,809$ in 2007. Second place in the GDP list of ECOWAS member states is for Cote d’Ivoire. Cote d’Ivoire had a GDP of 17,0850587,280$ in 2000, and increased slightly to 17,650,034,467$ in 2007. Ghana is third in this list. Ghana’s GDP was 8,393,646,451 in 2000, but increased to 12,156,316,526 in 2007 (The World Bank, 2015f). What might be a critique is that Nigeria has not the prominent role if its GDP is brought in perspective to the population. Nigeria’s GDP per capita is 882$ in 2007, and is on third place. Meanwhile Cote d’Ivoire is on second place with 983$, and Cabo Verde is on first place with 2,499$ (The World Bank, 2015g). The GDP per capita is an indicator of the average development of a country entailing a tool to predict the military technological development. Military technological development might be a better than military expenditure as an indicator of military power. This has consequences on the stability or cooperation on the long-term. However, as long as the military expenditure can predict better than the GDP per capita, then the latter is not important for medium term, approximately a decade, predictions on stability or cooperation. Moreover, Cabo Verde is a particular sort country; it is a group of islands with a few inhabitants that achieves high values if the indicators are relative to its capita, but can never be a hegemon due to its total scores. If the Nigerian government prefers to increase taxes in order to spend more on military capacity, then they can.

With regard to population size, Nigeria was dominant considering its population compared to other states in ECOWAS from 2000 to 2008. In Nigeria, there were 122,876,727 inhabitants, this number increased to 147,187,353 in 2007. Ghana, second place, had 18,825,034 inhabitants in 2000, this number raised to 23,110,139 in 2007 (The World Bank, 2015j). The Nigerian government can deploy many more people in the army, if the government wishes to.

In ECOWAS region, Nigeria was dominant considering its energy consumption compared to other member states from 2000 to 2008. Nigeria consumed 9,109,000,000kWh in 2000, this number increased to 20,328,000,000kWh. Ghana, second place, consumed 6,517,000,000 in 2000, this number decreased to 5,797,000,000 in 2007 (The World Bank, 2015a). There are many missings in this database regarding energy, but these are only states that did not get in the top three of the other indicators. Therefore, this is not disturbing for the results or the conclusion. However, Nigeria has not the prominent role if its energy consumption is brought in perspective to the population. Nigeria’s energy consumption is138kWh per capita in 2007, and is on fourth place. Meanwhile Cote d’Ivoire, Ghana, and Senegal consumed more (The World Bank, 2015b). Energy consumption per capita, just as GDP per capita, is an indicator of the average development of a country entailing a tool to predict the military technological development. Military technological development might be a better than military expenditure as an indicator of military power. This has consequences on the stability or cooperation on the long-term. However, as long as the military expenditure can predict better than the energy consumption per capita, then the latter is not important for medium term, approximately a decade, predictions on stability or cooperation. Thus, here is measured that the Nigerian state is able to produce sufficient energy, notably motive power and electricity for military purposes when necessary.

Nigeria was dominant considering its military expenditure compared to other member states in ECOWAS region from 2000 to 2008. Nigerian government spent approximately 679 million dollars on military capacity in 2000, this amount increased to approximately 1.3 billion dollars. It is unknown how much the government of Cote d’Ivoire spent in 2000 due to political unrest and coup d’états. Cote d’Ivoire, second place in 2007, spent approximately 353 million dollars. The Ghanaian government, third place, spent approximately 84 million dollars in 2000, this amount raised to approximately 122 million dollars in 2007 (The World Bank, 2015h). In the ECOWAS region, the Nigerian government spent considerably much more on military capacity than all other states in the region.

In conclusion, Nigeria scored on the several indicators regarding the latent power (notably GDP, population size, energy consumption) and military power considerably higher compared to the score of the first potential competitor. This implies that Nigeria can be considered a regional hegemon in the ECOWAS region, according to hegemonic stability theory.

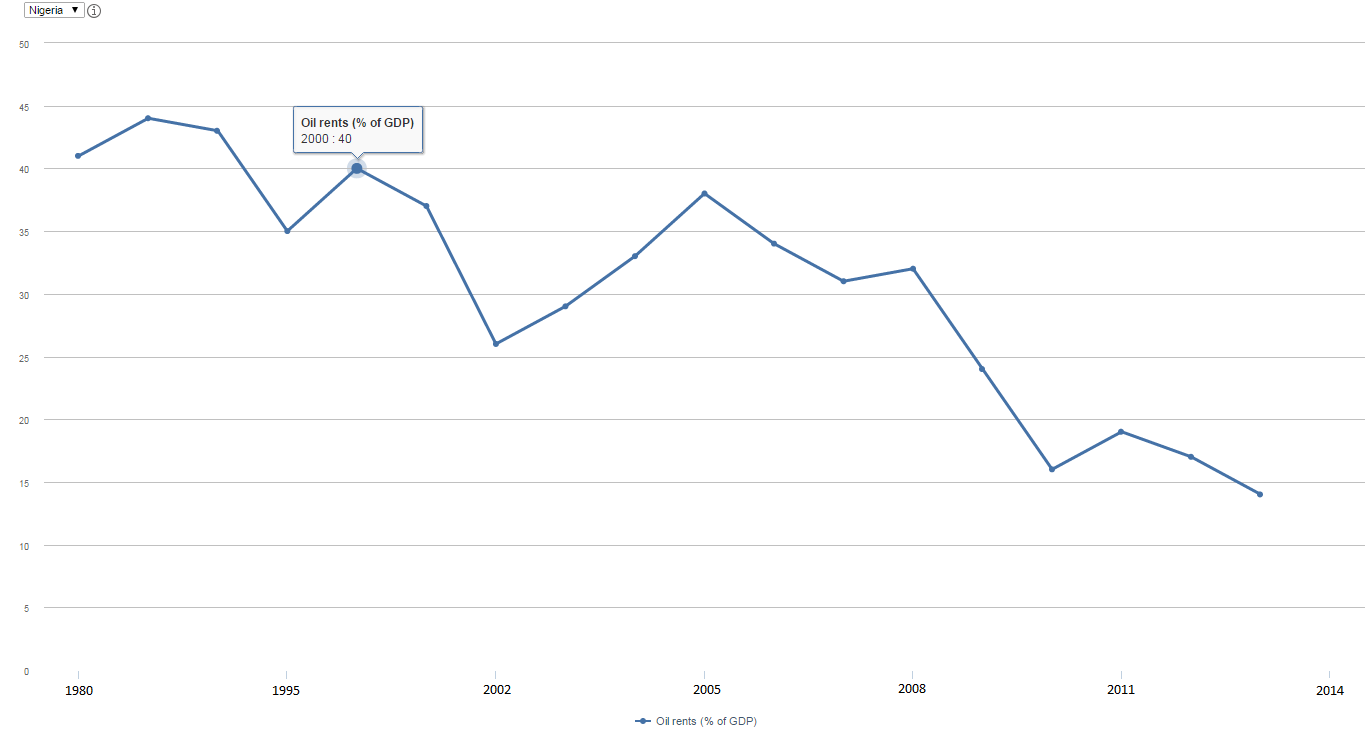
*Decrease in discount rates:*

In the appendix, there are three tables displayed regarding Nigerians oil rents (The World Bank, 2015i). The first table encompasses the years 1980-2000, measured every five years. The second table is concerned with the years 2000-2007, wherein assumingly the causal mechanism for cooperation occurred, 5 years prior to the cooperation (2003-2007). In this table, there are three years (2000-2002) are displayed as well to avoid the scientific research trap to concentrate only on the years of research and to place the five years of research in perspective. The third table concerns 2008-2014. This table is to acquire the information regarding the oil rents the year after cooperation and demonstrate how the oil rents developed after the cooperation. These three tables are transformed to a graph in figure 5.1 to give a first overview.

Figure 5.1

Nigerian oil rents 1980-2014

The World Bank, 2015i

Table (1980-2000) demonstrates decades wherein Nigeria was considerably dependent on its oil income. Nigeria’s oil rents were for 40% responsible for Nigerian GDP. In the years prior to cooperation in 2007, the rates fluctuated. There is a low point in 2002, the oil rents were $19.1bn. Then, this number increased, there was a peak of $42.7bn oil rents in 2005. This amount declined in 2006 and even further to $40.2bn in 2007 (The World Bank, 2015i). For now, it seems that this causal mechanism affected in 2005 or beginning of 2006. Although the effect is conceivable in 2005/2006, the beginning of the causal mechanism can be one or two years before. It is a causal mechanism entailing there need to be certain steps followed, which takes time. As mentioned in the method, if the hegemon indeed valued its future preferences over its current potential gains, there need to be a decrease in oil gains. In the method suggested the second point in time to measure the oil gains was the year after the cooperation was established, since this year would indicate whether the Nigerian government truly decreased their discount rates, and thereby valued future gains over current gains. In table 2008-2014, there is demonstrated that the oil rents increased to $44.1bn in 2008 (The World Bank, 2015i). Fortunately, this cooperation occurred a few years ago. There is data available from 2008 to 2013, which display a trend of a swift decrease in oil rents, notably $23.8bn in 2013 (The World Bank, 2015i). Even though this amount is not yet lower than the years 2002-2003, this a severe decrease if you consider the population and GDP growth. More people need more energy. Moreover, the growth of GDP means that the Nigerian population may afford to use more oil. Although using the previous described method of acquiring the change in discount rates resulted in an increase in oil rents in the year after achievement of cooperation, it is just to infer that the part of decreased discount rates is sound in this case given the abundantly clear tendency towards decline after 2008. Obviously, there need to be a closer look to this unexpected result in this particular year, but this not feasible here and not necessary to make sound inference.

*Causal mechanism that changed discount rates*

The findings regarding the decrease in discount rates make it probable that the causal mechanism initiated in the beginning of 2006 or before. This statement is supported by the finding that the Nigerian government published national policy regarding renewable energy in 2005. The Nigerian Renewable Energy Master Plan is published in November 2005 and states: “Towards the coming decades, Nigeria envisions a peaceful and prosperous nation driven increasingly by renewable energy. The country will exploit renewable energy in quantities and at prices that will promote the achievement of equitable and sustainable growth.” (ECN & UNDP, 2005, p.9). Therefore, the commencement of the causal mechanism will be searched for prior to 2006, but subsequent parts of the causal chain can occur after 2005.

Manipulation by third parties

Manipulation by third parties is a causal mechanism that might result in a decrease of Nigeria’s current oil gains, a form of change in discount rates. To make an assessment whether this happened, there need to be investigated if OPEC or the US threatened or had an incentive to threaten Nigeria. In order to assess whether manipulation by OPEC occurred, there need to be an incentive observable for OPEC (to threat) to interfere in the current benefits, the oil rents of Nigeria. The study of Fattouh revealed the history of the pricing power of OPEC and what that would entail for the future of the OPEC members from 2006 onwards. This work was published in 2007, thus the research is not biased by events after the year of the agreement of cooperation in ECOWAS. OPEC’s pricing power varied over years due to global dynamics, such as discovery of new reserves, and oil-production countries that did not join OPEC. In the first years of OPEC’s existence the substantial power was possessed by the multinational oil companies, the seven sisters they were called (Fattouh, 2007). Today, OPEC is considered to be a bureaucratic cartel. The member governments impose restricting policies on themselves to pursue the common good, a stable and fair pricing system (Fattouh, 2007). OPEC tends to accomplish this through a signaling system credible for the global oil market. In 2000, they introduced the price band mechanism. This mechanism sets a target range from a floor to an upper price. If prices are below this floor price for more than ten days, OPEC will impose on their members oil-production cuts. If prices are above the upper price for twenty days, then OPEC will automatically increase their oil production (Fattouh, 2007). Thanks to policy mechanisms and the common goal, OPEC is able to credibly influence the oil market and particularly influence the oil rents of Nigeria.

The price band mechanism is only a reliable signal, when OPEC countries are able to directly respond to such dynamics. If the capacity to produce oil is stuck to its limits, then the OPEC countries cannot influence the price. Prices will sky-rocket. Oil demanders will look for alternatives for oil products. Moreover, cuts will only be effective, when there is no cheating or if the non-OPEC countries supply more oil. In other words, there must be some elasticity in capacity to be a price setter. Actors who demand oil can interpret any kind of signal, policy mechanisms, differently, and then the policy interferences have not the desired effect (Fattouh, 2007). Merely examining policy tools as a potential threat of OPEC is not favorable to predict the future oil rents of Nigeria. Therefore, here is deliberately chosen to follow the logic of a long term scientific political economic study for understanding OPEC’s pricing and manipulation power.

The simple version of predicting the current gains of Nigeria is estimating OPEC’s share in the global demand and supply of oil, this was examined by the International Energy Agency (IEA). The IEA envisions an increase in OPEC’s share of oil and gas production due to the increase of global demand, and the scope of OPEC’s reserves (Fattouh, 2007). If OPEC chooses to not invest according to the projection of IEA, their revenues will be high thanks to the price boost of oil due to scarcity of the oil product. Moreover, if the demand declines before the prediction due to the emergence of a substitution of oil, there will be no investment losses. However, if OPEC chooses to invest, the more likely option acknowledging economics trends, then their revenues will be high due to the exploitation of their reserves. Moreover, OPEC’s pricing power will increase since their capacity is elastic. Whatever choice OPEC makes, Nigeria did and will not receive a threat by OPEC, and their current gains could be high, according to the logic of long term scientific political economic study.

In order to assess whether manipulation by the US occurred, there need to be an incentive observable for the US (to threaten) to interfere in the current benefits, the oil rents of Nigeria. The assessment of the occurrence of manipulation relies here again on a scientific study. Hughes and Long (2015, p.153) researched whether the oil market is sufficiently concentrated in a given segment to enable states, or firms to impose significant costs on others, for instance a threat to alter their oil supply. The findings of the research demonstrated that the degree of market concentration varies by market segment and across time. In particular, they found that the US currently dominates a key segment of the oil market through maritime transport (Hughes and Long, 2015). The domination can be slightly undermined by OPEC whose members can collectively decide to cut production, and the insecurity of the stableness of qualities of crude oil the different states can supply (Hughes and Long, 2015). This implies that diversification in oil exporting countries is benefitting oil-importing countries to suppress the prices of oil products. The US benefits from low oil prices, since US’ oil traders/transporter as mediator can make more profit in the oil market. In this perspective, there is no reason for the US to threaten Nigeria to lower production. Furthermore, nowhere in the article regarding US’ oil weapon (Hughes and Long, 2015) or on the internet is mentioned that US has threatened Nigeria. Moreover, it is the case that US is known for their enormous amount of subsidies the government provides for the oil production states. Unfortunately, there are no numbers publicly disclosed about US’ spending on Nigerian oil production processes (Bruno & Kretzmann, 2007). In conclusion, both OPEC and the US had no incentive to threaten Nigeria.

Available new information

Just discovered facts about the impact the exploitation of oil has and the differently estimated degree of the rivalness of oil and ‘clean air’ due to greenhouse gas pollution might change the valuation of future gains of governments. The emission of greenhouse gasses is the direct tenable consequences of the combustion of fossil fuels, such as oil, for electricity and transport purposes. This increases the global mean temperature. Global warming entails an enormous impact on the environment (PCCC, 2011). Furthermore, it is a serious threat to sustainable development, human health, food security, economic activity, natural resources and physical infrastructure (Elasha et al., 2006). In 1981, the first international major attempt to develop a strategy for the use of alternative fuels occurred in order to mitigate the impact of climate change in the future (UNGA, 1981). There were no regular summits on this issue until 1997, since then summits emerged frequently. The most acknowledged plan to take action on the emission of greenhouse gasses is the Kyoto Protocol. Simultaneously, there emerged consensus among scientist that rising concentrations of human produced greenhouse gases in the earth’s atmosphere are leading to changes in the climate (Elasha et al., 2006; PCCC, 2011).

The African continent is the least able to cope with the adverse effects of climate change, while having contributed the least to the accumulation of greenhouse gas emissions (Elasha et al., 2006, p.3). From 1950 to 1990 Africa lost 65% of its cultivable land and can expect to lose up to two thirds by 2025 due to land degradation (IISD, 2006b). Furthermore, a report on climate change impacts, vulnerability and adaptation in Africa was launched in September 2006. This report revealed new insights of the vulnerability of Africa regarding climate change. Floods and droughts can occur in West Africa within a short period of time entailing famine and other disruption of socio -economic life. Furthermore, desertification is partly due to overexploitation of land resources a big problem in Africa (Elasha et al., 2006). The environment is rather rival, particularly in Africa. The use of fossil fuels resources creates economic activity and revenues for Africa, though, it prevents human socio-economic activity in the future since its indirect adverse impact on sustainable development, human health, food security, economic activity, natural resources and physical infrastructure.

There are two events in quick succession on what climate change means for Africa, they openly discussed implementation strategies for Africa to be less vulnerable to climate change. During the UN Framework Convention on Climate Change (UNFCCC) African Regional Workshop on Adaptation in September 2006, attendants suggested regional collaboration (IISD, 2006a), and the need for policies such as soil conservation and renewable energies that address both adaptation and mitigation (IISD, 2006a). These topics were only shortly touched upon and not in the same context, notably these topics were mentioned in different rounds. Throughout this summit, there was no straightforward suggestion that renewable energy should be organized in a cooperative regional insitution or specialized agency in the different regions of the Africa. Actually, Nigeria was mostly concerned with questions on financial and implementation feasibility of certain strategies, but renewable energy was not one of these strategies. Kenya hosted a summit in November2006 (UNFCCC, 2007). One round of the meeting dealt with the UN to Assist Africa Adapt to Climate Change and better Clean Development Mechanism access. This assistance and mechanism would entail bringing carbon dioxide capture and storage, the creation of new efficiency standards for vehicles and investing in clean energy that was renewable, low in carbon dioxide emissions and affordable to a wider use (UNFCCC, 2007). Nigeria was attending the summit, the Nigerian representative or one of the representatives of other ECOWAS members or even other representatives did not explicitly mention that was a good idea to organize renewable energy policy in a cooperative regional institution or specialized agency in the different regions of the Africa.

The examination of other summits later, African Energy ministers including the Nigerian energy minster did not seem really interested in regional renewable energy policy as a solution for their future’s interest relating to climate change (Brew-Hammond, 2007, p.15). Conceiving these developments, it is appropriate to affirm that Nigerian state leaders did not acknowledge and redefine the climate change problem and the relating potential renewable energy policies as a solution due to scientific new available studies.

The issue is embedded in a broader perspective

In order to find out whether regional renewable energy policies are embedded in a broader perspective, there need to be investigated how the renewable energy interlinkages with issues in some way related to energy developed over time (prior to 2008), and subsequently there need to be examined whether Ghana or Cote d’Ivoire used the interlinkages to get Nigeria to the negotiation table. Before 2004, there were a few conferences, where renewable energy was one of the subjects discussed. For instance, during the UN Conference on Environment and Development in Rio de Janeiro in 1992, attendants, adopted Agenda 21, an action plan for implementing sustainable development. In chapter 9 of Agenda 21, there are well-elaborated linkages between the utilization of renewable energy and the protection of the atmosphere, human health, and environment as a whole. In another part of chapter 9, there is the promotion of the availability of increased energy supplies discussed (UNSD, 1992). Another example is the CSD9 global Summit, the energy topics discussed that were assumed to be interrelated are accessibility of energy, energy efficiency, renewable energy, advanced fossil fuel technologies, nuclear energy technologies, rural energy, and energy and transport. The statement of the event was that the energy mix should include a greater share of renewable energies in order to make energy systems more supportive of sustainable development objectives (CSD, 2001). At the WSSD in 2002, attendants suggested interlinkages, but had major disagreements on energy and climate issues (ISSD, 2002). In 2004, all the possible renewable energy interlinkages were suggested at the “Renewables2004” conference in Bonn (Germany). Renewable energies complemented by enhanced energy efficiency is assumed to significantly contribute to sustainable development, energy accessibility especially for the poor, mitigation of greenhouse gas emissions, reduction of harmful air pollutants, and thereby creating new economic opportunities, and enhancing energy security through cooperation and collaboration (IISD, 2004). Since 2004 all these interlinkages are also suggested during African summits. These interlinkages are slightly accentuated depending on the theme of the conference renewable energy. For instance, the Forum of Energy Ministers of Africa published a report ‘Energy and the Millennium Development Goals in Africa’ in April 2006 that regards renewable energy resources as an instrument to diversify the energy mix in order to enhance energy access (FEMA, 2006). While another report published as a background paper for the UNFCCC African Regional Workshop on Adaptation was the fundament of the discussion to devise implementation strategies for Africa to be less vulnerable to climate change. Renewable energy was contemplated to be part to the solution to climate adaptation and mitigation (Elasha et al., 2006). Nigeria’s interest is diversifying their energy mix, according to the Renewable Energy Master Plan (ECN & UNDP, 2005). In conclusion, the governments of Ghana and Côte d’Ivoire have the option to interlink diversifying the energy of the region with their interest in renewable energy, perhaps environmental or socio-economic interests.

At the CSD 9 in 2001, there was concern about the nature of developing country participation. Remarkably observers highlighted that during the drafting group discussions a number of the G-77/China (group of 134 developing states) members felt compelled to follow the party line. Arguments in favor of sustainable development practices were being overridden by the predominant influence of OPEC interests. Particularly, Iran, Nigeria and Saudi Arabia representatives were involved in this attitude (ISSD, 2001). Although it is not publicly known who felt compelled and frustrated to follow OPEC’s interest, this could be interpreted as a first sign of developing countries, which adhere to environmental agreements and policies. However, during the second meeting of the Forum of Energy Ministers of Africa (FEMA) in 2007, the energy ministers of Africa stated that the push for renewable energy systems at all costs is not in African interest. For them, diversification is the best-practice to cut costs, and the only reason why renewable energy policies will be established **(**Brew-Hammond, 2007). The government of Ghana and Cote d’Ivoire did not succeeded in interlink their interest related to renewable energies with diversification of the energy mix, otherwise there should be in this meeting of FEMA or somewhere in 2007 a convincing interlinkage and there is not. Moreover, Ghanaian first attempt to consider renewable energy as salient was in their Renewable Energy Act 2011, Act 832 enacted in 2011 (Energy Commission of Ghana, n.d.). Since issue-linkage was not accomplished by the government of Ghana and Cote d’Ivoire, there is no use to comment on whether the issues are excludable or not, and what kind of impact it might imply for the hegemon.

In conclusion, hegemonic stability hypotheses are not observable through the analysis. Nigeria was not manipulated by OPEC or US. Both parties do not have any incentive to threaten Nigeria. In 2007 is predicted that Nigeria was expected to have a prosperous future with respect to oil. Secondly, Nigeria did not redefine renewable energy policies as a solution worth to invest in. Although Africa is least resistant to the impact of climate change, Nigeria does not feel the incentive to invest in renewable energy technologies and policies. Finally, the governments of Ghana and Côte d’Ivoire were not able to interlink diversification of the energy mix to other renewable energy issues in their interest during negotiations with Nigeria. Since hegemonic stability theory is not able to explain why regional institutionalized cooperation regarding renewable energy, in the next paragraphs will be discovered whether Principal-Agent theory is able to explain this.

### Principal-Agent analysis

*ECOWAS’ possession of agency*

For the principal-agent theory, the agent’s possession of agency in a region, in this case ECOWAS’ possession of agency, is the main condition for potential cooperation. As a matter of fact, it is the ECOWAS Commission, which has potential agency. ECOWAS consists of several organs, of which two are composed of individuals who have their main loyalty to national interests. The heads of member states assemble in the ECOWAS Authority, and the ministers of member states depending on the concerning issue assemble in the ECOWAS Council. Another organ of ECOWAS, the Commission, is the essential and legal representative organ (Supplementary Protocol A/SP.1/06/06, Art. 10 para. 2, new art.19). Moreover, the Commission is frequently meant when referring to ECOWAS in general. According to Hulse (2015) who conducted a comparative study on two African regional organizations, ECOWAS conveys the impression to possess greater actorness, entailing more influential agency in interregional negotiations concerning trade agreements. A comparative approach cannot be applied to a single case study, therefore ECOWAS scoring present concerning the four institutional requirements, cohesion, authority, autonomy, and recognition as explained in the theory, is sufficient to assert that ECOWAS Commission has agency. Moreover, in this thesis is researched how ECOWAS Commission has another sort of influential agency, notably on its member states concerning another topic, namely renewable energy. As the regional organization’s possession of agency is the main condition for potential cooperation, it is just to measure it and not merely follow previous related research.

As regards cohesion, ECOWAS has the capability to formulate and articulate policy on ten different policy sectors, of which energy is one of them (ECOWAS sectors, n.d.). In addition to the several organs, ECOWAS is comprised of ten specialized agencies; these are not directly related to the ten sectors. These specialized agencies support the ECOWAS Commission and contribute to the daily governance entailing the development of policies of ECOWAS. ECREEE is since 2010 of the operating specialized agencies (ECOWAS institutions, n.d.). With regard to authority, the ECOWAS Commission was before 2006 the ECOWAS Executing secretary. The Executing secretary had a legal basis in the original Treaty of Lagos (ECOWAS, 1975)and was supposed to act within its competence and the legal basis and competence was extended in the Revised Treaty (ECOWAS, 1993).With the transformation in 2006, the autonomy of the ECOWAS Commission developed; the number of sectors the ECOWAS Commission received competence in increased, the competence itself enlarged, and the capacity related to people working for the Commission increased. Moreover, during Commission’s term of office, the Commissioners may not be removed from their posts except in cases of serious misconduct or incapacity. In addition, the Member States’ promise to respect the independence of the members of the Commission is documented in article 18 of the Amendment of the Treaty (Supplementary Protocol A/SP.1/06/06, Art. 10 para. 2, new art.18). As regards to recognition, the UN follows the recognition of African Union, which considers eight Regional Economic Communities as the building blocks of the African Economic Community, among them CEDEAO-ECOWAS (African Union, n.d. & United Nations Economic Communities for Africa, n.d.). All four indicators are convincingly present in ECOWAS Commission to declare it to possess agency.

*Performance of the causal mechanisms*

Bauer suggests analytically improving the concept of the mechanisms at work by making a distinction between on the one hand discourse framing and lobby sponsoring, two forms that focus on background processes, and on the other hand stretching a form of explicitly aiming at policy outcomes (Bauer, 2002, p. 384). In order to upgrade the confidence in the applicability of the principal-agent theory, it is useful to exclude certain situations in which principal agent hypotheses cannot occur. When the vision and interest of Nigeria, as the only state that is likely to contrary the pursuit of ECOWAS in this case due to oil interest and lack of interest in alternatives, is conceivable in the outcome, then principal agent theory and corresponding hypotheses cannot be applied.

Discourse framing

In order to assess who framed the discourse for enabling the establishment of ECREEE, the documents of the two competitors, Nigerian government or ECOWAS Commission, need to be scrutinized. Subsequently, the purpose and the vision of ECREEE document will be compared to the vision of the Nigerian government and ECOWAS Commission. Providing that the discourse of ECOWAS reports and the ECREEE vision is similar, the ECOWAS Commission lived up to the expectation of its ability to frame the discourse.

Figure 5.1 illustrates that Nigeria has interest in the revenues it obtains from oil since decades. Until mid 2000, oil rents were a considerable amount of Nigerian GDP, around 30% (The World Bank, 2015i). For the future OPEC expects a prosperous future for her member states due to globally rising oil demands (Fattouh, 2007). Furthermore, there are not many summits where Nigeria’s voice is being recorded or reported in a document, but when it occasionally occurs, then Nigeria sounds rather skeptical about renewable energy policies or other policies restraining the use of conventional fossil fuels to protect the environment. For example, during the ninth session of the UN Commission on Sustainable Development (CSD 9) in 2001, Nigeria and Egypt inquired about the purpose of an integrated global observing systems dealing with the atmosphere (IISD, n.d.). Later this event, Nigeria supported Iran’s argumentation regarding OPEC’s interest, and countered arguments with respect to sustainable development practices. At the Summit, many developing countries were united in the G-77/China. Some developing countries felt compelled to follow the G-77/China line, while the representative of the G-77/China was only advocating OPEC’s interest (IISD, 2001).

Even though Nigerian representatives express no eagerness towards renewable energy policies, they in fact published a Master plan in 2005. Energy Commission of Nigeria (ECN) and the United Nations Development Programme (UNDP) established this plan aiming to articulate a national vision, targets and a road map for addressing key development challenges facing Nigeria through the accelerated development and exploitation of renewable energy. However, only in the long term, Nigeria envisions a country that will significantly be less dependent on fossil fuels. In the medium term, Nigeria foresees a transition in the energy mix from crude oil to a less carbon intensive energy production increasingly powered by gas (ECN & UNDP, 2005). Despite having these plans, since 2005 no successful implementation happened regarding the exploitation of renewable energy resources. In the figures, there is noticeable that no or insignificant electricity production from renewable energy sources, excluding hydroelectric, took place in Nigeria from 2005 up until 2011 (after 2011 there are no numbers available) (The World Bank, 2015c&d), while six years is considered sufficient time to implement plans.

Moreover, African ministers without being in the ECOWAS setting barely discuss renewable energy. During the Eleventh session of the African Ministerial Conference on the Environment in May 2006, the ministers of environment consider the green wall initiative contemplating forests as carbon "sinks" that absorb atmospheric carbon dioxide through photosynthesis as an alternative and cost effective means of achieving greenhouse gasses emission reductions (Lambert, 2006). The ministers deal with greenhouse gasses emissions as a matter that occurs, whereof the consequences can be mitigated. Moreover, during the Second meeting of the Forum of Energy Ministers of Africa in March 2007, the ministers of energy explicitly stated that the push for renewable energy systems at all costs will not be an option, though, diversification of the energy mix, and thereby incorporating renewable energy sources to cut energy costs is a strategy the energy ministers are interested in (Brew-Hammond, 2007). Conceiving these dynamics is presuming that Nigeria is interested in renewable energy policies as a diversification strategy not as a substitution for conventional energy resource policies.

After knowing what the main principal, Nigeria, prefers, the next step in revealing who framed the discourse regarding renewable energy is to obtain the view of ECOWAS Commission on renewable energy. The reports on the ordinary session of the authority of ECOWAS Heads of State and government give an overview what the Heads of the Member States decided on after the debates, which are initiated by one of the organs of ECOWAS. In the term 2003-2008, the 26th until 34th sessions would be relevant to examine, but the reports of the 28th, 32nd, and 33rd sessions are missing (ECOWAS Final Communiques, n.d.). In January 2003, they emphasized the integration and development of the economies of Member States, this must be understood within the framework of NEPAD (ECOWAS, 2003b). With regard to energy, it was decided to boost the West African Power Pool (WAPP), sign a Protocol on Energy, and also establish an ECOWAS Energy Observatory (ECOWAS, 2003b). The importance of renewable energy was mentioned in article 19 of the Protocol in pursuit of sustainable development (University of Oslo: Faculty of Law, 2003). During the 27th session, they did not decide on energy matters (ECOWAS, 2003a). In order to fight poverty, ECOWAS states must improve the implementation of NEPAD objectives, and take into account the Poverty Reduction Strategy Papers - annual progress reports produced for the International Monitary Fund which describe the country's macroeconomic, structural and social policies and programs over a three year or longer horizon to promote broad-based growth and reduce poverty (International Monetary Fund, 2015) - enabled by the effort of the ECOWAS Executive Secretariat, the UEMOA Commission and the World Bank (ECOWAS, 2003a). Energy issues were not mentioned either in the report of the 30th session in 2006 (ECOWAS, 2006c). Though, in January 2007 the Authority expressed its concern over the impact of the increase in the price of petroleum products on non-oil-producing Member States, since that among other things prevents the achievement of the MDG to eradicate poverty. Therefore, the Authority invited the ECOWAS Commission to make proposals in addition to the WAPP and West African Gas Pipeline (WAGP) energy projects to assist the Member States involved reducing the cost of petroleum products. Furthermore, the Authority demanded the Member States that had not ratified the ECOWAS protocol on energy to do so as soon as possible (ECOWAS, 2007). The Heads of States promised in article 19 of the energy protocol to promote the transparent assessment of the environmental impacts of the energy investment projects at an early stage and prior to decision, and to participate within the states’ available resources, in the development and implementation of appropriate environmental programs in their country (University of Oslo: Faculty of Law, 2003).

Following initiatives of NEPAD and Poverty Reduction Strategy Papers, ECOWAS concentrated on what renewable energy can do for the environment and poverty reduction. NEPAD had two programs, Regional Integration and Infrastructure, and Climate Change and National Resource Management that concerned (renewable) energy, but these programs approached energy differently. On the one hand, during the Workshop for African Energy Experts on Operationalizing the NEPAD Initiative in 2003 expers were searching for and attempted to provide economic viable alternative for conventional fossil fuel resources to produce electricity and motive power. Renewable energy is occupying merely a small part in the accessibility of energy solution to reduce poverty. They only considered biomass resources. Unfortunately for most West African citizens, energy is expensive, and unreachable, but salient for households (nutrition and health) in rural areas (Zhou, 2003). On the other hand, in 2003 the NEPAD Environmental initiative interlinked renewable energy with land degradation, as alternative for fuelwood, to combat desertification (NEPAD, 2003). According to the Energy Initiative of the NEPAD framework, social and environmental impact assessments must be undertaken for all energy project plans. However, how renewable energy can meet rural electrification is still in its exploration phase (NEPAD, 2003). Moreover, this initiative acknowledged the usefulness of gas, but the utilization must be more efficient in order to live up to environmental protection objectives (NEPAD, 2003).

The ECOWAS Commission received the opportunity to set up a draft of a regional policy plan, notably ‘the White paper for a regional policy: Geared towards increasing access to energy services for rural and periurban populations in order to achieve the Millenium Development Goals’. This plan was adopted by the Heads of States during the 29th Summit of the Authority of States in January 2006. This draft text is the only available source to obtain information from that reveals slightly the interest of the ECOWAS Commission. However, the ECOWAS Commission knows that the paper needs to be approved by the minister of energy or heads of states of the member states, and therefore take that into account while writing the draft text. To assess whether ECOWAS Commission was able to reframe the discourse of energy issues, the White paper will be helpful. In the paper, there is acknowledged that barriers exist to the development of local and renewable energy resources, notably the lack of financial investments, the capacity on the ground to run the project, the weak equipment on the regional level, and national institutional and fiscal barriers (ECOWAS & UEMOA, 2006). The ECOWAS Commission envisions to accomplish the MDG. To achieve these MDGs, ECOWAS will implement regional policies. The impact of these policies will be measured by indicators. One of these indicators is the regional facilitation to establish in all member states an energy control policy, which comprises energy efficiency, renewable energy, and social regulation regarding pricing of electricity and fuels. Another indicator is the 20% investment in electricity generation that will be driven by local and renewable resources in order to achieve self-sufficiency, reduced vulnerability, and sustainable environmental development (ECOWAS & UEMOA, 2006). ECOWAS Commission distinguishes the paper from the other energy plans by contemplate the paper as a complement. Other initiatives such as the WAPP and the WAGP provided a boost in energy access in dense areas. Although ECOWAS in general recognized the problem of rural areas, there is not yet a successful initiative to provide energy services to remote areas with less density (ECOWAS & UEMOA, 2006). As a matter of fact, the ECOWAS Commission attempted to use a subtle strategy to allow their discourse to evolve from initially the general importance of renewable and clean energy for environmental protection into more emphasis on the importance of electrifying the neighborhoods of rural populations.

The last step in the assessment of discourse framing is comparing the principal’s and the agent’s view and plan to the content and the purpose of the institutionalized cooperation. The comparison must be conducted without having the legal paper of the decision to create ECREEE (see paragraph ‘2008-post2008’). The alternative for this legal paper is the ‘Business plan 2011-2016’. ECREEE aims through the Business plan to provide energy services to as much people as possible; create jobs; reduce the volume of greenhouse gasses emissions; reduce the use of fuel wood for cooking; increase the rate of electricity access in rural areas, and the capacity of (potential) Megawatt installed in the ECOWAS region (ECREEE, 2012). As ECOWAS’ vision, ECREEE devotes its instruments and capacity to tackle issues as poverty and climate change. Meanwhile Nigeria remains to rely on conventional fossil fuels. The Nigerian representatives support the development of more efficient and modern fossil fuels technologies, such as carbon storage technology and the mitigating impact of the Green Wall initiative. The Nigerian government does not reject renewable energy completely, respecting their Renewable Energy Masterplan. However, Nigerian government will acknowledge that diversification in the energy mix is in their interest as diversification mitigates the impact of shocks in the oil market.

In the introduction of the business plan, the ECOWAS Commissioner for Infrastructure & Chairman of the ECREEE Board states that achieving ECOWAS energy objectives such as the ECOWAS/UEMOA White Paper on access to energy services for populations in rural and peri-urban areas is the priority concern for ECREEE. ECREEE envisions a origin of 20% of new investments in electricity generation from locally available renewable resources. This will contribute to the achievement of MDGs entailing poverty eradication, and to the UN goal of the boost in clean energy access to reduce greenhouse gas emissions (ECREEE, 2012). The White paper is designed to fit in the international established frameworks and targets, but the paper is the ECOWAS story to envision the policies and instruments suitable to achieve the targets and to provide ECREEE a guideline.

Lobby sponsoring

In order to assess whether ECOWAS Commission acted in order to mobilize sub-national or transnational non-state actors, the relation between ECOWAS and non-governmental organizations (NGOs) need to be investigated. The legal regulation concerning this relation is documented in article 81 in the revised Treaty. Cooperation between ECOWAS and NGOs is legally encouraged providing that mobilizing the human and material resources is in pursuit for the economic integration of the region (ECOWAS, 1993). Hancock asserts that NGOs did not play a critical role in the formation of ECREEE (Hancock, 2015). She did not acquire information on NGOs, except for the NGO installed by Global Forum for Sustainable Energy that helped the ECREEE to evolve into a cultivated specialized agency (Hancock, 2015). However, there was no direct connection between ECOWAS Commission and this NGO. Although activists are since the ‘90s of last century engaged in sabotage of pipelines or other violent acts in the Niger Delta in order to achieve a fair distribution of the revenues of raw materials (Van Vulpen, n.d.), there are no documents traceable on the internet that relate the activists to the establishment of ECREEE. Moreover, a minor aspect of the ECOWAS Regional integration processes and international cooperation study conducted by the African Studies Group of the Autonoma University concerns social movement. Although social movement is not the same but a broader term than NGO concerning organized people acting publicly, the comment on social movements reveals that ECOWAS connection with organized people acting publicly are scarce (GEA-African Studies Group, 2014). In conclusion, there is no indication that lobby sponsoring has occurred.

Stretching

The ECOWAS commission could make a tactical move to demonstrate their interest in renewable energy in order to directly aim at regional institutionalized cooperation concerning renewable energy. If ECOWAS actually acted deviant, then it contributed to institutionalized regional cooperation in ECOWAS regarding renewable energy. The website of ECREEE states that the first articulation of the need to establish a regional center to promote RE&EE was during the ECOWAS Conference for Peace and Security on 12 November 2007 in Burkina Faso (ECREEE, n.d.). Unfortunately, ECREEE and the ECOWAS website do not provide a report on this event.

However, the lead up to the tactical move of the ECOWAS Commission started in 2006. In December 2006, there was a briefing paper made for the sixth meeting of the Global Forum on Sustainable Energy, which reviewed the current strategies and programs of the ECOWAS. In this paper, ECOWAS asserts that energy accessibility is salient for all socio-economic activities, and refers to the White paper to stress how the action plans are going to enhance energy accessibility for particularly rural areas since these are most in need of energy (ECOWAS, 2006a). As ECOWAS officials think it is crucial, ECOWAS supports member states in increasing energy accessibility through a scale-up of investments. In addition, ECOWAS contributes through disseminating skilled human resources in rural and greater urban areas. Action at regional level can go a long way in overcoming certain obstacles of capacity building. Moreover, ECOWAS observed a failure of the reproduction of elsewhere successful policies, and suggested a ‘West African model’ for drawing up policies for widening access to modern energy (ECOWAS, 2006a). These strengths of regional approaches hint at more regional institutionalized cooperation.

In December 2006, during the Global Forum on Sustainable Energy focuses on Energizing Africa in Vienna, ECOWAS officials noticed that the organizers of the event, among others representatives from the Austrian Development Cooperation at the Federal Ministry for Foreign Affairs, the Austrian Energy Agency, and the Austrian Ministry of Agriculture, Forestry, Environment and Water Management, stressed the importance of renewable energy to meet the energy demand in African rural areas. In less than a year ECOWAS officials invited the Austrian Minister for European and International Affairs to the ECOWAS Conference for Peace and Security in November 2007 (ECREEE, n.d.). As elaborated before, the Nigerian government was not showing any interest in renewable energy regional policies. This situation can be interpreted as ECOWAS Commissioners openly attempt to establish a new specialized agency, form of institutionalized cooperation, regarding renewable energy, where they purposely attempt to ignore the signals of Nigeria.

To this statement, a contra argument could be that the Austrian Minister for European and International Affairs predominantly contributed to and enabled ECREEE. However, ECOWAS explicitly states in the briefing paper to Global Forum on Sustainable Energy that ECOWAS has been learning that they need a strong lobbying campaign towards key stakeholders, such as potential donors in order for these stakeholders to acknowledge the importance of energy access as a key driver of economic and social development (ECOWAS, 2006a). Financial donors and technical assistants are enabling and empowering, and hard to find, but they are substitutable. Germany as the initiator of the first International Renewable Energy Conference and Scandinavian countries are other examples of renewable energy leaders/promoters. If ECOWAS Commission was not substantially interested in renewable energy policies, then it would never have invited the Austrian Minister of Foreign Affairs, and permitted institutionalized cooperation. After all, ECOWAS officials have to put a lot of money effort in this issue.

Even though ECOWAS commissioners are quite secure about remaining in position,they can be dismissed by the Council (Supplementary Protocol A/SP.1/06/06, Art. 10 para. 2, new art.18 para. 3b&d). Therefore, ECOWAS commissioners are expected to be highly risk averse. In this regard, the ECOWAS Commission made a deliberate tactical move. The ECOWAS Commission buck passed responsibility to Austrian Development Cooperation at the Federal Ministry for Foreign Affairs, though will benefit from the enabling establishment and initiation of ECREEE. ECOWAS Commissioners calculated correctly they can get away with this kind of deviant behavior.

Formal agenda setting

In order to assess whether the ECOWAS Commission performed formal agenda setting, there need to be inspected since when and how renewable energy was incorporated in the Treaty, Protocols or amendments. Furthermore, there need to be investigated whether regulation concerning the initiation exists and whether the Commission used this opportunity. In terms of content, ECOWAS in mandate of the Member State, according to the revised Treaty in 1993, was concerned with mutual adjusting the policies of the Member States regarding among other energy issues renewable energy in order to diversificate the energy-consumption-mix for energy security purposes. The main challenge then was to receive support to enable implementation, and energy infrastructure. Moreover, ECOWAS in mandate of the Member State was concerned with the protection of the environment stating in the 6th chapter of the Treaty, but did not incorporate renewable energy as a solution (ECOWAS, 1993). In 2003, the energy protocol adds to the Treaty the statement while developing regional energy policies economic growth need to be taken into account by means of certain measures. Notably, measures to liberalize energy investment and trade in energy; to remove technical, administrative and other barriers; to set up energy efficiency tools; and to understand that sustaining the environment is an essential component of all phases of development and trade in the energy sector (University of Oslo: Faculty of Law, 2003).For instance, the removal of technical, administrative and other barriers could be the accommodation of renewable energy subsidies in order to give them a fair chance to enter the energy-mix of the region. Furthermore, Article 19 is devoted to environmental aspects of energy. All Member states will endeavor to minimize in an economically efficient manner harmful environmental impacts occurring either within or outside their territory from all operations within the Energy Cycle in the country through equitable measures (University of Oslo: Faculty of Law, 2003).

With regard to the regulation concerning the initiation, there need to be some knowledge on the structure of ECOWAS to say something sensible of the ability of ECOWAS Commission to initiate/propose. Uppermost salient organ of ECOWAS is the Authority. All Heads of States/Governments of the Member States are represented in the Authority. The Authority shall determine the general policy and major guidelines of the community (all what concerns the regional organization); appoint the Executive Secretary (currently the Commission); and shall act by decisions (ECOWAS, 1993, Art. 7 & 9). Another organ is the Council, the Council is comprised of Ministers in charge of ECOWAS Affairs and any other Minister of each Member State. The Ministers that gather in the Council are the Ministers of all Members States that are most related to the topic on the Agenda that will be discussed. The Council shall appoint all statutory appointees other than the Executive Secretary, for example the Technical Commissions (currently the Technical Committees), and shall act by Regulations (ECOWAS, 1993, Art, 10 &12).

The place of ECOWAS Commission (or formally called Executive Secretary) within ECOWAS structure is fundamental to assess whether ECOWAS can conduct deviant agency. The President of the Commission shall be appointed by the Authority for a single four-year term. The Vice President and the Commissioners shall be appointed by the Council of Ministers. During Commissioners term of office, the members of the Commission may not be removed from their posts except in cases of serious misconduct or incapacity. Moreover, the decision for dismissal with respect to the President of the Commission is taken by the Authority and that of all other Commissioners by the Council of Ministers (Supplementary Protocol A/SP.1/06/06, Art. 10 para. 2, new art.18). The Council has more influence than before this amendment of the Revised Treaty, since the Council of Ministers only could recommend to dismiss the Executive Secretary. Over all as Pollack (2003) would assess, ECOWAS Commissioners are not anxious about dismissal as an employee in a firm, since the removal of the Commissioners is a very radical intervention, which is not always a very pleasant option for the Council or the Authority. The main purpose of the Commission is to exercise its powers to ensure the smooth functioning of the Community and protect the overall interest of the Community. To this end, the Commission is allowed to initiate and prepare draft texts with any recommendation it may consider necessary to promote and develop the Community. Subsequently, the Commission is supposed to submit these proposals to the Authority or the Council for approval (Supplementary Protocol A/SP.1/06/06, Art. 10 para. 2, new art. 19).

The last units within ECOWAS that are of importance to assess the ability of the ECOWAS Commission to initiate proposals are the Technical Committees (in the Revised Treaty referred to as Technical Commissions). The Authority determines the restructuring and the number of Committees. Within each Committee there will be a representative of each Member State. Each Committee is allowed to set up subsidiary committee to assist it in carrying out its investigating and reporting work. Technical Committees may determine the composition of any such subsidiary committee. Each Committee within its field of competence has the duty to prepare, ensure the harmonization and coordination and facilitate the implementation of Community projects and programs. These projects and programs must be submitted for the consideration to of Council through the Executive Secretary, either on its own initiative or at the request of Council. The Executive Secretariat will be responsible for over-arching harmonizing and coordinating of all activities and programs of the institutions of the Community within the context of regional integration (ECOWAS, 1993, Art. 22 & 80).

Thus, the Commission may formally conduct agenda setting, but procedure regulation restrain the ease to transform the Commission’s proposals into decisions or regulations. The Commission is qua input very dependent on the Technical Committees. These Committees have the technical-know-how. Moreover, these Committees are comprised of representatives of each Member States implying there will be always the voice of Nigeria and all other countries in the proposal. In addition, these Committees will be appointed by the Council entailing the Minister of Nigeria co-appoints. Furthermore, the Commission is dependent on the Authority or the Council to transform their proposals and programs into decisions or regulations.

An actual proposal, wherein ECOWAS proposes to establish institutionalized cooperation regarding renewable energy is not traceable on the internet. Through the adoption of the regulation C/REG.23/11/08, ECOWAS Regional Centre for Renewable Energy and Energy Efficiency (ECREEE) received a legal status during the 61st Session of ECOWAS Council of Ministers in 2008 (ECREEE, n.d). Unfortunately, this Regulation is not published on the on-line documentation website: <http://documentation.ecowas.int/legal-documents/regulationsacts/>. If this document was retrievable, then there would only be a document stating that the Council or the Authority adopted a regulation/decision. There is no knowledge acquired whether the initiative to make a proposal came from the Council, the Commission or the Technical Committees.

Here is a lot of attention paid to the regulations with respect to the ability of the Commission to take initiative to submit a proposal to the Council or Authority concerning energy issues. More specifically it was the decision to create a special agency regarding Renewable Energy and Energy Efficiency. Although there is not more to know than that the decision is adopted by the Council of Energy Ministers, there is something important to say about the formal agenda setting’s causal mechanism. Thanks to the findings concerning causal mechanism ‘discourse framing and stretching’, it is credible to say that ECOWAS Commission was interested even before 2007 to create a specialized agency regarding renewable energy, and that especially the Nigerian minister of Energy was not interested (at all costs). Moreover, the research on the legal ability of the ECOWAS Commission to take initiative to submit a proposal to the Council or Authority concerning energy issues is convincingly affirmative. Therefore, it is reasonable to see the causal mechanism of formal agenda setting in the extension of the other causal mechanisms. To assume that it was the ECOWAS Commission making the proposal for the decision to install a specialized agency regarding Renewable Energy and Energy Efficiency is not possible to prove factually, but plausible.

Consequently, three of the four hypotheses are plausible. ECOWAS commission’s discourse is traceable in the ECREEE documents, and not the Nigerian discourse. Particularly, the White paper of the ECOWAS Commission was concerned with eradicating poverty through improving energy access, and was an addition to existing energy policies regarding fossil fuels. Energy access can be improved in rural areas by renewable energy policies. Shortly after publishing the white paper, ECOWAS Commission invited the Austrian minister of Foreign Affairs, she was known for their interest in renewable energy, to an ECOWAS conference. Subsequently, the ECOWAS Commission has the legal ability to set the formal agenda. Therefore, discourse framing and this tactical move make it credible to assume that ECOWAS Commission made the proposal to create an institution regarding renewable energy, even though the document of this conduct is not traceable. There is no evidence found supporting lobby sponsoring.

# Conclusion and reflection

This last concluding chapter will summarize the thesis, answer the research question, present the conclusions, and discuss the research and its implications.

### Summary

This thesis commenced with the puzzling debate concerned with the utilization of fossil fuels and the mitigation of climate change by renewable energy policies in West Africa. ECOWAS established institutionalized cooperation regarding renewable energy, while the preponderant actor in the West African region is a large oil producing exporting state. As a large oil producing exporting state prefers as much oil rents as possible, renewable energy as an alternative to oil that may suppress the price of oil due to the market structure is not a desirable good to establish enabling policies for. Moreover, a preponderant state in the region ground its power on the possession of enabling military resources, whereas other states in the region rely on the imports of oil from the preponderant state. If oil, currently the most salient resource, can be substituted, the military balance of power will be more equalized, which can never be in the interest of the regional hegemon. This puzzling situation is the subject for this thesis to explain.

On the one hand, hegemonic stability theory was assumed to be a suitable theory to explain this puzzling situation, because of the role Nigeria played in the formation of ECOWAS. The ground of hegemonic stability theory is that states are always concerned with their security, and the military capacity to maintain their security. Hegemonic stability theory assumes that states only operate in pursuit of their interest, except when their discount rates change over time. Discount rates can change due to manipulation by third parties, new available information, and the embedding of an issue in a broader perspective. These mechanisms cause that Nigeria’s current oil gains decrease or Nigeria’s future interest regarding climate change adaptation increases. One of the causal mechanisms provided that they are at work can result in that the costs of non-cooperation exceed the costs of cooperation for Nigeria. In the negotiations, Nigeria would be more willing to invest in institutionalized cooperation regarding renewable energy. How come that the causal mechanisms were not observed in the analysis will be elaborated on the hypotheses paragraph.

On the other hand, the principal agent-theory has the features to be an alternative explanation for renewable energy policy in ECOWAS. The theory expects that (the legal representative organ of) the regional organization providing that it has agency (cohesion, authority, autonomy, and recognition) conducts deviant agency in order to indirectly or directly guide the members of the organization to create and accept policies. Deviant agency is possible for (the legal representative organ of) the regional organization through performing discourse framing lobby sponsoring, stretching, and/or formal agenda setting. Deviant agency of the (the legal representative organ of) the regional organization can explain that cooperation regarding renewable energy without the active participation of a regional hegemon.

Seven hypotheses are derived from the two theoretical frameworks. These hypotheses are operationalized in the method section to prepare these for the test, of which the findings are presented in chapter 4 and 5. In chapter 4, a chronological timeline has introduced and illuminated the development towards the legal establishment of the institutionalized cooperation regarding renewable energy in ECOWAS. Since 1981 were many global renewable energy summits organized, but the global summits did not always result in decisive success. Most African summits are not eager to discuss renewable energy as the global obsession with renewable energy. ECOWAS mentioned renewable energy in the revised treaty of 1993, but actual policy concentrated on renewable energy emerged in 2008. In chapter 5, the evidence found is presented to test the seven hypotheses. For each hypothesis evidence was incomplete, such as documents, answers of participating unreachable individuals, but this was solved with substituting resources. Therefore, an explanation for institutionalized regional cooperation can be obtained. There is a tendency observable towards principal-agent theory, which is elaborated in the next paragraphs.

### Answer to the research question

Chapter 4 has illustrated variations in interest of the different actors in renewable energy policy in ECOWAS. Chapter 5 demonstrated the in-depth knowledge with regard to the various hypotheses. With the knowledge of these two chapters, the central research question, as follows, may be answered:

*Why is there institutionalized cooperation in ECOWAS regarding renewable energy, whereas Nigeria, the preponderant power, is a large oil producer and exporter and renewable energy seems to be against its interest?*

Initially, the hegemonic stability theory was plausible. Nigeria, the preponderant power in West Africa, valued their future interest over current oil gains; the oil rents of Nigeria declined after 2005, in spite of the temporarily increase in 2008. In addtion, Nigeria seemed interested in renewable energy policies given that in 2005 the Nigerian Renewable Master plan was established. At a first glance, the conditions allow a situation in which the causal mechanisms could occur, notably manipulation by OPEC or the US, the redefinition of the greenhouse gas emission problem due to new available information or bringing renewable energy to a broader perspective by the government of Ghana or Côte d’Ivoire. None of these causal mechanisms happened. OPEC and the US benefit from Nigerian oil supply. In 2006, there were new reports published regarding the impact of greenhouse gas emissions on Afirca. Renewable energy policies were not redefined due to these reports. Notably, African ministers explicitly state that renewable energy was not desirable at all costs. Nigeria preferred to solve the green house emission problem with fossil fuels technologies, such as carbon storage and the green wall initiative. The government of Ghana and Côte d’Ivoire did not accomplish to bring renewable energy policies in a broader perspective of diversification of the energy-mix. Further elaboration on the hypotheses can be found below in the hypotheses paragraphs. In conclusion, the mechanisms derived from the hegemonic stability theory were not at work prior to change in discount rates. Therefore, hegemonic stability theory cannot answer the research question.

The causal mechanisms of the principal-agent theory, notably the performance of discourse framing, stretching, and formal agenda setting, collectively contributed to the process towards the institutionalized cooperation in ECOWAS regarding renewable energy. The ECOWAS Commission (not Nigeria) was able to frame their discourse regarding renewable energy as a solution for poverty and environmental problems in the White Paper. Subsequently, the Commissioners knew that when they make a draft text, it has to be approved by the Council. A proposal to establish an institution concerned with renewable energy, such as ECREEE, had a considerable chance to be rejected, because the Nigerian representative in the Council who was not interested in such an institution could refuse the proposal. Therefore, the Commission intelligently made a tactical move by inviting the Austrian Minister for European and International Affairs to the ECOWAS Conference for Peace and Security in November 2007, presuming that she would stress the importance of renewable energy to meet the energy demand in African rural areas. Immediately after this conference, there was a proposal to establish a specialized agency for renewable energy and energy efficiency policies. Presumably, the ECOWAS Commission proposed the formation of a specialized agency, since Commissioners were the actors who showed interest. As a result, ECREEE was legally established in 2008. Consequently, I cannot affirm which causal mechanism is necessary for a legal representative of a regional organization to establish institutionalized cooperation. Moreover, I cannot affirm if one of the causal mechanisms is sufficient for successful deviant agency. In conclusion, I can only make credible that the causal mechanisms of the principal-agent theory collectively contributed to the process towards the institutionalized cooperation in ECOWAS regarding renewable energy

The ECOWAS Commission accomplished the establishment of institutionalized cooperation in ECOWAS regarding renewable energy despite the disinterest of the regional hegemon. The ECOWAS Commission is interested in continuously expanding their work and intensifying institutionalization. Since the Commission has competence in another policy sector, the commission advances both. Donors were empowering the ECOWAS Commission in the process towards the establishment of ECREEE. This relationship is good for interregional relations. Although ECOWAS Commission might have good intention, it is doubtful whether ECREEE is effective. This depends on whether the member states ratify and implement the policies. Consequently, the ECOWAS Commission performed deviant agency. In the next paragraphs will be explained per hypothesis which causal mechanism occurred.

### The hypotheses

This paragraph will reemphasize the implications of the analysis for the hypothesis as demonstrated in chapter 5.

*Hegemonic stability hypotheses*

Hegemonic stability theory does not expect regional institutionalized cooperation, except when discount rates of the hegemon change over time. Therefore, the condition for each of the hypotheses to occur was a change in the hegemon’s discount rates, implying a decrease of the hegemon’s current gains or an increase of the hegemon’s future interest. As a matter of fact, Nigeria’s discount rates changed since in graph 1 was displayed that Nigeria’s oil rents declined in 2005 until 2013, with a deviant year in 2008 wherein oil rents increased temporarily. The discount rates allowed causal mechanisms to occur prior to 2005 or beginning of 2006. Nonetheless, the causal mechanisms did not happen.

H1: *If there is a threat regarding oil supply posed by OPEC or US and thereby a decrease in Nigeria’s current gains becomes conceivable, then cooperation in ECOWAS on renewable energy is likely to occur.*

Both OPEC and the US had no incentive to threaten Nigeria to reduce their oil production. This conclusion was based on two scientific political economic studies that provided an in-depth understanding of the complex relation between the capability and the lack of incentive by OPEC and the government of the US to threaten Nigeria to reduce their oil production in 2003-2008. If OPEC decided to reduce collectively the oil production of all member then the oil rents would not decrease since the demand-supply market structure for pricing. The US, as the distributor in the supply chain, benefits when American maritime traders can trade with multiple countries as it wishes to remain a reliable mediator between supply and demand side.

H2: *If there are new reports on the consequence of using oil and relating greenhouse gas emission and thereby an increase in Nigeria’s future interest becomes conceivable, then cooperation in ECOWAS on renewable energy is likely to occur.*

New reports on the consequence of using oil and relating greenhouse emission had no observable effect on the vision of the Nigerian ministers of energy. The workshop and the relating background report on climate change impacts, vulnerability and adaptation in Africa in September 2006 revealed the consequence of using oil and relating greenhouse emission which would destruct the continent. Throughout this summit, there was no straightforward suggestion that renewable energy should be organized in a cooperative regional institution or specialized agency in the different regions of the Africa. During the round that contained ‘the UN to Assist Africa Adapt to Climate Change and better Clean Development Mechanism access’ of a summit in November 2006, there was suggested to invest in clean energy that was renewable, low in carbon dioxide emissions and affordable to a wider use. Despite this newly available new information, there was plain language that energy ministers did not want renewable energy at all costs during the Forum of Energy Ministers in Africa in 2007.

H3: *If the conventional energy issues are related to other energy issues by Cote d’Ivoire and Ghana, and thereby a decrease of Nigeria’s current gains or an increase of Nigeria’s future gains becomes conceivable, then cooperation in ECOWAS on renewable energy is likely to occur.*

Issue-linkage was not accomplished by the government of Ghana and Cote d’Ivoire. Nigeria’s interest is diversifying their energy mix (ECN & UNDP, 2005). The government of Ghana and Cote d’Ivoire had therefore the opportunity to interlink diversifying the energy of the region with their interest in renewable energy, perhaps environmental or socio-economic interests. There is no evident proof that the government representatives did not try to interlink the renewable energy issue, since there are no reports on ECOWAS negotiations. Nevertheless, the governments did not succeed. Otherwise there should be in the meeting of FEMA a convincing interlinkage and there is not. Moreover, Ghanaian first attempt to consider renewable energy as salient was in their Renewable Energy Act in 2011.

*Principal-agent hypotheses*

The condition for principal-agent hypotheses to occur is the ECOWAS’ possession of agency. My analysis showed that all four indicators, notably cohesion, authority, autonomy and recognition, are convincingly present in ECOWAS Commission to declare it to possess agency.

*If ECOWAS has agency and performs discourse framing, then cooperation in ECOWAS on renewable energy is likely to occur.*

The ECOWAS Commission performed discourse framing. During the years 2003-2006, the Commission followed initiatives of NEPAD and Poverty Reduction Strategy Papers. During these years, ECOWAS concentrated on what renewable energy can do for the environment and poverty reduction. In 2006, the ECOWAS Commission took the opportunity to set up a draft of a regional policy plan in order to achieve the Millennium Development Goals, notably ‘the White paper for a regional policy’. ECOWAS Commission distinguishes the paper from the other energy initiatives and plans such as the WAPP and the WAGP by complementing them to focus on remote rural areas. As ECOWAS’ vision, ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE) devotes its instruments and capacity to tackle issues as poverty and climate change. Meanwhile Nigeria remains to rely on conventional fossil fuels. The Nigerian representatives support the development of more efficient and modern fossil fuels technologies, such as carbon storage technology and the mitigating impact of the Green Wall initiative. ECREEE uses discourse that is more similar to ECOWAS’ discourse than Nigerian discourse.

*If ECOWAS has agency and performs lobby sponsoring, then cooperation in ECOWAS on renewable energy is likely to occur.*

There is no evidence that ECOWAS performed lobby sponsoring. Cooperation between ECOWAS and NGOs is legally encouraged providing that mobilizing the human and material resources is in pursuit of the economic integration of the region. However, there is no indication that NGOs played a critical role in the formation of ECREEE.

*If ECOWAS has agency and performs stretching, then cooperation in ECOWAS on renewable energy is likely to occur.*

Supposedly, the ECOWAS commission made a tactical move to demonstrate their interest in renewable energy in order to achieve regional institutionalized cooperation concerning renewable energy. In December 2006, the Global Forum on Sustainable Energy focuses on Energizing Africa in Vienna, ECOWAS officials noticed that the organizers of the event, among others representatives from the Austrian Development Cooperation at the Federal Ministry for Foreign Affairs, the Austrian Energy Agency, and the Austrian Ministry of Agriculture, Forestry, Environment and Water Management, stressed the importance of renewable energy to meet the energy demand in African rural areas. In less than a year ECOWAS officials invited the Austrian Minister for European and International Affairs to the ECOWAS Conference for Peace and Security in November 2007. This invitation is publicly showing their interest in renewable energy policies, and neglecting the Nigerian interest, aimed directly at institutionalized cooperation regarding this policy sector.

*If ECOWAS has agency and performs formal agenda setting, then cooperation in ECOWAS on renewable energy is likely to occur.*

Whether it was the ECOWAS Commission making the proposal for the decision to install a specialized agency regarding Renewable Energy and Energy Efficiency is not possible to prove factually, but it is plausible. Regional renewable energy policy was already mentioned in the Revised Treaty (1993) and the Energy Protocol (2003). The Commission is allowed to initiate and prepare draft texts with any recommendation it may consider necessary to promote and develop the Community. Subsequently, the Commission is supposed to submit these proposals to the Authority or the Council for approval (Supplementary Protocol A/SP.1/06/06, Art. 10 para. 2, new art. 19). In order to get the proposal with poverty in rural areas discourse approved by the Council, the commissioners needed indeed a tactical move before. In addition to the findings concerning causal mechanism ‘discourse framing and stretching’, it is credible to say that ECOWAS Commission was interested even before 2007 to create a specialized agency regarding renewable energy. Therefore, it is reasonable to see the causal mechanism of formal agenda setting in the extension of the other causal mechanisms.

In conclusion, hegemonic stability causal mechanisms did not occur. Notably, I found that the ECOWAS Commission performed discourse framing and stretching. I could not proof formal agenda setting factually, but I explained why it is plausible that it happened.

### Implications for theory

For hegemonic stability theory, I found that the discount rates of Nigeria declined. Nigeria favors its future interest related to oil concerns over current oil gains since 2005. In this thesis, there was no hypothesis derived from hegemonic stability theory that was able to explain this change in discount rates. Apparently, the causal mechanisms derived from Barkin’s article were not meaningful in this case. Nonetheless, it seems that there is a causal mechanism that suppresses Nigerian interest in oil revenues. Perhaps the hypotheses were not exhausting the theory, there might be other hypotheses derived from hegemonic stability theory. Therefore, the theory has to be developed more accurately through for instance theory-building process tracing.

With respect to principal-agent theory, the theoretical implications can better be understood in perspective to the research by Hancock (2015) with a similar research question, but a divergent outcome. The difference between the inferences of this thesis and the inferences of Hancock’s research is the different interpretation of the history of the development of ECOWAS’ renewable energy policy. Hancock claims that Austria, Brazil, and Spain, possessing self-identities as leaders in renewable energy and as providers of long-term development aid to West Africa were in charge of the creation and support of ECREEE. Particularly, the Austrian Minister of Foreign Affairs with a long-term interest in sustainable energy and connections to the UN, private industry, and the Global Forum on Sustainable Energy was the crucial political entrepreneur in the process towards the formation of ECREEE. Hancock rejected that Nigeria or ECOWAS played a critical role in the formation of ECREEE without argumentation. Indeed, financial donors and technical assistants are enabling and empowering, and hard to find, but they are substitutable. Germany as the initiator of the first International Renewable Energy Conference and Scandinavian countries are other examples of renewable energy leaders/promoters. In fact, if ECOWAS Commission was not substantially interested in renewable energy policies, then it would never have invited the Austrian Minister of Foreign Affairs, and permitted institutionalized cooperation. After all, ECOWAS officials have to put a lot of money effort in this issue.

Principal agent is considered to be European theory, since it is often applied to the European Union. As a result of this thesis, causal mechanisms derived from principal-agent theory can explain occurrences in regions outside the EU. This implies that this theory can explain more than just the most likely case. Therefore, this thesis contributes to the emerging interest in regionalism beyond the EU.

### Research limitations

This thesis is concerned with a single case study; the explanation why regional institutionalized cooperation occurred regarding renewable energy in ECOWAS. Consequently, the observation of the performance of discourse framing, stretching, and formal agenda setting is not saying anything on the necessity or sufficiency of these mechanisms in other cases with similar contexts. No claims can be made about whether the mechanism was the only factor that contributed to the outcome. I can only trace down the presence of the performance of discourse framing, stretching, and formal agenda setting, there is no affirmation of sufficiency.

To overcome perspective and interpretation bias, I chose competing theories. Hegemonic stability theory and principal-agent theory are competitors, because they are composed of the same parts, notably principal versus agents. Hegemonic stability theory accredits the main principal the power to establish regional institutionalized cooperation on a new policy sector; while principal-agent theory accredits the agent the power to establish regional institutionalized cooperation on a new policy sector. Evidence that disapproves one theory is additionally evidence that makes it more credible to accept the other theory, because the theories are competitors. For instance, because Nigeria is not the one who framed the discourse, the option remained that ECOWAS Commission framed the discourse. Moreover, this research was one of the first attempts to give insights in regional institutionalized cooperation regarding renewable energy in ECOWAS. Updating the confidence of validity of the theory as much as possible in this case is not a job for one research.

The competition between hegemonic stability theory and principal-agent theory was not always evident. The document of Nigeria related to renewable energy you will first encounter on the internet is the renewable energy Master plan. An elaborated official document that could be used as evidence for Nigerian interest in renewable energy. If a researcher does not qualitative in-depth research entailing the investigation of multiple resources, then he would misinterpret this document. In addition, there were documents of ECOWAS Commission, but it is ambiguous whose suggestion it was to make certain documents. The documents could be an initiative of the ECOWAS Commission or a draft text set up by the Commission in order of the Council. It is challenging to distinguish the genuine interests of the different parties. Therefore, the chronologic overview in this thesis helped in tracing the process and understanding the context.

Finally, the lack of accessibility of resources is restraining to make claims. During the empirical analysis, there was occasionally dealt with untraceable resources. Instead, there were other documents analyzed, which were justified to be a substitute for the lacking documents. In addition, interviews with most important participants during global, African, West-African, Nigerian, Ghanaian, Ivorian meetings would diversify the resources, and therefore contribute to updating the confidence of validity of the theory, but this was not feasible.

### Recommendation for further research

First of all, in order to strengthen this thesis’ statement entailing the performance of deviant agency by ECOWAS, it would be necessary to attribute different kind of resources to the evidence, such as interviews with ECOWAS Commissioners, ministers of energy from Nigeria, Ghana and Côte d’Ivoire, and employees of Austrian Development Cooperation. This would assign principal-agent theory more credibility over other argumentations. I certainly recommend for further research to increase the number of different sorts of resources to obtain the data from.

Not only states or regional organizations are interested in an enabling renewable energy policy environment, but corporations can be interested as well. In an internship interview (personal communication, February 13, 2015) one of the employees of the Netherlands African Business Council told me about corporations that wish to participate in the ‘renewable energy mission’. If a small-medium sized company joins such a network, then they expect to make more profit due to marketing strategy of the mission/network. These networks will try to influence states or regional organizations to create an enabling renewable energy policy environment. On the contrary, there are multinational corporations that are in control of the oil production in West Africa. Substituting products on the market is not desirable for these multinational corporation, because this will mean less profit for oil companies. Therefore, these multinational corporations will try to influence states or regional organizations to create a disabling renewable energy policy environment. In conclusion, a global political economy study on the enabling renewable energy policy environment in West Africa will incorporate the power of business in the explanation. I recommend to approach the emergence of renewable energy policies in West Africa from global political economy perspective.

# Abbreviations

AMCEN African Ministerial Conference on the Environment

CDM Clean Development Mechanism

CSD Commission on Sustainable Development

ECN Energy Commission of Nigeria

ECOWAS Economic Community Of West African States

ECREEE ECOWAS Center for Renewable Energy and Energy Efficiency

EU European Union

FEMA Forum of Energy Ministers in Africa

G-77/China Group of 77, developing countries and China

G8 Group of Eight (leading industrialized countries)

GDP Gross domestic product

IEA International Energy Agency

IISD International Institute for Sustainable Development

MDGs Millennium Development Goal(s)

NEPAD New Partnership for Africa's Development

NGO(s) Non-governmental organization(s)

OPEC Organization of the Petroleum Exporting Countries

PCCC Platform Communication on Climate Change

RE&EE Renewable Energy and Energy Efficiency

UEMOA West African Economic and Monetary Union

UN United Nations

UNDP United Nations Development Programme

UNECA United Nations Economic Commission for Africa

UNEP United Nations Environment Programme

UNFCCC United Nations Framework Convention on Climate Change

UNGA United Nations General Assembly

UNIDO United Nations Industrial Development Organization

UNSD United Nations Statistics Division

US United States of America

WAGP West African Gas Pipeline

WAPP West African Power Pool

WSSD World Summit on Sustainable Development

# References

African Union (n.d.) *Economic Community of West African States (ECOWAS)*. Date of retrieval: 2015/7/7. Retrieved from: <http://www.au.int/en/recs/ecowas>

Akuru, U. B. & Okoro, O.I. (2010). Renewable Energy Investment in Nigeria: A Review of the Renewable Energy Master Plan. *Energy Conference and Exhibition (EnergyCon), IEEE International,* pp. 166-171, 18-22 Dec.

Austrian Development Cooperation (2010). *Paper on development Cooperation with Africa*. Date of retrieval: 2015/03/11. Retrieved from: <http://www.entwicklung.at/uploads/media/ADC_with_Africa__01.pdf>

Barkin, J. S. (2004). Time Horizons and Multilateral Enforcement in International Cooperation, *International Studies Quarterly*, Vol. 48, No. 2, pp. 363-382

Bauer, Michael W. (2002). Limitations to Agency Control in European Union Policy-Making: The Commission and the Poverty Programmes. *Journal of Common Market Studies,* Volume 40. Number 3. pp. 381–400

Bach, D. C. (2007). Nigeria’s ‘manifest destiny’ in West Africa: dominance without power. *Afrika Spectrum*, Vol.42, No. 2, pp. 301-321

Beach, Derek & Pedersen, Rasmus B. (2013). *Process-Tracing Methods: Foundations and Guidelines*. Ann Arbor: University of Michigan Press

Brew-Hammond, A. (2007). *Challenges to Increasing Access to Modern Energy Services in Africa*. (Background paper to Forum of Energy Ministers of Africa [FEMA] Conference on Energy Security and Sustainability). Date of retrieval: 2015/6/24. Retrieved from: <http://frontierenergyafrica.com/images/pagepics/codlogics_ff_20131230_1388442782.report%20on%20west%20african%20energy%20ministers%20conference%202007.pdf>

Bruno, Kenny & Kretzmann, Steve (2007). *Aiding oil harming the climate.* Bali: Oil Change International.

Colgan, Jeff D. (2013). Fueling the fire: Pathways from Oil to War. *International Security*, Volume 38, Number 2, Fall 2013, pp. 147-180

Commission Sustainable Development [CSD]. (2001). *Decisions: 9th session of the Commission on Sustainable Development* E/CN.17/2001/19 – Energy. Date of retrieval: 2015/6/24. Retrieved from: <https://sustainabledevelopment.un.org/index.php?menu=1415>

David G. Victor and Linda Tueh (2010). The New Energy Order Managing Insecurities in the Twenty-first Century. *Foreign affairs.* Volume 89 No.1.

Elasha, B. O. (Team Leader), Medany, M., Niang-Diop, I., Nyong, T., Tabo, R., & Vogel, C. (2006). *Impacts, vulnerability and adaptation to climate change in Africa*. (Background paper for the African Workshop on Adaptation Implementation of Decision 1/CP.10 of the UNFCCC Convention). Date of retrieval: 2015/6/24. Retrieved from: <https://unfccc.int/files/adaptation/adverse_effects_and_response_measures_art_48/application/pdf/200609_background_african_wkshp.pdf>

Economic Commission for Africa (2003). *Report of the Third Meeting of the Committee on Sustainable Development.* E/ECA/SDD/CSD.3/1. Date of retrieval: 2015/03/11. Retrieved from: <http://213.55.79.31/cfssd/3/docs/ReportcsdIII.PDF>

ECOWAS (1975). *Treaty of the Economic Community of West African States (ECOWAS). Concluded at Lagos on 28 May 1975*. No. 14843. Date of retrieval: 2015/6/29. Retrieved from: <http://www.internationaldemocracywatch.org/attachments/351_ecowas%20treaty%20of%201975.pdf>

ECOWAS (1993). *Economic Community of West African States (ECOWAS) Revised Treaty*. Date of retrieval: 2015/6/29. Retrieved from: http://www.internationaldemocracywatch.org/attachments/273\_Ecowas%20Treaty.pdf

ECOWAS (2003a). *Twenty seventh Session of the Authority of Heads of State and Government*. (Final Communique). Date of retrieval: 2015/6/29. Retrieved from: <http://www.ecowas.int/wp-content/uploads/2015/02/27th-ECOWAS-Summit-Abuja-19-December-2003.pdf>

ECOWAS (2003b). *Twenty sixth Session of the Authority of Heads of State and Government*. (Final Communique). Date of retrieval: 2015/6/29. Retrieved from: <http://www.ecowas.int/wp-content/uploads/2015/02/26th-ECOWAS-Summit-Abuja-31-January-2003.pdf>

ECOWAS (2006). *Regional initiatives to scale up energy access for economic and human development*. Date of retrieval: 2015/6/24. Retrieved from: http://www.gfse.at/fileadmin/files/Archive/GFSE\_6/CEDEAO\_Briefing\_paper\_for\_GFSE\_final.pdf

ECOWAS (2006). *Supplementary Protocol: Amending the Revised Treaty.* A/SP.1/06/06. Date of retrieval: 2015/03/11. Retrieved from: http://documentation.ecowas.int/download/en/legal\_documents/protocols/Supplementary%20Protocol%20Amending%20the%20Revised%20ECOWAS%20Treaty.pdf

ECOWAS (2006). *Thirtieth Session of the Authority of Heads of State and Government*. (Final Communique). Date of retrieval: 2015/6/29. Retrieved from: http://www.ecowas.int/wp-content/uploads/2015/02/30th-ECOWAS-Summit-Abuja-16-June-2006.pdf

ECOWAS (2007). *Thirty-first Session of the Authority of Heads of State and Government*. (Final Communique). Date of retrieval: 2015/6/29. Retrieved from: <http://www.ecowas.int/wp-content/uploads/2015/02/31sth-ECOWAS-Summit-Abuja-19-January-2007.pdf>

ECOWAS (n.d.) *ECOWAS institutions*. Date of retrieval: 2015/7/7. Retrieved from: <http://www.ecowas.int/institutions/>

ECOWAS (n.d.) *ECOWAS sectors*. Date of retrieval: 2015/7/7. Retrieved from: <http://www.ecowas.int/ecowas-sectors/>

ECOWAS (n.d.). *Final Communiques.* Date of retrieval: 2015/6/29. Retrieved from: <http://www.ecowas.int/ecowas-law/application-of-ecowas-law/>

ECOWAS & UEMOA (2006). *The White paper for a regional policy: Geared towards increasing access to energy services for rural and periurban populations in order to achieve the Millenium Development Goals*. Date of retrieval: 2015/6/24. Retrieved from: <http://www.uncsd2012.org/content/documents/165ecowas_white_paper.pdf>

ECREEE (2012). *Business Plan 2011-2016*. Date of retrieval: 2015/6/24. Retrieved from: <http://www.ecreee.org/sites/default/files/documents/basic_page/ecreee_business_plan_final_design.pdf>

ECREEE (2010, September). Official Inauguration of ECREEE. *ECREEE Quaterly Newsletter, 1* Date of retrieval: 2015/03/11. Retrieved from: http://www.ecreee.org/sites/default/files/newsletter-volume1.pdf

ECREEE (n.d.). *Organizational structure*. Date of retrieval: 2015/8/16. Retrieved from: http://www.ecreee.org/node/1034

ECREEE (n.d.). *Overview of ECREEE*. Date of retrieval: 2015/7/7. Retrieved from: <http://www.ecreee.org/page/overview-ecreee>

Energy Commission of Ghana (n.d.). *Licensing in the renewable energy sector*. Date of retrieval: 2015/6/24. Retrieved from: <http://energycom.gov.gh/Renewable/licensing-in-the-renewable-energy-sector.html>

Energy Commission of Nigeria [ECN] & United Nations Development Prgramme [UNDP]. (2005). *Renewable Energy Master Plan* (final draft report). Date of retrieval: 2015/2/24. Retrieved from: <http://spidersolutionsnigeria.com/wp-content/uploads/2014/08/Renewable-Energy-Master-Plan-2005.pdf>

EU Council (2007). *The Africa-EU Strategic Partnership: A Joint Africa-EU Strategy* 16344/07 (Presse 291) Date of retrieval: 2015/03/11. Retrieved from: http://www.consilium.europa.eu/uedocs/cms\_data/docs/pressdata/en/er/97496.pdf

Europese Gemeenschappen (1992). *Verdrag betreffende de Europese Unie*. Date of retrieval: 2015/8/14. Retrieved from: http://europa.eu/eu-law/decision-making/treaties/pdf/treaty\_on\_european\_union/treaty\_on\_european\_union\_nl.pdf

Ezeani, Elimma C. (2014). Removing oil subsidies in Nigeria: between necessity and false economy. *Journal of World Energy Law and Business*, 7: 4, pp. 364-389

Fattouh, Bassam (2007). *OPEC Pricing Power. The Need for a New Perspective*. Oxford Institute for Energy Studies. Date of retrieval: 2015/6/24. Retrieved from: <http://www.oxfordenergy.org/tag/opec/page/2/?name_of_dropdown=date_no>

Flemes, Daniel & Nolte, Detlef (2010). Introduction. In D. Flemes (Ed.) *Regional leadership in the global system. Ideas interests and strategies of regional powers*. (pp.1-14) Farnham Surrey: Ashgate Publishing Limited.

Froggatt, Antony. (2013). The climate and energy security implications of coal demand and supply in Asia and Europe. *Asia Europe Journal*, 11:285–303

G8 Gleneagles (2005). *Chairmen’s summary*. Report of G8 Gleneagles Summit. Date of retrieval: 2015/03/11. Retrieved from: <http://data.unaids.org/topics/universalaccess/postg8_gleneagles_africa_en.pdf>

GEA-African Studies Group (2014). *ECOWAS Regional Integration Processes and International Cooperation*. Date of retrieval: 2015/6/24. Retrieved from: <http://www.aecid.es/Centro-Documentacion/Documentos/Eficacia%20y%20calidad/01_Informe%20CEDEAO_AECID_ENG_FINAL.pdf>

Group of Eight [G8] (2001). *G8 Renewable Energy Task Force*. (Final report). Date of retrieval: 2015/03/11. Retrieved from: <http://www.climate.org/PDF/g8_ren_energy.pdf>

Harris, Stuart. (2005) China's regional policies: how much hegemony? *Australian Journal of International Affairs*, 59:4, 481-492

Hughes, L. & Long, A. (2005). Is There an Oil Weapon? Security Implications of Changes in the Structure of the International Oil Market. *International Security*, Volume 39, Number 3, Winter 2014/2015, pp. 152-189

Hulse, M. (2014). Actorness beyond the European Union: Comparing the International Trade Actorness of SADC and ECOWAS. *Journal of common market studies.* Volume 52. Number 3. pp. 547–565

Iheduru, O.C. (2011). The ‘New ECOWAS: Implications for the study of regional integration. In T. M. Shaw, J. A. Grant & S. Cornelissen (Eds.). *The Ashgate Research Companion to Regionalisms*. (pp.213-239). Farnham Surrey: Ashgate Publishing Limited.

IISD (2001, April). Summary of the ninth session of the Commission on Sustainable Development. *IISD Reporting Service for Environment and Development Negotiations, 5*(183). Date of retrieval: 2015/6/24. Retrieved from: <http://www.iisd.ca/download/pdf/enb05183e.pdf>

IISD. (2002, September). Summary of the World Summit on Sustainable Development*. IISD Reporting Service for Environment and Development Negotiations, 22*(51). Date of retrieval: 2015/6/24. Retrieved from: <http://www.iisd.ca/linkages/2002/wssd/>

IISD (2004, June). Summary report of the International Conference for Renewable Energies – Renewables 2004. *ISSD Reporting services, 95*(5). Date of retrieval: 2015/03/11. Retrieved from: Date of retrieval: 2015/6/24. Retrieved from: http://www.iisd.ca/download/pdf/sd/sdvol95num5e.pdf

IISD (2006, September). African Regional Workshop on Adaptation Bulletin. *IISD Reporting services: African regional coverage, 2*(1). Date of retrieval: 2015/6/24. Retrieved from: <http://www.iisd.ca/africa/pdf/arc0201e.pdf>

IISD (2006, December). A summary report of the Sixth Meeting of the Global Forum on Sustainable Energy. *IISD Reporting Service for Environment and Development Negotiations, 93*(4). Date of retrieval: 2015/03/11. Retrieved from: http://www.gfse.at/fileadmin/files/Archive/GFSE\_6/IISD\_Conference\_Report\_GFSE-6.pdf

IISD (2007). *Summary of the informal thematic debate of the General Assembly on the subject of “Climate change as a global challenge”.* Date of retrieval: 2015/03/11. Retrieved from: <http://www.iisd.ca/climate/unga/UNGA%20Climate%20Change%20briefing%20note.pdf>

IISD (2007, February). Eighth African Union Summit - Briefing Note. *IISD Reporting Service for Environment and Development Negotiations, 7*(2). Date of retrieval: 2015/03/11. Retrieved from: <http://www.iisd.ca/africa/brief/briefing0702e.pdf>

IISD (2007, May). Summary of fifteenth session of the United Nations Commission on Sustainable Development. *IISD Reporting Service for Environment and Development Negotiations, 5*(254). Date of retrieval: 2015/03/11. Retrieved from: <http://www.iisd.ca/download/pdf/enb05254e.pdf>

IISD (2007, August). A Summary Report of the First High-level Biofuels Seminar in Africa. *IISD Reporting Service for Environment and Development Negotiations, 9*(1). Date of retrieval: 2015/03/11. Retrieved from: <http://www.iisd.ca/africa/pdf/arc0901e.pdf>

IISD (n.d.). *Highlights from Friday, 27 April and Saturday, 28 April*. Date of retrieval: 2015/6/24. Retrieved from: 0http://www.iisd.ca/csd/csd9/

International Monetary Fund (2015). Poverty Reduction Strategy Papers (PRSP). Date of retrieval: 2015/6/24. Retrieved from: http://www.imf.org/external/np/prsp/prsp.aspx

Keohane, Robert R. (2005). *After Hegemony. Cooperation and Discord in the World Political Economy*. Princeton: Princeton University Press.

Kindleberger, Charles P. (1981). Dominance and Leadership in the International Economy: Exploitation, Public Goods, and FreeRides. *International Studies Quarterly*,Vol. 25, No. 2, pp. 242-254

Krasner, Stephen D. (1976). State Power and the Structure of International Trade. *World Politics*, Vol. 28, No. 3, pp. 317-347

Krasner, Stephen D. (1983). *International Regimes.* Ithaca: Cornell University Press

Lake, David A. (1993). Leadership, Hegemony, and the International Economy: Naked Emperor or Tattered Monarch with Potential? *International Studies Quarterly*, Vol. 37, No. 4 (Dec., 1993), pp. 459-489

Lambert, A. (2006). *Sustainable Financing for Environmental Projects in Africa: Some Ideas for Consideration*. (Supplementary Annex 2 of UNEP/AMCEN/11/EGM/5). Date of retrieval: 2015/6/24. Retrieved from: <http://www.unep.org/roa/Amcen/Docs/Sustainable.pdf>

Martin, Lisa L. (1992). Interests, power, and multilateralism. *International Organization*, 46, pp 765-792

Mearsheimer, John J. (2001). *The Tradegedy of Great Power Politics*. New York: Norton.

Morsut, Claudia (2014). The EU’s Community Mechanism for Civil Protection: Analysing Its Development. *Journal of Contingencies and Crisis Management* Volume 22 Number 3

NEPAD (2003). *Action plan for the environment initiative*. Date of retrieval: 2015/6/24. Retrieved from: <http://www.nepad.org/system/files/Environment%20Action%20Plan.pdf>

NEPAD (n.d.). *Historical context: Origins and influences*. Date of retrieval: 2015/6/24. Retrieved from: <http://www.nepad.org/history>

Nigerian oil fuels Delta conflict. (2006, 25 January). *BBC News* Date of retrieval: 2015/8/16. Retrieved from: http://news.bbc.co.uk/2/hi/africa/4617658.stm

O’Neill, K. (2009). *The Environment and International Relations*. Cambridge: Cambridge University Press.

Ojo, Olatunde J. B. (1980). Nigeria and the formation of ECOWAS. *International Organization*, 34, pp 571-604

OPEC (n.d.). *Member countries*. Date of retrieval: 2015/03/11. Retrieved from: <http://www.opec.org/opec_web/en/about_us/25.htm>

OPEC. (n.d.). *Our Mission*. Date of retrieval: 2015/6/29. Retrieved from: http://www.opec.org/opec\_web/en/about\_us/23.htm

Platform Communication on Climate Change [PCCC] (2011). *Bepaalt temperatuur de CO2-concentratie of andersom?* Date of retrieval: 2015/6/24. Retrieved from: <http://www.klimaatportaal.nl/pro1/general/start.asp?i=0&j=0&k=0&p=0&itemid=368>

Pollack, Mark A. (2003). *The Engines of European Integration: Delegation, agency and agenda setting in the EU.* Oxford: Oxford University Press.

Ren 21 (n.d.). *BIREC 2005*. Date of retrieval: 2015/6/24. Retrieved from: <http://www.ren21.net/birec-2005/>

Rignér, Helena & Söderbaum, Fredrik (2010). Mapping Interregionalism. *EU-GRASP Working Paper* No. 4

Rijksoverheid (2011). *Overheid stimuleert elektrisch rijden.* Date of retrieval: 2015/6/24. Retrieved from: http://www.rijksoverheid.nl/onderwerpen/auto/overheid-stimuleert-elektrisch-rijden

Ross, Stephen A. (1973). The Economic Theory of Agency: The Principal's Problem. *American Economic Review,* Vol. 63 No. 2

Shell (n.d.). *Oliediefstal is het hart van het probleem*. Date of retrieval: 2015/08/16. Retrieved from: http://www.shell.nl/nld/aboutshell/nigeria/oliediefstal.html

The Forum of Energy Ministers of Africa [FEMA] (2006*). Energy and the Millennium Development Goals in Africa.* Date of retrieval: 2015/6/24. Retrieved from: <http://siteresources.worldbank.org/EXTAFRREGTOPENERGY/Resources/Energy_and_MilleniumFEMA_Report.pdf>

The World Bank (2015a). *Electric power consumption (kWh).* Date of retrieval: 2015/6/16. Retrieved from: <http://databank.worldbank.org/data/views/reports/tableview.aspx>

The World Bank (2015b). *Electric power consumption (kWh per capita).* Date of retrieval: 2015/6/16. Retrieved from: <http://databank.worldbank.org/data/views/reports/tableview.aspx>

The World Bank (2015c). *Electricity production from renewable energy sources, excluding hydroelectric (% of total).* Date of retrieval: 2015/6/16. Retrieved from: <http://databank.worldbank.org/data/views/reports/tableview.aspx>

The World Bank (2015d). *Electricity production from renewable energy sources (kWh).* Date of retrieval: 2015/6/16. Retrieved from: <http://databank.worldbank.org/data/views/reports/tableview.aspx>

The World Bank (2015e). *Electricity production (kWh).* Date of retrieval: 2015/6/16. Retrieved from: <http://databank.worldbank.org/data/views/reports/tableview.aspx>

The World Bank (2015f). *GDP (current US$).* Date of retrieval: 2015/6/16. Retrieved from: <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD/countries/1W?order=wbapi_data_value_2013%20wbapi_data_value%20wbapi_data_value-last&sort=desc&display=default>

The World Bank (2015g). *GDP per capita (constant 2005 US$).* Date of retrieval: 2015/6/16. Retrieved from: http://databank.worldbank.org/data/views/reports/tableview.aspx

The World Bank (2015h). *Military expenditure (%of GDP).* Date of retrieval: 2015/6/16. Retrieved from: <http://databank.worldbank.org/data/views/reports/tableview.aspx>

The World Bank (2015i). *Oil rents (% of GDP).* Date of retrieval: 2015/6/16. Retrieved from: <http://databank.worldbank.org/data/views/reports/tableview.aspx>

The World Bank (2015j). *Population, total.* Date of retrieval: 2015/6/16. Retrieved from: <http://databank.worldbank.org/data/views/reports/tableview.aspx>

UEMOA (n.d.). *Historique de l'UEMOA*. Date of retrieval: 2015/8/16. Retrieved from: http://www.uemoa.int/Pages/UEMOA/L\_UEMOA/Historique.aspx

UNECA (2005). *Report to the CSD on the ECA Programme for Promoting Biotechnology in Africa* (Fourth Meeting of the Committee on Sustainable Development) ECAJSDD/CSD.4/5. Date of retrieval: 2015/03/11. Retrieved from: <http://repository.uneca.org/bitstream/handle/10855/5586/Bib-41280.pdf?sequence=7>

UNECA (n.d.). *African Union (AU) & Regional Economic Communities (RECs) In Africa*. Date of retrieval: 2015/6/29. Retrieved from: <http://www.uneca.org/oria/pages/african-union-au-regional-economic-communities-recs-africa>

UNEP (2004). *Substantive issues*. (AMCEN Ministerial segment) UNEP/AMCEN/10/2. Date of retrieval: 2015/03/11. Retrieved from: <http://www.unep.org/roa/Amcen/Meeting_Documents/default6.asp>

UNFCCC – United Nations Framework Convention on Climate Change (2007). *Report of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol on its second session, held at Nairobi from 6 to 17 November 2006*. FCCC/KP/CMP/2006/10. Date of retrieval: 2015/6/24. Retrieved from: <http://unfccc.int/resource/docs/2006/cmp2/eng/10.pdf>

UNFCCC (n.d.) *Kyoto Protocol*. Date of retrieval: 2015/03/06 Retrieved from: http://unfccc.int/kyoto\_protocol/items/2830.php

UNGA (1981). *United Nations Conference on New and Renewable Sources of Energy* A/RES/36/193. Date of retrieval: 2015/6/24. Retrieved from: <http://www.un.org/documents/ga/res/36/a36r193.htm>

University of Oslo: Faculty of Law (2003). *ECOWAS Energy Protocol*. Date of retrieval: 2015/6/29. Retrieved from: <http://www.jus.uio.no/english/services/library/treaties/09/9-02/ecowas_energy_protocol.xml>

UNSD (1992). *United Nations Conference on Environment & Development Rio de Janerio* *Brazil, 3 to 14 June 1992.* Agenda 21. Date of retrieval: 2015/6/24. Retrieved from: <https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>

Victor, David G. & Yueh, Linda (2010). The New Energy Order. Managing Insecurities in the Twenty-first Century *Foreign Affairs,* Vol. 89 No.1

Vulpen, S. van. (n.d.). *Nigeria*. Date of retrieval: 2015/03/11. Retrieved from: http://conflictenteller.nl/nigeria.html

Waltz, K. (1979). *Theory of international politics*. New York: Random House.

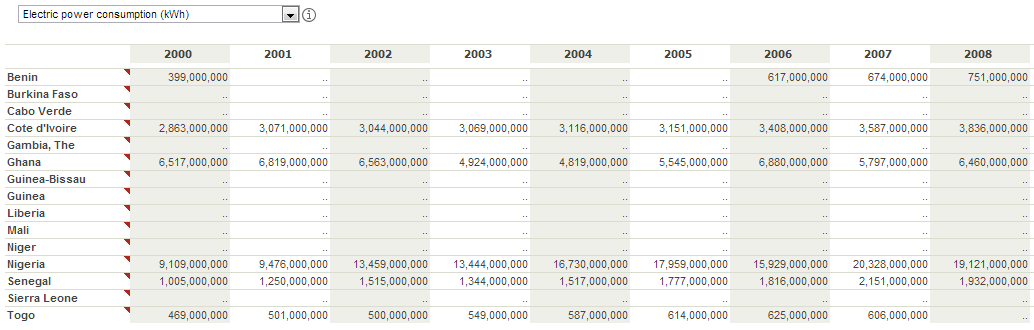
Webb, Michael C. & Krasner, Stephen D. (1989). Hegemonic stability theory: an empirical assessment *Review of International Studies,* Volume 15, Issue 02, pp 183 – 198

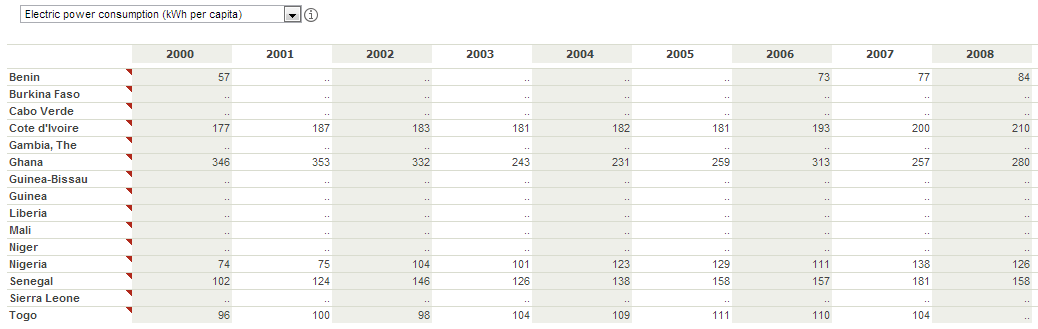
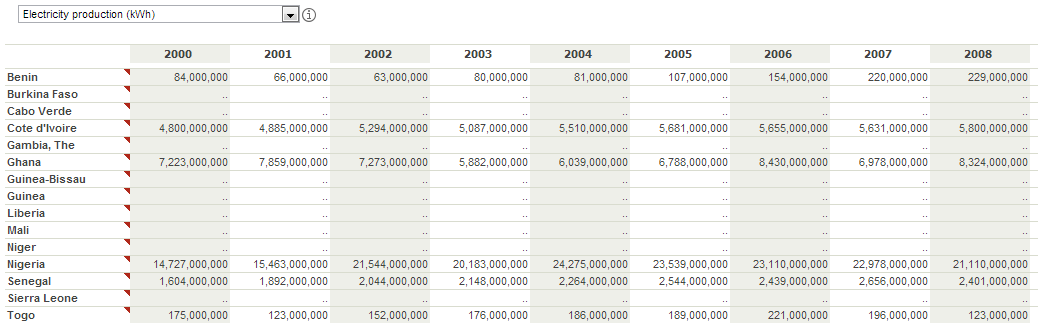
Wilson, Jeffrey D. (2015) Multilateral Organisations and the Limits to International Energy Cooperation, New Political Economy, 20:1, 85-106

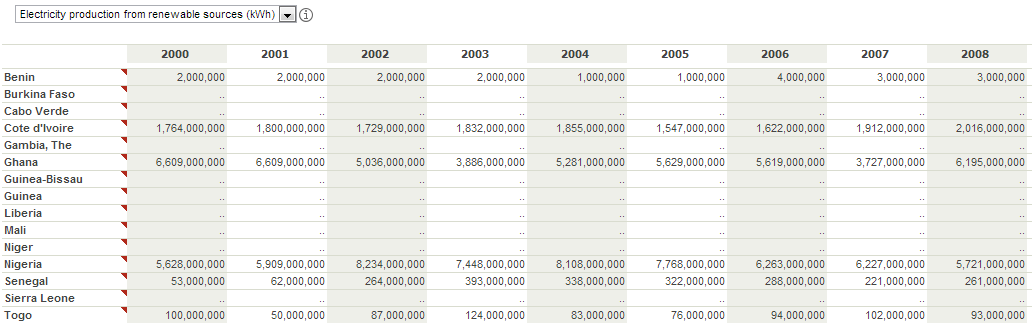
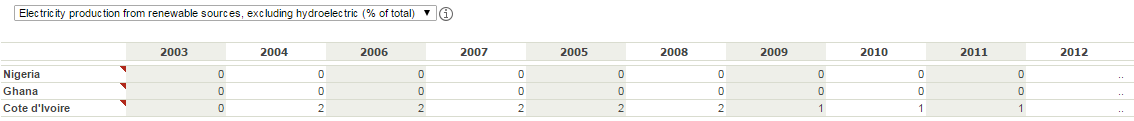
World Summit on Sustainable Development [WSSD]. (2002). *Plenary 7th Meeting (PM) Renewable sources of energy, Conservation, Energy Efficiency among issues raised, as Sustainable Development Summit continues*. ENV/DEV/J/7. Date of retrieval: 2015/6/24. Retrieved from: <http://www.un.org/events/wssd/summaries/envdevj7.htm>

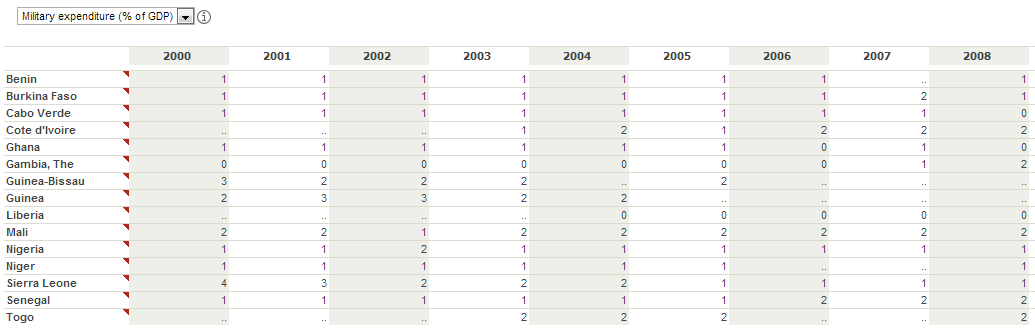
Zhou, P.P. (2003). *Taking the NEPAD Energy Initiative forward: Regional and Sub-regional Perspectives*. (Background paper for The Workshop for African Energy Experts onnOperationalizing the NEPAD Energy Initiative). Date of retrieval: 2015/6/24. Retrieved from: <https://sustainabledevelopment.un.org/content/documents/nepadreport.pdf>

# Appendix

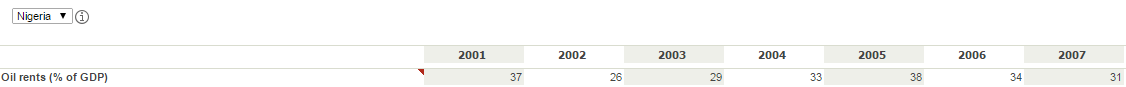








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| --- | --- | --- |
| Table to calculate the military expenditure (in $) for the great ECOWAS member states. | 2000 | 2007 |
| Nigerian military expenditure (% of GDP) | 1% | 1% |
| Nigerian GDP (in $) | 67,850,915,773$ | 129,759,108,809$ |
| Nigerian military expenditure (in $) | 678,509,158$ | 1,297,591,088$ |
| Ghanaian military expenditure (% of GDP) | 1% | 1% |
| Ghanaian GDP (in $) | 8,393,646,451$ | 12,156,316,526$ |
| Ghanaian military expenditure (in $) | 83,936,465$ | 121,563,165$ |
| Cote d’Ivoirian military expenditure (% of GDP) | missing | 2% |
| Cote d’Ivoirian GDP (in $) | 17,085,587,280$ | 17,650,034,467$ |
| Cote d’Ivoirian military expenditure (in $) | missing | 353,000,689$ |



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Nigerian oil rents in $ (2001- 2007) | $26.2bn | $19.1bn | $23.5bn | $35.8bn | $42.7bn | $41.3bn | $40.2bn |



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Nigerian oil rents in $ (2008-2014) | $44,1 bn | $35.4 bn | $25.4 bn | $31.7 bn | $27.8 bn | $23.8 bn | missing |